



**ARKANSAS STATE
UNIVERSITY**

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



2020-2021

**UNDERGRADUATE
BULLETIN**

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 race, color, religion, age, disability, gender, national origin, or veteran status. A-State 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).

Arkansas State University



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

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)

3343 Peachtree Road NE, Suite 850
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)

1435 Jayhawk Boulevard
Lawrence, Kansas 66045
Telephone: (785) 864-3973

Accreditation Council for Occupational Therapy Education (ACOTE)

American Occupational Therapy Association
4720 Montgomery Lane, Suite 200
Bethesda, MD 20814-3449
Telephone: 800-729-2682

American Chemical Society (ACS)

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

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 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 33602-5730
Telephone: (314) 872-8481

Commission on Accreditation of Allied Health Education Programs (CAAHEP)

25400 US Highway 19 North
Clearwater, FL 33763
Telephone: (727) 210-2350

Commission on Accreditation in Physical Therapy Education (CAPTE)

1111 North Fairfax Street
Alexandria, VA 22314
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 (CAA) in Audiology and Speech-Language Pathology

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 the Accreditation of Emergency Management Education (CAEME)

1589 Skeet Club Rd., Suit 102-109
High Point, NC 27265
Email: info@caeme.edu

Council on Accreditation of Nurse Anesthesia Educational Programs (COA)

222 South Prospect Avenue, Suite 304
Park Ridge, IL 60068
Telephone: (847) 692-7050

Council on Social Work Education (CSWE)

1701 Duke Street, Suite 200
Alexandria, VA 22314
Telephone: (703) 683-8080

Joint Review Committee on Education in Diagnostic Medical Sonography (JRCDSM)

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)

179 East Franklin Street #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

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 Alliance of Museums
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
Association for University Business and Economic Research
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
Council for Accreditation of Educator Preparation
Council for Advancement and Support of Education
Council of Graduate Schools in the United States
Council on Social Work Education
European Teacher Education Network
International Registry of Counsellor Education Programs (Founding Member)
International Student Exchange
National Association of Schools of Art and Design
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
North Central Association of Colleges and Schools
Oak Ridge Associated Universities
Southern Council on Collegiate Education for Nursing
Teacher Education Council of State Colleges and Universities
American Chemical Society

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99	•College of Agriculture
99	•Agriculture Program
116	•Neil Griffin College of Business
118	•Department of Accounting
122	•Department of Computer and Information Technology
128	•Department of Economics and Finance
139	•Department of Management and Marketing
154	•College of Education and Behavioral Science
158	•Department of Education Leadership, Curriculum and Special Education
161	•Department of Health, Physical Education, and Sport Sciences
169	•Department of Psychology and Counseling
173	•Department of Teacher Education

- 180 •College of Engineering and Computer Science
- 181 •Department of Computer Science
- 186 •Engineering Programs
- 188 •Civil Engineering Program
- 192 •Electrical Engineering Program
- 195 •Mechanical Engineering Program
- 202 •Engineering Technology Program
- 209 •Land Surveying and Geomatics Program
- 213 •College of Liberal Arts and Communication
- 215 •Department of Art + Design
- 230 •Department of Communication
- 239 •Department of Criminology, Sociology, and Geography
- 247 •Department of English and Philosophy
- 256 •Department of History
- 262 •School of Media and Journalism
- 270 •Department of Music
- 286 •Department of Political Science
- 289 •Department of Theatre
- 296 •Department of World Languages and Cultures
- 309 •College of Nursing and Health Professions
- 315 •Department of Clinical Laboratory Sciences
- 318 •Department of Communication Disorders
- 321 •Department of Disaster Preparedness and Emergency Manage-
ment Program
- 325 •Emergency Medical Services
- 329 •Health Studies Program
- 332 •Department of Medical Imaging and Radiation Sciences
- 355 •School of Nursing
- 371 •Dietetics Program
- 374 •Department of Occupational Therapy
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ACADEMIC CALENDAR 2020-2021

Fall Semester 2020

Orientation for New Faculty	August 18 (T)
Faculty Conference	August 19 (W)
College and Department Faculty Meetings	August 20, 21 (R, F)
Residence Halls Open	9:00 a.m. August 22 (Sa)
Regular Classes Begin	August 25 (T)
Late Registration	August 25-31 (T-M)
Last Day to Change from Credit to Audit	August 31 (M)
WN Grading Begins for Full Term and Session I Courses	8:00 a.m. August 31 (M)
	August 30 (F)
Labor Day Holiday	September 7 (M)
WN Grading Ends for Full Term and Session I Courses	September 9 (W)
Intent to Graduate Applications Due for December 2020 Commencement	September 11 (F)
Graduation Checksheets Due to Office of the Registrar for December 2020 Commencement	September 18 (F)
Last Day to Drop Session I Courses	September 25 (F)
Mid-semester Exams	October 7-13 (W-T)
Last Day of Session I Classes	October 9 (F)
Mid-semester Grades Due	October 14 (W)
Session II Classes Begin	October 19 (M)
Late Registration - Session II Courses	October 19 (M)
WN Grading Begins for Session II Courses	October 20 (T)
WN Grading Ends for Session II Courses	12:00 p.m. October 23 (F)
Last Day to Drop without Receiving a W Grade	October 23 (F)
Comprehensive Examination Results Reported to the Registrar	November 13 (F)
Thesis/Dissertation submitted to ProQuest and Oral Defense Results Reported to the Registrar	November 13 (F)
Last day to Drop a Course or Withdraw from the University	November 27 (F)
Fall Break and Thanksgiving Holiday	November 23-27 (M-F)
Last Day of Class	December 10 (R)
Study Day	December 11 (F)
Final Examinations	December 14-17 (M-R)
Inclement Weather Final Exam Make-up Day (if needed)	December 18 (F)
All Grades Due ***	12:00 p.m. December 18 (F)
Residence Halls Close (for all students)	12:00 p.m. December 18 (F)
Commencement (See Commencement Website for additional information)	December 19 (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 2020-2021

Spring Semester 2021

Residence Halls Open	9:00 a.m. January 8 (F)
Faculty Development Activities, College/Department Meetings	January 4-8 (M-F)
Regular Classes Begin	January 12 (T)
Late Registration	January 12-19 (T-T)
	January 17 (F)
Martin Luther King Jr. Day Observed	January 18 (M)
Last Day to Change from Credit to Audit	Jan 19 (T)
WN Grading Begins for Full Term and Session I Courses	January 19 (T)
WN Grading Ends for Full Term and Session I Courses	12:00 p.m. January 27 (W)
Last Day to Drop without Receiving a W Grade	January 27 (W)
Intent to Graduate Applications Due for May 2021 Commencement	January 29 (F)
Graduation Checksheets Due to Office of the Registrar for May 2020 Commencement	February 5 (F)
Last Day to Drop Session I Courses	February 12 (F)
Mid-semester Exams	February 23-March 1 (T-M)
Last Day of Session I Classes	February 26 (F)
Mid-semester/Session I Grades Due	12:00 p.m. March 3 (W)
Session II Classes Begin	March 8 (M)
Late Registration - Session II Courses	March 8 (M)
WN Grading Begins for Session II Courses	March 9 (T)
WN Grading Ends for Session II Courses	12:00 p.m. March 12 (F)
Spring Break	March 22-26 (M-F)
Comprehensive Examination Results Reported to the Registrar	April 9 (F)
Thesis/Dissertation submitted to ProQuest and Oral Defense Results Reported to the Registrar	April 9 (F)
Convocation of Scholars (Entire month of April)	April 1 (W) - April 30 (R)
Spring Faculty Awards and Faculty Association Meeting	April 13 (T)
Last day to Drop a Course or Withdraw from the University	April 16 (F)
Last Day of Class	April 29 (R)
Study Day	April 30 (F)
Final Examinations	May 3 (M) - May 6 (R)
University Final Exam Make-up Day (if needed)	May 7 (F)
Residence Halls Close (for all students not graduating)	12:00 p.m. May 8 (Sa)
Commencement (See Commencement Website for additional information)	May 8 (Sa)
Degree Conferral Date	May 8 (Sa)
Grades Due for all students	May 11 (T)

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

ACADEMIC CALENDAR 2020-2021

Summer Term 2021 - Session I

Intent to Graduate Applications Due for Summer 2021 Commencement	May 14 (F)
Graduation Checksheets Due to Office of the Registrar for Summer 2021 Commencement	May 21 (F)
Memorial Day Holiday Observed	May 31 (M)
Residence Halls Open	12:00 p.m. May 28 (F)
Classes Begin	June 1 (T)
Late Registration	June 1 (T)
Last Day to Change from Credit to Audit	June 1 (T)
WN Grading Begins for Full Term and Session I Courses	June 2 (W)
WN Grading Ends for Full Term and Session I Courses	12:00 p.m. June 7 (M)
Last day to Drop a Course without receiving a W Grade	June 7 (F)
Last Day to drop a course or withdraw from the University	June 18 (F)
Last Day of Class	July 1 (R)
Final Examinations	July 2 (F)
Independence Day Holiday Observed	July 5 (M)
Summer I Grades Due	12:00 p.m. July 6 (T)

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

ACADEMIC CALENDAR 2020-2021

Summer Term 2021 - Session II

Classes Begin	July 6 (T)
Late Registration	July 6 (T)
Last Day to Change from Credit to Audit	July 6 (T)
WN Grading Begins for Session II Courses	July 7 (W)
WN Grading Ends for Session II Courses	12:00 p.m. July 12 (M)
Last day to Drop a Course without receiving a W Grade	July 12 (M)
Last day to Drop a Course or Withdraw from the University	July 23 (F)
Last Day of Class	August 5 (R)
Final Examinations	August 6 (F)
Commencement (See Commencement Website for additional information)	August 13 (F)
Degree Conferral Date	August 13 (F)
Summer II Grades Due	12:00 p.m. August 16 (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/>

ORGANIZATION OF THE UNIVERSITY

BOARD OF TRUSTEES—2020-2021

	Term Expires
Stacy Crawford, Jonesboro	January, 2021
Price Gardner, Little Rock	January, 2022
Christy Clark, Little Rock	January, 2023
Tim Langford, Little Rock	January, 2024
Niel Crowson, Jonesboro	January, 2025

OFFICERS OF THE BOARD—2020-2021

Stacy Crawford	Chair
Price Gardner	Vice-Chair
Christy Clark	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 2020-2021

- ALLAN UTTER, 2019** —Provost and Executive Vice Chancellor for Academic Affairs and Research
B.S., University of Pittsburgh
M.S., University of Pittsburgh
M.P.H., University of Pittsburgh
Ph.D., University of Pittsburgh
- LEN FREY, 2000** —Executive Vice Chancellor for Finance and Administration
—Professor of Management
B.S., Arkansas State University
M.B.A., Arkansas State University
Ph.D., University of Memphis
- ERIKA CHUDY, 2012** —Interim Vice Chancellor for University Advancement
B.S., Arkansas State University
M.B.A., Arkansas State University
Ed.S., Arkansas State University
Ed.D., Arkansas State University
- BRYAN TERRY, 2019** —Vice Chancellor for Enrollment Management
B.A., University of Illinois
M.S.H.R.D., Thomas Edison State College
M.B.A., Fontbonne College
Ph.D., Illinois State University
- MAURICE GIPSON** —Vice Chancellor for Community Engagement and Inclusion
B.G.S., Louisiana State University
M.A., Missouri State University
J.D., Southern University Law Center
- TERRY MOHAJIR, 2012** —Vice Chancellor for Intercollegiate Athletics
B.S. Arkansas State University
M.S. University of Kansas
- MARTHA SPACK, 2004** —Dean of Students
B.A., Arkansas Tech University
M.S., Arkansas State University
Ed.D., Arkansas State University
- THILLA SIVAKUMARAN, 2012** —Executive Director, Division of Global Strategies and Outreach
B.S., University of Washington
M.S., University of Tennessee
Ph.D., University of Tennessee

OFFICERS OF THE UNIVERSITY 2020-2021

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 BHATTACHARYYA, 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
—Professor of Strategic Communications

SUSAN N. HANRAHAN, 1995

B.S., University of Kansas
M.P.A., University of Kansas
Ph.D., Temple University

Dean, College of Nursing and Health Professions
—Professor of Physical Therapy

LYNN BOYD, 2019

M.A., Wakeforest University
Ph.D., University of Utah

Dean, College of Sciences and Mathematics
—Professor of Biological Sciences

CHERRISSE JONES-BRANCH, 2003

B.A., College of Charleston
M.A., University of Charleston
Ph.D., The Ohio State University

—Graduate School Dean

OFFICERS OF THE UNIVERSITY 2020-2021

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

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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 Undergraduate Studies. 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 associates, bachelor's, and master's level degrees in several areas.

The ASU System: The ASU System includes campuses at **Jonesboro** (Craighead County), which offers degree programs through the doctoral level; **Beebe** (White County), **Mountain Home** (Baxter County), **Newport** (Jackson County), **West Memphis** (Crittenden County) and **Heber Springs, Marked Tree** and **Searcy** where associate degree programs are offered. Arkansas State University-Beebe became part of the ASU system in 1955. It associated with White River Vo-Tech at Newport in 1992; that campus has attained stand-alone status and is now Arkansas State University-Newport. The Mountain Home campus officially became ASU-Mountain Home on July 1, 1995. Delta Technical Institute at Marked Tree merged with ASU and became Arkansas State University Technical Center on July 1, 2001 and currently operates under ASU-Newport. ASU-Heber Springs, operates as a sister campus of ASU-Beebe. Foothills Technical Institute at Searcy merged with ASU-Beebe on July 1, 2003, and is now ASU-Searcy, a technical institute of ASU-Beebe.

A-State offers bachelor's degree programs, master's degree programs and upper-level courses through ASU degree centers at ASU-Beebe, ASU-Mountain Home, and West Memphis (Mid-South).

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

GENERAL INFORMATION

Communications concerning admission to the undergraduate programs of the university should be addressed to the Office of the Registrar, P.O. Box 1570, State University, AR 72467. Faxes go to 870.972.3917 and email correspondence should be addressed to registrar@astate.edu.

CORE CURRICULUM FOR UNRESTRICTED ADMISSION

ENGLISH — 4 units with emphasis on writing skills, not to include courses in Oral Communication, Journalism, Drama or Debate.

NATURAL SCIENCE — 3 units with laboratories chosen from Physical Science, Biology, Chemistry, or Physics. Only one unit may come from a Life Science.

MATHEMATICS — 4 units including Algebra I and II, Geometry, and an advanced math course. It is strongly recommended that students take a math course during their senior year.

SOCIAL STUDIES — 3 units including one of American History (does not include Contemporary American History), one of World History (not to include World Cultures, World Geography, or Global Studies), and at least 1/2 unit of Civics or American Government (not to include courses in practical arts).

EARLY ENTRANCE

The university accepts students who are not high school graduates if they have:

1. eighteen units of high school credit including three units of English, two units of mathematics, two units of natural science, three units of social science, and not more than two units of activity credit;
2. an overall grade average of 3.25;
3. an ACT composite score of 19 or higher; and
4. a recommendation from the high school principal or superintendent.

In addition, the early entrant must submit the credentials required of high school graduates except proof of graduation.

EARLY ENTRANCE FOR INTERNATIONAL STUDENTS

The university accepts students who are not high school graduates if they have :

1. eighteen units of high school credit including three units of English, two units of mathematics, two units of natural science, three units of social science, and not more than two units of activity credit;
2. an overall grade average of 3.25;
3. an English Proficiency Requirement <http://www.astate.edu/a/global-initiatives/international/admissions/undergraduate/admission-criteria/> ; and
4. a recommendation from the high school principal or superintendent.

In addition, the early entrant must submit the credentials required of high school graduates except proof of graduation.

ENTERING FRESHMEN

To be considered for admission to Arkansas State University, an applicant must submit the following:

1. An application for admission by the Friday before classes begin.
2. A **nonrefundable** processing fee. *
3. An official High School Transcript mailed directly from the high school** OR the result of the General Education Development (GED) examination mailed directly from the State Department of Education. Home schooled students should mail equivalent documents. Hand carried documents are NOT considered official unless submitted in a sealed, stamped school envelope or faxed directly from the previous institution. If you are currently enrolled in high school, a second transcript must be sent AFTER you have graduated listing your graduation date and final school GPA.

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

4. Official ACT scores, or SAT scores** mailed directly to the university from the testing institution or the high school. Test scores are only valid five years from date of exam.
5. Final official Transcript from all colleges attended, if any. Official transcripts should be sent to: Office of the Registrar, P.O. Box 1570, State University, AR, 72467.
6. Documentation (required by Arkansas Statute) of two immunizations for measles, mumps, and rubella. The first immunization must have been administered after the applicant's first birthday and after 1/1/68. The second immunization may be administered no sooner than 28 days after the first dose.
7. A minimum ACT composite score of 21 and a minimum high school GPA of 2.75 for unconditional admission OR a minimum ACT composite score of 19 and a minimum high school GPA of 2.30. Comparable scores on the SAT may be submitted for consideration.

* Application processing fees are not covered by scholarship.

** Hand-carried documents are not considered official records.

Students enrolling in degree programs at A-State may present faxed documents from the issuing school, as long as a cover letter is accompanied with the fax (i.e., ACT scores and transcripts) in lieu of official documents for registration purposes during the first week of classes only. Official copies must follow for students to be permitted to register for subsequent semesters and to obtain official transcripts from Arkansas State University. Students who present official documents which are incongruent with faxed documents will face disciplinary action by the university.

ADMISSION THROUGH TRANSITION STUDIES

Any first-time freshman with an ACT of <21 (or comparable SAT) may be admitted to A-State only through Transition Studies. Students admitted through Transition Studies are officially undecided and will be limited in terms of class choices and enrollment hours and must complete two semesters of college work successfully to continue enrollment at A-State. Failure to complete the first two semesters successfully will result in dismissal from the Transition Studies program, and therefore suspension from the university. Suspended students can return only when they have completed 12 or more transfer credit hours. Additional information about Transition Studies admission requirements is on the Undergraduate Studies website and under Transition Studies in the bulletin.

HIGH SCHOOL/UNIVERSITY PROGRAM

High school students who meet the prescribed criteria (outlined below) may enroll in university courses prior to graduation when the combined enrollments (high school and college) during any one semester do not exceed a normal academic load. To be considered for this program, a student must submit an application for admission to the university and all documents listed above under Admissions Procedures.

All students must present evidence that they meet the criteria stated under either I. or II. below.

I. ACT/GPA

A minimum high school GPA of 2.50

A minimum ACT Reading and Composite score of 19 (comparable SAT scores may be used)

Students earning credit through the high school/university program who wish to apply for a university funded scholarship should check with the Office of Financial Aid/Scholarships.

II. Individual Evaluation Based on Performance Criteria

Students may meet the criteria for admission through a process submitted by the high school that is based upon performance criteria which justify waiver of requirement of the standardized test score—**OR**—the high school grade point average. These criteria are expected to be comprehensive and demonstrate exemplary performance. **Arkansas State University reserves the right to determine whether the criteria are equivalent to standardized test scores or high school GPA.** (Acceptable criteria might include: scores at the 80th percentile on a recent standardized achievement test, grades in AP or Honors classes, performance in the Arts before a state or regional audience.)

ADMISSION BY EXCEPTION FOR PROSPECTIVE STUDENTS WITH EXCEPTIONAL TALENT

Prospective students who demonstrate exceptional talent, ability, accomplishment, or potential in athletics, leadership, and performance or similar contribution to the university community may be granted admission by exception to Arkansas State University-Jonesboro. Admission by exception provides a means to identify students who do not meet the numerical requirements (GPA and/or ACT/ SAT) for admission but who demonstrate exceptional potential to contribute to A-State. Prospective first-time students admitted by exception will be required to participate in the intensive Transition Studies program. Successful completion of the Transition Studies requirement will allow for continued enrollment at A-State. Prospective transfer students admitted by exception will be required to participate in the Restart@state program.

To be granted admission by exception, prospective first-time student-athletes must satisfy the National Collegiate Athletic Association initial eligibility standards under Division I guidelines and prospective transfer student-athletes must satisfy the National Collegiate Athletic Association transfer eligibility standards under Division I guidelines in order to be eligible to petition for admission via the Undergraduate Admission Appeals Committee. Colleges/Departments desiring to utilize "admission by exception" must provide documentation in support of the student's extraordinary talent, ability, accomplishment, or potential via petition to the Undergraduate Admission Appeals Committee for consideration. Admission by exception will generally be reserved for students eligible for performance-based scholarships.

In addition, under extraordinary circumstances, prospective students may continue to be granted exceptional admission by the Chancellor as set forth in Article VI of the Bylaws of the Board of Trustees of Arkansas State University.

NOTE: Per Arkansas Department of Higher Education (ADHE) policy, Arkansas State University requires a composite score of 15 or higher on the ACT for admissions purposes. Students with a composite ACT score of 14 or below (or an equivalent SAT score) will need to re-test and achieve a qualifying score before they can petition for admission-by-exception.

FRESHMAN ASSESSMENT AND PLACEMENT

The Arkansas State Board of Higher Education (SBHE) Freshman Assessment and Placement Program prescribes statewide minimum standards for determining whether entering freshmen should be placed in college level math and English courses or in developmental courses in math, English composition, and reading.

ENROLLMENT IN DEVELOPMENTAL COURSES

The following standards apply to all first-time-entering freshmen who are admitted to enroll in degree programs:

When an entering freshman subject ACT score, SAT score, or TSWE (College Board's Test of Standard Written English) score requires the student's enrollment in a developmental course(s) in accord with the Arkansas State Board of Higher Education Policy, **enrollment in the appropriate developmental course(s) shall be mandatory for the student's first semester of enrollment at Arkansas State University.** Students will have a maximum of two semesters to complete a developmental course with a C or above or obtain the requisite passing score on the appropriate Compass subject area test. Failure to meet this requirement will result in students not being allowed to reenroll until the appropriate developmental courses are successfully completed at another college.

Mathematics

The SBHE has prescribed that, "No mathematics course less sophisticated than college algebra may be applied toward a bachelor's degree in a public university in Arkansas."

Students who score below 19 on the mathematics section of the Enhanced ACT (American College Testing Program's ACT Assessment Test), or equivalent score on the SAT (College Board's Scholastic Aptitude Test) must successfully complete the modules in the pre-college level mathematics course, **UC 0173, Developmental Mathematics I.** Students must earn a grade of "C" or better before enrolling in college level mathematics courses.

English Composition and Reading

Students who score below 19 on the English or reading sections of the Enhanced ACT, or equivalent score on the SAT (College Board's Scholastic Aptitude Test), TSWE (College Board's Test of Standard Written English), ASSET (American College Testing Program's Assessment of Skills for Successful Entry and Transfer) Language Use Test, ASSET Reading Skills test, COMPASS writing test, COMPASS reading test, or Accuplacer test are required to take developmental courses in reading and/or writing either as a pre-requisite or as a concurrent enrollment in ENG 1003 – English Composition I. Placement will be determined by the Transition Studies Department. Any developmental course must be completed with a “C” or higher.

International students who score below 16 on the English section of the Enhanced ACT or equivalent score on SAT must complete **UC 0143, Writing Fundamentals** with a “C” or better prior to taking ENG 1003, Composition I. Students who score below 16 on the reading section of the Enhanced ACT or equivalent score on SAT must take **UC 0153, Enhanced College Reading** and complete the course with a “C” or higher.

ADMISSION PROCEDURES

1. Completed application for admission along with a non-refundable processing fee.
2. Official transcript mailed directly to A-State from each institution previously attended. [Refer to Transfer Credit Policy for definition of acceptable transfer credit.]
3. A student currently enrolled and whose final transcript cannot be provided by the institution until the semester is completed will be evaluated for admission on all work completed to date. A final, official transcript must be received in order to continue enrollment for subsequent terms.
4. Official ACT scores or SAT scores, mailed directly to the university from the testing institution or the high school. Test scores are only valid five years from date of exam.
5. Documentation (required by Arkansas Statute) of two immunizations for measles, mumps, and rubella. The first immunization must have been administered after the applicant's first birthday and after 1/1/68. The second immunization may be administered no sooner than 28 days after the first dose.

TRANSFER STUDENT ADMISSION

1. Students who have completed 12 or fewer semester credit hours will be admitted under conditions for new freshmen and must submit high school transcripts and ACT/SAT scores in addition to all college transcripts.
2. Transfer students who have completed 13 to 23 or more transferable credit hours with a cumulative GPA of at least 2.00 at a regionally accredited college or university and evidence of ACT/SAT scores taken within the last five years or compliance with the state-mandated remediation requirements will receive unconditional admission.
3. Applicants with 24 or more transferable hours must present final, official transcript from all colleges attended. ACT or SAT scores taken within the last five years will be required for any transfer student who has not successfully completed English I with a C or better and College Algebra.
4. Transfer students with a cumulative GPA of less than 2.00 upon approval of the Undergraduate Admission Committee, may be admitted on academic probation, restricted to 12 hours of enrollment and required to participate in the Restart@state program.
5. College transcripts should be sent to: Office of the Registrar, P.O. Box 1570, State University, AR 72467.

NOTE: Transferable hours include courses in which a grade of F was earned. The courses transfer and will impact G.P.A.

REQUIRED REMEDIATION FOR TRANSFER STUDENTS

Students with fewer than 24 semester hours must show proof of compliance with state-mandated remediation laws (ACT - or comparable - test scores \geq 19 or completion of required remediation.)

READMISSION OF FORMER STUDENTS

Returning students who have been in a “non-enrolled” status with Arkansas State University for more than one academic year must submit to the Office of Admissions, Records and Registration an application for readmission, along with a nonrefundable processing fee. Additionally, re-entering students must submit official transcripts for any/all college work completed at other institutions. Students must provide proof of immunization for measles, mumps and rubella.

Test scores taken within the last five (5) years will be required for any returning student who has not completed English I with a C or better and College Algebra.

TRANSIENT STUDENTS

Transient (temporary) students are those who are actively enrolled in other institutions of higher learning and wish to enroll for a session at Arkansas State University. Admission as a transient student requires an application, a nonrefundable processing fee, proof of two immunizations for measles, mumps and rubella, and a college transcript from the student’s home institution indicating good standing. Transient students wishing to continue at Arkansas State University for more than one academic session should follow the procedures for admission of transfer students. (See Admission Procedures for more information about immunization documentation.)

NON-DEGREE STUDENTS

Individuals who wish to pursue courses of special interest without submitting academic credentials may register for a **maximum of six hours per semester (or 3 per summer term)**, accumulating up to 12 semester hours of undergraduate non-degree credit. Thereafter, non-degree students must comply with university admission requirements or obtain a written waiver from the Office of the Registrar. **CAUTION: Non-degree students should not enroll in courses that are required in the general education program.** Courses taken for non-degree credit are not applicable toward a degree unless validated later by the student’s meeting all conditions of admission to the university, including remediation requirements.

- Non-degree students are required to submit all admission credentials listed under “Admission Procedures” except for ACT/SAT scores and high school and/or college transcripts.
- Non-degree students are required to meet the same course prerequisites as are other students.
- Non-degree students are generally not eligible to participate in financial aid programs.

Due to specific enrollment limitations, non-degree students may not register for classes through the university’s web registration system. A form will be sent to non-degree students to facilitate registration.

ADMISSION AND ENROLLMENT OF INTERNATIONAL STUDENTS

Arkansas State University provides access to a quality education for international students at an affordable cost, in a caring and supportive environment. A citizen of a nation other than the United States of America wishing to apply for admission to Arkansas State University should write to the International Admissions, Arkansas State University, P.O. Box 2230, State University, AR 72467 USA or email International@AState.edu. Future international students may also visit our website at <http://www.astate.edu/global-initiatives/international/admissions/>

The A-State International Student Services office encourages all applicants to submit the completed application and all supporting documents at least 6 to 7 weeks prior to the desired enrollment date to ensure timely processing of admission and issuance of immigration documents.

International applicants must provide the following documents:

1. **Application and Processing Fee** — Web application for admission, accompanied by a **non-refundable** processing fee. Evaluation of academic records and subsequent issuance of the I-20 will not begin before the processing fee is received. Applicants can apply here: https://asups1.astate.edu:4443/prod/bwskalog_P_DispLoginNon/
2. **Official Academic Records** — All undergraduate applicants must submit a scanned copy of their high school grade report and diploma or equivalent credentials with translation in English, if English is not the native language. The official copies must be brought with the student upon arrival to the University. The GPA should be a minimum of 2.3/4.0. Students seeking to transfer from another university or college must submit official transcripts from those institutions before admission. A transcript evaluation by an independent agency (World Education Service) may be required and, if so, will be the responsibility of the student. The GPA on post-secondary work should be a minimum of a 2.0 on a 4-point scale. The academic documents will need to be submitted with the Official Documents Signature Page to ensure official documents are brought with the student at time of arrival.

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

3. Proof of English Proficiency —

- Completing A-State's ESL Program with a minimum grade of 80% or above
- TOEFL – Paper-Based 500 – (A-State's Code:6011)
- TOEFL – Internet-Based 61– (A-State's Code:6011)
- IELTS – Academic 5.5- Official Score from British Council
- PTE – Pearson Test of English Academic 43
- iTEP Academic – 4.0 or higher
- EIKEN – Grade Pre-1
- SAT Scores – 550 total on the Evidence-Based Reading/Writing score
- ACT Scores – 21 total and on both the Reading and English sections
- Completing the required level of a CEA Accredited ESL program (check with International Admissions)
- Obtaining a minimum of 60% in English at X and XII in Certificate in India and Pakistan
- High School Graduate (minimum 2 years of attendance) from USA, UK, Canada (except Quebec), Australia, or New Zealand
- 5, 6, or 7 on English: Literature or Language & Literature on the International Baccalaureate

English proficiency requirement may be waived for countries whose official language is English. Decision will be made by admissions committee upon reviewing the application and academic credentials, <http://www.astate.edu/a/global-initiatives/international/admissions/undergraduate/admission-criteria/>.

4. **Financial Affidavit** — A letter of certification (dated not more than one year prior to the desired enrollment date) from a financial institution (acceptable to the University) stating that the sponsor(s) of the applicant has/have sufficient funds (equivalent to estimated annual cost of attendance, which can be found at the following link - <http://www.astate.edu/info/costs/international/>).

A-State does not guarantee or promise any financial assistance to any international student.

5. **Passport** — Student must submit a copy of their passport.

6. **Other documents** — may be required such as the official documents signature page.

International students must maintain continuous health insurance coverage, (including the summer months) while attending A-State. All international students are required to enroll in the University's international student health insurance program. A fee equal to a six-month premium, approximately \$570.00, is to be paid before registration for each term.

GLOBAL INITIATIVES

Arkansas State University's Office of Global Initiatives brings the world to A-State and takes A-State into the world. From incoming international students, to online programs and to students studying abroad, A-State's Office of Global Initiatives makes the university more globally diverse each day. As the world becomes a more global market with interactions between individuals in different countries occurring constantly, A-State's Office of Global Initiatives seeks to prepare students from all countries to be the best global citizens they can be.

The Office of Global Initiatives is over A-State Online Services, International Student Services, the English Learning Academy and the Study Abroad office.

A-STATE ONLINE SERVICES

A-State Online Services (AOS) offers undergraduate and graduate level degrees to students across the country and around the world through fully-online course programs of study. The AOS staff provides the following services:

- Faculty support for online course building and maintenance
- Admissions, Registration, Financial Aid and Student Account Services for A-State Online students
- Student advising
- Technology enhanced courses and learning experiences

Detailed information regarding admissions and services provided by AOS for online students is available at <http://www.astate.edu/a/global-initiatives/online/>.

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

THE OFFICE OF INTERNATIONAL PROGRAMS

The International Student Services office is located in Suite 301 of the International Student Services/English Learning Academy building and can be reached by phone at +1 (870) 972-2329, by email at OIPS@AState.edu, or by visiting the web site at <http://www.astate.edu/a/global-initiatives/international/>.

International Student Services office is responsible for the admission of all international students, as well as students coming for one or two semesters from one of A-State's international exchange partners.

Some of the services provided by the International Student Services offices for International Students are:

- New International Student Orientation
- Advising and Registration
- Cultural and Immigration Advising
- Activities
- Shopping shuttles
- Entertainment shuttles
- Free Airport Transfer Services to and from Memphis International Airport on select dates
- Health Insurance
- A-State Housing and Meal Plan Assistance
- International Student Tutoring Lab

Detailed information regarding admissions and services provided by International Programs for international students is available at <http://www.astate.edu/international/>.

ENGLISH LEARNING ACADEMY

The English Learning Academy is A-State's English as a Second Language Program designed to help college aged students from around the world learn and build the necessary English language skills to succeed in university courses at A-State. 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 including community service, promotes and reinforces students' fluency. Instruction is implemented through methods similar to those experienced in the university classroom.

STUDY ABROAD

Study Abroad serves as an information and advising resource for students, faculty, and staff exploring educational opportunities at an international level. Students will learn about programs to various destinations around the world led by A-State faculty or as individual student initiatives.

Short-term study programs led by A-State faculty are offered during spring break or summer sessions. These are arranged for student groups, university classes, and may occasionally permit participation by community members.

Long-term programs consist of semester- and year-long exchanges. These academic sojourns allow students to experience another culture in more depth while continuing to make regular progress toward a degree.

Programs exist for students in all majors. The Language of instruction is in English unless a student wants to pursue coursework directed in a different language. In addition, foreign language instruction is a popular goal of many students who study overseas.

A-State is a member of the International Student Exchange Program (ISEP), the Magellan Exchange, and also maintains many other international exchange agreements.

Visit <http://astate-sa.terradotta.com/> to learn more about study abroad offerings at A-State.

The Study Abroad Advisor helps students identify programs, not only with exchange partners, but in any country a student may wish to pursue academic opportunities. The office also provides advising for students applying for grant and scholarship applications intended for international educational experiences. The Gilman Scholarship, Fulbright Fellowships, and the National Security Education Program (NSEP) are examples of such scholarships and grants.

THE WILSON CENTER FOR ACADEMIC ADVISING

The Wilson Advising Center is the primary home for exploratory students at A-State who have not declared a major. The center also provides services for students who have been placed on academic suspension or who need to readmit following suspension. In addition to these services, the center is the first stop for students who wish to withdraw from A-State. Any student regardless of major may contact this office with general advising or other academic questions and concerns. Wilson Advising Center offers walk-in style services Monday through Friday from 8am-5pm.

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/>

NOTE: All students pay a \$5.00 Assessment Fee per term. Each student enrolled in 3 or more credit hours will be assessed a \$20.00 student activity fee for the Fall and Spring semesters.

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

NOTE: Undergraduate Students enrolled in fewer than 12 hours during a regular semester (or fewer than six hours during a five-week term) are classified as *part-time* students.

COURSE FEES

Please note that your tuition could 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 each academic year.

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.

NOTE: Single and Single Deluxe Rooms are only available space permitting.

NOTE 2: 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.

Students with the 5-day meal plan may enter the Acansa Dining Hall unlimited times Monday through Friday. Students with the 7-day meal plan may enter the Acansa Dining Hall unlimited times each day of the week.

Students with a block meal plan may dine in the Acansa, up to the number of block meals purchased. The Block plan also allows the holder to use the plan to bring in guests. Each guest will reduce the block by one meal. Unused blocks do not carry over from fall to spring.

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 Acansa 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. The Village consists of 17 two-bedroom houses and 191 apartment units. The houses are furnished with a stove, refrigerator, two ceiling fans, and washer/dryer hook-ups. The apartments are available in one, two, and three bedroom configurations. The apartments are furnished with a stove, refrigerator, ceiling fans, dishwasher, and central heat and air.

The houses and Village Apartments are designed to offer affordable, comfortable, and accessible living accommodations to the students and their families. A laundry is located in The Village for those wishing to take advantage of this service. 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.

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/>.

NOTE: A-State Online Programs are degrees that are offered completely online, this price structure DOES NOT include Disaster Preparedness and Emergency Management and Online MBA.

Academic Regulations

STUDENT RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS

Each student should thoroughly study this Undergraduate 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 shall 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.**

ACADEMIC RECORDS PRIVACY RIGHTS

1. Purpose

Arkansas State University will comply with the Family Educational Rights and Privacy Act (FERPA).

2. Definitions

Arkansas State University. Arkansas State University (ASU) means all the campuses within the Arkansas State University System, now and in the future.

Student. Student means an individual who attends or has attended classes at ASU. This policy does not apply to the records of applicants for admission who are not accepted to ASU nor does it apply to applicants who are accepted but choose not to attend ASU.

Education Record. Education records are those records, files, documents, and other materials which contain information directly related to a student and are maintained by ASU or a person acting for ASU.

Directory Information. Directory Information is designated to be the student's name; local and permanent physical addresses; electronic mail addresses; telephone listings; photographs and electronic images; date and place of birth; major field of study; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received; and the most recent previous educational agency or institution attended by the student.

3. Arkansas State University Family Educational Rights and Privacy Act Policy

The Family Educational Rights and Privacy Act requires that institutions of higher education strictly protect the privacy rights of all students who are or who have been in attendance. Information contained in the student's education records can be shared only with those persons or entities specified within the Act. The law also provides that students have the right to review their education records for the purpose of making any necessary corrections. The Office of the Registrar maintains a copy of the full text of FERPA, posts electronic information on FERPA, and processes all FERPA requests and challenges. Arkansas State University will utilize the following process to implement the provisions of the Family Educational Rights and Privacy Act.

4. Process

A. Disclosure of Education Records

- I. **Disclosure With Student Consent.** A student may consent in writing to disclosure of education records. The student's written consent must be signed, dated, and specify which records are to be disclosed, to whom, and for what purpose. The consent must be delivered to the Office of the Registrar. The student may retract the consent in writing at any time. Proper proof of identity may be required by the Office of the Registrar before consent is retracted.
- II. **Disclosure Without Student Consent.** ASU may disclose education records without the student's written consent to any school official within the institution with a legitimate educational interest. School officials include administrators, supervisors, faculty members, instructors, support staff, members of the Board of Trustees, persons with whom ASU has contracted for special tasks, and university committee members. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. School officials of ASU are considered to be within the institution for the purposes of FERPA and may exchange education records without student consent so long as they have a legitimate educational interest. Disclosure without student consent may also be made to other persons and entities as allowed by FERPA.

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

Faculty sponsors of registered honor societies may have access to student education records for the sole purpose of determining eligibility for membership on the basis that they are acting in an official university capacity that is integral to the educational function of ASU.

The parents of students may exercise rights under FERPA if the student is claimed as a dependent by the parents for income tax purposes. Dependency must be proven by submission of a copy of income tax returns.

B. Disclosure of Directory Information

Directory information may be disclosed to any person or entity without student consent unless the student submits a completed request for non-disclosure of directory information form to the Office of the Registrar. If a student elects not to allow disclosure of directory information, ASU cannot share information regarding the student with any person or entity including prospective employers, licensing agencies, government agencies, the media, and others. The student may retract the directory information non-disclosure in writing at any time. Proper proof of identity may be required by the Office of the Registrar before the directory information non-disclosure is retracted.

C. Inspection, Review, and Correction of Education Records

Students have the right to inspect and review their education records except for specific exclusions contained within the Family Educational Rights and Privacy Act. A student should contact the Office of the Registrar to arrange for inspection, review, and correction of an education record. The Office of the Registrar may charge a fee for copies of any education records.

D. Ownership of Education Records

Education records are the property of ASU. Education records, including transcripts and diplomas, will not be released to any student who has a delinquent financial obligation to the University.

ACADEMIC INTEGRITY, ACADEMIC RIGHTS, AND STUDENT ACADEMIC GRIEVANCE PROCEDURE

Arkansas State University enthusiastically promotes academic integrity and professional ethics among all members of the A-State academic community. Violations of this policy are considered as serious misconduct and may result in severe penalties.

Arkansas State University is a community of scholars whose members include its faculty, students and administrators. It is a forum where ideas are discovered, discussed and tested. The basic purposes of the university are the enlargement, dissemination and application of knowledge. These are achieved through classroom instruction, research, special lectures, concerts, discussion groups, seminars, experimentation, out-of-class activities, group living and leadership development.

Under certain circumstances, Arkansas State University students have the right to grieve alleged violations of their academic rights. A grievance is a complaint alleging that one or more of the "academic rights of students" (as stated in the Student Handbook) have been violated.

More information about academic integrity, student academic rights, and the student academic grievance procedure can be found in the student handbook at <http://www.astate.edu/a/student-conduct/student-standards/>.

ASSESSMENT REQUIREMENTS

Arkansas State University (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 exams or related activities. Failure to participate in required assessments can prevent registration and delay degree completion and graduation.

CLASSIFICATION OF STUDENTS

Beginning students are classified as freshmen; students with 30-59 hours of credit as sophomores; students with 60-89 hours of credit as juniors; and students with 90 or more hours of credit as seniors.

TRANSFER CREDIT POLICY

Transfer work will be entered on the student's permanent academic record when an official transcript is presented to the University from a regionally accredited institution. Any transfer work received from a non-accredited institution is evaluated and considered on a case by case basis in the Office of the Registrar in conjunction with Academic Affairs and the Office of International Programs (as applicable). All courses completed, including D and F grades, are added to the student's transfer record.

A-State will consider awarding credit toward an Associate or a Baccalaureate degree for Advanced Placement (AP), College Level Examination program (CLEP), Military service education and experience, DANTES, formal non collegiate courses for which credit has been recommended as listed in the Directory of National Program on Non Collegiate Sponsored Instruction and in the National Guide to Educational Credit for Training Programs published by ACE, International Baccalaureate, and Excelsior College Exams.

The Academic Load Policy will govern the number of hours a student may apply toward the academic record when concurrently enrolled at A-State and other institutions of higher education. A-State hours will be applied first if more than the maximum number of hours are submitted for approval. Currently enrolled students should not take courses at other institutions without first checking with the advisors regarding the applicability of the courses for A-State credit and to ensure that they are not taking inappropriate courses, non-equivalent courses, out-of-sequence courses, courses on the wrong level or an overload for the semester.

Transfer of English Composition courses will not be accepted from international institutions. This policy is normally waived for citizens of the British Isles, Australia, and English speaking portions of Canada and New Zealand.

Students transferring from an accredited Arkansas public two-year community college or four-year university with an Associate of Arts, Associate of Science, or other associate degree meeting the minimum state enhanced education core, will be given full satisfaction of all A-State general education requirements. Some degree requirements may require a "C" or higher grade and/or other specific general education courses as part of their degree requirements. If a student hasn't satisfied those specific requirements, they will still be required to complete that coursework. Students admitted with an associate degree and 60 transfer hours will be classified as a junior for registration purposes.

NOTE: Transfer credit **might not** satisfy specific General Education Requirements. Transfer credit **might not** satisfy specific degree requirements. Students must review the university requirements and specific major requirements required for their degree.

STUDENT ACADEMIC LOAD

Academic load is the sum total of credit hours for all traditional and online coursework taken in a given term. In a semester, this includes all half-semester (i.e. first session, second session) and full-semester coursework. In the summer term, academic load is calculated for the entire term, including all two-week, five-week, seven-week, ten-week, and full-term courses. **The minimum credit hour load for classification as a full-time student in any term is 12 credit hours of ASU-Jonesboro courses.**

The maximum academic load for students is 18 credit hours per semester or 14 credit hours per summer term. Student enrollment may not exceed ten (10) credit hours of half-semester courses (i.e. first session, second session) or seven (7) credit hours per five-week summer session.

Students holding a cumulative grade point average of 3.50 or above may request permission of the dean of their college to schedule up to 21 hours in a semester or 17 hours in the summer term. If permission is granted, student enrollment may not exceed ten (10) credit hours of half-semester courses (i.e. first session, second session) or nine (9) credit hours per five-week summer session.

A one hour overload is permitted during a student's last enrollment period (semester or summer term) if the one hour overload will complete graduation requirements.

STUDENT ACADEMIC LOAD	Fall/Spring	Summer	Session I or II in Fall/Spring	5 week Summer
Full time student	12-18	0-14	0-10	0-7
FT Student with 3.5+ GPA and Dean's permission	12-21	0-17	0-10	0-9

The total academic load resulting from concurrent enrollments at Arkansas State University and other institutions shall not exceed the maximum loads stated above. Students who receive an Institutional Scholarship should consult their individual scholarship guidelines for minimum credit hour requirements.

REAL-TIME COURSE LOAD MAXIMUM - WEIGHTED UNITS

A student’s real-time course load may not exceed specified weighted units during any part-of-term based on the academic load limitations stated above. Real-time course load is determined by assigning a number of weighted units to each course based on the scale below. A student’s real-time course load is defined as the total number of weighted units the student is carrying at any one time. In calculating a student’s real-time course load for a part-of-term, both full-term courses (e.g. full semester, full summer, etc.) and part-of-term courses (e.g. half semester, five-week summer session, seven-week session, etc.) shall be included. In other words, all overlapping (i.e. simultaneously occurring) courses will be part of the calculation. The maximum weighted academic load for students may not exceed 20 weighted units during any part of term.

Real-time course loads will be calculated for the following parts-of-term:

- First Half Semester — Fall and Spring
- Second Half Semester — Fall and Spring
- May Interim Period — Summer
- First Summer Term (i.e. Summer I) — Summer
- Second Summer Term (i.e. Summer II) — Summer
- August Interim Period — Summer

Students who exceed the university’s real-time course load maximum will be required to reduce their class schedules accordingly.

WEIGHTED UNITS SCALE (COMMON CONVERSIONS)

Term/ Part of Term	Duration	Credit Hours	Weight	Weighted Units
Full Semester	15 weeks	1.0	1.0	1.0
Full Semester	15 weeks	2.0	1.0	2.0
Full Semester	15 weeks	3.0	1.0	3.0
Full Semester	15 weeks	4.0	1.0	4.0
Half-Semester	7/ 7.5 weeks	1.0	2.0	2.0
Half-Semester	7/ 7.5 weeks	2.0	2.0	4.0
Half-Semester	7/ 7.5 weeks	3.0	2.0	6.0
Half-Semester	7/ 7.5 weeks	4.0	2.0	8.0
Full Summer	10 weeks	1.0	1.5	1.5
Full Summer	10 weeks	2.0	1.5	3.0
Full Summer	10 weeks	3.0	1.5	4.5
Summer I, II	5 weeks	1.0	3.0	3.0
Summer I, II	5 weeks	2.0	3.0	6.0
Summer I, II	5 weeks	3.0	3.0	9.0
Summer I, II	5 weeks	4.0	3.0	12.0
14-Week Summer	14 weeks	3.0	1.0	3.0
7-Week Summer	7 weeks	3.0	2.0	6.0
Interim	2/ 3 weeks	1.0	7.0	7.0

Term/ Part of Term	Duration	Credit Hours	Weight	Weighted Units
Interim	2/ 3 weeks	2.0	7.0	14.0
Interim	2/ 3 weeks	3.0	7.0	21.0

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.

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. (SEE NOTES 1 AND 2 BELOW).**

NOTE 1: For charges applicable for withdrawals after classes begin, refer to the index for the REFUND OF FEES SCHEDULE.

NOTE 2: Instructions for withdrawing are available on the A-State website or from the Wilson Advising Center at (870) 972-3001.

COURSE NUMBERING SYSTEM

Each course is designated by a number composed of four digits and each course number carries the following information: The first digit indicates the course level (0-no degree credit, 1-freshman, 2-sophomore, 3-junior, 4-senior), and the fourth digit indicates the number of semester hours of credit (this digit will vary with some courses, including variable hour courses - such as Independent Studies - which will carry the letter V in place of hours).

COURSE PREREQUISITES

Students may not enroll in a course before successfully completing the prerequisites to that course. Prerequisites to a course are noted following the description of the course. Departments may choose to override these requirements under exceptional circumstances.

FREQUENCY OF COURSE OFFERINGS

A frequency-of-course-offering statement appears at the end of each course description in the college/departments. The information reflects the normal scheduling of the course. However, circumstances may from time to time dictate scheduling changes, **and the university reserves the right to make such changes when necessary.** Students should check in advance with department chairs concerning offerings about which they may have a question.

The code symbols are as follows:

Fall	fall semester	Demand	upon demand (with sufficient enrollment)
Spring	spring semester	Even	offered even-numbered years
Summer	summer semester	Odd	offered odd-numbered years

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 SCHOLARSHIPS SHOULD ALSO CONSULT THEIR FINANCIAL AID COUNSELOR.

DROPPING INDIVIDUAL COURSES: DEADLINES

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 index for Academic Calendar).

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

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://www.astate.edu/a/registrar/students/final-exams/>) 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.

CLASS ATTENDANCE POLICY

Students should attend every lecture, recitation and laboratory session of every course in which they are enrolled. Students who miss a class session should expect to make up missed work or receive a failing grade on missed work. It is the practice of Arkansas State University to allow students to participate in university sponsored academic or athletic events, even when those events cause them to be absent from class. Students participating in university sponsored academic or athletic events will not have those days counted against their available absences and will be given reasonable opportunities to make up missed assignments and exams.

Students enrolled in freshman or sophomore level courses numbered 1000 or 2000 may during the spring and fall semester miss no more than twice the number of lectures, recitations, laboratory sessions, or other regularly scheduled class activities that would normally be scheduled during a week. Students who miss more than the maximum number of freshman or sophomore level classes may be assigned a grade of "FN" for the course. Students who may be assigned a grade of "FN" in a course because of excessive absences may withdraw from the course without penalty before the deadline for dropping an individual course. In determining whether excessive absences should result in a failing grade, consideration shall be given to the maturity and class standing of the student, the quality of academic work being accomplished by the student, and extenuating circumstances related to such absences.

Students enrolled in junior or senior upper-level courses numbered 3000 or 4000 will not be assigned a grade of "FN" solely for failing to attend classes. However, instructors shall set forth in their syllabi at the beginning of the semester their attendance requirements and expectations with regard to make-up policy for work missed, class participation and other factors that may influence course grades. In determining whether excessive absences should adversely affect a grade in an upper-level course, consideration shall be given to the maturity and class standing of the student, the quality of academic work being accomplished by the student, and extenuating circumstances related to such absences.

Students must utilize their available absences for any cause which requires them to miss class including, but not being limited to, vacation, illness, emergency, or religious observances. Students who are aware that they will have absences during a term should ensure that they do not exceed the absences available.

EXCUSED ABSENCE FOR UNIVERSITY-SPONSORED EVENTS

It is the practice of Arkansas State University to allow students to participate in university-sponsored events, even when those events cause them to be absent from class. Students participating in university-sponsored events will be given reasonable opportunities to make up missed assignments and exams.

RESIDENCY REQUIREMENTS FOR DEGREE COMPLETION

Students seeking an associate or baccalaureate degree must meet A-State's residency requirements. Associate degree candidates must complete a minimum of 16 semester hours through the A-State campus. Baccalaureate degree candidates must complete a minimum of 32 semester hours through the A-State campus.

CURRICULUM STRUCTURE

Academic colleges within the university structure curriculum around the following:

GENERAL EDUCATION CORE CURRICULUM

This is a basic core of subjects from the areas of communications, humanities, social sciences, sciences and mathematics, consisting of 35 semester hours. The university designed the core to acquaint students with the major areas of knowledge. Please see "The General Education Program" section for additional information.

MAJOR

All degree programs, except those for the Associate of General Studies and the Bachelor of General Studies, require students to complete an academic major. A major is a collection of courses designed to give opportunity for in-depth study of a specific area within a given discipline. Students completing a major should be able to demonstrate a significant level of expertise in that area. Though a major on the baccalaureate level cannot provide comprehensive coverage of a particular area within a discipline, the collection of courses within it must be coherent, progressing from a basic understanding of the area's history, nature, theory, methodology, tools, and practice to a more complex and sophisticated integration of knowledge and skills in that area. Each course makes a significant contribution to the major and the fulfillment of its outcomes. (Refer to the index for a listing of Majors and Minors offered by Arkansas State University).

MINOR

In addition to academic majors, students may complete academic minors. A minor is a secondary area of specialized academic study usually consisting of 18-21 semester hours. Academic minors are required in some colleges and are recommended in other colleges. Some restrictions on minors may be imposed by academic departments and colleges. (Refer to the index for a listing of Majors and Minors offered by Arkansas State University).

Minor requirements must be completed under the provisions of an A-State Bulletin that is not more than seven years old at the time of the student's graduation, provided the student was enrolled in residence at a regionally accredited institution of higher education during the year the bulletin was in effect. Minors must be completed at the same time the baccalaureate degree is completed, however the major and minor may come from different A-State Bulletins (provided the student is qualified to use each Bulletin). A minimum GPA of 2.00 is required for a minor unless otherwise specified. Students may not minor in the same area as their major.

CONCENTRATION

A concentration is a selection of courses within a student's major that provides a particular specialization or focus for the major and is designed to give a student specialized knowledge, competence or skill within the major.

TRACK

A track is a grouping of courses within a major that are specific to the applied principal of the student. This does not necessarily imply additional hours of study.

OPEN ELECTIVES

Students may use any course in the curriculum, or accepted in transfer, to meet open elective requirements.

UNIVERSITY GENERAL REQUIREMENTS FOR ALL ASSOCIATE DEGREES

Each candidate for an associate degree must meet the following general requirements:

1. Submit an Intent to Graduate Application online in their Self-Service account prior to the fifth class day of the semester in which graduation will occur (If the student is unable to graduate at the end of the semester for which application has been made, a new Intent to Graduate Application form must be filed during the next semester in which the student expects to graduate).
2. Students will pay their graduation fee online at the time of completing the intent to graduate application either by charging the relevant fee to their student account or by paying via credit card. This fee is required of all students who wish to receive their degree, even if they decline participation in the ceremony. This fee must be paid before the diploma, final transcript or graduation attire can be released. (If the student is unable to graduate at the end of the semester for which application has been made, the student will be required to pay the graduation fee on each subsequent intent to graduate application).
3. Complete graduation requirements under the provisions of an A-State Bulletin that is not more than seven years old at the time of the student's graduation, provided the student was enrolled in residence at a regionally accredited institution of higher education during the year the bulletin was in effect.
4. Earn a grade of C or better in ENG 1003 and ENG 1013.
5. Complete HIST 2763, or HIST 2773, or POSC 2103 as stated in General Education Curriculum to satisfy the Arkansas requirement of American History or American Government.
6. Complete the curriculum as listed under the description of each associate degree program, with a minimum of 60 semester hours.
7. Complete half of the last 50% of semester hours through the A-State campus.
8. Have an average of C or better (2.00 GPA) on all work attempted, on work in the major field, and, if a transfer student, on all work taken at this institution. A passing grade must be made in all courses required for the degree. (These are minimum grade averages and some colleges on the campus will require higher averages.)
9. Twelve (12) of the last 18 semester hours must be Arkansas State University work. Exceptions to the "12 of the last 18" regulation may be granted by the dean of the college in which the student is majoring.

A maximum of 25 percent of an associate degree program may be earned through examination (including CLEP), evaluated military service credits, PLA, DANTES and USAFI courses. Students may submit a maximum of 15 CLEP-credit hours toward an associate degree. (Arkansas Act 88 of 1979 exempts nursing students from these maxima. Confer with the Chair, School of Nursing for information.)

10. An official record of transfer work completed at another institution must be on file in the Office of the Registrar at Arkansas State University at least three weeks before the degree is to be granted. If coursework is taken elsewhere during the last semester, an official transcript must be received no later than two weeks following commencement. Until it is received, the diploma and final transcript will be held.

UNIVERSITY GENERAL REQUIREMENTS FOR ALL BACCALAUREATE DEGREES

Each candidate for a baccalaureate degree must meet the following general requirements: (Some A-State colleges have additional “general” requirements.)

1. Submit an Intent to Graduate Application online in their Self-Service account prior to the fifth class day of the semester in which graduation will occur (If the student is unable to graduate at the end of the semester for which application has been made, a new Intent to Graduate Application form must be filed during the next semester in which the student expects to graduate).
2. Students will pay their graduation fee online at the time of completing the intent to graduate application either by charging the relevant fee to their student account or by paying via credit card. This fee is required of all students who wish to receive their degree, even if they decline participation in the ceremony. This fee must be paid before the diploma, final transcript or graduation attire can be released. (If the student is unable to graduate at the end of the semester for which application has been made, the student will be required to pay the graduation fee on each subsequent intent to graduate application).
3. Complete graduation requirements under the provisions of an A-State Bulletin that is not more than seven years old at the time of the student's graduation, provided the student was enrolled in residence at a regionally accredited institution of higher education during the year the bulletin was in effect.
4. Complete a First Year Experience/Making Connections Seminar during the first semester of enrollment at A-State regardless of the number of concurrent, AP and other college credits earned while in high school. This course is an integral part of the overall first year experience and is designed to assist students to make a smooth transition to the university experience. Students who meet A-State transfer guidelines of 13 or more credited and transferable hours at time of initial enrollment are exempt from this policy. This requirement may be waived in cases of students transferring to A-State. (Transfer students see note under “General Education Curriculum for Baccalaureate Degrees.”)
5. Meet the English proficiency requirement. Complete ENG 1003 with a grade of C or better before enrolling in ENG 1013. Complete ENG 1013 with a grade of C or better. Students who are not pursuing a teacher education degree [B.S.E./B.M.E./B.S.A. (Ag.Ed.)] and who have earned lower than C in ENG 1013 may satisfy the requirement by repeating the course with a C or better, OR by passing the English Proficiency Essay after completing 62 degree-credit hours, OR by earning a passing grade in an upper-level English writing course.
6. Complete HIST 2763, or HIST 2773, or POSC 2103 as stated in General Education Curriculum to satisfy the Arkansas requirement of American History or American Government.
7. Complete the General Education curriculum, with substitutions/additions listed under the description of each degree program. (Transfer students see note under “Transfer Credit Policy” section of Academic Regulations.)
8. Complete half of the last 50% of semester hours through the A-State campus.
9. Complete a minimum of 45 semester hours of junior-senior level courses after earning 30 degree credit hours. (**Upper-level courses completed by a student before he/she has earned 30 degree-credit hours cannot be counted as junior-senior credit.**)
10. Complete a minimum of 120 semester hours (additional hours may be required by the various colleges for particular majors) and meet the requirements for a degree as outlined in the respective colleges' requirements.
11. Have an average of C or better (2.000 GPA) on all work attempted, on work in the major field, on work in the minor field if one is completed, and, if a transfer student, on all work taken at this institution. A passing grade must be made in all courses required for the degree. (These are minimum grade averages and some colleges on the campus will require higher averages.)
12. Eighteen (18) of the last 24 semester hours must be Arkansas State University work. Exceptions may be granted by the dean of the college in which the student is majoring, when conditions stated below are met.
 - A. The student must have met A-State's residency requirement by completing 30 semester hours through the A-State campus.
 - B. The student must have earned at least 90 hours at A-State and/or institutions having a formal articulation agreement with A-State.
 - C. The remaining course work must be completed at a regionally accredited baccalaureate-degree-granting institution.

A maximum of 25 percent of a baccalaureate degree program may be earned through credit by examination (including CLEP) advanced placement, evaluated military service credits, DANTES and USAFI courses. Students may submit toward a baccalaureate degree a maximum of 30 semester hours earned through credit by examination. (Arkansas Act 88 of 1979 exempts nursing students from these maxima. Confer with the dean of the College of Nursing and Health Professions for information.)

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

13. An official record of transfer work completed at another institution must be on file in the Office of the Registrar at Arkansas State University at least three weeks before the degree is to be granted. If coursework is taken elsewhere during the last semester, an official transcript must be received no later than two weeks following commencement. Until it is received, the diploma and final transcript will be held.

NOTE: See note under Degree Requirements of the Neil Griffin College of Business for limitation on Neil Griffin College of Business course credit for students not completing Neil Griffin College of Business Core Courses.

REQUIREMENTS FOR AN ADDITIONAL BACCALAUREATE DEGREE

Students who wish to complete additional baccalaureate degrees in other fields of study must satisfy the following requirements:

- Complete graduation requirements under the provisions of an A-State catalogue that is not more than seven years old at the time of the student's graduation, provided the student was enrolled in residence at a regionally accredited institution of higher education during the year the catalog was in effect.
- Meet the residency requirements. If the first degree was awarded by A-State, the student will complete the remaining degree requirements in residence. If the first degree was NOT awarded by A-State, the student must complete half of the last 50% of semester hours in residence at A-State (residency requirement) and meet the requirements of the degree sought.
- Regardless of where the first degree was awarded, students must have completed ENG 1003 and ENG 1013 with a 'C' or better and HIST 2763 or HIST 2773 or POSC 2103 (or equivalent courses).

NOTE: Academic ranking and academic honors designations are applicable to the first baccalaureate degree only.

NOTE: GPA calculation is based on all A-State work including the first degree earned.

GRADES AND 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	for outstanding achievement	4.0
B	good	for less than outstanding but demonstrating better performance than the normal competency required for satisfactory progress toward graduation	3.0
C	satisfactory	for performance that demonstrates the normal competency required for satisfactory progress toward graduation	2.0
D	poor	for performance that meets minimum course requirements but is below standards required for satisfactory progress toward graduation	1.0
F	failure	for performance that does not meet minimum course requirements and for which no degree credit is justified	0.0
FN	failure	failure to attend and 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	for meeting all course requirements except taking examinations and completing written papers	0.0
CR	credit	not requiring letter grades	0.0
I	incomplete	for students' inability to complete all course requirements for reasons beyond their control (An incomplete grade not removed within one semester will be recorded as an F.)	0.0
NC	no credit	for NOT meeting minimum degree credit standards for courses not requiring letter grades	0.0
P	pass	for satisfactory performance	0.0
W	withdrawal	for dropping an individual course OR for complete withdrawal from the university	0.0
WN	administrative drop	dropped for non-attendance during the first eleven days of class	0.0

A student's grade point average is computed by multiplying the number of hours credit of each grade by the grade points assigned to that grade, then dividing the sum of these several products by the total number of degree-credit hours in which the student was enrolled.

I - INCOMPLETE GRADE

A grade of "I" (incomplete) is appropriate on the final grade roster when a student fails to meet all course requirements for reasons beyond his/her control, i.e., illness of the student, family member's death or serious illness, or extended research projects at the graduate level. Procrastination, pressure of work in other courses, or work not connected with the student's school load are not satisfactory reasons for an "I" grade. All "I" grades must have prior approval of the chair of the department in which the course is offered, which requires the "Request for Incomplete Grade" form to be on file with the department and the Office of the Registrar.

NOTE: "Grade Change Report" forms must be completed and submitted at the close of the next semester immediately following the one in which the original grade was recorded.

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. The letters AU will be recorded in the grade column on the student's permanent record. Audited courses will be counted as part of the stated maximum load for a semester or term. Students may change to audit during the scheduled registration periods. Students must make all changes related to course credit no later than the first week of classes in the Fall or Spring semester or the first class day of a Summer term. This includes the following changes:

- Credit to Audit (or 0-credit)
- Audit (or 0-credit) to Credit

Students MAY NOT change to audit on the web. (Refer to the index for Academic Calendar.)

Auditors are expected to meet all requirements for a course other than taking examinations and completing formal written papers. The names of those persons registered to audit a course will appear on the class roster.

FN - FAILURE TO ATTEND AND NOT WITHDRAWN

Faculty assign a grade of FN to students who have quit attending class but do not officially drop or withdraw. The FN indicates the grade of 'F' has been earned due to lack of attendance and not necessarily lack of understanding the material. Students are encouraged to notify their instructor of their intention to drop or withdraw from a course. However the notification does not constitute the drop or withdrawal. Students must still process their drop or withdrawal in Banner Self Service or with the Wilson Advising Center. Students should review their schedule of classes using Banner Self Service to make sure their enrollment is accurate.

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

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 online 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.**

W - WITHDRAWAL FROM THE UNIVERSITY

(Refer to the index for the Refund of Fees Schedule)

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 Treasurer's office, Financial Aid, University Housing 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.

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.

ACADEMIC CLEMENCY

Academic clemency is a provision allowing a one-time, irrevocable calculation of grade point average and credit hours toward graduation to be based only upon work done after a prolonged separation from college. This provision is provided for undergraduate students who have gained maturity through

extended experience outside higher education institutions, and are currently enrolled at Arkansas State University and have demonstrated acceptable academic performance following their return.

Requirements to be satisfied by a student **prior** to requesting **academic clemency** toward an undergraduate degree are as follows:

1. separation* from all academic institutions for at least three years, followed by
**Transcripts showing attempted enrollment ending in withdrawals are not considered to be separation.*
2. completion of a minimum of twelve degree hours of credit courses from a regionally accredited institution of higher education with a 2.0 or better G.P.A, and
3. formal application submitted to the Office of the Registrar, wherein the student shall specify the semester(s) for which academic clemency is requested and
4. fee payment to the A-State Treasurer's Office

Upon approval by the Office of the Registrar, the student will be **granted academic clemency**. The student's permanent record will remain a record of **all** work; however, the student will forfeit the use—for degree purposes at Arkansas State University—of any college or university credit earned for semesters granted clemency regardless of where the credit was earned.

A-State will honor the Academic Clemency granted by another institution, but will recognize **ONLY** the clemency from that particular institution.

This process will be recorded in the student's permanent record; and will be noted on the transcript. The date of the clemency will coincide with the date of re-entry following the prolonged separation.

REPEATING OF COURSES

Students may repeat up to 18 semester hours in which grades of D or F were earned and have only the last grade counted in computing the grade point average for undergraduate degree requirements. Courses may be repeated any time before the first Baccalaureate degree is awarded. Requirements:

1. The student must have earned a grade of D or F in the course.
2. Students may repeat up to 18 semester hours.
3. All other repeated courses will have both grades counted. Degree hours will be applied only once toward graduation requirements.
4. Students may not repeat for credit any course in which they have earned a grade of C or better.
5. Courses repeated must be the exact course. Students may not use substitutions for repeated courses.

NOTE: A grade of F cannot replace a grade of D. If the grade in the first attempt is a D and the grade in the second attempt is an F, both grades will be counted.

Once a student earns a grade of "D" or above in a course, he/she may repeat the course only one additional time and receive federal financial aid in support of the course. All students repeating a course should check with their financial aid counselor to see how the repeated course will affect their scholarships and or aid.

The student should be aware that the grade of D or F from any previous attempts will remain on the transcript. The previous attempts will be indicated by an "E" (excluded) in the repeat column.

A request for recomputation of grade point averages must be completed and filed with the Office of the Registrar in order to have only the last grade counted for courses which have been repeated. Developmental courses are not included in the "Repeating of Courses" policy.

The department chair, the appropriate college dean, and the Office of the Registrar will determine the application of the repeat course policy in those instances where course numbers and/or titles have been changed at Arkansas State University and for courses completed at other institutions of higher education. Every student is eligible for the provisions of the repeat policy, regardless of the Bulletin year in which the student entered A-State.

Students who are planning to apply for admission to graduate school should take note that most graduate/professional schools recalculate GPAs based upon ALL courses that students have attempted during their college career. Thus, any repeated courses will have both grades counted in consideration for graduate school admission.

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/undergraduate/> 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.

CREDIT BY EXAMINATION

Arkansas State University provides students the opportunity to earn university credit by examination through the College Level Examination Program (CLEP) and through challenge examinations administered by the academic departments.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

The university awards a maximum of thirty semester hours of university credit through CLEP. If a student has attained university-level knowledge in one or more subjects, the achievement may be recognized by the university granting credit for related college courses, provided a satisfactory score is earned in the approved CLEP examination. These examinations assess knowledge of fundamental facts and concepts, perception of relationships, and understanding of principles. Questions regarding examination dates, the administration of examinations, and the appropriateness of specific CLEP examinations should be directed to the Testing Center, which administers the program.

Anyone may take the CLEP tests; however, CLEP credit is not awarded for a course the student has already attempted and been assigned a grade, or if the student has already completed a more advanced course in the subject matter area. Students who are eligible to receive college credit based upon CLEP examination scores shall have credit recorded without grades or grade points on their permanent record.

CLEP examination credit earned at other institutions of higher education is transferable to Arkansas State University if the subject is included in A-State's CLEP credit policy. Students must bear the cost of CLEP examinations. Credit may be awarded for two general examinations (G) and thirteen subject matter examinations (S) from the following areas.

REQUIRED MINIMUM CLEP SCALED SCORES FOR GRANTING CREDIT AT ARKANSAS STATE UNIVERSITY

CLEP Exam	Min. Score	Exam Type	Course Awarded	Sem. Hours
College Algebra	50	S	MATH 1023	3
College Composition	52	G	ENG 1003	3
College Composition	62	G	ENG 1003 & ENG 1013	6
College Composition Modular	52	G	ENG 1003	3
French Language Level 1	50	S	FR 1013 & 1023	6
French Language Level 2	62	S	FR 1013, 1023, 2013 & 2023	12
German Language Level 1	50	S	GER 1013 & 1023	6
German Language Level 2	60	S	GER 1013, 1023, 2013 & 2023	12

History of U.S. I	58	S	HIST 2763	3
History of U.S. II	51	S	HIST 2773	3
Humanities	51	G	ART 2503, ENG 2003 & 2013	9
Intro. to Financial Accounting	50	S	ACCT 2033	3
Intro. to Psychology	47	S	PSY 2013	3
Intro. to Sociology	53	S	SOC 2213	3
Prin. of Macroeconomics	55	S	ECON 2313	3
Prin. of Management	50	S	MGMT 3123	3
Prin. of Marketing	50	S	MKTG 3013	3
Prin. of Microeconomics	55	S	ECON 2323	3
Spanish Language Level 1	50	S	SPAN 1013, 1023	6
Spanish Language Level 2	63	S	SPAN 1013, 1023, 2013 & 2023	12
United States Government	51	S	POSC 2103	3
Western Civilization I	44	S	HIST 1013	3
Western Civilization II	50	S	HIST 1023	3

COMPUTER & INFORMATION TECHNOLOGY CREDIT BY EXAMINATION

Students can receive Computer & Information Technology (CIT) credit by examination after completing certifications for Microsoft, CompTia, etc. The student must complete a "Request for Credit by Examination" form and provide proof they passed the appropriate exam to the CIT department.

The student must pay a \$50 non-refundable fee prior to credit being awarded.

CERTIFICATION CREDIT TABLE FOR CIT COURSES

Course	Microsoft	CompTia	Other	Notes
CIT 1503	MOS - 4 parts			Office 13 or 16
CIT 2523		N10-006		
CIT 3033	70-483			C# Master
CIT 3404			Oracle 1Z0-062	
CIT 3413			Oracle 1Z0-063	
CIT 3533	MOS Expert 4 parts			Expert Level
CIT 4623		SY0-401	CISSP	
CIT 4853		PK0-003		

DEPARTMENT CHALLENGE EXAMINATIONS

Various academic departments administer challenge examinations in specific courses or on certain subject matter areas upon the request of students enrolled at Arkansas State University. An official form, "Request for Credit by Examination," may be obtained from the Office of the Registrar. Students should contact appropriate deans and department chairs for additional information.

Credit by departmental examination is not awarded for courses the student has already completed, courses less advanced than those already completed, or courses for which a CLEP examination exists.

The student who wishes to take a departmental challenge examination must pay a \$50 non-refundable fee prior to taking each examination.

Challenge exams should be taken prior to the student's last semester of enrollment preceding graduation.

ADVANCED PLACEMENT CREDIT

The university awards credit to students who participate in their high school Advanced Placement (AP) Program administered by the College Board Placement Test Program. Students who wish to obtain Advanced Placement credit must request the College Board to forward their test scores to Arkansas State University after they have been admitted. Students will be awarded credit in the courses listed below, provided they make satisfactory scores on appropriate AP examinations and meet other requirements designated by the department offering the course.

AP credit is not awarded for a course the student has already completed at the college/university level. AP credit granted at other institutions is not automatically transferable to Arkansas State University. Students who wish to transfer AP credit must submit official documentation of earned scores.

Students who establish their eligibility to receive AP credit shall have credit recorded without grade points on their permanent records after they have been enrolled at Arkansas State University for a full summer or semester.

Advanced Placement Exam	Minimum AP Score for Credit	Course Awarded
AP20: Biology	3	BIOL 1003 & BIOL 1001
AP66: Calculus AB	3	MATH 2204
AP68: Calculus BC	3	MATH 2214
AP25: Chemistry	3	CHEM 1013 & 1011
AP31: Computer Science A	3	CS 1013
AP33: Computer Science Principles	3	CS 1114
AP36: English Language Comp	3*	ENG 1003
AP37: English Literature Comp	3*	ENG 1003
AP40: Environmental Science	3	BIOL 1063 & BIOL 1001
AP43: European History	3	HIST 1013 or HIST 1023
AP48: French	3**	FR 2013
AP55: German	3**	GER 2013
AP57: Government & Politics: US	3	POSC 2103
AP58: Government & Politics: Comparative	3	POSC 1003
AP13: History of Art	3	ART 2503
AP75: Music Theory	3	MUS 2503
AP78: Physics B	3	PHYS 2054 & PHYS 2064
AP82: Physics C (Electricity, Magnetism)	4	PHYS 2044
AP80: Physics C (Mechanics)	4	PHYS 2034
AP83: Physics I	3	PHYS 2054
AP84: Physics II	3***	PHYS 2064
AP85: Psychology	3	PSY 2013
AP87: Spanish	3**	SPAN 2013
AP90: Statistics	4****	STAT 3233
AP14: Studio Art (Drawing Portfolio)	5	ART 1033
AP15: Studio Art 2D Design	5	ART 1013
AP16: Studio Art 3D Design	5	ART 1023

AP07: United States History	3	HIST 2763 or HIST 2773
AP07: United States History	4	HIST 2763 & HIST 2773
AP93: World History	3	HIST 1013 or HIST 1023

*scoring 3 on both English Lang and English Lit Comp will award both ENG 1003 & ENG 1013

**plus completion of Intermediate II

***completion of PHYS 2034 or PHYS 2054 required before credit awarded

****lower-level credit is awarded for this course

GRADUATION WITH LATIN HONORS/PROGRAM HONORS

Arkansas State University recognizes the academic achievement of graduating baccalaureate-degree students with Latin Honors, "Honors Program" and "University Honors Program" distinctions. To receive distinctions, students must be seeking their **first baccalaureate degree**. **Honor distinctions are not awarded for additional baccalaureate degrees, associates degrees, or graduate-level degrees.**

Latin Honors:

1. Distinctions for graduating students are determined after grades have been submitted for the first session of the graduating term for the graduation program and ceremony. Distinctions are recalculated after full-term and second session grades have been posted to award distinctions to any students who improved sufficiently to achieve a distinction. Students who improve or qualify for distinction at the end of their last semester, will be contacted the next week with an updated diploma and cord.
2. In order to receive Latin Honors, students must earn at least **45 A-State Institutional Hours**. A-State registration for the graduating term will be included when determining if a student meets this requirement.
3. Students must have both an **Overall (Cumulative) GPA** and an **A-State Institutional GPA** that meets the following requirements:

4.00	Summa Cum Laude
3.80 - 3.99	Magna Cum Laude
3.60 - 3.79	Cum Laude

NOTE: Overall GPA is calculated by combining GPA hours and quality points for all A-State and transfer coursework. (Transfer coursework may include courses taken concurrently while in high school.)

Program Honors:

1. Distinctions for graduating students are determined prior to the graduating term.
2. Students who complete the Honors Program shall be recognized as graduating "In Honors". Diplomas and transcripts will bear the designation "Honors Program". Students who complete the University Honors Program shall be recognized as graduating "In University Honors". Diplomas and transcripts will bear the designation "University Honors Program".

HONOR ROLL

An honor roll consisting of the **Chancellor's List** and the **Dean's List** is published at the close of each semester. In order to qualify, students must complete a minimum of twelve semester hours of degree-credit courses.

Honor Roll	GPA
Chancellor's List	4.00
Dean's List	3.60 to 3.99

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

WILSON AWARD

The Wilson Award is presented annually to the university's outstanding graduating senior. The recipient is selected on the basis of character, determination, involvement, and academic achievement. This honor is bestowed in memory of R.E. Lee Wilson, a member of the Arkansas State University Board of Trustees from 1917 until his death in 1933.

ACADEMIC GOOD STANDING

Academic Good Standing at A-State occurs when a student achieves both a current semester AND minimum cumulative GPA of 2.000 (C average). Only those grades earned at Arkansas State University are used in computing the GPA. Academic Good Standing status allows for continued enrollment in the University without restriction. For purposes of eligibility for participation in organized university activities (e.g. intercollegiate athletics, club sports, co-curricular activities, etc.), students are considered to be in academic good standing so long as placement on academic probation or academic suspension does not preclude their continued enrollment at A-State. Although students who are placed on academic probation and those students who are placed on academic suspension and participate in the Restart@State student success program do not meet the required GPA for academic good standing, the continued enrollment privilege provided by the University allows students to maintain eligibility for participation in university activities.

ACADEMIC PROBATION AND SUSPENSION

First Suspension: Students who are admitted and currently enrolled through Transition Studies may be dismissed from the program and therefore suspended from the University. Please see Transition Studies under Undergraduate Studies in the bulletin. Students under regular admission standards suspended for the first time are under the retention policy listed below:

Students will receive academic probation at the close of any enrollment period (fall, spring or summer term) when their current semester or A-State cumulative grade point average (GPA) is below 2.00. Academic probation status will be removed at the end of any enrollment period when both the current semester and A-State cumulative GPA are 2.00 or above. **Students receiving academic probation are strongly encouraged to counsel with an academic advisor or call the Wilson Advising Center at (870) 972-3001.**

Students on **academic probation** will be suspended from the university for poor scholarship when their current semester **and** fall, spring, or summer term A-State cumulative GPA are **both** below the required 2.00. Students suspended from the university for poor scholarship may apply for readmission to Arkansas State University under **READMISSION FOLLOWING ACADEMIC SUSPENSION.**

READMISSION FOLLOWING ACADEMIC SUSPENSION

Upon academic suspension from A-State, students should contact the Wilson Advising Center to review the terms for admission following an academic suspension from the university. (870) 972-3001. Students admitted to the university through Transition Studies, must successfully complete all program requirements. Failure to do so may result in suspension from the program. Students who are suspended from the Transition Studies Program must contact Transition Studies at 870-972-2080 to discuss readmission.

Restart@state Program: Students on a first academic suspension with the university, who have not participated in Restart@state and wish to return to A-State, must seek enrollment into Restart if they are returning to A-State within one calendar year. Students must complete the application process and attend a Restart workshop before classes begin for the semester. Restart@state is a fall, spring and summer program option. Program fees do apply. The Restart Program fee is used for university retention initiatives.

During the Restart semester, students will enroll in the one-hour Restart Seminar. Students who withdraw from the university, are administratively withdrawn or fail the Restart Seminar will serve a mandatory separation period from the university and all other institutions of higher education the following semester. Successful completion of the Restart@state program requirements, however, will allow enrollment during the subsequent enrollment period, provided the student meets the necessary GPA and other requirements stated in the Restart contract. . Students who fail to meet the minimum 2.0 GPA requirement during the Restart semester must adhere to the suspension policy in the current Undergraduate Bulletin.

First Suspension: Students who are suspended from the university for the first time must enroll in the Restart@state program. (See procedures for enrollment under the Restart@state Program.) All students considering taking coursework at another institution while on first suspension from A-State are strongly advised to meet with their A-State academic advisors for guidance on appropriate coursework selection. (See section on Transferring Work from Other Institutions while on First Suspension.)

Second and Third Suspension: Students who earn a second or third suspension from the university are not permitted to enroll at A-State for one calendar year. The suspended period is intentional to provide time for students to gain an appreciation for the opportunity to attend college. After serving the suspension period, the student must visit the Wilson Advising Center for academic standing clearance prior to registration.

Subsequent Suspensions: Students who earn a fourth or subsequent suspension from the university are dismissed from the university.

Transferring Work from Other Institutions while on Suspension: Students serving a first, second, or third suspension who complete coursework at a different institution during their suspended period, may have their coursework reviewed for acceptance at A-State, upon return.

DIPLOMAS

REQUIREMENTS FOR A DOUBLE MAJOR

Students who seek a double major or students working concurrently on a second baccalaureate degree **MUST** meet the requirements of both degrees and majors under the provisions of the A-State bulletin in effect during the student's enrollment in college. Double majors must be completed at the same time. Work completed after the awarding of the first baccalaureate degree may be applied to a second baccalaureate degree under the terms listed in the *Requirements For An Additional Baccalaureate Degree*.

Double Degrees are two **DIFFERENT** Degree types, such as a Bachelor of Arts and a Bachelor of Science. Degrees types are also differentiated by the college in which they are awarded. If a student is seeking two majors with the same Degree type in the same college, they are considered a Double Major.

BS in Sci/Math (Biological Sciences) + BA in Sci/Math (Chemistry) = Double Degree (one college) = Two Diplomas

BS in Sci/Math (Biological Sciences) + BA in HSS (Criminology) = Double Degree (two different colleges) = Two Diplomas

BS in Sci/Math (Biological Sciences) + BS in Sci/Math (Mathematics) = Single Degree with a Double-Major (one college) = One Diploma*

**Students will receive the one diploma with both majors listed. However, an option to obtain a diploma for each major is available for an additional \$15 fee.*

MINORS

Students who successfully complete requirements for a minor will receive a minor certificate to accompany their diploma. Students seeking a double minor will receive one certificate with both minors reflected.

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 picked up AFTER 24 Hours, or if it is to be mailed.
3. Requests made via mail, or in person will be processed for a \$10.00 flat fee. However, paid members of the Alumni Association will receive their transcript free of charge, regardless of the requesting method.
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 which have been presented for admission or evaluation of credit become a part of the student's permanent record and are not reissued. Transcripts from other institutions, (including High School), must be obtained directly from the original issuing institution.
3. Readmitting students who have been in a non-enrolled status for more than one year will be required to obtain new transcripts from all institutions previously attended.
4. Transfer students should obtain, for advisor use in scheduling, a reference copy of their academic record from each institution attended.
5. Transcripts or other evidence of attendance will not be issued to or for a student who is in debt to the university.
6. Transcripts requested for currently enrolled students during the final exam period may have incomplete information from that term.
7. 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 e-mail requests are not accepted.** To request a transcript, please visit the Transcript page at <http://www.astate.edu/a/registrar/students/transcripts/>.
8. For transcripts before Fall of 1990 you must request your first hardcopy from the Transcripts office or contact the office to be set up in our system. You cannot view your transcript on the web or request a copy online for course work prior to Fall 1990. Once we have received a request from you, you will be able to view your course work totals - not course by course detail - and request future transcripts on the web.
9. All transcripts are mailed out in a single business envelope to the designated address.
10. Immunization records and test scores may be requested in person or by mail. Please note: some former student's immunization records and/or test scores may not be available from the office.
11. All duplicate transcripts mailed to home addresses go out in individual envelopes.

Services for Students

Every residential campus is a city unto itself and, like any other city of similar size and complexity, Arkansas State University seeks to respond to the hierarchy of service and developmental needs of its citizens. Services for Arkansas State University students are provided through many different offices and departments of the university.

THE OFFICE OF RECRUITMENT

The Office of Recruitment, Suite 2099, found in the Carl R. Reng Student Union, serves as the gateway to Arkansas State University for prospective students, families and visitors. At the forefront of student recruitment, the staff plan, coordinate, and implement recruitment strategies for prospective students which support the strategic enrollment goals and institutional mission. Pre-enrollment services, awareness sessions, class presentations, higher education workshops, community receptions, on-campus programs and other outreach events are provided for students, parents, counselors, and administrators, on- and off-campus. Topics such as the application process, admission requirements, entrance exams, financial aid, scholarships, registration, housing, and student services are covered. Visitors to campus are introduced to Arkansas State University via a campus tour with the Chancellor's ambassadors and an engaging presentation from professional recruitment staff. We provide services to high school and community college groups of all sizes who have an interest in Arkansas State University. You may reach the Office of Recruitment by calling 870-972-ASU1(2782) or email recruitment@astate.edu.

CAREER SERVICES

The mission of Career Services is to be a bridge between students, alumni, and employers during the career planning process. We provide programs and learning strategies in an effort to educate, enhance, and enrich lifelong academic and career goals. Career Services offers a variety of services to assist students in meeting their career-related goals. Services are free and include the following: individual career coaching, career attire, access to job listings, career-related workshops, on-campus interviews, and career fairs. Career coaching and workshop topic areas include: resume and cover development, interview preparation, professional attire, job search, networking, financial literacy, professional branding, and leadership.

Students receive individual career coaching to assess and explore opportunities related to their major, career plans, and goals. Career coaching is offered in-person, by phone, or virtually. In addition, part-time job opportunities, federal work-study positions, internships, and full-time career positions are posted on a regular basis in HireASate.

Workshops are presented to classes and student groups throughout the year. Speakers include industry professionals, alumni, and others with subject-matter expertise. These speaking engagements do not take the place of Career Fairs; however, they are viewed as an additional networking opportunity to gain employment.

Career Fairs are hosted during the Fall and Spring semesters and attract companies from a variety of industries for both internship and full-time opportunities. Graduate programs also attend to attract future students. Students can also participate in the on-campus interviewing program where they have the opportunity to interview with companies seeking job candidates.

Career Services is located in Suite 2167 of the Student Union, on the web at <http://www.astate.edu/a/careers/index.dot> and can be contacted by email at careers@astate.edu or 870-972-3025. Be sure to follow us on Facebook, Twitter, Instagram, Snapchat, and Pinterest!

COUNSELING CENTER

The Counseling Center provides specialized services designed to help students perform better academically, cope with emotions, and be more effective in relationships with others.

Services are performed by psychologists, counselors, counseling interns, and counseling practicum students. All clinical staff are licensed and services are always performed by those whose skills and training are appropriate to the task.

The center offers daily drop-in hours when students can see a counselor without an appointment and discuss any concerns they may have. Both individual and group counseling are available for discussion of stress management, academic performance issues, depression, anxiety, grief, or other concerns about handling the demands of college life. The center also offers outreach workshops addressing various student concerns such as choosing a major, sexual assault prevention, and alcohol and drug abuse.

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

The Counseling Center is located in Suite 2203, Reng Student Services Center. Business hours are 8 a.m. to 5 p.m. Monday through Friday. You may contact us by telephone at 870- 972-2318. If you need to speak to a counselor after business hours, call the University Police Department at 870-972-2093 and ask them to contact a counselor.

The Counseling Center is fully accredited by the International Association of Counseling Services (IACS).

MULTICULTURAL CENTER

Arkansas State University's Multicultural Center works to create a welcoming and inclusive campus environment by providing programming that promotes an appreciation for diversity, multiculturalism, and social justice. We are committed to affirming the overall experiences of our students, and serving as a support system and resource for the concerns and needs of students from marginalized and/or underrepresented identity groups.

Our goals are: (1) To help foster an inclusive campus environment where everyone matters and everyone contributes. (2) To advance diversity education and cultural competence through programs and initiatives. (3) To provide leadership opportunities and development for students. (4) To facilitate meaningful relationships and provide collaboration opportunities that create multicultural awareness. (5) To continuously advocate for marginalized student groups.

We host a number of cultural, educational, and social programs to meet our goals including: welcome socials, heritage month celebrations (i.e. Black History Month, Native American Heritage Month), LGBT+ Awareness events, Women's History awareness events, and diversity workshops. Students can get involved with our center through our peer educators program, our multicultural ambassador program, or students can serve as a volunteer in the Multicultural Center.

The Multicultural Center is located on the third floor of the Carl R. Reng Student Union, suite 3003. For more information on the Center and ways to get involved, please call 870-680-4052 or visit us at <http://www.astate.edu/a/multicultural-center/>

ACCESS & ACCOMMODATION SERVICES

Access & Accommodation Services (A&AS) facilitates equal access and inclusion for students with disabilities on A-State campuses regarding participation in programs, activities, and other services. A&AS advocates for inclusion of students with disabilities while maintaining high standards of academic excellence and student satisfaction through the provision of the accommodation process. The access and accommodation process supports students' personal, academic, social, and career development. Students who are allowed access and accommodations are likely to achieve academically and develop the confidence needed to navigate college life and excel in a university setting.

Access & Accommodation Services offers academic and non-academic support programs such as transitional and mentoring services, alternative testing options, note-taking services, and advocacy support. Other services offered include: assistive technology, software training, alternative text, disability parking, golf cart transportation, physical set-ups in the classroom, and adjustments/ modifications of A-State buildings and grounds as required. In addition, students may participate in A&AS programs that promote volunteerism, including: The Ghostwriter/Volunteer Note-Taker Program, Academic Success and Access Program (ASAP), and Delta Sigma Omicron, a fraternity dedicated to promoting advocacy and inclusion of students with disabilities at Arkansas State University. For additional information, please visit our Access & Accommodation Services website at <http://www.astate.edu/disability/> or call 870-972-3964.

FINANCIAL AID & SCHOLARSHIPS

The primary purpose of the Financial Aid and Scholarships office is to provide financial resources to students who would otherwise be unable to pursue a college education. Information on available financial aid is disseminated to both currently enrolled and prospective students.

The staff in the Financial Aid and Scholarships Office seeks to accomplish this purpose by making every effort to meet the demonstrated financial needs of all students enrolled at Arkansas State University. Financial aid is awarded on the basis of demonstrated need except where funds are specified for recognition of special talents or abilities. Practices and procedures followed by the Financial Aid staff ensure fair and equitable treatment for all applicants.

The director and staff of the office compile composite financial aid packages for individual students to provide maximum grant and scholarship funds, along with part-time employment, in order to keep the necessity for loans at a minimum. They assist students in seeking, obtaining, and utilizing to the best advantage all financial resources available. The office seeks to obtain maximum funding for all aid programs—federal, institution, and state sources.

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

Detailed information and financial aid application forms may be obtained by visiting our website at <http://www.astate.edu/finaid/>.

All applications for federal student assistance must be received by the Financial Aid and Scholarships Office prior to June 1 of the award year to ensure delivery of funds by the beginning of the fall term.

Federal Aid Programs

Federal Work-Study Program
Federal Direct Parent Loan for Undergraduate Students
Federal Graduate PLUS Loan
Federal Pell Grants
Federal Direct Student Loan (subsidized and unsubsidized)
Federal Supplemental Educational Opportunity Grants

State Aid Programs

Arkansas Academic Challenge/Lottery Scholarship
Distinguished Governor's Scholarship
Law Enforcement Officer's Dependents Scholarship
Military Dependents Scholarship Program
Arkansas Future Grant (AR Future)
Guard Tuition Assistance Program (GTIP)
Arkansas Workforce Challenge

University Aid Programs

Academic Scholarships - Descriptions and guidelines for A-State institutional scholarships can be found at www.astate.edu/finaid/.

Privately Funded Scholarships - Description and guidelines can be found at www.astate.edu/a/finaid/

Athletics - Information can be found at www.astateredwolves.com

Fine Arts - Applied Music, Art, Band, and Theatre can be found at www.astate.edu/college/liberal-arts/

ROTC Scholarships - Army ROTC Scholarship information can be found at www.astate.edu/a/military-science/prospective-students/rotc-scholarships/

NEW STUDENT ORIENTATION

This summer program aids all new and entering students in their transition to the university. This program exposes all new students to an array of social and educational opportunities. Students are advised of academic majors and are assisted in their class registration. Parents also enjoy a unique program of events that involves their participation in their student's collegiate experience. All incoming freshman students are required to attend New Student Orientation. More information on this program can be found at <http://www.astate.edu/nso/>.

PARKING SERVICES

The Department of Parking Services provides many services to students and the campus community. The department issues and manages over 10,000 parking permits annually. Parking permits are available online through the myCampus web portal. The department also manages the operation of the campus parking infrastructure including commuter and residential parking lots, several hundred contract parking spaces, parking structures, non-residential gate access, parking meters, and pay stations. Parking Services personnel enforce the campus parking regulations and process parking citation appeals. More information is available at <http://www.AState.edu/parking/>. Parking Services can be contacted at 870-972-2945 or parking@AState.edu.

RED W.O.L.F. CENTER/CAMPUS RECREATION

The Red W.O.L.F. Center and Intramural Sports program provide students with a wide variety of activities that contribute to their overall health, social development, and well-being. The Red W.O.L.F. Center is an \$18 million state-of-the-art fitness facility. The center opened in January 2010, with an indoor track, three basketball courts, a MAC gym (soccer), dance studio, free weight and cardiovascular areas, spinning studio, and assessment rooms. Students have the opportunity to participate in programs such as group fitness classes, fitness challenges, nutrition programs, weight loss/maintenance programs, and personal training and fitness assessments. The Intramural Sports program offers a wide range of individual and team sports. The Red W.O.L.F. Center and Intramural Sports offer a large variety of activities guaranteed to interest all. **Red W.O.L.F. Center, 870-972-3800.** Hours: Monday through Thursday, 6:00 a.m. to 11:00 p.m., Friday, 6:00 a.m. to 10:00 p.m., Saturday & Sunday, 12:00 p.m. to 10:00 p.m.

RESIDENCE HALL GOVERNANCE

The university holds the view that the residence hall setting provides excellent opportunities for student self-governance. Each residence hall has an elected council for implementing this concept. The councils involve residents in the principles of self-government through responsible leadership and also provide programs of interest to the residents.

RESIDENCE LIFE

The Department of Residence Life offers on-campus housing for full time college students in one of our residence halls: Arkansas Hall, Kays Hall, Northpark Quads, University Hall, Honors Living Learning Community, STEM Den, ROTC, Red Wolf Den, Collegiate Park, and Pack Place. The Greek Village consists of five sorority houses for members who are at least sophomore status. Students who have earned at least sixty hours of college credit can reside in Red Wolf Den, Collegiate Park, or Pack Place apartment complex. Housing is also available for students with families as well as nontraditional (undergraduates who are at least 26 years of age) and graduate students in The Village. The Circle apartments are available for graduate students and NYITCOM students.

All single undergraduate students who have completed fewer than thirty (30) hours and are under twenty-one years of age must live on campus, unless living with parents or having been released by committee.

Any single student under twenty-one years of age with fewer than thirty (30) hours who plans to reside off campus in compliance with the above regulation must file an off-campus housing form with the Residence Life Office, P.O. Box 2774, State University, AR 72467. Single rooms are offered on a space-available basis only.

Any inquiries concerning student on-campus housing should be directed to the Office of Residence Life on our website at <http://www.astate.edu/a/residence-life/> or by phone at 870-972-2042. A \$100.00 prepayment is required to reserve university housing.

STUDENT ACTIVITIES BOARD (SAB)

The Student Activities Board is composed of a president and six directors overseeing the following committees: Carl R. Reng Student Union Events, Special Events, Spirit Club, Marketing, Homecoming and Springfest. SAB welcomes your participation by joining one of its committees—GET INVOLVED! Contact the office at 870-972-2055.

DEAN OF STUDENTS

The Dean of Students unit is dedicated to creating a positive and inclusive community of students and scholars through advocacy, education and engagement. Service departments include: Leadership Center, Residence Life, Student Conduct and the Red WOLF Center. The goal of the various departments is to provide students the best possible campus environment for living and learning, as well as offering opportunities to grow academically, socially, intellectually and professionally. The Dean of Students office is located in the Student Union, suite 2029. Visit the website at <https://www.astate.edu/a/dean-of-students/> or call 870-972-2048.

STUDENT CONDUCT

Arkansas State University promotes community standards through education. The university has a duty to protect its educational purpose by setting standards of conduct. The Standards of Student Conduct that all students must abide by can be found on the Student Conduct website at <http://www.astate.edu/a/student-conduct/>

The guiding principles of university regulations are to promote student responsibility and accountability while protecting the community as a whole. The university has jurisdiction over any student or student organization alleged to have violated the Standards of Student Conduct. Off-Campus violations can also subject a student to the jurisdiction of the university conduct system. Every student is responsible for living up to the standards that Arkansas State University has put forth in its policies. Students who are found responsible for violating institutional policies will be sanctioned in an educational manner. Sanctions that can be imposed, as well as the conduct process, can be found on the Student Conduct website at <http://www.astate.edu/a/student-conduct/>.

All students are expected to know and observe the rules and regulations set forth in the Standards of Student Conduct. Failing to educate oneself is not considered an acceptable reason for violating these policies.

STUDENT HEALTH CENTER

The mission of A-State's Student Health Center (SHC) is to provide quality health care to students in an unbiased and friendly environment that promotes student and community wellness. The SHC is staffed with two nationally certified Advanced Practice Registered Nurses (APRN's). Services provided include management of acute illnesses, minor injuries, physicals, specific female and male exams, and immunizations. Students must be currently enrolled at Jonesboro or Paragould campus and present a valid student ID upon arrival.

The SHC is located on campus adjacent to St. Bernard's First Care at 333 Red Wolf Blvd. Operating hours are Monday through Friday, from 8 a.m. to 5 p.m. daily. Students may call 870-972-2054 to make an appointment with one of the APRN's. The best time for shot visits such as allergy injections, birth control injections, immunizations, and TB skin tests is from 11:00 a.m. to 1:00 p.m.

Emergency: If a student should become ill or injured during the hours the center is not open, he or she may go to the St. Bernard's Fast Care clinic, St. Bernard's Emergency Department, or NEA Baptist's Emergency Department. There are other Urgent Care Walk-In Clinics also available in the city limits of Jonesboro.

If an ambulance is needed from the residence halls, please contact a staff member in order to ensure optimal service. Arkansas State University does not assume responsibility for payment of emergency transportation, emergency room fees, prescriptions, or outside test such as x-rays, labs, etc.

Services and Fees: There is no charge for A-State students to be evaluated at SHC by a nurse practitioner. No payments are required at the time of service, charges for diagnostic testing, laboratory studies, sexually transmitted infections screenings, immunizations, physical exams and various procedures which will be applied to your student account.

Medical Clearance for International Studies: It is important that you arrive at A-State on or prior to the date listed on your I-20 form as late arrival will cause a delay in your ability to register and begin classes. Students must attend a pre-arranged health screening for mandatory Tuberculosis screening and Measles, Mumps, and Rubella (MMR) vaccination. MMR inoculation consists of 2 separate injections 30 days apart. Charges incurred for these requirements will be placed on your student account. If you have already received the MMR vaccines, please bring your immunization record which must include your name, be an original document in English, be signed by a doctor, and list the date of the vaccination. The T-SPOT blood test must be done in the U.S. at Arkansas State University.

Students should bring all available documentation of previously received immunizations (BCG, Measles, Mumps, Rubella, Varicella, Yellow Fever, Tetanus, etc.). This information must be provided in English.

Visit the Student Health Center website at: <http://www.astate.edu/a/student-health-center/>.

CARL R. RENG STUDENT UNION

The Student Union provides students with a centralized location for attending to meeting many of their needs while at A-State. Acansa Dining Hall and the Food Court area are located on the first level. Many student service offices are located in the facility, including: Student Account Services, Cashier's Window, Financial Aid and Scholarships, Leadership Center, Career Services, Recruitment, Counseling Center, Disability Services, Admissions, Records and Registration, Residence Life, Testing Center, Student Government Association, Student Activities Board, Non-Traditional Services, the A-State Bookstore, and the Multicultural Center. Meeting rooms are available for reservation by registered student organizations for meetings, conferences, and events.

Campus Information, located on the second level of the Carl R. Reng Student Union, is your source for happenings at A-State. The staff is trained to answer questions about the Carl R. Reng Student Union, A-State, and the community. The Carl R. Reng Student Union Information Center is the distribution point for the weekly editions of "The Herald." Items found in the Carl R. Reng Student Union are brought to Campus Information and secured and documented until claimed. Whether helping a student find a classroom or providing information about activities on campus, the Carl R. Reng Student Union and Campus Information strive to provide students with a friendly atmosphere where questions are always welcomed.

TESTING CENTER

The A-State Testing Center is certified by Educational Testing Service (ETS), American College Testing (ACT), the Psychological Corporation, Pearson VUE and several private boards and societies to coordinate the administration and security of standardized testing programs. Through our Testing Center, students seeking admission to specialized undergraduate degree programs or postgraduate programs can take the required exams on any national test date. One program gives students the opportunity to earn college credit-by-exam. The Testing Center also administers exams to individuals from the surrounding communities to certify proficiency in the fields of teaching, contracting, or counseling.

The specific tests administered by the A-State Testing Center are listed below:

Credit-by-exam

College Level Exam Program (CLEP) **

Undergraduate Admission

ACT Assessment

Test of English as a Foreign Language (TOEFL)**

Accuplacer Test **

SAT

Assessment

PRAXIS Academic Core**

Post-Graduate

Graduate Management Admission Test (GMAT) **

Graduate Record Exam (GRE)**

Law School Admission Test (LSAT)

Miller Analogies Test (MAT)**

Occupational Certification

PRAXIS II: Specialty Area Tests**

**offered ONLY on computer

UNIVERSITY POLICE DEPARTMENT

The University Police Department emerged from the General Assembly of the State of Arkansas, Act 328 of 1967. The Act authorizes state institutions to regulate traffic and other areas of institutional property. The department is to enforce all federal, state, and local laws of its jurisdiction.

The University Police Department is staffed with twenty-two officers. The office is open 24 hours a day, with four police radio dispatchers. There are university police officers on duty around the clock, 365 days a year.

Each university police officer meets standards established by Act 452 of 1975 (compiled Ark. Stat. Ann. 42-1009) as being certified by the State of Arkansas as a certified law enforcement officer.

The University Police Department also conducts Crime Prevention classes and has free prevention literature. For more information you can call or e-mail us at safe@astate.edu. We are located at 503 Robinson and our mailing address is P.O. Box 2767, State University, AR 72467. You may also contact our office by telephone at (870) 972-2093.

VOCATIONAL REHABILITATION

Persons who have a permanent disability may receive personal and vocational counseling and financial assistance while pursuing their college education. The vocational objective of the disabled person must be approved by a Vocational Rehabilitation counselor.

These services are available through the Division of Vocational Rehabilitation, State Department of Education, Little Rock, AR 72201. Information relative to the program may be obtained from Student Account Services.

VOLUNTEER A-STATE

The university encourages students to engage in various types of community service opportunities that will enhance their college experience. The Volunteer A-State council was established during the 2012-2013 school year and is comprised of student leaders providing the A-State community a place to serve, learn, and make a statement by promoting and coordinating volunteer opportunities and building relationships within the community. This council puts together several campus-wide activities each semester to allow students to give back such as the Volunteer Fair, Make A Statement Week, Blood Drives, and others.

In general, student volunteers are referred to organizations/agencies in the immediate area and will receive appropriate training from the agency prior to the volunteer work. Interested students should call the Leadership Center at (870) 972-2055 for more information on upcoming opportunities and how to get involved with Volunteer A-State.

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).

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

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/>.

Academic Programs

DEGREE PROGRAMS AND MAJORS

The undergraduate degrees Arkansas State University offers are listed below with majors available in each degree program.

Associate of Arts (A.A.)

En Route Associate of Arts (A.A.) - General Education

Associate of Applied Science (A.A.S.)

Clinical Laboratory Science
Disaster Preparedness/Emergency Mgmt. —EMT-Basic
Land Surveying and Geomatics
Law Enforcement
Occupational Therapist Assistant
Paramedic
Physical Therapist Assistant

**Programs offered in cooperation with the Criminal Justice Institute of the University of Arkansas.*

Associate of Applied Science in Nursing (A.A.S.N.)

Nursing —LPN to AASN —LPN to AASN (Online)
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Associate of General Studies (A.G.S.)

Associate of Science (A.S.)

Accounting
Computer and Information Technology
Technology
En Route Associate of Science (A.S.) - General Education

Bachelor of Arts (B.A.)

Art (emphasis in): —Art History
Chemistry (emphasis in): —Pre-Pharmacy
Communication Studies —Interpersonal Communication —Organizational Communication —Public Communication

Computer Science
Criminology
Economics: —Pre-Law
English
Environmental Studies
History
Music —Jazz Studies
Philosophy
Political Science
Sociology
Theatre: —Acting —Design and Technology —Musical Theatre
World Languages and Culture (emphasis in): —French —Global Studies —Spanish

Bachelor of Applied Science (B.A.S.)

Organizational Supervision

Bachelor of Fine Arts (B.F.A.)

Art (emphasis in): —Art Education —Studio Art
Graphic Design: —Digital Design

Bachelor of General Studies (B.G.S.)

Bachelor of Music (B.M.)

Music (concentration in): —Composition —Instrumental Performance —Keyboard Performance —Voice Performance

Bachelor of Music Education (B.M.E.)

Instrumental Music
Vocal Music

Bachelor of Science (B.S.)

Accounting
Biological Sciences (emphasis in): —Biology —Botany —Pre-professional Studies —Zoology
Biotechnology
Business Administration —Sustainable Business Practices
Business Economics
Chemistry: —Pre-Health Profession Studies
Clinical Laboratory Science
Communication Disorders
Computer and Information Technology
Computer Science
Creative Media Production (emphasis in): —Corporate Media —Graphic Communication —Sports Media
Dietetics
Digital Innovations (emphasis in): —Graphic Communications —Strategic Communications
Disaster Preparedness/Emergency Mgmt.
Environmental Science
Exercise Science
Finance (emphasis in): —Banking —Financial Management
Global Supply Chain Management
Health Promotion
Health Studies
Interdisciplinary Studies
International Business
Land Surveying and Geomatics
Management (emphasis in): —Hospitality Management —Human Resource Management —International Business
Marketing: — International Business — Logistics — Marketing Analytics — Sales
Mathematics
Multimedia Journalism
Physics

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

Psychology
Sport Management:
Strategic Communication (emphasis in): —Advertising —Public Relations —Social Media Management
Engineering Technology (emphasis in): —Computer Aided Drafting and Design —Computer Systems —Technical Studies —Technology Management
Wildlife, Fisheries and Conservation (emphasis in): —Fisheries —Wildlife

Bachelor of Science in Agriculture (B.S.A.)

Agricultural Business: —Agricultural Economics and Finance —Agricultural Marketing and Management
Agricultural Studies (emphasis in): —Agricultural Communications —Agricultural Education —Agricultural Science —Agricultural Systems Technology
Animal Science (emphasis in): —Equine Management —Pre-Veterinary —Production and Management
Plant and Soil Science (emphasis in): —Agronomy —Environmental Horticulture

Bachelor of Science in Civil Engineering (B.S.C.E.)

Civil Engineering

Bachelor of Science in Education (B.S.E.)

Business Technology
Elementary Education
English
General Sciences (emphasis in): —Biology —Chemistry —Physics
Mathematics
Middle Level Education
Physical Education
Social Science
Special Education
World Languages and Cultures (emphasis in): —French —Spanish

Bachelor of Science in Electrical Engineering (B.S.E.E.)

Electrical Engineering

Bachelor of Science in Mechanical Engineering (B.S.M.E.)

Mechanical Engineering

Bachelor of Science in Nursing (B.S.N.)

Nursing
—Second Degree Accelerated Program
—RN to BSN
—LPN to BSN

Bachelor of Science in Radiologic Sciences (B.S.R.S.)

Radiologic Sciences (emphasis in):
—Cardiovascular-Interventional Technology
—Diagnostic Medical Sonography
—Magnetic Resonance Imaging
—Mammography
—Medical Imaging Informatics
—Radiation Therapy
—Imaging Specialist (Bridge Program)

Bachelor of Social Work (B.S.W.)

Social Work

CERTIFICATE PROGRAMS

Arkansas State University offers technical programs in which certificates of proficiency are awarded. These programs are offered for students who wish to prepare for employment in a minimum of one or two years and do not wish to pursue formal programs leading to an associate or a baccalaureate degree in the areas. *All certificate programs require admission to the university.*

Specific requirements for each certificate is listed in the respective college sections of this bulletin. *These certificates are offered post-baccalaureate and require an earned BSRS degree.

Bone Densitometry
Cardiovascular-Interventional Technology*
Computed Tomography
Corporate Media
Debate and Forensics
Diagnotics Medical Sonography*
Digital Humanities
Emergency Medical Technician
Free Enterprise
Graphic Communication
Health Coaching
Information Technology
Leadership Studies
Mammography*
Marketing Analytics

Media Ministry
Medical Imaging Informatics*
Museum Studies
Neuropsychological Testing
Nonprofit Communication
Paramedic
Radiation Therapy*
Radiologic Sciences Administration
Radiologic Technology*
Social Media Management
Spanish for the Professions
Sports Production
Statistics
Swift Coding

MINORS OFFERED

Arkansas State University offers over 60 minors with requirements varying from 18-24 semester hours. Specific requirements for each minor are stated in the respective college sections of this bulletin. The minors offered are listed below in alphabetical order. Refer to the index for the appropriate page references of each minor offered.

Accounting
African-American Studies
Agricultural Business
Agricultural Mechanics
Animal Science
Art
Art History
Biology
Chemistry
Children's Advocacy Studies
Cognitive Science
Communication Studies
Computer and Information Technology
Computer Science
Criminology
Crop Consulting and Agronomic Services
Digital Design
Economics
Electronic Commerce
Electrical Engineering
Engineering
English
Entrepreneurship

Finance
Financial Wealth Management
Folklore Studies
French
General Business
German
History
History and Philosophy of Science and Technology
Homeland Security and Disaster Preparedness
Horticulture
Interdisciplinary Family Studies
International Business
International Studies
Land Surveying and Geomatics
Leadership Studies
Logistics
Management
Marine Science
Marketing
Mathematics
Medieval Studies
Military Science and Leadership
Modern European Studies
Multimedia Journalism
Music
Philosophy
Physics
Plant Science
Political Science
Precision Agriculture
Psychology
Religious Studies
Renewable Energy Technology
Sales Leadership
Sociology
Spanish
Strategic Communication
Statistics
Theatre

United States History
Women and Gender Studies
Writing Studies

INTERIM, SHORT, AND EXTENDED-TERM CREDIT OFFERINGS

All on-campus credit offerings scheduled for periods other than the regular semesters or summer sessions must be approved by the department chair, the appropriate college dean, and the vice president for academic affairs.

Interim (offered between semesters/terms), short (less than a semester/term), and extended (more than a semester/term) credit offerings are expected to meet the same criteria of quality instruction, qualified instructor, and number of contact hours as required for regular on-campus credit offerings.

ARMY ROTC PROGRAM

Since 1936 the Department of the Army, in cooperation with the officials of Arkansas State University, has provided a military training program through the Army Reserve Officers Training Corps (ROTC). Completion of either the two-year or the four-year ROTC program leads to a commission as an officer in the United States Army, Army Reserve, or National Guard.

The basic course of military science (freshman and sophomore years) is offered to male and female students who are U.S. citizens.

The advanced course (junior and senior years) is available to students who meet specific requirements. For further information concerning qualifications for the advanced course, refer to the index for the Department of Military Science.

COMBINED-DEGREE PROGRAMS

A-State students who enroll in approved dental, medical, pharmacy, or law schools before receiving degrees at Arkansas State University may be eligible to transfer up to 30 credit hours from the professional school to apply toward completion of their baccalaureate degree at A-State. To qualify for a combined degree, students must meet the following requirements.

1. The last 30 credit hours immediately prior to entrance into the professional school must be completed in residence at Arkansas State University.
2. All requirements for the degree except no more than 30 transferable credit hours must be completed. The 30 transfer hours must have prior approval of the department chair.
3. A written statement of eligibility for the degree must be obtained from the Office of the Registrar

A student making application for this baccalaureate degree must submit a transcript showing successful completion of the professional degree, file an "Intent to Graduate" form, and pay the graduation fee.

SPECIAL PROGRAMS

Arkansas State University offers special service programs for in-service teachers and for others interested in college credit in addition to that which may be earned during the regular semesters.

Summer Sessions

Two five-week and one ten-week summer sessions are scheduled each summer with classes meeting four or five days per week. Students may earn up to a total of 14 hours of credit for the entire summer. Courses are offered in all colleges and departments during these sessions, with special attention given to the needs of in-service teachers.

Special Studies Courses

Special courses of study may, upon request, be organized in any college or independent department at any level of study to meet the needs of interested groups. The middle two digits of the course numbers for such programs, which must be approved through normal university curriculum channels, will always be in the 90 series. 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. A zero as the first digit in the course number will designate such non-degree-credit courses.

PRE-PROFESSIONAL PROGRAMS

There is no specific degree awarded in the pre-professional programs. It is common practice in the pre-dental, pre-medical, pre-physical therapy, pre-optometry, pre-veterinary and similar programs to work toward one of the bachelors degrees offered by the university. There is no one degree specified by medical or dental schools, but most students in these pre-professional programs major in chemistry, physics, biological sciences, or interdisciplinary studies.

Pre-Professional Advising Within Specific Colleges

(Refer to the index for page references of each pre-professional area offered.)

College of Agriculture
pre-veterinary medicine
Neil Griffin College of Business
pre-law
College of Liberal Arts and Communication
pre-law
College of Sciences and Mathematics
pre-medical
pre-dental
pre-optometry
pre-pharmacy
pre-chiropractic
pre-dental hygiene
College of Nursing and Health Professions
pre-dental hygiene
pre-respiratory therapy
pre-occupational therapy
pre-physical therapy
pre-athletic training

Students interested in obtaining further information concerning any of these programs should contact the dean of the college in which the particular program is offered.

Pre-Law Program

Prospective pre-law students should give careful consideration to the formulation of a definite plan for pre-law study. This should be based on the student's strengths and weaknesses, interests, and personal objectives in studying law. In general, the pre-law student should place primary emphasis on the acquisition of excellent methods of study, thought, and communication rather than on

a specific body of factual knowledge. These skills can be acquired in a number of different areas, and successful law students and lawyers have college majors in almost every conceivable field.

A prospective student interested in pre-law should select a department in which to major. That department will have a pre-law advisor who will be as concerned with the breadth of the student's education as with the major. One or two minors in non-related areas are also recommended.

For information about general academic concerns, about the Law School Aptitude Test, and about law school entrance requirements, students may consult with pre-law advisors in the Neil Griffin College of Business or the College of Liberal Arts and Communication.

COMPRESSED VIDEO NETWORK PROGRAMS

Arkansas State University operates the Compressed Video Network system to deliver courses to off-campus locations. This system links instructors and students on campus with students in several locations throughout Arkansas.

Weather conditions or academic schedules at the various locations will on occasion require the recording of the courses delivered via the Compressed Video Network. Enrollment in these courses constitutes permission for the classes and the students in them to be recorded. Students who are unable to attend the classes when they are originally conducted may view the recordings in lieu of attending the scheduled class sessions. CVN sites are located at:

- A-State
- ASU-Beebe
- ASU-Mtn. Home
- ASU-Newport
- Arkansas Northeastern College
- East Arkansas Community College
- Mid-South Community College

A-State has additional access to a multitude of CVN sites both within Arkansas and outside the state which may be available based on need and availability.

Admission standards and registration procedures for these courses will be the same as for on-campus courses.

OFF-CAMPUS COURSES

Arkansas State University provides higher education study opportunities for those who wish to pursue such study but may be unable to come to the A-State campus to attend classes. This service is rendered through online and off-campus classes in the area which the university serves. Many of the courses listed in the university catalogues are available through these programs.

Students who complete at least 32 semester hours of residence credit on the Jonesboro campus may apply any number of A-State off-campus credits toward the baccalaureate degree.

Students may not enroll for off-campus classes if the credit will create an overload situation for the semester or summer term (Refer to the index for STUDENT ACADEMIC LOAD).

HIGH SCHOOL CONCURRENT PROGRAM

The Arkansas State University Concurrent Enrollment Program offers high school students who are enrolled in partnering high schools the opportunity to earn college credit for courses taken during

Arkansas State University-Beebe

Degrees offered are:

- B.S.E. Elementary Education (K-6)
- B.S.E. Middle Level Education (4-8)

Arkansas State University - Mtn. Home

Degrees offered are:

- A.A.S.N. (Nursing)
- A.A.S. Physical Therapy Assistant
- B.S.E. Elementary Education (K-6)
- B.S.E. Middle Level Education (4-8)

Mid-South Community College

Degrees offered are:

- A.A.S.N. (Nursing)
- A.A.S.N. (Nursing) LPN-to-RN
- B.S.E. Elementary Education (K-6)
- B.S.E. Middle Level Education (4-8)

high school. All courses are taught by university faculty or university approved high school teachers. Course offerings vary at the participating high schools, dependent upon instructor qualifications and availability, as well as each high school's needs. High school students must meet Arkansas State University's qualifications for concurrent admission before participating in the concurrent enrollment program. The A-State Concurrent Enrollment Program is nationally accredited through the National Alliance of Concurrent Enrollment Partnerships.

ARKANSAS STATE UNIVERSITY DEGREE CENTERS

Arkansas State University has partnerships with three community colleges to provide various degrees on those college sites. Academic Affairs is the administering unit for those degree centers. Any questions concerning the following sites may be directed to (870) 972-2030.

GRADUATE PROGRAMS

Graduate study requires firm commitment to inquiry and learning and should be contemplated only by students who have demonstrated the power of independent thought and investigation. For this reason Graduate Programs requires students to meet high standards and reserves the right to deny admission to those who do not meet these high standards. Regulations governing Graduate Programs are designed to equal or exceed the minimum standards recommended by the Council of Graduate Schools in the United States and the Conference of Southern Graduate Schools.

Details of admission requirements, course descriptions, and degree programs are published in the Graduate Bulletin, which may be obtained from the Office of the Registrar bulletin site at <http://www.astate.edu/a/registrar/students/bulletins/>.

GRADUATE SCHOOL COMPUTATION OF GRADES FOR ADMISSION PURPOSES

Graduating seniors who are planning to apply for admission to graduate school should take note that most graduate schools recalculate GPAs based upon all courses that students have attempted during their college career. Thus, any repeated courses will have both grades counted in consideration for graduate school admission.

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.)
- History (M.A.)
- Political Science (M.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 only occur 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.

Graduate Degree 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 Anesthesia (DNP)

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 —Mental Health Counseling Track —School Psychology Track
Reading

MASTER'S DEGREES

Master of Accountancy (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

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 (M.M.)

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

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

—Choral —General —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 (emphasis in): —Cyber Security —Data Science —High Performance Computing
Disaster Preparedness and Emergency Management
Early Childhood Services
Environmental Sciences
Exercise Science
Mathematics
Media Management
Molecular Bioscience
Psychological Science
Sport Administration
Strategic Communication

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

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

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

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

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

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

Journalism
Radio-Television

Master of Science in Media Management (M.S.M.M.)

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

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

Master of Social Work (M.S.W.)

Professional Science Masters (P.S.M.)

Biotechnology

GRADUATE CERTIFICATES

Addiction Studies
Clinical Mental Health Counseling
Computer Science Education
Cyber Security
Data Science
Dyslexia Endorsement
Educational Leadership —Building Level Administration —Curriculum Director —Gifted, Talented and Creative Director —Instructional Specialist - Gifted, Talented and Creative —K-12 Special Education —Special Education Director —Superintendent
Family Nurse Practitioner
Health Communication
Healthcare Emergency Management
High Performance Computing
History
Marketing
Nurse Administration
Nurse Educator
Play Therapy

The General Education Program

STATEMENT OF MISSION FOR THE GENERAL EDUCATION PROGRAM OF ARKANSAS STATE UNIVERSITY

The general education program develops a foundation and motivation for the lifelong pursuit of learning in undergraduate students at Arkansas State University by introducing them to a broad range of essential areas of knowledge that will enable them to think critically and participate ethically in a democratic nation and a global society.

GENERAL EDUCATION GOALS FOR STUDENTS

1. **Communicating effectively.** Students should be able to communicate effectively and correctly, in writing and in speech, for a variety of purposes, using appropriate forms of discourse, organizational strategies, and vocabulary.
2. **Using mathematics.** Students should be able to use, understand and apply basic mathematical skills in practical applications.
3. **Developing a life-long appreciation of the arts and humanities.** Students should develop an appreciation for the arts and humanities. They should be aware of the role of art and literature in human civilization and contemporary culture.
4. **Developing a strong foundation in the social sciences.** Students should be aware of the diverse systems developed by humans to manage and structure our relationships with one another. Students should prepare for the full range of public and private roles they are expected to fulfill as citizens, decision-makers and human beings in a democratic America and in a global society.
5. **Using science to make informed decisions.** Students should understand how science is conducted and the criteria for scientific evidence so that they will be able to make informed decisions about the health and well-being of their communities and the natural environment. They should be aware of the ethical and political issues raised by science.

SEQUENCE OF COURSES

The General Education Program is designed to be completed in the first and second years, though this will not be possible for every student. However, the Communication and Mathematics requirements must be completed within the first 45 hours earned toward a degree. The requirements in Science are to be completed before 60 degree hours are completed, if a course listed in the category is a prerequisite for a course listed under requirements of the major. Students and advisors should check the general education requirements specified by each college for its various majors. Except where modifications are noted for specific degree programs, all baccalaureate degree candidates are required to complete the following general education curriculum.

GENERAL EDUCATION CURRICULUM

FOR BACCALAUREATE, ASSOCIATE OF ARTS AND ASSOCIATE OF SCIENCE DEGREES

Communication:	Required Credit Hrs.
ENG 1003, Composition I ENG 1013, Composition II	6
Math: <i>MATH 1043 - Quantitative Reasoning will satisfy the math requirement unless otherwise noted in the "General Education Requirements" section of a degree plan.</i>	Required Credit Hrs.
MATH 1043, Quantitative Reasoning MATH 1023, College Algebra (required for Science, Technology, Engineering, and Math majors) Any MATH course that requires MATH 1023 as a prerequisite.	3
Science: <i>Course and Laboratory required</i>	Required Credit Hrs.
Physical Science - Four (4) hours required CHEM 1013 AND 1011, General Chemistry I and Laboratory CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory GEOL 1003 AND 1001, Environmental Geology and Laboratory PHSC 1014, Energy and the Environment PHSC 1203 AND 1201, Physical Science and Laboratory PHYS 1103 AND 1101, Intro to Space Science and Laboratory PHYS 2034, University Physics I PHYS 2054, General Physics I	4
Life Science - Four (4) hours required BIOL 1003 AND 1001, Biological Science and Laboratory BIOL 1033 AND 1001, Biology of Sex and Laboratory BIOL 1063 AND 1001, People & Environment and Laboratory BIO 1503 AND 1501, Biology of Plants and Laboratory BIO 2013 AND 2011, Biology of the Cell and Laboratory BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory	4
Fine Arts & Humanities:	Required Credit Hrs.
Fine Arts - Three (3) hours required ART 2503 Fine Arts – Visual MUS 2503 Fine Arts – Music THEA 2503 Fine Arts - Theatre	3
Humanities - Three (3) hours required ENG 2003, World Literature to 1660 ENG 2013, World Literature Since 1660 PHIL 1103, Introduction to Philosophy	3
Social Sciences: <i>One course must be selected from HIST 2763, HIST 2773 or POSC 2103</i>	Required Credit Hrs.
ANTH 2233, Introduction to Cultural Anthropology CMAC 1003, Mass Communications in Modern Society ECON 2313, Principles of Macroeconomics ECON 2333, Economic Issues & Concepts GEOG 2613, Introduction to Geography HIST 1013, World History to 1500 HIST 1023, World History since 1500 HIST 2763, United States History to 1876 HIST 2773, United States History since 1876 POSC 1003, Introduction to Politics POSC 2103, Introduction to US Government PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology	9
Departmental Option:	Required Credit Hrs.
<i>The three (3) optional hours are chosen by the Department for the Degree plan and not the individual student. The three (3) hours will be from either COMS 1203 Oral Communication, Fine Arts & Humanities, or Social Sciences.</i>	3
Total Required Hours:	35

NOTE: Making Connections is a University Requirement and is in addition to the State Minimum Core of 35 general education hours.

GENERAL EDUCATION CURRICULUM

FOR ASSOCIATE OF APPLIED SCIENCE DEGREES

Composition:	Required Credit Hrs.
ENG 1003, Composition I ENG 1013, Composition II	6
Natural Sciences and Mathematics:	Required Credit Hrs.
<i>MATH 1043 - Quantitative Reasoning will satisfy the math requirement unless otherwise noted in the "General Education Requirements" section of a degree plan.</i>	
MATH 1043, Quantitative Reasoning MATH 1023, College Algebra Any MATH course that requires MATH 1023 as a prerequisite.	3
Select one of the following: BIOL 1003 AND 1001, Biological Science and Laboratory BIOL 1033 AND 1001, Biology of Sex and Laboratory BIOL 1063 AND 1001, People & Environment and Laboratory BIO 1503 AND 1501, Biology of Plants and Laboratory BIO 2013 AND 2011, Biology of the Cell and Laboratory BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory CHEM 1013 AND 1011, General Chemistry I and Laboratory CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory GEOL 1003 AND 1001, Environmental Geology and Laboratory PHSC 1014, Energy and the Environment PHSC 1203 AND 1201, Physical Science and Laboratory PHYS 1103 AND 1101, Introduction to Space Science and Laboratory PHYS 2034, University Physics I PHYS 2054, General Physics I PHYS 2073 AND 2071, Fundamental Physics and Laboratory	4
Social Sciences:	Required Credit Hrs.
Select one of the following: HIST 2763, The United States To 1876 HIST 2773, The United States Since 1876 POSC 2103, Introduction to United States Government	3
Computer Applications/Fundamentals:	Required Credit Hrs.
Select one of the following: CIT 1503, Microcomputer Applications CS 1013, Introduction to Computers	3
Total Required Hours:	19

GENERAL EDUCATION CURRICULUM

FOR ASSOCIATE OF GENERAL STUDIES DEGREES

Composition:	Required Credit Hrs.
ENG 1003, Composition I ENG 1013, Composition II	6
Natural Sciences and Mathematics: <i>MATH 1043- Quantitative Reasoning will satisfy the math requirement unless otherwise noted in the "General Education Requirements" section of a degree plan.</i>	Required Credit Hrs.
MATH 1043, Quantitative Reasoning MATH 1023, College Algebra Any MATH course that requires MATH 1023 as a prerequisite.	3
Select one of the following: BIOL 1003 AND 1001, Biological Science and Laboratory BIOL 1033 AND 1001, Biology of Sex and Laboratory BIOL 1063 AND 1001, People & Environment and Laboratory BIO 1503 AND 1501, Biology of Plants and Laboratory BIO 2013 AND 2011, Biology of the Cell and Laboratory BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory CHEM 1013 AND 1011, General Chemistry I and Laboratory CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory GEOL 1003 AND 1001, Environmental Geology and Laboratory PHSC 1014, Energy and the Environment PHSC 1203 AND 1201, Physical Science and Laboratory PHYS 1103 AND 1101, Introduction to Space Science and Laboratory PHYS 2034, University Physics I PHYS 2054, General Physics I PHYS 2073 AND 2071, Fundamental Physics and Laboratory	4
Arts and Humanities:	Required Credit Hrs.
Select one of the following: ART 2503, Fine Arts-Visual ENG 2003, World Literature to 1660 ENG 2013, World Literature Since 1660 MUS 2503, Fine Arts-Music PHIL 1103, Introduction to Philosophy THEA 2503, Fine Arts-Theatre	3
Social Sciences: <i>One course must be selected from HIST 2763, HIST 2773 or POSC 2103</i>	Required Credit Hrs.
ANTH 2233, Introduction to Cultural Anthropology CMAC 1003, Mass Communications in Modern Society ECON 2313, Principles of Macroeconomics ECON 2333, Economic Issues & Concepts GEOG 2613, Introduction to Geography HIST 1013, World History to 1500 HIST 1023, World History since 1500	9
HIST 2763, United States History to 1876 HIST 2773, United States History since 1876 POSC 1003, Introduction to Politics POSC 2103, Introduction to US Government PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology	
Total Required Hours:	25

Colleges and Departments

The faculty and curricula of Arkansas State University are organized into colleges, Graduate Programs, and independent departments. All undergraduate programs are included by college, department, and major in this bulletin. Graduate programs are described in the Graduate Bulletin.

THE HONORS COLLEGE

UNIVERSITY COLLEGE

COLLEGE OF AGRICULTURE

Agriculture Program

NEIL GRIFFIN COLLEGE OF BUSINESS

Department of Accounting
Department of Computer and Information Technology
Department of Economics and Finance
Department of Management and Marketing

COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCE

ASU Childhood Services
Center for Excellence in Education
Department of Health, Physical Education, and Sport Sciences
Department of Psychology and Counseling
Department of Teacher Education and Leadership
Professional Education Programs

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Department of Computer Science
Program for Civil Engineering
Program for Electrical Engineering
Program for Mechanical Engineering
Program for Engineering Technology

Colleges and Departments (cont.)

COLLEGE OF LIBERAL ARTS AND COMMUNICATION

- Department of Art + Design
- Department of Communication
- Department of Criminology, Sociology, and Geography
- Department of English and Philosophy
- Department of History
- School of Media and Journalism
- Department of Music
- Department of Political Science
- Department of Theatre
- Department of World Languages and Cultures

COLLEGE OF NURSING AND HEALTH PROFESSIONS

- School of Nursing
- Department of Clinical Laboratory Sciences
- Department of Communication Disorders
- Department of Medical Imaging and Radiation Sciences
- Department of Occupational Therapy
- Department of Physical Therapy
- Department of Social Work
- Athletic Training Program
- Disaster Preparedness & Emergency Management Program
- Health Studies Program
- Dietetics Program

COLLEGE OF SCIENCES AND MATHEMATICS

- Department of Biological Sciences
- Department of Chemistry and Physics
- Department of Mathematics and Statistics

INDEPENDENT DEPARTMENTS / AREAS

- English Learning Academy
- Library and Information Resources
- Department of Military Science

The Honors College

Rebecca Oliver, Director

Honors aims to create students who become active, creative scholars, fully prepared to contribute their knowledge and skills to the wider world. The Honors College offers special opportunities for Honors students to develop their multiple intelligences, enhance their analytical skills, and augment their knowledge and abilities in their chosen fields. The Honors College offers Honors sections of General Education courses, Honors-Option courses for upper division credit, Honors Independent Study course credit, and Honors Special Topics courses.

Honors students have the opportunity to live in the Honors Living-Learning Community (HLLC) which includes four residence hall buildings that house a total of 321 Honors students. The HLLC also includes the Honors Smart Classroom Building where many Honors courses are held in addition to special events, Honors College Association (HCA) meetings, and related activities.

ADMISSION TO THE HONORS COLLEGE

1. Entering freshmen must have an ACT composite score of 28 (or higher) AND a high school GPA of 3.50 (or higher) to be considered for admission. All incoming freshmen for Fall 2016 and beyond who meet this criteria will be notified and formally admitted to The Honors College. All students formally admitted to Arkansas State University will be automatically screened for admission to The Honors College; there is not a separate freshmen application for The Honors College. Transfer students with fewer than eighteen (18) hours must complete the HONORS TRANSFER APPLICATION to be considered for formal admission to The Honors College; ACT scores and high school grades will also be reviewed.
2. Current A-State sophomores, juniors, seniors, or students transferring to Arkansas State University with eighteen (18) or more hours of work may apply for formal admission to The Honors College by completing the HONORS TRANSFER APPLICATION. Students with an outstanding academic record are strongly encouraged to apply for admission to The Honors College. Students applying should have a minimum cumulative GPA of 3.25 and be recommended by a faculty member or their academic advisor. Students formally admitted to The Honors College will be able to enroll in Honors courses.

NOTE: Honors students may take no more than ten (10) hours of Honors coursework in any one term.

HONORS RETENTION POLICY (EFFECTIVE FALL 2009)

It is the responsibility of each Honors student to maintain their academic standing. A formalized retention policy was introduced in Spring 2009 in order to effectively communicate what academic standards are expected of Honors students. This policy took effect in Fall 2009 and applies to all Honors students regardless of their matriculation date.

1. Honors students must maintain a cumulative GPA of 3.00 or higher to remain in good academic standing in Honors.
2. Honors students with a cumulative GPA of less than 3.00 for one semester are placed on probation in Honors. This applies to only the fall and spring semesters.
3. Students need to have a semester GPA of 3.25 or higher and/or a cumulative GPA of 3.00 or higher the following semester to be removed from probation in Honors. This allows a first term student with an extremely low GPA to redeem him or herself in their second semester.
4. Students with a cumulative GPA of less than 3.00 for two consecutive semesters are dismissed from Honors.
5. Plagiarism and violation of the student conduct code can be grounds for immediate dismissal from Honors.

NOTE: Institutional scholarship renewal and academic standing in Honors are separate and independent review processes; meaning it is possible that a student could lose their institutional scholarship and still maintain their standing in Honors.

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

HONORS COURSE COMPLETION POLICY

Honors students must successfully complete Honors courses with a grade of C or better to be counted toward graduation with distinction from The Honors College. This includes graduating “In University Honors,” “In Honors,” or earning an Honors Certificate. Students who earn a D or F will not be able to count a course toward their total number of Honors credit hours.

HONORS TRANSFER CREDIT POLICY

Transfer students who are formally admitted to The Honors College may count up to six Honors credit hours from their previous institution if they meet the following criteria:

1. Honors course(s) is denoted on the official transcript from the previous institution
2. Student has earned a grade of A or B in the Honors course(s)
3. Honors credit hours from both community colleges and four-year institutions can be considered

Each Honors transfer student will have their transcript reviewed by The Honors College staff for a determination of which 6 Honors credit hours can be counted toward graduation with distinction from Honors.

HONORS FORMS AND PROCEDURES

Honors students should familiarize themselves with the forms and procedures for special Honors credit hours opportunities that are on the Honors website at <http://www.astate.edu/college/honors-college/student-information/>

1. Honors Option Course Application & Procedure

Students who are formally admitted to The Honors College may earn Honors credit for an upper-level course in their major program of study by contracting with the professor for significant additional work of an independent character as a supplement to the standard requirements for the course.

2. Honors Independent Study Application

Honors Independent Study is a course of study initiated by an Honors student and carried out under the supervision of a member of the faculty with appropriate expertise.

3. Honors Thesis Application & Guidelines

Honors students in good academic standing in The Honors College may undertake thesis study in his or her major field of study or his or her declared minor. A student must have senior Honors standing to apply to undertake an Honors senior thesis.

4. Petition to Enroll in a Graduate Course for Undergraduate Honors Credit

Students who are formally admitted to The Honors College may petition to enroll in a graduate course for undergraduate Honors credit.

5. Petition to Substitute an Upper-Level Honors Course for a General Education Requirement

Students who are formally admitted to The Honors College may petition to substitute an upper-level honors course for a general education requirement.

GRADUATION REQUIREMENTS

GRADUATE “IN UNIVERSITY HONORS”

To graduate “In University Honors,” students must take at least twenty-four (24) hours of Honors coursework. Twelve or more of these hours must be upper-division (junior/senior level) work. Students should be enrolled in at least one Honors course each semester to progress toward graduation. Students earning “In University Honors” are required to complete Honors Senior Thesis credit hours in their major (or minor) area of study and must have at least a 3.50 cumulative GPA.

Diplomas and official transcripts of those fulfilling these requirements will bear the designation “University Honors Program.” All Honors courses are indicated as such on the student’s transcript.

Students earning the distinction “In University Honors” receive a certificate and gold medallion to wear at Commencement and at other university functions.

GRADUATE “IN HONORS”

To graduate “In Honors,” students must take at least eighteen (18) hours of Honors coursework. Nine or more of these hours must be upper division (junior/senior level) work. Students must also have at least a 3.50 cumulative GPA. Transfer students may graduate in Honors by either meeting these requirements in full or, if entering with 36 or more hours completed, by taking fifteen (15) hours of upper division Honors work; they must also have at least a 3.50 GPA.

Diplomas and official transcripts of those fulfilling these requirements will bear the designation “Honors Program.” All Honors courses are indicated as such on the student’s transcript.

Students earning the distinction “In Honors” receive a certificate and silver medallion to wear at Commencement and at other university functions.

HONORS CERTIFICATE

Students who do not graduate “In Honors” or “In University Honors” may earn an Honors Certificate. To earn an Honors Certificate students must complete a minimum of eighteen (18) credit hours of Honors coursework and maintain at least a 3.00 cumulative GPA.

University College

Jill Simons, Ed.D., Dean and Associate Vice Chancellor for Academic Affairs

Nikeshia Nisbett, Ed.S., Associate Dean of University College

Undergraduate Studies provides campus-wide attention to academic retention and student success with primary oversight of the following areas:

- Provide comprehensive academic advising and mentoring support services for all first-year students, undeclared majors and special student populations to help clarify academic and personal strengths.
- Provide academic skills instruction to instill personal responsibility and prepare students for a successful transition into and through higher education.
- Provide a comprehensive academic support structure to enhance student success toward degree attainment.
- Provide alternative degree options to meet unique interests and goals of students.
- Provide campus-wide academic retention oversight including planning reporting and assessing initiatives.
- Provide a dynamic work environment that encourages collaboration, professional development and meaningful assessment.

FLEXIBLE DEGREE OPPORTUNITIES:

Undergraduate Studies offers students who are seeking innovative custom degrees or degree completion alternatives several options. These include the En Route Associate of Arts or Associate of Science degrees, the Associate of General Studies degree, the Bachelor of General Studies degree, the Bachelor of Science in Interdisciplinary Studies degree, and a Certificate in Leadership Studies. A Minor in Leadership Studies is also offered. For more information, see the Nontraditional Studies section of this bulletin.

STUDENT OUTREACH SERVICES:

Undergraduate Studies sponsors the campus-wide, early alert, academic referral program which provides faculty the opportunity to communicate with students about issues related to academic performance. Students are referred to student services for assistance, as appropriate. Typical referrals include absenteeism, poor test performance, missing coursework and/or excessive tardiness. Faculty participate in the program voluntarily.

FIRST YEAR EXPERIENCE

Kelli Listenbee, Coordinator

All first-year students are required to take a First Year Experience (FYE) Seminar called Making Connections during their first semester of enrollment at A-State regardless of the number of concurrent, AP and other college credits earned while in high school, or the summer directly following high school. This course is an integral part of the overall first year experience and is designed to assist students to make a smooth transition to the university experience. There are a variety of FYE courses offered, including numerous discipline-specific sections as well as sections for undecided majors and Transition Studies students. All courses have a common core curriculum that includes academic performance skills, time management, research skills, problem solving and understanding university policies and expectations. Undergraduate Studies also supports the First-year Advisor Board and First-year Honor Societies. Students who complete 13 or more credited, transferable hours following high school completion and the summer immediately following high school completion are exempt from this requirement unless the course is required by students' majors.

CONCURRENT EDUCATION

Barbara Doyle, Coordinator

Undergraduate Studies oversees the administration of the Arkansas State University High School Concurrent Program. This program offers high school students who are enrolled in partnering high schools the opportunity to earn college credit for courses taken during high school. All courses are taught by university faculty or university approved high school teachers. Course offerings vary at the participating high schools, dependent upon instructor qualifications and availability, as well as each high school's needs. High school students must meet Arkansas State University's qualifications for concurrent admission before participating in the concurrent enrollment program. The Concurrent Program is nationally accredited through the National Alliance of Concurrent Enrollment Partnerships.

LEARNING COMMONS

Toccarra Carter, Director

Located on the first floor of the Dean B. Ellis Library, the Learning Commons is the central location for learning support and academic assistance on the A-State campus. The departments of Transition Studies, Learning Support Services, the Writing Center and Federal TRiO Programs are housed within the Learning Commons.

TRANSITION STUDIES

Instructors: *Ferrell, Seaton*

Transition Studies is the academic home for students entering the university through the Transition Studies Admissions program. The department also houses developmental courses in math, reading and writing and coordinates services to freshman international students through the International Academic Success Institute. In addition, courses in reading, writing, math and career planning are available to any A-State student who has need of such courses.

Students who do not meet the regular admissions standards of the university of an ACT composite score of 21 and a 2.75 high school grade point average can be admitted through Transition Studies (formerly Academic Success Institute) if they have a 19 composite on the ACT (or equivalent scores on other accepted tests) and a 2.30 high school grade point average. Students admitted through Transition Studies complete a comprehensive two-semester program that utilizes intrusive advising, tutoring, workshops, strict class attendance regulations, and limited course placement. Students whose ACT or other equivalent scores in reading, writing and mathematics are below a 19 are required by Arkansas law to take developmental courses in those areas during the first two periods of enrollment. While in Transition Studies, students complete developmental courses (if required), general education courses and a two-semester student success curriculum that includes Making Connections and UC 1032 FYS Success Strategies. Students must meet the Transition Studies program and grade point average requirements to continue at A-State. Additional Information about admission through Transition Studies is available at the Undergraduate Studies website.

Academic Success Coaches are the primary point of contact for a select group of students admitted through the TS program. The Academic Success Coach will motivate, provide individualized planning to students admitted through Transition Studies, and assist with retention efforts from enrollment through graduation.

MATH EMPORIUM

Instructors: *May, Wharton*

The Math Emporium houses developmental math courses. Students whose ACT score or other equivalent placement test score in mathematics is below a 19 are required to take the modular based UC 0173 Developmental Math I and UC 022V Developmental Math II in their first academic year. Students are permitted to work ahead to complete the required modules for both UC 0173 and UC 022V in one semester.

LEARNING SUPPORT

Kelli Listenbee, Director

Located within the Learning Commons, Learning Support provides A-State students with the knowledge and skills to develop into successful, independent learners. Services offered include individual and group tutoring, course-based support through Learning Groups and SLA, specialized workshops and academic coaching for individual student success. Students may request assistance online through Starfish or at the main desk inside the Learning Commons. All services provided through Learning Support Services are free to students.

The Writing Center is located in the Learning Commons and is directed and staffed by the English Department. Writing coaches provide feedback for all types of writing and may be utilized by anyone on campus. Services are provided on a drop-in or appointment basis.

The STEM Lab provides tutoring services on a drop-in basis to students needing assistance in 1000 and 2000-level as well as some upper level math and science intensive courses. Students may also request appointments for assistance with these courses. Tutoring in other general education classes may be requested online or at the main desk in the Learning Commons.

Academic Success Coaches provide individualized planning and assistance to any student who is in need of those services.

Learning Groups (LG) are peer-facilitated study groups designed to assist students in specific sections of historically difficult courses.

Workshops on study skills, time management, test preparation, digital learning, and other topics are provided by Transition Studies instructors and Learning Support Services staff and others.

Structured Learning Assistance (SLA) is a proactive academic support program that provides support to enrolled students in high-risk general education courses through an additional three hours of facilitated learning each week. SLA-supported courses are identified as such in the class schedule.

STUDENT SUPPORT SERVICES

Jerrod Lockhart, Director

Staff: *Confer, Scaife*

Student Support Services (SSS), located on the A-State campus, report to the Office of the Vice Chancellor of Research and Academic Affairs through Undergraduate Studies. SSS is housed on the first floor of the Dean B. Ellis Library in the Learning Commons. The program is funded through grants from the United States Department of Education.

SSS provides a variety of services to eligible A-State students to help them be successful college students. Services include group and individual tutoring, counseling and advising, assistance with financial aid applications, career planning, workshops on study skills, time and stress management and test taking skills, use of SSS notebook computers, use of the Undergraduate Studies computer lab and cultural and social activities. Students may be accepted into this program after acceptance at A-State and are encouraged to make application at orientation. In addition, students with disabilities may be eligible for Student Support Services.

WILSON CENTER FOR ACADEMIC ADVISING

Melissa Jackson, Director

Advisors: *Allen, Bevly Curbo, Henderson, Hendrix, Oliver, Singleton*

The Wilson Advising Center works collaboratively with the campus community to provide a quality academic advising experience for both the students and faculty of Arkansas State University. The center promotes the academic development of college students through advising, mentoring, and instructional opportunities.

The Wilson Advising Center is the primary home for advisement of exploratory (undecided) and entering transfer students at Arkansas State University. This office offers walk-in style services Monday through Friday from 8:00am-5:00pm. Any student, regardless of their major, is encouraged to contact this office with general advising questions or concerns at 972-3001.

The Advising Center also provides services for students placed on academic probation or suspension. See Restart@state under academic standing policies in the bulletin for more information on academic standing programs. The Advising Center is the first stop for students who need to withdraw from A-State. The Advising Center provides faculty advisor trainings, and promotes continual professional development of academic advisors at A-State.

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

Nontraditional Studies

Nikeshia Nesbitt, Program Director

Instructors: *Bracy*

Advisors: *Coleman*

PLA Coordinator: *Brown-Rodgers*

Nontraditional Studies oversees the general and interdisciplinary studies degree programs, experienced learners programs, and academic outreach. The primary mission of Nontraditional Studies is to engage students in creative, flexible, and individualized learning pathways that promote innovation, successful degree attainment, and professional development.

Nontraditional Studies provides distinctive learning opportunities for students who 1) prefer a customized major as opposed to a traditional major, 2) are preparing for a graduate/professional program which transcends the scope of an undergraduate course of study across a single academic discipline, or 3) are focused on personal or career achievement through degree completion. In addition, Nontraditional Studies provides academic avenues to enrich the undergraduate academic experience beyond the traditional classroom through a variety of experiential and prior learning opportunities.

This unit offers the Bachelor of Science degree in Interdisciplinary Studies (BSIS), the Bachelor of General Studies (BGS), the Bachelor of Applied Science degree in Organizational Supervision (BAS), a Certificate in Leadership Studies, and the Leadership Studies minor. In addition, the unit also provides learning pathways for degree completion with an En Route, A.A., En Route, A.S., and a General Studies, A.G.S.

BACHELOR OF SCIENCE IN INTERDISCIPLINARY STUDIES DEGREE PROGRAM

The goal of this degree is to provide students with a rigorous intellectual exploration through an interdisciplinary platform that fosters the leadership, research, innovation, service, and academic competencies needed to face the challenges of the 21st century. The Bachelor of Science Degree in Interdisciplinary Studies (BSIS) is designed to offer highly motivated and self-directed students the opportunity to design their own major. As an alternative to traditional majors, the BSIS Program allows students to pursue their educational goals in areas not available within existing departmental curricula. With the help of a faculty sponsor, students select courses on the basis of a unifying issue, topic, theme, culture, period, or question which is considered the thematic study. Approved thematic courses must be interdisciplinary in nature, pull from at least two fields or disciplines, and may not duplicate an existing major. Courses may be chosen from any of the departments within the University. Experiential learning is required. The Department of Nontraditional Studies requires that its Interdisciplinary Studies majors take IDS 2023, IDS 3023, and select 6 hours of experiential learning electives in fields approved by their academic advisor to meet the experiential learning requirement. Each student's program of study is developed with the advice and approval of both the student's chosen faculty sponsor and a BSIS advisor. Students seeking a minor must use classes independently of those used in the thematic study. Students seeking a double major concurrently with their Interdisciplinary Studies degree or students who have completed a degree and are returning to complete a degree in Interdisciplinary Studies may only apply their general education courses toward additional second program of study.

Admission into the program requires a minimum of a 2.75 GPA, 30 earned credit hours, a completed application, and acceptance by the Associate Vice Chancellor for Undergraduate Studies and Program Director of Nontraditional Studies.

The requirements for the BSIS major are as follows:

1. A formal proposal written during the student's enrollment in the Introduction to Interdisciplinary Studies (IDS 2013), a three credit class.
2. Completion of at least 36 related upper-level courses (numbered 3000 or above) in student's thematic study, totaling a minimum of 36 credits over a period of at least four semesters. Thematic study coursework and 18 hours of Interdisciplinary Studies courses must be completed with a grade of "C" or higher.
3. Maintain a minimum overall GPA of 2.75

Major in Interdisciplinary Studies

Bachelor of Science in Interdisciplinary Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections (or equivalent course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78) <i>Requirements based on previous major.</i>	35
Students with this major must take the following: <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Approved Thematic Courses	
Approved Thematic Courses (must include at least 36 upper-level hours):	45
Experiential Learning	Sem. Hrs.
IDS 2023, Introduction to Service Learning	3
IDS 3023, Advanced Service Learning	3
Required Electives (must be approved by advisor)	6
Research Course	Sem. Hrs.
IDS 2013, Introduction to Interdisciplinary Studies	3
IDS 3013, Critical Thinking in the Profession	3
Leadership Development	Sem. Hrs.
IDS 4023, Leadership in the Profession	3
Senior Capstone	Sem. Hrs.
IDS 4013, Seminar in Professional Development	3
Electives:	Sem. Hrs.
Electives	13
Total Required Hours:	120

BACHELOR OF GENERAL STUDIES DEGREE PROGRAM

The Bachelor of General Studies (BGS) is designed to give students the opportunity to develop a personalized program of study to meet their professional, academic, and personal aspirations. Through a multidisciplinary curriculum, the program attempts to provide a unique and flexible learning pathway for that segment of student population with specific educational and career interests that would not otherwise be met by a traditional degree track or major.

By tailoring their major, students develop a plan of study that provides curricular opportunities to explore multiple disciplines and increase skills in critical analysis, problem solving, and professional competencies. The Bachelor of General Studies (BGS) program equips students with the aptitude needed to be successful in an array of professional settings and provides an essential academic undergraduate foundation for those seeking to pursue a graduate-level degree or career advancement.

In consultation with their academic advisors, students determine the composition of their own plan of study. Students must select a minimum of 30 hours of course work in two areas of emphasis. A minimum of 18 hours of upper-level course work is required in each of the two areas of emphasis. Emphases may include areas as approved by the department or most areas in which A-State offers a major or minor. Students pursuing this degree are responsible for having on record a complete planned program of study approved by his or her academic advisor. Students are also responsible for complying with the general academic regulations of the university as well as all other university policies and requirements. A 2.0 cumulative grade point average is required within the emphasis areas and core courses, as well as a 2.0 average for all course work at A-State and a 2.0 average on all coursework presented for graduation. With the exception of laboratory courses, no more than three one-credit courses can be applied to an emphasis area (i.e., physical education activity, music ensembles, etc.). The number of semester hours earned in the Neil Griffin College of Business is limited to thirty (30) or fewer. The program does not duplicate the offerings of the other colleges of the university, but may include curriculum offerings of any college.

Students seeking a minor must use classes independently of those used in an area of emphasis. Students seeking a double major concurrently with their General Studies degree or students who have completed a degree and are returning to complete a degree in General Studies may only apply their general education courses toward an additional second program of study.

Bachelor of General Studies*

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) <i>* The Bachelor of General Studies degree program does not have a major.</i>	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections (or equivalent course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78) <i>Requirements based on previous major.</i> Students with this major must take the following: <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	35
Degree Requirements:	Sem. Hrs.
First Emphasis Area (must include at least 18 upper-level hours):	30
Second Emphasis Area (must include at least 18 upper-level hours):	30
Sub-total	60
Core Courses:	Sem. Hrs.
IDS 3013, Critical Thinking in the Profession	3
IDS 4013, Seminar in Professional Development	3
IDS 4023, Leadership in the Profession	3
Sub-total	9
Electives:	Sem. Hrs.
Electives	13
Total Required Hours:	120

**The Bachelor of General Studies degree program does not have a major*

BACHELOR OF APPLIED SCIENCE IN ORGANIZATIONAL SUPERVISION DEGREE PROGRAM

The Bachelor of Applied Science (BAS) in Organizational Supervision is a four-year degree program designed to help students transition from a technical expert to a professional leader. The BAS degree is designed with the working adult in mind and is often a common next step for individuals who have an Associate of Applied Science degree and are seeking workforce development or advancement in their current jobs or careers.

Students in the program will gain practical knowledge and academic proficiencies needed to help build upon their technical foundation to provide a pathway to a baccalaureate degree.

Major in Organizational Supervision

Bachelor of Applied Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
<p>The BAS in Organizational Supervision program requires completion of the following program prerequisites:</p> <ol style="list-style-type: none"> 1. Associate of Applied Science (AAS) or other recognized occupational-technical associate degree from an accredited institution. 2. Minimum GPA of 2.00 on all transfer work. 3. Completion of the A-State admission application process with acceptance. 4. Completion of a total of 125 hours of which 45 hours are upper-level (3000-4000) 5. Minimum GPA of 2.00 on all coursework at ASU and a 2.00 average on all coursework presented for graduation. 	
AAS Degree:	Sem. Hrs.
<p>AAS Degree*</p> <p>*General education requirements taken in obtaining the AAS Degree may affect overall hours required for this major. Please consult with an academic advisor for additional information.</p>	60
General Education Requirements:	Sem. Hrs.
<p>See General Education Curriculum for Baccalaureate degrees (p. 78)</p> <p>Students with this major must take the following: <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	35
Core Requirements:	Sem. Hrs.
COMS 4243, Interpersonal Communication	3
IDS 3013, Critical Thinking in the Profession	3
IDS 4013, Seminar in Professional Development	3
IDS 4023, Leadership in the Profession	3
MGMT 3123, Principles of Management	3
MGMT 3143 Human Resource Management	3
MGMT 3153, Organizational Behavior	3
Sub-total	21
Professional Requirements:	Sem. Hrs.
<p>In consultation with their advisor, students must select 24 hours from the courses below:</p> <p>(General Supervision)</p> <ul style="list-style-type: none"> COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 4373, Conflict Resolution MGMT 3163, Labor Relations and Collective Bargaining MGMT 3193, Social Impact Management MGMT 3613, Leadership MGMT 4143, Organizational Change and Development MGMT 4173, Compensation Management <p>(Health Supervision)</p> <ul style="list-style-type: none"> HP 4443, Healthcare Management HP 4543, Healthcare Service Delivery <p>(Industrial Manufacturing)</p> <ul style="list-style-type: none"> RET 3113, Fundamentals and Applications of Renewable Energy TECH 3773, Statistics TECH 3843, Manufacturing Materials and Processes TECH 3863, Industrial Safety TECH 4813, Operations Systems Research TECH 4823, Quality Assurance TECH 4883, Work Center Management 	24
Sub-total	24
Total Required Hours:	125

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

ASSOCIATE OF GENERAL STUDIES DEGREE PROGRAM

The fundamental purpose of the program is to enable students at Arkansas State University to assume the responsibility for developing a personalized program of study to meet particular career goals and/or individual needs. The flexibility of the program permits the completion of the general education curriculum along with combinations of a selection of elective courses that may be desired by students, but would otherwise be difficult, or impossible, to obtain in other existing undergraduate degree programs. Students seeking entrance into the Associate of General Studies program must satisfy university admission standards identical to those required of applicants for four-year university programs. Students may transfer from the Associate of General Studies program to other degree programs, and may well do so if they change career objectives and/or goals.

An Associate of General Studies degree may be conferred upon students who satisfactorily complete the appropriate curriculum and meet the specific requirements for the degree. Students pursuing the Associate of General Studies degree are responsible for complying with the general academic regulations of the university as well as all other university policies and requirements. A 2.0 cumulative grade point average is required on all course work.

Associate of General Studies

University Requirements:	
See University General Requirements for Associates of General Studies degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of General Studies Degrees (p. 81)	25
Electives:	Sem. Hrs.
Electives	35
Total Required Hours:	60

EN ROUTE ASSOCIATE OF ARTS AND ASSOCIATE OF SCIENCE DEGREES

Students who satisfactorily complete approximately 50% of the requirements for selected baccalaureate degrees may earn either an Associate of Arts or Associate of Science degree en route to their four year degree. Only one En Route per student will be awarded for any combination of Bachelor's degrees earned. For part-time students, or students who need to stop out due to personal or extenuating circumstances, the en route associate degree can be a valuable intermediate goal, bridging the period between matriculation and the completion of a four-year baccalaureate degree.

A minimum of 60 hours, including the required A-State general education curriculum, and current enrollment with the institution are required. The degree may not be declared by students upon entry to A-State. Students will be notified of their eligibility for the degree upon satisfactory completion of the minimum requirements or students who feel they have met requirements for the degree may notify the Office of the Registrar for a degree audit.

En Route

Associate of Arts

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, First Year Experience - Making Connections (or other approved FYE course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Arts Degrees (p. 79)	35
Arts Core:	Sem. Hrs.
Any combination of courses NOT taken as General Education or First Year Experience	15
Electives:	Sem. Hrs.
Electives	7
Total Required Hours:	60

En Route

Associate of Science

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, First Year Experience - Making Connections (or other approved FYE course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Science Degrees (p. 79)	35
Science Core:	Sem. Hrs.
Any combination of courses NOT taken as General Education or First Year Experience	15
Electives:	Sem. Hrs.
Electives	7
Total Required Hours:	60

Certificate in Leadership Studies

The Program will prepare students to develop community and global perspectives in managing positive workforce and social change and to make ethical decisions that impact organizations and communities as part or whole. Based on the Social Change Model of Leadership Development.

Required Courses:	Sem. Hrs.
IDS 2023, Introduction to Service Learning	3
IDS 3023, Advanced Service Learning	3
UC 1103, Introduction to Leadership Development	3
UC 3023, Seminar in Advanced Leadership Development	3
Total Required Hours:	12

University College Minors

Minor in Leadership Studies

The Minor in Leadership Studies is designed for undergraduate students of all majors at the University. This minor is intended to enhance the major with studies and practice in leadership education and development. The goal is to educate and prepare students to lead lives of leadership and service. The curriculum focuses on expanding students' knowledge, skills, and understanding of specific leadership theories, concepts, models, and current leadership issues and challenges in the 21st century. Students are given opportunities to develop their own philosophies and leadership styles through various mediums both in and outside the classroom. Emphasis is placed on self-awareness, effective communication, research, collaboration, diversity, integration, and practical leadership applications through experiential learning.

Required Courses:	Sem. Hrs.
Any student who completes the necessary courses may declare this minor and have it appear on the transcript. Each Department which offers a course included in the minor will determine for its own majors whether courses taken for their minor can also count toward their major. Students must maintain a minimum 2.75 cumulative GPA in all minor coursework.	
IDS 2023, Introduction to Service Learning	3
IDS 3023, Advanced Service Learning	3
UC 1103, Introduction to Leadership Development	3
UC 3023, Seminar in Leadership Development	3
Select one of the following: MGMT 3153, Organizational Behavior MGMT 3613, Leadership PSY 3303, Motivation PSY 4723, Organizational Psychology SOC 3273, Social Stratification SOC 3353, Minority Groups SOC 3003, Sociology of Gender SOC 3293, Self and Society UC 480V, Special Problems in Leadership Development	3
Select one of the following: BCOM 3573, Managerial Communication COMS 2243, Principles of Argumentation COMS 3203, Business and Professional Communication COMS 3243, Principles of Persuasion COMS 4203, Small Group Communication COMS 4243, Interpersonal Communication COMS 4253, Intercultural Communication PR 4603, Crisis Communication	3
Total Required Hours:	18

College of Agriculture

Professor Mickey A. Latour, Dean

Professor Donald Kennedy, Associate Dean

Agriculture Program

Professors: Green, Greenwalt, Hood, Kennedy, Phillips, Savary, Teague, Xu

Associate Professors: Humphrey, Newman, Pittcock

Assistant Professors: Brown, Hashem, Manlove, Nowlin, Rich, Shew

Instructors: Myer

MISSION STATEMENT

To prepare young men and women for entry and career advancement in the food, fiber and natural resources industry, which involves production (farming), agribusiness and value-added processing, public service 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;

To provide educational opportunities and experiences for transfer of knowledge in classrooms and adult continuing education;

All within environmentally sound and sustainable systems.

AGRICULTURE CORE COURSES

Agriculture Core Courses:	Sem. Hrs.
<i>Select four of the following:</i> AGEC 1003, Introduction to Agricultural Business AGST 2003, Introduction to Ag Systems Technology ANSC 1613, Introduction to Animal Science PSSC 1303, Introduction to Plant Science PSSC 2813, Soils	12
<i>Select one of the following:</i> AGRI 3233, Applied Agricultural Statistics STAT 3233, Applied Statistics I TECH 3773, Statistics	3
AGRI 3813, Agricultural Biosystems I	3
AGRI 3823, Agricultural Biosystems II	3
<i>Select one of the following:</i> AGRI 4723, Ag Connections: Technical Interpretation and Professional Applications AGRI 420V, Internships in Agriculture	3
Total Required Hours:	24

Major in Agricultural Business

Bachelor of Science in Agriculture

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory OR</i> <i>CHEM 1043 AND CHEM 1041, Fundamental Concepts of Chemistry and Laboratory</i> <i>ECON 2313, Principles of Macroeconomics</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ACCT 2133, Introduction to Managerial Accounting	3
AGEC 3053, Commodity Futures Markets	3
AGEC 4033, Agricultural Law OR LAW 2023, Legal Environment of Business	3
AGEC 4053, Agricultural Finance OR FIN 3713, Business Finance	3
AGEC 4073, Agricultural Business Management	3
AGEC 4083, Agricultural Policy and Current Issues	3
CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers	3
ECON 2323, Principles of Microeconomics	3
MGMT 3123 Principles of Management OR MGMT 3153, Organizational Behavior	3
MKTG 3013, Marketing	3
Sub-total	33
Program Electives:	Sem. Hrs.
Students who do not select an emphasis area must work with an advisor to design a program to meet their educational and career goals.	
<i>Choose 18 hours from the following approved Prefixes:</i> AGECE, ACCT, AD, AGECE, AGED, AGRI, AGST, ANSC, BCOM, CIT, CMAC, COMS, ECON, ENG, FIN, HORT, IB, LAW, MATH, MGMT, MKTG, POSC, PR, PSSC, REI, RET, SCOM, STAT, STCM, and TECH	18
Sub-total	18
Electives:	Sem. Hrs.
Electives	7
Total Required Hours:	120

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

Major in Agricultural Business

Bachelor of Science in Agriculture Emphasis in Agricultural Economics and Finance

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, <i>College Algebra</i> or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, <i>General Chemistry I and Laboratory</i> OR CHEM 1043 AND CHEM 1041, <i>Fundamental Concepts of Chemistry and Laboratory</i> ECON 2313, <i>Principles of Macroeconomics</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ACCT 2133, Introduction to Managerial Accounting	3
AGEC 3053, Commodity Futures Markets	3
AGEC 4033, Agricultural Law OR LAW 2023, Legal Environment of Business	3
AGEC 4053, Agricultural Finance	3
AGEC 4073, Agricultural Business Management	3
AGEC 4083, Agricultural Policy and Current Issues	3
CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers	3
ECON 2323, Principles of Microeconomics	3
MGMT 3123 Principles of Management OR MGMT 3153, Organizational Behavior	3
MKTG 3013, Marketing	3
Sub-total	33
Emphasis Area (Agricultural Economics and Finance):	Sem. Hrs.
CIT 3523, Operations Management	3
ECON 3313, Microeconomic Analysis	3
ECON 3323, Money and Banking	3
ECON 3353, Macroeconomic Analysis	3
FIN 3713, Business Finance	3
FIN 3763, Financial Institutions and Markets	3
MATH 2143, Business Calculus	3
Sub-total	21
Electives:	Sem. Hrs.
Electives	4
Total Required Hours:	120

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

Major in Agricultural Business

Bachelor of Science in Agriculture Emphasis in Agricultural Marketing and Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, General Chemistry I and Laboratory OR CHEM 1043 AND CHEM 1041, Fundamental Concepts of Chemistry and Laboratory ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ACCT 2133, Introduction to Managerial Accounting	3
AGEC 3053, Commodity Futures Markets	3
AGEC 4033, Agricultural Law OR LAW 2023, Legal Environment of Business	3
AGEC 4053, Agricultural Finance OR FIN 3713, Business Finance	3
AGEC 4073, Agricultural Business Management	3
AGEC 4083, Agricultural Policy and Current Issues	3
CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers	3
ECON 2323, Principles of Microeconomics	3
MGMT 3123 Principles of Management OR MGMT 3153, Organizational Behavior	3
MKTG 3013, Marketing	3
Sub-total	33
Emphasis Area (Agricultural Marketing and Management):	Sem. Hrs.
AGEC 3003, Agricultural Marketing	3
AGEC 3013, Decision Tools for Agribusiness	3
AGEC 3063, Agricultural Sales and Services	3
AGEC 4023, Grain Merchandising and Commodity Marketing	3
AGEC 4113, Livestock and Poultry Economics	3
AGEC 4123, Land Economics and Farm Appraisal	3
Sub-total	18
Electives:	Sem. Hrs.
Electives	7
Total Required Hours:	120

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

Major in Agricultural Studies

Bachelor of Science in Agriculture Emphasis in Agricultural Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite CHEM 1043 AND CHEM 1041, Fundamental Concepts of Chemistry and Laboratory BIOL 1003 AND BIOL 1001, Biological Science and Laboratory COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (Agricultural Science):	Sem. Hrs.
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
Electives from AGECE, AGED, ANSC, AGRI, PSSC/HORT, TECH <i>No more than 12 hours in one area.</i>	38
Sub-total	40
Minor:	Sem. Hrs.
Minor must be approved by advisor and should not include courses taken to fulfill general education requirements.	18
Total Required Hours:	120

Major in Agricultural Studies

Bachelor of Science in Agriculture Emphasis in Agricultural Communications

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIOL 1003 AND BIOL 1001, Biological Science and Laboratory</i> <i>CHEM 1013, AND CHEM 1011, General Chemistry I and Laboratory OR</i> <i>CHEM 1043 AND CHEM 1041, Fundamental Concepts of Chemistry and Laboratory</i> <i>CMAC 1003, Mass Communications in Modern Society</i> <i>ECON 2313, Principles of Macroeconomics OR</i> <i>ECON 2333, Economic Issues and Concepts</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
See emphasis area below.	-
Emphasis Area (Agricultural Communications:)	Sem. Hrs.
STCM 3023, Principles of Advertising OR STCM 3003, Principles of Public Relations	3
AGEC 3063, Agricultural Sales and Services	3
AGEC 4083, Agricultural Policy and Current Issues	3
AGED 1411, Introduction to Agricultural and Extension Education	1
AGED 3443, Leadership in Agriculture	3
AGED 445V, Practicum in Agricultural Communications	3
AGED 4462, Agricultural Youth Organizations	2
AGRI 420V, Internships in Agriculture	3
AGRI 4433, Organic Agricultural Production	3
AGRI 4223, Agriculture and the Environment	3
AGST 3503, Geospatial Data Applications	3
AGST 4003, Modern Irrigation Systems	3
CMAC 1001, Media Grammar and Style	1
ENG 3043, Technical Writing OR MDIA 4053, Civic Reporting	3
MDIA 3013, Multimedia Reporting	3
MDIA 2053, Introduction to Visual Communications	3
MDIA 2313, Multimedia Production	3
MDIA 2323, Reporting Words	3

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

Major in Agricultural Studies (cont.)

Bachelor of Science in Agriculture Emphasis in Agricultural Communications

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

MDIA 3313, Audio and Video Production	3
STCM 4213, Social Media in Strategic Communications OR GCOM 3673, Desktop Publishing	3
AGEC, AGED, AGRI, AGST, ANSC, HORT, PSSC or VOED elective	3
Sub-total	55
Total Required Hours:	120

Major in Agricultural Studies

Bachelor of Science in Agriculture Emphasis in Agricultural Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND CHEM 1011, General Chemistry I and Laboratory OR CHEM 1043 AND CHEM 1041, Fundamental Concepts of Chemistry and Laboratory BIOL 1003 AND BIOL 1001, Biological Science and Laboratory COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (Agricultural Education):	Sem. Hrs.
ANSC 1621, Introduction to Animal Science Laboratory	1
PSSC 2811, Soils Lab	1
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
AGED 2433, Principles of Agricultural Power: Electricity and Internal Combustion Engines	3
AGED 2453, Applications of Welding Technologies to Agriculture	3
AGED 3453, Agricultural Structural Systems	3
Electives in AGRI, AGECE, AGED, ANSC, HORT, PSSC, or TECH (12 hours must be upper-level and all electives must be approved by advisor)	15
Sub-total	28
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
AGED 1403, Basic Agricultural Mechanics	3
AGED 1411, Introduction to Agricultural and Extension Education	1
AGED 4433, Methods of Teaching Agricultural Mechanics	3
AGED 4462, Agricultural Youth Organizations	2
SCED 2513 Introduction to Secondary Teaching	3
PSY 3703, Educational Psychology	3
*EDAG 4623, Special methods for Teaching Agricultural Education	3
*TIAG 4826, Teaching Internship in the Secondary School	12
Sub-total	30
Total Required Hours:	120

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

Major in Agricultural Studies

Bachelor of Science in Agriculture Emphasis in Agricultural Systems Technology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory OR CHEM 1043 and CHEM 1041, Fundamental Concepts of Chemistry and Laboratory BIOL 1003 AND BIOL 1001, Biological Science and Laboratory COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (Agricultural Systems Technology):	Sem. Hrs.
<i>Select one of the following:</i> AGEC 3013, Decision Tools for Agribusiness AGST 3503, Geospatial Data Applications	3
AGRI 4223, Agriculture and the Environment	3
AGST 3543, Fundamentals of GIS/GPS	3
AGST 4003, Modern Irrigation Systems	3
AGST 4022, Irrigation Technology Tools	2
AGST 4543, Understanding Geographic Information Systems	3
<i>Select one of the following:</i> AGST 4501, Agricultural Decision Analysis OR AGST 4511, Unmanned Aircraft Systems	1
AGST 4773, Remote Sensing	3
AGST 4843, Agricultural Systems Technology Capstone	3
<i>Select one of the following:</i> BIO 3023, Principles of Ecology OR GEOG 3723, Introduction to Physical Geograph, Weather, and Climate OR GEOG 4113, Water Resources Planning OR GEOG 4633, Climatology	3
<i>Select one of the following:</i> BIO 1503 AND 1501, Biology of Plants and Laboratory OR GEOG 1003 AND 1001, Environmental Geology and Laboratory OR PHSC 1014, Energy and the Environment OR PHSC 1203 AND 1201, Physical Science and Laboratory OR PHYS 1103 AND 1101, Introduction to Space Science and Laboratory OR PHYS 2054, General Physics I	4

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

Major in Agricultural Studies

Bachelor of Science in Agriculture Emphasis in Agricultural Systems Technology

Select one of the following: CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers	3
GEOG 2613, Introduction to Geography	3
MATH 1033, Plane Trigonometry OR MATH 1054, Precalculus Mathematics OR any MATH course that requires MATH 1023 or MATH 1054 as a prerequisite	3
Select two of the following: PSSC 3313, Plant Disease Management OR PSSC 3323, Weeds and Weed Control OR PSSC 4713, Soil Quality Assessment and Interpretation OR PSSC 4804, Principles of Crop Production OR PSSC 4813, Soil Fertility	6-7
TECH 3803, Electrical Systems	3
Upper-level elective in AGECE, AGED, AGST, AGRI, GEOG, HORT, or PSSC	8-9
Sub-total	58
Total Required Hours:	120

Major in Animal Science

Bachelor of Science in Agriculture Emphasis in Equine Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, General Chemistry I and Laboratory OR CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory ECON 2313, Principles of Macroeconomics OR ECON 2333, Economic issues and Concepts COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
AGRI 2213, Genetic Improvement of Plants and Animals OR BIO 3013, Genetics	3
ANSC 1621, Introduction to Animal Science Laboratory	1
ANSC 3613, Nutritional Management of Domestic Animals	3
ANSC 3633, Veterinary Anatomy and Physiology	3
ANSC 4003, Current Issues in Animal Agriculture	3
BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory	4
CHEM 1052, Fundamental Concepts of Organic and Biochemistry OR CHEM 1023 AND 1021, General Chemistry II and Laboratory	2 or 4
Animal Science (ANSC) Upper-level Electives	12
Sub-total	31-33
Emphasis Area (Equine Management):	Sem. Hrs.
AGEC 4073, Agricultural Business Management	3
ANSC 1522, Beginning English Equitation	2
ANSC 1602, Equitation	2
ANSC 1612, Intermediate Western Equitation	2
ANSC 2623, Equine Care and Management	3
ANSC 4613 Horse Production	3
ANSC 4743, Equine Nutrition	3
Sub-total	18
Additional Support Courses:	Sem. Hrs.
Upper-level Support Courses (AGEC, AGED, ANSC, BIO, CHEM, PSSC)	6
Electives:	Sem. Hrs.
Electives	1-3
Total Required Hours:	120

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

Major in Animal Science

Bachelor of Science in Agriculture Emphasis in Production and Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory OR</i> <i>CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory</i> <i>ECON 2313, Principles of Macroeconomics OR</i> <i>ECON 2333, Economic issues and Concepts</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
AGRI 2213, Genetic Improvement of Plants and Animals OR BIO 3013, Genetics	3
ANSC 1621, Introduction to Animal Science Laboratory	1
ANSC 3613, Nutritional Management of Domestic Animals	3
ANSC 3633, Veterinary Anatomy and Physiology	3
ANSC 4003, Current Issues in Animal Agriculture	3
BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory	4
CHEM 1052, Fundamental Concepts of Organic and Biochemistry OR CHEM 1023 AND 1021, General Chemistry II and Laboratory	2 or 4
Animal Science (ANSC) Upper-level Electives	12
Sub-total	31-33
Emphasis Area (Production and Management):	Sem. Hrs.
AGEC 4073, Agricultural Business Management	3
ANSC 3703, Poultry Flock Management	3
ANSC 4663, Principles of Breeding	3
ANSC 4673, Digestive Physiology and Nutrition of Animals	3
ANSC 4683, Reproductive Physiology	3
Sub-total	15
Additional Support Courses:	Sem. Hrs.
Upper-level Support Courses (AGEC, AGED, ANSC, BIO, CHEM, PSSC)	6
Electives:	Sem. Hrs.
Electives	4-6
Total Required Hours:	120

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

Major in Animal Science

Bachelor of Science in Agriculture Emphasis in Pre-veterinary

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>ECON 2313, Principles of Macroeconomics OR</i> <i>ECON 2333, Economic issues and Concepts</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
AGRI 2213, Genetic Improvement of Plants and Animals OR BIO 3013, Genetics	3
ANSC 1621, Introduction to Animal Science Laboratory	1
ANSC 3613, Nutritional Management of Domestic Animals	3
ANSC 3633, Veterinary Anatomy and Physiology	3
ANSC 4003, Current Issues in Animal Agriculture	3
BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory OR BIO 4104, Microbiology	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
Animal Science (ANSC) Upper-level Electives	6
Sub-total	27
Emphasis Area (Pre-veterinary):	Sem. Hrs.
ANSC 4673, Digestive Physiology and Nutrition of Animals	3
ANSC 4683, Reproductive Physiology	3
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
CHEM 4243, Biochemistry	3
MATH 1033, Plane Trigonometry OR MATH 1054, Precalculus	3-4
PHYS 2054, General Physics I	4
PHYS 2064, General Physics II	4
Sub-total	28-29
Electives:	Sem. Hrs.
Electives	2-3
Total Required Hours:	120

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

Major in Plant and Soil Science

Bachelor of Science in Agriculture Emphasis in Agronomy

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Lab</i> <i>BIOL 1003 AND 1001, Biological Sciences and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
AGEC 3013, Decision Tools for Agribusiness OR CIT 1503, Microcomputer Applications	3
AGRI 2213, Genetic Improvement of Plants and Animals	3
AGRI 4223, Agriculture and the Environment	3
BIO 3303 AND 3301, General Entomology and Laboratory OR BIO 3313 AND 3311, Economic Entomology and Laboratory	4
PSSC 3313, Plant Disease Management	3
PSSC 2811, Soils Laboratory	1
PSSC 1301, Plant Science Laboratory	1
PSSC 4313, Plant Growth and Development	3
Sub-total	21
Emphasis Area (Agronomy):	Sem. Hrs.
AGST 3503, Geospatial Data Applications OR AGST 4003, Modern Irrigation Systems	3
AGST 3543, Fundamentals of GIS/GPS	3
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
PSSC 3323, Weeds and Weed Control	3
PSSC 4804, Principles of Crop Production	4
PSSC 4813, Soil Fertility	3
AGRI, AGST, HORT or PSSC electives, or BIO 1503, Biology of Plants, or related area	14
Sub-total	32
Electives:	Sem. Hrs.
Electives	5
Total Required Hours:	120

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

Major in Plant and Soil Science

Bachelor of Science in Agriculture Emphasis in Environmental Horticulture

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
AGRI 1213, Making Connections in Agriculture	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Lab</i> <i>BIOL 1003 AND 1001, Biological Sciences and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Agriculture Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	24
Major Requirements:	Sem. Hrs.
AGEC 3013, Decision Tools for Agribusiness OR CIT 1503, Microcomputer Applications	3
AGRI 2213, Genetic Improvement of Plants and Animals	3
AGRI 4223, Agriculture and the Environment	3
BIO 3303 AND 3301, General Entomology and Laboratory OR BIO 3313 AND 3311, Economic Entomology and Laboratory	4
PSSC 3313, Plant Disease Management	3
PSSC 2811, Soils Laboratory	1
PSSC 1301, Plant Science Laboratory	1
PSSC 4313, Plant Growth and Development	3
Sub-total	21
Emphasis Area (Environmental Horticulture):	Sem. Hrs.
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
HORT 3293, Landscape Plant Materials	3
HORT 4333, Greenhouse and Nursery Production	3
PSSC 3323, Weeds and Weed Control	3
AGRI or AGST electives, or BIO 1503, Biology of Plants, or related area	3-9
HORT electives	12-18
Sub-total	32
Electives:	Sem. Hrs.
Electives	5
Total Required Hours:	120

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

Agriculture Program Minors

Minor in Agricultural Business

Required Courses:	Sem. Hrs.
AGEC 1003, Introduction to Agricultural Business	3
AGEC 3003, Agricultural Marketing	3
AGEC 3013, Decision Tools for Agribusiness	3
AGEC 4033, Agricultural Law	3
AGEC 4053, Agricultural Finance OR FIN 3713, Business Finance	3
AGEC 4073, Agricultural Business Management	3
Total Required Hours:	18

Minor in Agricultural Mechanics

Required Courses:	Sem. Hrs.
All Agricultural Mechanics courses have an AGED Prefix. Three hours of AGEN, lower or upper-level, may be used to satisfy the requirements of this minor.	
Agricultural Mechanics Electives	6
Upper-level Agricultural Mechanics Electives	12
Total Required Hours:	18

Minor in Animal Science

Required Courses:	Sem. Hrs.
Animal Science Electives	6
Upper-level Animal Science Electives	12
Total Required Hours:	18

Minor in Crop Consulting and Agronomic Services

Plant & Soil Science Majors may not minor in Crop Consulting and Agronomic Services

Required Courses:	Sem. Hrs.
Students must maintain a minimum GPA of 3.0 and a grade of at least a "C" for each course in the minor.	
Select six of the following: AGST 3543, Fundamentals of GIS/GPS AGST 4003, Modern Irrigation Systems BIO 3313, Economic Entomology PSSC 3313, Plant Disease Management PSSC 3323, Weeds and Weed Control PSSC 4343, Seed Analysis and Processing PSSC 4713, Soil Quality Assessment and Interpretation PSSC 4804, Principles of Crop Production PSSC 4813, Soil Fertility	18 or 19
Total Required Hours:	18 or 19

Agriculture Program Minors

Minor in Horticulture

Required Courses:	Sem. Hrs.
Horticulture Electives	6
Upper-level AGRI, AGST, HORT or PSSC electives, as approved by advisor	12
Total Required Hours:	18

Minor in Plant Science

Required Courses:	Sem. Hrs.
Plant Science Electives	6
Upper-level Plant Science Electives	12
Total Required Hours:	18

Minor in Precision Agriculture

Required Courses:	Sem. Hrs.
Students must maintain a minimum GPA of 3.0 and a grade of at least a "C" for each course in the minor.	
AGST 3503, Geospatial Data Applications	3
AGST 3543, Fundamentals of GIS/GPS	3
AGST 4003, Modern Irrigation Systems	3
AGST 4022, Irrigation Technology Tools	2
AGST 4543, Understanding Geographic Information Systems	3
<i>Select one of the following:</i> AGST 4501, Agricultural Decision Analysis OR AGST 4511, Unmanned Aircraft Systems	1
AGST 4773, Remote Sensing	3
Total Required Hours:	18

Neil Griffin College of Business

Professor Jim Washam, Acting Dean

Professor C. William Roe, Associate Dean

MISSION STATEMENT

The mission of the Neil Griffin College of Business is to provide high-quality management education to traditional and non-traditional students in the MidSouth 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.

Because knowledge of technology is essential to success in business, the college provides three modern computer labs for student use. To broaden their educational experiences, students may become involved in auxiliary and outreach activities through the Supply Chain Management Program, Small Business & Technology Development Center, Economic Education Program, and seminars.

The Neil Griffin College of Business is comprised of four academic departments: Accounting, Computer and Information Technology, Economics and Finance, and Management and Marketing. Through these departments, the college offers 10 baccalaureate degrees and two associate degree program. The Delta Center for Economic Development is the outreach branch of the college. This center provides students with the opportunity to participate in various college initiatives to partner with the business community to enhance the economic growth and development of the region and state.

Two graduate degrees are available in the Neil Griffin College of Business: the Master of Business Administration (MBA) and the Master of Accountancy (MACC). Students should refer to the Graduate Bulletin for complete details about these programs.

DEGREE REQUIREMENTS

BACCALAUREATE DEGREES

Except for business technology and economics majors, Neil Griffin College of Business students who meet the prescribed degree requirements will be awarded the Bachelor of Science degree. Students majoring in business technology will be awarded the Bachelor of Science in Education degree upon completion of their degree requirements. Students majoring in economics will be awarded the Bachelor of Arts degree upon completion of their degree requirements. Students following a program leading to a degree in the Neil Griffin College of Business are required to complete a minimum of 35 semester hours of General Education requirements, as well as the specific major requirements for the Bachelor of Science degree. Considerable latitude is permitted in the selection of the additional elective courses necessary to attain the degree. For the Bachelor of Science in Education, refer to the Teacher Education Program under the College of Education and Behavioral Science.

In addition to meeting the University Requirements for all Baccalaureate Degrees (refer to index for page reference) as presented by the university, any candidate for a degree in the Neil Griffin College of Business must also meet the following specific requirements:

1. Maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the Neil Griffin College of Business core courses, based on the last grade earned in each course.
2. Maintain a minimum GPA of 2.25 or a grade of at least a "C" for each required course in the major, based on last grade earned in each course.
3. Maintain an overall GPA of 2.25.
4. Complete at least 30 of the last 36 semester hours in courses offered by A-State. At least 50 percent of the business credit hours required for a baccalaureate degree and 50 percent of business courses required for a major in business must be earned in the A-State Neil Griffin College of Business.

A Neil Griffin College of Business student may take a double major in business. She/he may also elect a business minor, in consultation with his/her advisor. Students majoring in the Neil Griffin College of Business may not minor in Business Administration.

NOTE: Students not majoring in the Neil Griffin College of Business will receive credit for no more than 30 hours of course work offered by the Neil Griffin College of Business.

FOREIGN LANGUAGE REQUIREMENT

All students seeking the Bachelor of Arts in Economics must demonstrate a basic proficiency in a foreign language. This may be done in one of the following ways:

1. By completing two years of a single foreign language in high school.
2. By completing the fourth semester of a foreign language course at the college level. Students with previous language experience must consult with a faculty member in World Languages for course placement. Students must complete Intermediate Language II.
3. By passing an examination acceptable to the chair of the Department of Economics and Finance as proof of proficiency equivalent to successful completion of the second semester of the intermediate year of a foreign language at the college level

NEIL GRIFFIN COLLEGE OF BUSINESS CORE COURSES

All candidates for baccalaureate degrees in the Neil Griffin College of Business are required to take the following Neil Griffin College of Business core courses.

Neil Griffin College of Business Core Courses: Grade of "C" or better or 2.25 overall core GPA required	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ACCT 2133, Introduction to Managerial Accounting	3
BCOM 2563, Business Communication	3
CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers <i>(Grade of "C" or better required for either course)</i>	3
CIT 3013, Management Information Systems	3
CIT 3523, Operations Management	3
STAT 3233, Applied Statistics	3
ECON 2323, Principles of Microeconomics	3
FIN 3713, Business Finance	3
LAW 2023, Legal Environment of Business	3
MGMT 3123, Principles of Management	3
MGMT 4813, Strategic Management	3
MKTG 3013, Marketing	3
Total Required Hours:	39

Department of Accounting

Professor James Doering, Chair

Professors: *Dancer, Doering, Robertson*

Instructors: *Carmack, Gammon, Powell, Reed, Scott*

ACCOUNTING PROGRAM: The accounting major prepares students for rewarding careers as industrial accountants, cost analysts, controllers, tax accountants, members of financial regulatory teams such as the IRS or banking auditors, independent auditors in CPA firms, and internal auditors. A-State accounting graduates work for manufacturing firms, in government agencies, in banking, in not-for-profit entities, and in public accounting.

The A-State undergraduate degree with accounting major requires 120 course hours. Many states, including Arkansas, currently require 150 hours to sit for the Certified Public Accountant (CPA) exam. The CPA license is only required by law for individuals doing audits; however, many non-auditors wish to pursue the CPA exam as a credential verifying the value of their education. Students interested in the CPA exam should plan an additional 30 hours of credits with their advisor, preferably by beginning work on their Masters of Accountancy (MAcc) degree. See the A-State Graduate Bulletin for details on the MAcc program.

Accounting majors (a) should not take accounting courses during their freshman year and (b) should consult with their advisors concerning CPA exam requirements.

ATTEMPT LIMIT FOR UNDERGRADUATE ACCOUNTING

- **Policy:** Students are limited to a maximum of three attempts in each **upper-level** undergraduate accounting course.
- **Effective Date:** This policy is effective starting in fall semester 2015. Attempts prior to this effective date will not be counted in the application of this policy.
- **Right of Appeal:** Students with extenuating circumstances may appeal the application of this policy to the department chair. If a waiver of the policy is granted for a particular course, the student must enroll in that class in the next term the course is offered and successfully complete the course in that term.
- **Definitions:** An "attempt" is defined as either a full-term enrollment with a letter grade or Incomplete being posted or a partial-term enrollment that ends with a withdrawal and a W being posted to the transcript.

Please visit <http://www.astate.edu/college/business/>.

Major in Accounting

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
Students must maintain a minimum GPA of 2.5 AND a grade of at least a "C" for each course in the major.	
CIT 2033, Programming Fundamentals	3
CIT 3533, Microcomputer Applications II	3
ACCT 3003, Intermediate Accounting I	3
ACCT 3013, Intermediate Accounting II	3
ACCT 3053, Cost Accounting with a Managerial Emphasis	3
ACCT 4013, Tax Accounting I	3
ACCT 4023, Advanced Accounting and International Issues	3
ACCT 4033, Accounting Information Systems	3
ACCT 4053, Auditing I	3
ACCT 4113, Tax Accounting II	3
ACCT 4133, Accounting Statistics	3
ACCT 4123, Government and Not-For-Profit Accounting	3
ACCT 4183, Accounting Analytics	3
LAW 4043, Law of Business Organizations	3
Sub-total	42
Electives:	Sem. Hrs.
Electives	1
Total Required Hours:	120

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

Major in Accounting

Associate of Science

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Science Degrees (p. 79)	35
Students with this major must take the following: <i>COMS 1203, Oral Communication</i> <i>ANTH 2233, Introduction to Cultural Anthropology</i> OR <i>SOC 2213, Introduction to Sociology</i> <i>MATH 1023, College Algebra</i> or <i>MATH</i> course that requires <i>MATH 1023</i> as a prerequisite <i>ECON 2313, Principles of Macroeconomics</i>	
Major Requirements: Grade of "C" or better is required for all major courses.	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ACCT 2133, Introduction to Managerial Accounting	3
ACCT 3003, Intermediate Accounting I	3
ACCT 3053, Cost Accounting with a Managerial Emphasis	3
ACCT 4013, Tax Accounting I	3
CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers	3
CIT 2033, Programming Fundamentals	3
Sub-total	21
Electives:	Sem. Hrs.
Electives	1
Total Required Hours:	60

Department of Accounting Minors

Minor in Accounting

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ACCT 2133, Introduction to Managerial Accounting	3
ACCT 3003, Intermediate Accounting I	3
ACCT 3013, Intermediate Accounting II	3
ACCT 3053, Cost Accounting with a Managerial Emphasis	3
ACCT 4013, Tax Accounting I	3
ECON 2333, Economics Issues and Concepts, OR ECON 2323, Principles of Microeconomics	3
Total Required Hours:	21

Department of Computer and Information Technology

Professor James Doering, Chair

Professors: *Fish, Jones, Moeeni, P. Ruby, R. Ruby, Segall, Seydel*

Associate Professors: *Sinclair*

The Department of Computer and Information Technology (CIT) offers the undergraduate curricula in Computer and Information Technology and Business Technology. Areas of study offered by the CIT Department include, but are not limited to: business technology, network and telecommunications management, enterprise resource planning, end-user computing, data management (including database management, data mining, and data warehousing), software development (including programming languages and systems analysis/development), web interface development, e-commerce, project management, supply chain technologies (including operations management, automatic data capture and simulation modeling), information technology (IT) planning and strategy, and related areas.

COMPUTER & INFORMATION TECHNOLOGY PROGRAM:

The Bachelors of Science in Computer & Information Technology is designed to prepare students for careers as IT professionals. Our graduates hold positions as network administrators, applications programmers, website developers, database architects, operations schedulers, and technical support specialists, to name a few. Of particular interest to potential students who already have practical IT experience should be the alignment of many CIT courses with industry certifications. Consequently, students can simultaneously complete their major requirements and prepare for industry certification exams. This further makes it possible for students to receive course credit for certifications already earned.

BUSINESS TECHNOLOGY PROGRAM:

In conjunction with the College of Education and Behavioral Science, the CIT department offers the Bachelor of Science in Education concentration in Business Technology. This is a program of study designed to prepare teachers of business subjects for the secondary schools. Business subjects taught in the secondary school are generally intended to provide high school graduates with entry level job skills, as well as the economic competencies those graduates will need. Emphasis is given, through this department and the College of Education and Behavioral Science, to the methods by which this information can be effectively imparted. For satisfactory completion of this program, a student must fulfill all requirements as established by the university, the Neil Griffin College of Business, the College of Education and Behavioral Science, and this department. Vocational certification is available and the CIT department is also approved by the State of Arkansas for teacher training.

OTHER PROGRAMS:

In addition to offering the four-year programs described above, the CIT department offers an Associate of Science in Computer & Information Technology, a Certificate in Information Technology, and minors in electronic commerce and Computer and Information Technology. These programs are intended to provide the student with several options that will complement other coursework and provide stepping stones to four-year degrees. These can be completed in relatively little time.

Please visit <http://www.astate.edu/college/business/> for further information about the CIT Department, its degree programs, classes, and more.

Major in Business Technology

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>ECON 2313, Principles of Macroeconomics</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
GCOM 3673, Desk Publishing and Publication Design	3
CIT 3533, Microcomputer Applications II	3
CIT 4453, Global E-Commerce	3
MKTG 4073, Social Media Marketing	3
Sub-total	12
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
*EDBU 4533, Methods and Materials in Teaching Business Technology	3
*ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TIBU 4826, Business Teaching Internship in the Secondary School	12
Sub-total	32
Total Required Hours:	121

Major in Computer and Information Technology

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section) Grade of "C" or better required in CIT 3013, Management Information Systems	39
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
CIT 2033, Programming Fundamentals	3
CIT 2523, Telecommunications and Networking Essentials	3
CIT 3033, Intermediate Programming	3
CIT 3353, Mobile and Web Development	3
CIT 3403, Database Management	3
CIT 3413, Advanced Database Management	3
CIT 3603, Systems Analysis and Design	3
CIT 4453, Global eCommerce	3
CIT 4523, Advanced Network Telecommunications	3
CIT 4623, Computer Security	3
CIT 4653, Data Capture	3
CIT 4853, IT Project Management	3
Sub-total	36
Electives:	Sem. Hrs.
Electives	7
Total Required Hours:	120

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

ASSOCIATE OF SCIENCE IN COMPUTER AND INFORMATION TECHNOLOGY

All candidates for an Associate Degree in the Neil Griffin College of Business must satisfy the University Requirements for all Associate Degrees (refer to index for page reference), as well as the specific degree requirements listed under the CIT major.

Major in Computer and Information Technology

Associate of Science

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Science Degrees (p. 79)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication</i> <i>ECON 2313, Principles of Macroeconomics</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
ACCT 2033, Introduction to Financial Accounting	3
CIT 1503, Microcomputer Applications OR CS 1013, Introduction to Computers	3
CIT 2033, Programming Fundamentals	3
CIT 2523, Telecommunications and Networking Essentials	3
CIT 3013, Management Information Systems	3
CIT 3403, Database Management	3
CIT or CS Electives <i>CS 1013 may not be used to satisfy this requirement.</i>	3
Sub-total	21
Electives:	Sem. Hrs.
Electives	1
Total Required Hours:	60

Certificate in Information Technology (IT)

The program is intended to deliver training that provides foundation working knowledge in information technology. The resulting certificate is independent of any degree program and can be used either to enhance whatever degree is being pursued by the student or to demonstrate IT accomplishments of the non-degree-seeking student. For the latter, the certificate incorporates a basic communications component, a Business foundation component, and a strong basic IT component.

Requirements:	
Communications Component	Sem. Hrs.
ENG 1003, Composition I	3
ENG 1013, Composition II	3
Business Knowledge Component	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
Business Electives	6
Information Technology Component Grade of "C" or better required for all courses in the Information Technology Component	Sem. Hrs.
CIT 1503, Microcomputer Applications	3
CIT 2033, Programming Fundamentals	3
CIT Elective (other than CIT 1503 or CIT 2033)	3
Total Required Hours:	24

Department of Computer and Information Technology Minors

Minor in Computer and Information Technology

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
CIT 2033, Programming Fundamentals	3
CIT 2523, Telecommunications and Networking Essentials	3
CIT 3013, Management Information Systems	3
CIT 3403, Database Management	3
Select two of the following: CIT 4453, Global E-commerce CIT 4653, Automatic Data Capture CIT 4853, IT Project Management	6
Total Required Hours:	18

Minor in Electronic Commerce

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
CIT 3353, Mobile and Web Applications Development OR MDIA 4373, Internet Communications	3
CIT 3403, Database Management	3
CIT 4453, Global E-Commerce	3
GSCM 3163, Supply Chain Management OR MKTG 3013, Marketing	3
Select two of the following: CIT 2033, Programming Fundamentals CIT 488V, Internship (in area in E-Commerce) OR MKTG 428V, Internship GCOM 3673, Digital Design	6
Total Required Hours:	18

Department of Economics and Finance

Professor Patricia Quinn Robertson, Chair

Professors: *Brown, Crawford, Hu, Kesselring, Pittman, Taylor*

Associate Professors: *Guha, Kern, Tew, Washam*

Assistant Professors: *Hill*

Instructors: *Lewis*

The Department of Economics and Finance offers majors in the following areas: Finance, Business Administration, and Economics. Each program is designed to train students in the latest techniques available in that area and equip them to perform in a professional manner in their chosen field.

BUSINESS ADMINISTRATION PROGRAM:

The major in business administration provides students with a diversified rather than a specialized program in business and economics. It is designed especially for those who need a broad background of training for managing a business of their own or for students planning to enter a large business which maintains its own specialized training program. This program requires a study of every major sector of business activity, with emphasis on creative thinking which will prepare the student for today's employment as well as for meeting tomorrow's challenges.

ECONOMICS PROGRAM:

The major in economics provides an excellent background for a wide variety of careers in business and government. In addition to acceptance into their management training programs, many businesses employ the economics major to forecast economic trends and to relate changes in economic activity to the individual business. Economists are employed by various governmental bodies to conduct research into all phases of the economy.

FINANCE PROGRAM:

The finance major prepares students for positions in banks, investment companies, insurance firms, real estate companies, credit unions, government, and major corporations. Finance major graduates serve as loan officers in banks, manage individual or corporate investment portfolios, or supervise commercial credit departments. Finance majors may choose the Finance major or the Finance major with emphasis in Banking.

Major in Business Administration

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
Select one from each of the following categories:	
Accounting Elective ACCT 3053, Cost Accounting with a Managerial Emphasis ACCT 4013, Tax Accounting I ACCT 4153, Fraud Examinations	3
Finance Elective FIN 3763, Financial Institutions and Markets FIN 4723, Investments FIN 4743, Managerial Finance FIN 4753, Capital Management	3
International Elective ECON 4103, International Trade ECON/IB 4143, Export Policy and Procedures ECON 4353, Economic Development FIN 3813, International Finance Management and Banking	3
Macro Economics Elective ECON 3323, Money and Banking ECON 3353, Macroeconomic Analysis ECON 3363, Labor Economics ECON 4323, Economic Policy Analysis	3
Management Elective MGMT 3143, Human Resource Management MGMT 3183, Entrepreneurship MGMT 3613, Leadership MGMT 4123, International Management MGMT 4163, Small Business Management	3

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

Major in Business Administration (cont.)

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Marketing Elective MKTG 3033, Advertising and Promotion MKTG 3043, Retailing MKTG 4023, Services Marketing MKTG 4043, Consumer Behavior MKTG 4113, International Marketing	3
Micro Economics Elective ECON 3313, Microeconomic Analysis ECON 4303, Sports Economics ECON 4333, Government Regulations of Business ECON 4343, Managerial Economics ECON 4363, Global Environmental Policies	3
Upper-level Business Elective	3
Sub-total	24
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

Major in Business Administration

Bachelor of Science Emphasis in Sustainable Business Practices

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
Select one from each of the following categories:	
Accounting Elective ACCT 3053, Cost Accounting with a Managerial Emphasis ACCT 4013, Tax Accounting I ACCT 4153, Fraud Examinations	3
Finance Elective FIN 3763, Financial Institutions and Markets FIN 4723, Investments FIN 4743, Managerial Finance FIN 4753, Capital Management	3
International Elective ECON 4103, International Trade ECON/IB 4143, Export Policy and Procedures ECON 4353, Economic Development FIN 3813, International Finance Management and Banking	3
Macro Economics Elective ECON 3323, Money and Banking ECON 3353, Macroeconomic Analysis ECON 3363, Labor Economics ECON 4323, Economic Policy Analysis	3
Sub-total	12
Emphasis Area (Sustainable Business Practices):	Sem. Hrs.
MGMT 3193, Social Impact Management	3
MKTG 4393, Social Marketing	3
ECON 4363, Global Environmental Policies	3
Select one of the following: AGRI 4223, Agriculture and the Environment ECON 468V (Special Problems, with Economics and Finance department approval) FIN 489V (Special Problems, with Economics and Finance department approval) IB 427V (Special Problems, with Economics and Finance department approval) MGMT 429V (Special Problems, with Economics and Finance department approval) MKTG 419V (Special Problems, with Economics and Finance department approval)	3
Sub-total	12
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

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

Major in Business Economics

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) <i>(For Neil Griffin College of Business requirements, see p. 125)</i>	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, <i>Business Calculus</i> OR MATH 2194, <i>Survey of Calculus</i> OR MATH 2204, <i>Calculus I</i> ECON 2313, <i>Principles of Macroeconomics</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
ECON 3313, Microeconomic Analysis	3
ECON 3323, Money and Banking	3
ECON 3353, Macroeconomic Analysis	3
Upper-level Economics Electives <i>Students with this major must select at least one course from each of the following categories to fulfill upper-level elective requirements.</i>	15
International ECON 4103, International Trade ECON/IB 4143, Export Policy and Procedures ECON 4353, Economic Development ECON 468V, Special Problems in Economics	
Public Policy and Business ECON 4323, Economic Policy Analysis ECON 4333, Government Regulation of Business ECON 4363, Global Environmental Policies ECON 468V, Special Problems in Economics	
Theory of the Firm ECON 3363, Labor Economics ECON 4343, Managerial Economics ECON 468V, Special problems in Economics	
Sub-total	24
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

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

Major in Economics

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem. Hrs.
Foreign Language (See Beginning of Business Section)	0-12
Major Requirements:	Sem. Hrs.
CIT 3013, Management Information Systems	3
ECON 2313, Principles of Macroeconomics <i>Required ONLY if not taken to satisfy a part of the General Education Requirements</i>	0-3
ECON 2323, Principles of Microeconomics	3
ECON 3313, Microeconomic Analysis	3
ECON 3323, Money and Banking	3
ECON 3353, Macroeconomic Analysis	3
Upper-level Economics Electives	12
Upper-level History Electives	3
Upper-level Political Science Electives	6
Upper-level Sociology Elective	3
Sub-total	39-42
Electives:	Sem. Hrs.
Electives	28-43
Total Required Hours:	120

Major in Economics

Bachelor of Arts Emphasis in Pre-Law

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) <i>(For Neil Griffin College of Business requirements, see p. 125)</i>	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Language Requirement:	Sem. Hrs.
Foreign Language (See Beginning of Business Section)	0-12
Major Requirements:	Sem. Hrs.
COMS 2243, Principles of Argumentation OR COMS 3243, Principles of Persuasion	3
ECON 2313, Principles of Macroeconomics <i>Required ONLY if not taken to satisfy a part of the General Education Requirements</i>	0-3
ECON 2323, Principles of Microeconomics	3
ECON 3313, Microeconomic Analysis	3
ECON 3353, Macroeconomic Analysis	3
ENG 3013, Practical Writing OR ENG 3043, Technical Writing	3
LAW 2023, Legal Environment of Business	3
PHIL 1503, Logic and Practical Reasoning	3
Economics Electives <i>Choose any four upper-level.</i>	12
Philosophy and Political Science Electives <i>Choose any three upper-level.</i>	9
Law and Management Electives (select two of the following): LAW 4033, Law of Commercial Transactions LAW 4043, Law of Business Organizations LAW 4053, Employment Law MGMT 3163, Labor Relations and Collective Bargaining REI 4413, Real Estate Law	6
Sub-total	48-51
Electives:	Sem. Hrs.
Electives	19-34
Total Required Hours:	120

Major in Finance

Bachelor of Science Emphasis in Banking

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
ACCT 3003, Intermediate Accounting I	3
FIN 3763, Financial Institutions and Markets OR ECON 3323, Money and Banking	3
FIN 4723, Investments	3
FIN 4753, Capital Management	3
Sub-total	12
Emphasis Area (Banking):	Sem. Hrs.
FIN 3773, Financial Risk Management	3
FIN 4743, Managerial Finance	3
FIN 4763, Bank Management	3
FIN 4773, Advanced Bank Management	3
Select one of the following: ACCT 3013, Intermediate Accounting II ECON 3323, Money and Banking ECON 4343, Managerial Economics FIN 3813, International Financial Management & Banking MKTG 3023, Applied Research REI 4423, Real Estate Finance	3
Sub-total	15
Electives:	Sem. Hrs.
Electives	16
Total Required Hours:	120

Major in Finance

Bachelor of Science Emphasis in Financial Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
ACCT 3003, Intermediate Accounting I	3
FIN 3763, Financial Institutions and Markets OR ECON 3323, Money and Banking	3
FIN 4723, Investments	3
FIN 4753, Capital Management	3
Sub-total	12
Emphasis Area (Financial Management):	Sem. Hrs.
Select four of the following (two must be FIN or REI courses): AGEC 3053, Commodity Futures Markets MKTG 3093, Professional Selling Any upper-level ECON Course Any upper-level FIN Course Any upper-level REI Course Any upper-level ACCT Course	12
Sub-total	12
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

Department of Economics and Finance Minors

Minor in Economics

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
ECON 2313, Principles of Macroeconomics	3
ECON 2323, Principles of Microeconomics	3
ECON 3313, Microeconomic Analysis	3
ECON 3353, Macroeconomic Analysis	3
Upper-level Economics Electives	6
Total Required Hours:	18

Minor in Finance

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
FIN 3713, Business Finance	3
FIN 3763, Financial Markets and Institutions OR ECON 3323, Money and Banking	3
FIN 4723, Investments	3
FIN 4753, Capital Management	3
Upper-level FIN or REI Electives	6
Total Required Hours:	18

Minor in Financial Wealth Management

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
ACCT 2023, Fundamental Accounting Concepts <i>Non-Neil Griffin College of Business majors are required to take this course.</i>	0-3
ACCT 4013, Tax Accounting I	3
ACCT 4163, Estate Planning	3
FIN 2013, Personal Asset Management OR FIN 4723, Investments	3
FIN 4013, Financial Wealth Management	3
LAW 4043, Law of Business Organizations	3
MKTG 3093, Professional Selling	3
Total Required Hours:	18-21

Department of Economics and Finance Minors

Minor in General Business

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
ACCT 2023, Fundamental Accounting Concepts OR ACCT 2133, Introduction to Managerial Accounting	3
ECON 2323, Principles of Microeconomics OR ECON 2333, Economic Issues and Concepts	3
FIN 3713, Business Finance	3
LAW 2023, Legal Environment of Business	3
MGMT 3153, Organizational Behavior	3
MKTG 3013, Marketing	3
Upper-level Neil Griffin College of Business Elective	3
Total Required Hours:	21

Department of Economics and Finance Certificate Program

Certificate in Free Enterprise

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the certificate program.	Sem. Hrs.
ECON 2313, Principles of Macroeconomics	3
ECON 2323, Principles of Microeconomics	3
LAW 2023, Legal Environment of Business	3
MGMT 3183, Entrepreneurship	3
ECON 4103, International Trade	3
ECON 4333, Government Regulation of Business	3
ECON 4023, Free Enterprise and the Market: A Survey of Austrian Economics	3
Total Required Hours:	21

Department of Management and Marketing

Associate Professor Karen McDaniel, Chair

Professors: *Bevill, Frey, Hester, Hudson, Hunt, Mello, Nonis, Roe*

Associate Professors: *Chang, James, McDaniel, Philhours*

Assistant Professors: *Hill, Schloemer*

Instructors: *Leslie, Vogus*

The Department of Management and Marketing offers a curriculum designed to provide professional training as well as to develop the competence of students seeking careers within business enterprises. Business executives have taken on increasing responsibilities during recent years due to a growing realization that the employees of their firms and the markets they serve have become more complex and demanding. The five majors within the department offer positive programs of learning designed to contribute to the students' advancement in the business world.

MANAGEMENT PROGRAM:

Management is getting work done through other people. Managers perform a wide range of workplace activities, from establishing organization goals and ensuring progress towards those goals to organizing when and how activities and resources should be grouped together. Managers are asked to solve challenging workplace problems, often with limited human and financial resources. The Management major prepares students to design rewards for improved performance, set goals that motivate workers, and build an environment to create and sustain a competitive advantage. Elective concentration may be chosen in Human Resource Management, Hospitality Management or International Business.

MARKETING PROGRAM:

The fundamental purpose of marketing is to create value for your customers. This purpose is fulfilled by both organizations and individuals in both profit and not for profit settings. Fulfilling this purpose requires the creation, communication and delivery of a product, service or idea so that exchange can take place. The major in marketing prepares students to plan and implement successful marketing strategies across a variety of industries. Elective concentration may be chosen in Marketing Analytics, Sales, Logistics, and International Business. A Certificate in Marketing Analytics is available for students in any major program as well as non-degree seeking students.

INTERNATIONAL BUSINESS PROGRAM:

In today's global marketplace, all business is international! The major in International Business prepares students for managerial careers in this global market. It is interdisciplinary in nature and emphasizes the development of language skills and an understanding of the sociocultural, political, managerial, marketing and economic processes in an international environment.

Major in Global Supply Chain Management

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
GSCM 3063, Transportation	3
GSCM 3163, Supply Chain Management	3
MKTG 3023, Applied Research	3
MKTG 4313, Prescriptive Analytics	3
GSCM 4103, Concepts of Business Logistics	3
GSCM 4123, Organizational Purchasing	3
GSCM 4133, International Logistics	3
Select one of the following: ACCT 3053, Cost Accounting with a Managerial Emphasis CIT 4453, Global E Commerce CIT 4853, IT Project Management ECON 4103, International Trade MGMT 4123, International Management MKTG 4113, International Marketing	3
Sub-total	24
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

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

Major in International Business

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) <i>(For Neil Griffin College of Business requirements, see p. 125)</i>	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, <i>Business Calculus</i> OR MATH 2194, <i>Survey of Calculus</i> OR MATH 2204, <i>Calculus I</i> ECON 2313, <i>Principles of Macroeconomics</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Language Requirements	Sem. Hrs.
French, German, or Spanish <i>International Business majors should take their foreign language during their freshman and sophomore years. No waiver will be allowed for the language requirement. If English is a second language, 12 hours of 3000 level English courses may be used to meet the language requirement.</i>	12
Major Requirements:	Sem. Hrs.
CIT 4453, <i>Global E-Commerce</i>	3
FIN 3813, <i>International Financial Management and Banking</i>	3
ECON/IB 4143, <i>Export Policies and Procedures</i>	3
GSCM 4133, <i>International Logistics and Outsourcing</i>	3
MKTG 4113, <i>International Marketing</i>	3
MGMT 3193, <i>Social Impact Management</i>	3
MGMT 4123, <i>International Management</i>	3
Select one of the following: IB 3013, <i>Global Experience</i> IB 4283, <i>Internship in International Business</i>	3
Sub-total	24
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	7
Total Required Hours:	120

Major in Management

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
MGMT 3143, Human Resource Management	3
MGMT 4123, International Management	3
MKTG 3023, Applied Research	3
Sub-total	9
Emphasis Area (General Management):	Sem. Hrs.
MGMT 3153, Organizational Behavior	3
MGMT 3613, Leadership	3
MGMT 4163, Small Business Management	3
Select two of the following: ACCT 3053, Cost Accounting with a Managerial Emphasis BCOM 3573, Managerial Communication MGMT 3163, Labor Relations and Collective Bargaining OR MGMT 4173, Compensation Management MGMT 3183, Entrepreneurship MGMT 3193, Social Impact Management MGMT 4143, Organizational Change and Development MGMT 4183, Family Business Management MGMT 419V, Management Internship MGMT 4393, Management of Service Operations OR MKTG 4023, Services Marketing	6
Sub-total	15
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

Major in Management

Bachelor of Science Emphasis in Hospitality Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
MGMT 3143, Human Resource Management	3
MGMT 4123, International Management	3
MKTG 3023, Applied Research	3
Sub-total	9
Emphasis Area (Hospitality Management):	Sem. Hrs.
ACCT 3063, Hospitality Accounting	3
LAW 4063, Hospitality Law	3
MKTG 3033, Advertising & Promotion	3
MKTG 4023, Services Marketing	3
MGMT 419V, Management Internship OR MKTG 428V, Marketing Internship	3
Sub-total	15
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	19
Total Required Hours:	120

Major in Management

Bachelor of Science Emphasis in Human Resource Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
MGMT 3143, Human Resource Management	3
MGMT 3153, Organizational Behavior	3
MGMT 4123, International Management	3
MKTG 3023, Applied Research	3
Sub-total	12
Emphasis Area (Human Resource Management):	Sem. Hrs.
LAW 4053, Employment Law	3
MGMT 3163, Labor Relations and Collective Bargaining	3
MGMT 4173, Compensation Management	3
Select two of the following: BCOM 3573, Managerial Communication MGMT 3173, Special Topics in Human Resources MGMT 3193, Social Impact Management MGMT 4143, Organizational Change and Development MGMT 419V, Management Internship	6
Sub-total	15
Electives:	Sem. Hrs.
Electives (must include at least 3 upper-level hours)	16
Total Required Hours:	120

Major in Management

Bachelor of Science Emphasis in International Business

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
MGMT 3143, Human Resource Management	3
MGMT 3153, Organizational Behavior	3
MGMT 3613, Leadership	3
MGMT 4163, Small Business Management	3
MKTG 3023, Applied Research	3
Sub-total	15
Emphasis Area (International Business):	Sem. Hrs.
ECON/IB 4143, Export Policies & Procedures	3
FIN 3813, International Financial Management and Banking	3
GSCM 4133, International Logistics and Outsourcing	3
MGMT 4123, International Management	3
MKTG 4113, International Marketing	3
Select one of the following: CIT 4453, Global E-Commerce ECON 4103, International Trade ECON 4363, Global Environmental Policies IB 3013, Global Experience IB 4133, International Law IB 4283, Internship in International Business MGMT 3193, Social Impact Management	3
Sub-total	18
Electives:	Sem. Hrs.
Electives	10
Total Required Hours:	120

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

Major in Marketing

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
GSCM 3163, Supply Chain Management	3
MKTG 3023, Applied Research	3
MKTG 4043, Consumer Behavior	3
MKTG 4083, Marketing Research Design and Analysis	3
MKTG 4223, Marketing Management	3
Sub-total	15
Additional Requirements:	Sem. Hrs.
MKTG 4113, International Marketing	3
Select three of the following (at least one must be in MKTG): ACCT 3053, Cost Accounting with a Managerial Emphasis BCOM 3573, Managerial Communication ECON 4343, Managerial Economics MGMT 3183, Entrepreneurship MKTG 3033, Advertising and Promotion OR STCM 3023, Principles of Advertising MKTG 3043, Retailing MKTG 3093, Professional Selling MKTG 3173, Category Management MKTG 3193, Sales Planning and Management MKTG 4023, Services Marketing MKTG 4143, Advanced Category Management MKTG 4213, Marketing Analytics MKTG 4253, Data Analytics and Visualization MKTG 428V, Marketing Internship MKTG 4313, Prescriptive Analytics MKTG 4323, Advanced Sales	9
Sub-total	12
Electives:	Sem. Hrs.
Electives	16
Total Required Hours:	120

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

Major in Marketing

Bachelor of Science Emphasis in International Business

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
GSCM 3163, Supply Chain Management	3
MKTG 3023, Applied Research	3
MKTG 4043, Consumer Behavior	3
MKTG 4083, Marketing Research Design and Analysis	3
MKTG 4223, Marketing Management	3
Sub-total	15
Emphasis Area (International Business):	Sem. Hrs.
ECON/IB 4143, Export Policies & Procedures	3
FIN 3813, International Financial Management and Banking	3
GSCM 4133, International Logistics and Outsourcing	3
MGMT 4123, International Management	3
MKTG 4113, International Marketing	3
Select one of the following: CIT 4453, Global E-Commerce ECON 4103, International Trade ECON 4363, Global Environmental Policies IB 3013, Global Experience IB 4133, International Law IB 4283, Internship in International Business MGMT 3193, Social Impact Management	3
Sub-total	18
Electives:	Sem. Hrs.
Electives	10
Total Required Hours:	120

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

Major in Marketing

Bachelor of Science Emphasis in Marketing Analytics

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
MKTG 3023, Applied Research	3
MKTG 3163, Supply Chain Management	3
MKTG 4043, Consumer Behavior	3
MKTG 4083, Marketing Research Design and Analysis	3
MKTG 4223, Marketing Management	3
Sub-total	15
Emphasis Area (Marketing Analytics):	Sem. Hrs.
MKTG 4213, Marketing Analytics	3
MKTG 4253, Data Analytics and Visualization	3
MKTG 3173, Category Management	3
Select one of the following: CS 2114, Structured Programming CIT 2033, Programming Fundamentals CIT 3353, Mobile and Web Applications Development CIT 3403, Database Management CIT 3413, Advanced Database Management CIT 3663, Data Mining CIT 4453, Global E-commerce CIT 4853, IT Project Management MKTG 4313, Prescriptive Analytics MKTG 4143, Advanced Category Management	3
Sub-total	12
Electives:	Sem. Hrs.
Electives	16
Total Required Hours:	120

Major in Marketing

Bachelor of Science Emphasis in Logistics

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
GSCM 3163, Supply Chain Management	3
MKTG 3023, Applied Research	3
MKTG 4043, Consumer Behavior	3
MKTG 4083, Marketing Research Design and Analysis	3
MKTG 4223, Marketing Management	3
Sub-total	15
Emphasis Area (Logistics):	Sem. Hrs.
GSCM 3063, Transportation	3
GSCM 4103, Concepts of Business Logistics	3
GSCM 4133, International Logistics and Outsourcing	3
Select one of the following: ACCT 3053, Cost Accounting with a Managerial Emphasis BCOM 3573, Managerial Communication ECON 4333, Government Regulation of Business ECON 4343, Managerial Economics GSCM 4123, Organizational Purchasing GSCM 427V, Supply Chain Management Internship MGMT 4123, International Management MKTG 3043, Retailing MKTG 3093, Professional Selling MKTG 4313, Prescriptive Analytics	3
Sub-total	12
Electives:	Sem. Hrs.
Electives	16
Total Required Hours:	120

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

Major in Marketing

Bachelor of Science Emphasis in Sales

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42) (For Neil Griffin College of Business requirements, see p. 125)	
First Year Making Connections Course:	Sem. Hrs.
BUSN 1003, First Year Experience Business	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: A "C" or better in MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus OR MATH 2204, Calculus I ECON 2313, Principles of Macroeconomics COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)	
Neil Griffin College of Business Core Courses:	Sem. Hrs.
(See Beginning of Business Section)	39
Major Requirements:	Sem. Hrs.
GSCM 3163, Supply Chain Management	3
MKTG 3023, Applied Research	3
MKTG 4043, Consumer Behavior	3
MKTG 4083, Marketing Research Design and Analysis	3
MKTG 4223, Marketing Management	3
Sub-total	15
Emphasis Area (Sales):	Sem. Hrs.
MKTG 3093, Professional Selling	3
MKTG 3193, Sales Planning and Management	3
MKTG 426V, Sales Internship	3
MKTG 4323, Advanced Sales	3
Select one of the following: GSCM 4123, Organizational Purchasing MKTG 3173, Category Management MKTG 4213 Marketing Analytics MKTG 4253, Data Analytics and Visualization	3
Sub-total	15
Electives:	Sem. Hrs.
Electives	13
Total Required Hours:	120

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

Department of Management and Marketing Minors

Minor in Entrepreneurship

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
ACCT 2033, Introduction to Financial Accounting	3
ECON 2313, Principles of Macroeconomics OR ECON 2323, Principles of Microeconomics	3
FIN 3713, Business Finance	3
MKTG 3013, Marketing	3
MGMT 3183, Entrepreneurship	3
MGMT 4163, Small Business Management	3
MGMT 4183, Family Business Management	3
Total Required Hours:	21

Minor in International Business

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
CIT 4453 Technologies for Global E-Commerce	3
ECON/IB 4143, Export Policies and Procedures	3
GSCM 4133, International Logistics and Outsourcing	3
MGMT 3193 Social Impact Management	3
MGMT 4123, International Management	3
MKTG 4113, International Marketing	3
Total Required Hours:	18

Minor in Logistics

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
ECON 2313, Principles of Macroeconomics OR ECON 2323, Principles of Microeconomics	3
GSCM 3063, Transportation	3
GSCM 3163, Supply Chain Management	3
GSCM 4103, Concepts of Logistics	3
GSCM 4133, International Logistics and Outsourcing	3
MKTG 3013, Marketing	3
Total Required Hours:	18

Department of Management and Marketing Minors (cont.)

Minor in Management

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor. The ECON and ACCT courses listed below are prerequisites for MGMT 3153.	Sem. Hrs.
ACCT 2023, Fundamental Accounting Concepts OR ACCT 2033, Introduction to Financial Accounting	3
ECON 2323, Principles of Microeconomics OR ECON 2333, Economic Issues and Concepts	3
MGMT 3123, Principles of Management	3
MGMT 3153, Organizational Behavior	3
Upper-level MGMT electives	6
Total Required Hours:	18

Minor in Marketing

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor. The ECON and ACCT courses listed below are prerequisites for MKTG 3013.	Sem. Hrs.
ACCT 2023, Fundamental Accounting Concepts, OR ACCT 2033, Introduction to Financial Accounting	3
ECON 2323, Principles of Microeconomics OR ECON 2333, Economic Issues and Concepts	3
MKTG 3013, Marketing	3
Select three upper-level Marketing courses: <i>Students may substitute STCM 4113, Integrated Marketing Communications for one of the three upper-level Marketing courses.</i>	9
Total Required Hours:	18

Minor in Sales Leadership

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the minor.	Sem. Hrs.
MKTG 3013, Marketing	3
MKTG 3093, Professional Selling	3
MKTG 3193, Sales Planning and Management	3
MKTG 4323, Advanced Sales	3
Select two of the following: GSCM 4123, Organizational Purchasing MKTG 3173, Category Management MKTG 4213 Marketing Analytics MKTG 4253, Data Analytics and Visualization MKTG 426V, Sales Internship	6
Total Required Hours:	18

Department of Management and Marketing Certificate

Certificate in Marketing Analytics

Required Courses: Students must maintain a minimum GPA of 2.25 or a grade of at least a "C" for each course in the certificate.	Sem. Hrs.
MKTG, 3013, Marketing	3
MKTG, 4213, Marketing Analytics	3
Select Two:	6
MKTG 4253, Data Analytics and Verification	
MKTG 3173, Category Management	
MKTG 4313, Prescriptive Analytics	
Total Required Hours:	12

College of Education and Behavioral Science

Associate Professor Mary Jane Bradley, Dean

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 sport science, 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/professional growth.

ADMINISTRATIVE STRUCTURE

The following units are administratively within the College of Education and Behavioral Science:

- ASU Childhood Services
- Center for Excellence in Education
- Department of Psychology and Counseling
- Department of Teacher Education
- Department of Educational Leadership, Curriculum, and Special Education
- Department of Health, Physical Education, and Sport Sciences
- Professional Education Programs

TEACHER EDUCATION PROGRAM

The College of Education and Behavioral Science is the unit responsible for the teacher education program in cooperation with other colleges within the university. The teacher education program is coordinated by the College of Education and Behavioral Science and the interdisciplinary Council on Professional Education (COPE). It is strongly recommended that students interested in teacher education and teacher education majors consult their advisor frequently.

The Bachelor of Science in Education degree is offered in the following majors:

- | | |
|-----------------------------|------------------------------|
| Agriculture Education (BSA) | Middle Level Education (4-8) |
| Art | Music (BME) |
| Business Technology | —Instrumental |
| Elementary Education K-6 | —Vocal |
| English | Physical Education |
| General Science | Social Science |
| —Biology | Special Education |
| —Chemistry | World Languages and Cultures |
| —Physics | —French |
| Mathematics | —Spanish |

The Title II Teacher Education Report Card was enacted by the United States Congress in 1998. Accountability measures for new teachers, which include standardized test scores and other information about the institution's teacher education program, are a part of the institutional and state reports mandated by this legislation. Institutions are required to report this information through publications such as school catalogs and promotional materials sent to prospective students, secondary guidance counselors, and potential employers of their graduates. With increased demands by the public for improved schools and increased student achievement, the knowledge, skills, and dispositions of teachers are central to the success of all students. One component of all teacher education programs is standardized tests. The PRAXIS I test assesses basic computation and literacy skills. The PRAXIS II assesses professional teaching knowledge and academic content knowledge. Below are the PRAXIS I and PRAXIS II scores for the Arkansas State University students during the 2017-2018 academic year. Additional information about teacher education programs at Arkansas State University may be accessed at

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

TEACHER EDUCATION GRADUATES*

Major Categories	A-State Pass Rate	State Pass Rate
Basic Skills CORE	100%	99%
Professional Knowledge [PRAXIS II]	98%	98%
Academic Content Area [PRAXIS II]	88%	93%

*This chart will be updated as Title II Report data is released.

ADMISSION AND RETENTION

All candidates for Bachelor of Science in Education, Bachelor of Music Education, and Bachelor of Science in Agriculture (Agriculture Education) degrees must obtain official admission into the Teacher Education Program.

Admission, retention, and course prerequisite/requirement details can also be found in the Teacher Education Handbook. Students choosing to make formal application and/or retention into the Teacher Education Program must meet requirements of the following five checkpoints listed below. Individual departments and programs may have admission and retention requirements that exceed those requirements identified below. Check with your academic advisor to determine if your program has additional requirements.

CHECKPOINT 1: ADMISSION INTO THE TEACHER EDUCATION PROGRAM

Students making formal application into the teacher education program must meet the following admission requirements.

ADMISSION REQUIREMENTS

1. Attain minimum passing scores on the Praxis Core Academic Skills for Educators Exams or National ACT.

	PRAXIS CORE beginning 08/2020	ACT beginning 08/2020
Reading	162	19
Math	162	19
Writing	162	7

2. Attain minimum overall GPA of 2.70 beginning August 24, 2015 (Program of Study students must have a minimum of 3.0 overall in courses for Program of Study.)
3. Complete the following courses with a grade of "C" or better in each: ENG 1003, Composition I; ENG 1013, Composition II; MATH 1023, College Algebra, (or MATH 1043, Quantitative Reasoning as allowed by degree program); Introduction to Education (specific to each department); and COMS 1203, Oral Communication or Speech Proficiency (as specified by the department)
4. Complete minimum of 30 semester hours
5. Complete the Professional Dispositions Self-Assessment as prescribed in the Teacher Education Handbook
6. Submit a completed application form
7. Obtain a signed Clarification of Teacher Education Admissions/Retention Standards
8. Appear individually for a personal interview before the Department Screening Committee
9. Provide documentation of approved Federal Background and Maltreatment Registry checks via Division of Elementary and Secondary Education, Arkansas Department of Education
10. Verify that student has received a copy of the Mission & Values, Teacher Education Outcomes and Arkansas Teaching Standards

Students will not be permitted to enroll in specified professional education courses until they have been formally admitted into the teacher education program. Such courses are designated in the respective programs in the Undergraduate Bulletin. When your application is approved by the Professional Education Programs Director, the student will receive a formal letter of acceptance. Official admittance to the teacher education program does not carry a guarantee of continuance in the program. In addition to the retention checkpoints described below, the student must maintain academic proficiency,

moral responsibility, emotional stability, and satisfactory professional growth to continue in the program.

After being admitted into the teacher education program, the student must also meet specific performance measures to continue in the program. The student will be required to complete certain unit assessments as outlined in course syllabi and post his/her work to the unit's electronic portfolio system.

CHECKPOINT 2: PRE-TEACHER INTERN CHECK

Students must meet the following requirements one year prior to the capstone internship semester to continue in the program.

1. Maintain a minimum overall GPA of 2.70 (minimum of 3.0 in all course work required for Program of Study students)
2. Earn a "C" or better in all Professional Education courses
3. Confirmation of eligibility for the Level 2 field experience
4. Provide documentation of an approved Child Maltreatment and Arkansas State Police (ASP) and FBI Background Check to be eligible for the capstone internship semester

CHECKPOINT 3: INTENT FOR TEACHING INTERNSHIP CHECK

Students must meet the following requirements one semester prior to the capstone internship semester to continue in the program.

1. Maintain a minimum overall GPA of 2.70 (minimum of 3.0 in all course work required for Program of Study students)
2. Earn a "C" or better in all Professional Education courses
3. Provide documentation of an approved Child Maltreatment and Arkansas State Police (ASP) and FBI Background Check to be eligible for the capstone internship semester

CHECKPOINT 4: INTERNSHIP CHECK

Students must meet the following minimum performance requirements to be validated for the internship.

1. Formal admittance into the teacher education program
2. Senior standing—a minimum of 90 semester hours
3. Pre-Teacher Intern Check Form filed with the Office of Professional Education Programs
4. Completion of professional education courses for secondary education majors and professional education/major courses for elementary education (K-6, special education (K-12), and middle level (4-8) majors with the exception of the teaching internship semester (students must have a 'C' or better in the Professional Education Courses.)
5. Attainment of a minimum grade point average of 2.70 in all course work and a minimum grade point average of 2.70 in the major area (a minimum of 3.0 in all course work is required for Program of Study (POS) candidates and a minimum grade point average of 3.0 in the major area; Master of Arts in Teaching (MAT) candidates must maintain a minimum 3.0 grade point average for the master's degree)
6. Meet prescribed department requirements
7. Completion of Intent for Capstone Teaching Internship application for teaching internship eight weeks before the end of the semester or one week before the pre-registration date of the semester preceding teaching internship
8. Attend the orientation sessions for the capstone teaching internship
9. Verification of clearance of disqualifying offenses listed in the Teacher Education Handbook
10. Verification of clearance of the Child Maltreatment background check listed in the Teacher Education Handbook
11. Complete the Professional Dispositions Self-Assessment as prescribed in the Teacher Education Handbook
12. Meet the Clinical Candidate Technology checkpoint requirements as assessed within the licensure program

Transfer students must meet the above prerequisites and complete a minimum of twelve (12) semester hours of resident work at Arkansas State University to be eligible to enroll in the teaching internship.

CHECKPOINT 5: EXIT ASSESSMENT CHECK

Students must meet the following minimum performance requirements to graduate from the teacher education program.

1. Successful performance in the teaching internship
2. Maintain a minimum overall GPA of 2.70 (minimum of 3.0 in all course work required for Program of Study)
3. Meet EPP portfolio requirements
3. Meet Learning to Teach, Teaching to Learn portfolio requirements
4. Meet PRAXIS II assessments as specified by the program
5. Meet graduation check sheet requirements

PROFESSIONAL EDUCATION REQUIREMENTS FOR SECONDARY MAJORS

General and academic requirements for majors in the secondary teacher education program are

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

listed under the various colleges in this Bulletin.

SCED 2513, Introduction to Secondary Teaching
PSY 3703, Educational Psychology
ELSE 3643, The Exceptional Student in the Regular Classroom
OR for Physical Education majors, PE 4703, Adaptive Physical Education

Admission to the Teacher Education Program is a prerequisite to enrollment in the following courses:

SCED 3515, Performance Based Instructional Design
SCED 4713, Educational Measurement with Computer Applications
*ED__45__3, Methods and Materials for Teaching in the Secondary School

**Course prefix and number are dependent upon the field of study the student is pursuing.*

PROFESSIONAL SEMESTER:

During the professional semester the student receives twelve (12) semester hours of credit.

*TI__4826, Teaching Internship in the Secondary School

**Course prefix and number are dependent upon the field of study the student is pursuing.*

TRANSPORTATION FOR FIELD EXPERIENCES

Students are responsible for arranging their own transportation to school field experiences and internship and subsequent expenses incurred.

GRADUATION REQUIREMENT

Teacher education students (BSA-Agriculture Education; BME Music Education; and BSE) must have a minimum overall GPA of 2.70 to be eligible for graduation. Some Teacher Education programs will require students to take the PRAXIS II examination(s) as a graduation requirement. Check with your academic adviser to determine your PRAXIS II requirement(s).

However, students who wish to secure an Arkansas teaching license are required to take and pass the PRAXIS II examination(s). Therefore, all students are strongly encouraged to take the PRAXIS II examination(s) prior to graduation. Check with your adviser to determine your PRAXIS II requirement(s).

SPECIAL DEPARTMENTAL NONREFUNDABLE COURSE FEES

Teacher Education Admission Fee RDNG 3203 Foundations of Reading Instruction (P-4 teacher education admission fee) SCED 3515 Performance Based Instructional Design (7-12 teacher education admission fee)	\$25.00
Teacher Education Portfolio Fee ELED 2022, Introduction to Teaching (teacher education portfolio fee)	\$30.00
Teacher Internship Fee ELED 4216, Internship II: K-3 ELED 4226, Internship II: 4-6 ELSE 4216, Special Education Internship - Elementary ELSE 4226, Special Education Internship - Secondary MLED 4116, Internship (TIAG, TIAR, TIBI, TIBU, TICH, TIEN, TIHI, TILA, TIMA, TIMU, TIPE, TIPH) 4826, Teaching Internship	\$10/credit hour

Department of Education Leadership, Curriculum and Special Education

Professor Joan Henley, Chair

Professors: *McBride, Nichols, Wyatt*

Associate Professors: *Baker, Bowser, Bradley, Davis, Hux, Lamb-Milligan, Neal, Singleton,*

Assistant Professors: *Shaw, Stripling, R. Williams*

Instructor: *Nichols*

The mission of the Department of Education Leadership, Curriculum, and Special Education is to provide graduate programs for the preparation of school administrators, curriculum specialists and special educators as well as to provide leadership and coordination to the preparatory graduate degree program for community college instructors.

Teaching excellence is the focus of the department, and faculty performance is evaluated regularly. The department encourages and supports faculty involvement in providing professional services to educationally related systems and agencies, and it endorses the use of these involvements in enhancing classroom experiences. The department stresses program contributions of a faculty active in the pursuit and dissemination of the results of educational research.

Major in Special Education

Bachelor of Science in Education (Kindergarten - Grade 12 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Professional Education Requirements:	Sem. Hrs.
Courses denoted below with an asterisk (*) require admission to the Teacher Education Program.	
ELSE 3643, The Exceptional Student in the Regular Classroom	3
*ELSE 4103, Methods and Materials for Severe Profound Disabilities	3
*ELSE 4113, Teaching Students with Mild to Moderate Disabilities	3
*ELSE 4123, Introduction to Autism Spectrum Disorder	3
*ELSE 4133, Behavioral, Academic, and Social Interventions in the Exceptional Classroom	3
*ELSE 4143, Curriculum Programming for Exceptional Learners	3
*ELSE 4153, Assessment and Diagnosis of Exceptional Learners	3
*ELSE 4163, Introduction to Emotional Behavior Disorder	3
*ELSE 4173, Assistive Technology in Special Education	3
*ELSE 4183, Characteristics of Exceptional Learners	3
*ELSE 4193, Special Education Law and Procedures	3
*ELSE 4203, Family and Community Systems	3
ELSE 4212, Elementary Practicum in Special Education	2
*ELSE 4216, Special Education Internship-Elementary	6
ELSE 4223, Reading and Language Arts for Exceptional Learners	3
*ELSE 4226, Special Education Internship-Secondary	6
ELSE 4233, Mathematics Strategies for Exceptional Learners	3
ELSE 4242, Secondary Practicum in Special Education	2
RDNG 3203, Foundations of Reading Instruction	3
TE 2003, Introduction to Education	3
Sub-total	64

Major in Special Education (cont.)

Bachelor of Science in Education (Kindergarten - Grade 12 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Additional Requirements:	Sem. Hrs.
MATH 2113, Mathematics for School Teachers I	3
MATH 2123, Mathematics for School Teachers II	3
MATH 3133, Mathematics for School Teachers III	3
HLTH 2513, Principles of Personal Health OR NS 2203, Basic Human Nutrition	3
Sub-total	12
Licensure Requirement:	Sem. Hrs.
HIST 3083, History of Arkansas	3
Electives:	Sem. Hrs.
Electives	3
Total Required Hours:	120

Department of Health, Physical Education, and Sport Sciences

Professor Paul Finnicum, Chair

Professors: *Bryant, Church, Dean, LaVetter*

Associate Professors: *Benavides, Wheeler*

Assistant Professors: *Cantrell, Doig, Scudamore, Ternes, Pribyslavska, Yu*

Instructors: *Hilson, Mathis, Rigsbee, Titsworth*

The mission of the Department of Health, Physical Education, and Sport Sciences is to provide curricula and instruction to enhance the development of physical, mental, social, and emotional qualities essential for living a quality life and to provide quality professional preparation programs in the fields of exercise science, health, physical education and sport management that meet appropriate standards.

To accomplish its mission, the department places its primary focus on quality teaching. In addition, the department strives to provide service to the college and the university, to elementary and secondary schools, to the community and the state, and to its related professional organizations and agencies. The department engages in scholarly pursuits that will enhance the professional growth of its faculty and contribute to knowledge about human performance.

Major in Exercise Science

EXERCISE SCIENCE ADMISSION REQUIREMENTS

All candidates for a Bachelor of Science in Exercise Science must obtain official admission to the program. Students desiring admission to the ES program must meet the following criteria:

1. Declare major in Bachelor of Science in Exercise Science.
2. Minimum cumulative GPA of 2.75.
3. Completion of the following courses with a grade of "C" or better in each course: PE 1002, BIO 2201, BIO 2203, BIO 2221, BIO 2223, CHEM 1011, and CHEM 1013.
4. Submission of the application to the departmental administrative specialist or the exercise science program coordinator by May 1 to be considered for fall admission or December 1 for spring admission. Applications can be obtained from The Department of HPESS office (221) or any Exercise Science advisor.

Generally, application will occur after completion of 45 total hours.

Major in Exercise Science

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
HPES 1013, Introduction to HPESS (Making Connections)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following (Grade of "C" or better required): <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy/Physiology I and Laboratory</i> <i>CHEM 1013, General Chemistry I AND CHEM 1011, General Chemistry I Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
BIO 2223 AND 2221, Human Anatomy/Physiology II and Laboratory	4
ES 3543, Human Anatomy and Anatomical Fundamentals of Motion	3
ES 3553, Basic Physiology of Activity	3
ES 3623, Techniques of Physiological Fitness Assessment	3
ES 3633, Nutrition for Health, Sport and Exercise	3
ES 3653, Techniques of Aerobic Conditioning	3
ES 3713, Cardiovascular Physiology	3
ES 3743, Research and Statistical Methods in Exercise Science	3
ES 4673, Exercise Prescription for Special Populations	3
ES 4683, Exercise Prescription and Fitness Programming	3
ES 4693, Techniques of Strength Training and Conditioning	3
ES 4763, Kinesiology	3
ES 4813, Applied Motor Learning	3
ES 4843, Practicum/Pre-Internship	3
HLTH 2513, Principles of Personal Health	3
HLTH 2523, First Aid and Safety	3
HLTH 4543, Drug Use and Abuse	3
HLTH 4633, Health Promotion Assessment Planning	3
HLTH 4643, Health Promotion Implementation and Evaluation	3
HPES 1883, Foundations of HPESS <i>Must be completed ONLY if HPES 1013 is not completed as the First Year Making Connections Course.</i>	0-3
HPES 4896, Internship in HPESS OR HPES 4863, Internship in HPESS I AND HPES 4893, Internship in HPESS II	6
PE 1002, Concepts of Fitness	2
PE 4843, Philosophy and Ethics in Sport	3
Sub-total	69-72
Electives:	Sem. Hrs.
Electives	10-13
Total Required Hours:	120

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

Major in Sport Management

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
HPES 1013, Introduction to HPESS (Making Connections)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
CIT 1503, Microcomputer Applications	3
COMS 3203, Business & Professional Communication	3
ES 3743, Research and Statistics in Exercise Science	3
HPES 1883, Foundations of HPESS <i>Must be completed ONLY if HPES 1013 is not completed as the First Year Making Connections Course.</i>	0-3
HPES 4896, Internship in HPESS OR HPES 4863, Internship in HPESS I AND HPES 4893, Internship in HPESS II	6
PE 1002, Concepts of Fitness	2
PE 3113, Business of Esports	3
PE 3853, Sports Promotion and Sales Management	3
PE 3863, Economic and Financial Mgmt for Sport Organizations	3
PE 3873, Facility and Event Management	3
PE 4743, Legal Issues in Sport	3
PE 4763, Sport Analytics	3
PE 4773, Organization and Management of Sports Programs	3
PE 4843, Philosophy and Ethics in Sports	3
PE 4853, Applied Psychology of Sports and Exercise	3
PE 4863, Diversity in Sport and Athletics	3
STCM 3003, Principles of Public Relations	3
Sub-total	50-53
Minor (select one of the following):	Sem. Hrs.
Refer to appropriate college for information regarding specific minors.	
General Business	21
Marketing	18
Multimedia Journalism	19
Sub-total	18-21
Electives:	Sem. Hrs.
Electives	8-14
Total Required Hours:	120

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

Major in Physical Education

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
HPES 1013, Introduction to HPESS (Making Connections)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements: A GPA of 2.75 or better required for all Major Requirements. Please consult with advisor for additional information.	Sem. Hrs.
ES 3543, Human Anatomy and Anatomic Fundamentals of Motion	3
ES 3553, Basic Physiology of Activity	3
ES 4763, Kinesiology	3
HLTH 2513, Principles of Personal Health	3
HLTH 2523, First Aid and Safety	3
HLTH 3533, Strategies for Teaching Health Education	3
HPES 1883, Foundations of HPESS <i>Must be completed ONLY if HPES 1013 is not completed as the First Year Making Connections Course.</i>	0-3
PE 1002, Concepts of Fitness	2
PE 3802, Physical Education for Teachers of Young Children	2
PE 3822, Theory and Practice of Teaching Rhythmical Activities	2
PE 3832, Theory and Practice of Teaching Fitness Concepts	2
PE 3842, Theory and Practice of Teaching Leisure Sports	2
PE 3862, Theory and Practice of Teaching Racquet Sports	2
PE 3892, Theory and Practice of Teaching Team Sports	2
PE 4663, Motor Skills Development for Children	3
PE 4703, Adaptive Physical Education	3
PE 4753, The Physical Education Curriculum	3
PE 4783, Organization and Administration of Physical Education	3
PE 4793, Evaluation in Physical Education	3
PE 1311, Beginning Swimming OR PE 2311, Intermediate Swimming	1
PE 1411, Track and Field	1
PE 1511, Gymnastics	1
Physical Education Electives	0-3
Sub-total	53

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

Major in Physical Education

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*EDPE 4583, Methods and Materials for Teaching Physical Education in the Secondary School	3
*SCED 4713, Educational Measurement with Computer Applications	3
*TIPE 4826, Teaching Internship in the Secondary School	12
Sub-total	29
Total Required Hours:	120

Major in Health Promotion

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
HPES 1013, Introduction to HPESS (Making Connections)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
CIT 1503, Microcomputer Applications	3
ES 3543, Human Anatomy and Anatomic Fundamentals of Motion	3
ES 3553, Basic Physiology of Activity	3
ES 3623, Techniques of Physiological Fitness Assessment	3
ES 3653, Techniques of Aerobic Conditioning	3
ES 4693, Techniques of Strength Training and Conditioning	3
GCOM 3673, Desktop Publishing & Publication Design	3
HLTH 2513, Principles of Personal Health	3
HLTH 2523, First Aid and Safety	3
HLTH 3523, Public and Community Health	3
HLTH 3533, Strategies for Teaching Health Education	3
HLTH 3563, Human Sexuality	3
HLTH 4513, Consumer Health	3
HLTH 4523, Current Issues in Health	3
HLTH 4543, Drug Use and Abuse	3
HLTH 4633, Health Promotion Assessment and Planning	3
HLTH 4643, Health Promotion Implementation and Evaluation	3
HPES 1883, Foundations of HPESS <i>Must be completed ONLY if HPES 1013 is not completed as the First Year Making Connections Course.</i>	0-3
HPES 4896, Internship in HPESS OR HPES 4863, Internship in HPESS I AND HPES 4893, Internship in HPESS II	6
HP 2013, Medical Terminology	3
NS 2203, Basic Human Nutrition	3
NRS 3353, Aging and the Older Adult OR SOC 4353, Sociology of Aging	3
PE 1002, Concepts of Fitness	2
Sub-total	72-75
Electives:	Sem. Hrs.
Electives	7-10
Total Required Hours:	120

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

Teaching Endorsements

Coaching

To receive a coaching endorsement, a candidate must possess or simultaneously receive teaching certification. Physical Education majors must complete the requirements for a Physical Education/Health: K-12 BSE and complete the following:

Requirements:	Sem. Hrs.
PE 3813, Concepts of Athletic Training	3
Select two of the following: PE 4822, Theory and Practice of Coaching Football PE 4832, Theory and Practice of Coaching Basketball PE 4842, Theory and Practice of Coaching Track PE 4852, Theory and Practice of Coaching Baseball PE 4872, Theory and Practice of Coaching Volleyball PE 4882, Theory and Practice of Coaching Soccer PE 480V, SPTW III: Basketball Coaching & Conditioning PE 480V, SPTW: Coaching Young Athlete	4
Total Required Hours:	7

Non-Physical Education majors must possess or simultaneously receive teaching certification and complete the following:

Requirements:	Sem. Hrs.
ES 3543, Human Anatomy and Fundamentals of Motion OR ES 3553, Basic Physiology of Activity	3
ES 4693, Techniques of Strength Training and Conditioning	3
PE 3813, Concepts of Athletic Training	3
PE 3872, Rules and Officiating	2
PE 4743, Legal Issues in Sports	3
PE 4873, Organization and Administration of Interscholastic Athletics OR PE 4783, Organization and Administration of Physical Education	3
Select two of the following: PE 4822, Theory and Practice of Coaching Football PE 4832, Theory and Practice of Coaching Basketball PE 4842, Theory and Practice of Coaching Track PE 4852, Theory and Practice of Coaching Baseball PE 4872, Theory and Practice of Coaching Volleyball PE 4882, Theory and Practice of Coaching Soccer PE 480V, SPTW III: Basketball Coaching & Conditioning PE 480V, SPTW: Coaching Young Athlete	4
Total Required Hours:	21

Additionally, Non-Physical Education majors must complete the appropriate PRAXIS II examination (Physical Education: Content Knowledge – 5095.)

Driver Education

Requirements:	Sem. Hrs.
DRED 4263, Basic Driver Education	3
DRED 4273, Advanced Driver Education	3
HLTH 2523, First Aid and Safety	3
Total Required Hours:	9

Department of Psychology and Counseling

Professor Kris Biondolillo, Chair

Professors: *Davis, Hall, McGregor, Pearce, Saarnio, Yanowitz*

Associate Professors: *Peters, Pimpleton-Gray, Wilkinson*

Assistant Professors: *Campos, Cole, Cormier, Curtis, Gotay, Gunnet-Shovel, Hance, Johnson, Medley, Overley, Quintana, Sandusky, Smith*

Instructors: *Roland*

The Department of Psychology and Counseling is committed to serving the university, the profession, and the public by contributing to excellence in education, high professional standards for service delivery, and consumer advocacy. The department is also committed to research and scholarly activities to expand the academic knowledge base and to improve the quality of professional services.

The primary mission of the department is to teach basic principles underlying psychology as a behavioral science and to prepare graduate-level students to become psychological-counseling professional service providers. At the baccalaureate level, there is a major and a minor in psychology, a certificate in neuropsychological testing, service courses for Professionally Emerging Teachers and other programs including general education. At the graduate level, the department offers the Specialist in Education degree (Ed.S.) with a major in Psychology and Counseling as well as the Master of Science in Psychological Science. The department also provides advanced educational psychology as a core course for MSE majors as Emerging Professionals.

Major in Psychology

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PSY 1013, Making Connections: Psychological Wellness	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
A PSY course taken to satisfy requirements for a minor and/or a second major cannot also be used to satisfy major credit hour requirements in the psychology major.	
PSY 2013, Introduction to Psychology <i>Required ONLY if not taken as part of the General Education Requirements.</i>	0-3
PSY 2023, Psychology as a Science and a Profession	3
PSY 3103, Quantitative Methods for Behavioral Sciences	3
PSY 3113, Research Design in Psychology	3
PSY 3123, Experimental Methods in Psychology	3
Psychology as a Natural Science (select two of the following): PSY 3214, Introduction to Neuroscience PSY 3303, Motivation PSY 4323, Physiological Psychology PSY 4343, Learning Processes PSY 4363, Cognitive Psychology PSY 4383, Introduction to Behavior Analysis	6-7
Psychology as a Social Science (select three of the following): <i>Only two of the three following courses may be used to satisfy the requirements for this category: PSY 3403, PSY 3413 and PSY 3453</i> PSY 3403, Child Psychology PSY 3413, Adolescent Psychology PSY 3453, Developmental Psychology PSY 3523, Social Psychology PSY 3823, History of Psychology PSY 4533, Abnormal Psychology PSY 4553, Personality Theory	9
Integrative Psychology (select twelve hours from the following): <i>Courses from Psychology as a Natural Science or Psychology as a Social Science may be substituted for courses in this category.</i> PSY 3613, Cultural Psychology PSY 3703, Educational Psychology PSY 380V, Special Problems PSY 4053, Today's Families PSY 4173, Psychometrics PSY 4853, Psychological Seminar	12
Sub-total	39-43
Electives:	Sem. Hrs.
Electives	39-43
Total Required Hours:	120

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

Major in Psychology

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PSY 1013, Making Connections: Psychological Wellness	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 89)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>PSY 2013, Introduction to Psychology</i> <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
A PSY course taken to satisfy requirements for a minor and/or a second major cannot also be used to satisfy major credit hour requirements in the psychology major.	
PSY 2023, Psychology as a Science and a Profession	3
PSY 3003, Research Design and Analysis in Psychology	3
PSY 3303, Motivation	3
PSY 3453, Developmental Psychology	3
PSY 3523, Social Psychology	3
PSY 3613, Cultural Psychology	3
PSY 4343, Learning Processes	3
PSY 4363, Cognitive Psychology	3
PSY 4533, Abnormal Psychology	3
PSY 4883, Professional Preparation Capstone	3
Sub-total	30
Electives and/or Minor Requirements:	Sem. Hrs.
Electives and/or Minor Requirements	52
Total Required Hours:	120

Certificate in Neuropsychological Testing

This certificate will provide students with the basic coursework to eventually administer and score standardized psychological tests that they have been trained by a supervising licensed psychologist to conduct. Neuropsychology Technicians are supervised by a qualified psychologist who is a doctoral level psychologist licensed by the Arkansas Psychology Board to practice in the area of neuropsychology having supervision privileges also approved by the Board. A bachelor's degree from a regionally accredited institution, preferably with a major in psychology, is required. Passing grades of "C" in college courses in abnormal psychology, personality, psychological statistics, and psychological testing/tests and measurement are required by the Arkansas Psychology Board to become a technician.

Required Courses:	Sem. Hrs.
PSY 3103, Quantitative Methods for Behavioral Sciences	3
PSY 4173, Psychometrics	3
PSY 4533, Abnormal Psychology	3
PSY 4553, Personality Theory	3
Total Required Hours:	12

Department of Psychology and Counseling Minors

Minor in Psychology

Required Courses:	Sem. Hrs.
PSY 2013, Introduction to Psychology	3
Psychology elective	3
Upper-level Psychology electives	15
Total Required Hours:	21

Department of Teacher Education

Professor Ron Towery, Chair

Professors: *Gao, Gilbert, Keyes*

Associate Professors: *Choi, Fillippino, Grymes, Holman, Johnson-Leslie, Kelly, McJunkin, D. Williams*

Assistant Professors: *Covey, Graham, McMurtry, Woods*

Instructors: *Hayes, Johnson, Knowlton, Young*

The mission of the Department of Teacher Education encompasses three areas: teaching, service, and research. The major purpose of the department is teaching, which contributes significantly toward the accomplishment of the department's primary goals: preparing Professionally Emerging Teachers and Emerging Professionals in the fields of early childhood education, elementary education, middle grades education, secondary education, and reading. The department also offers a graduate program in early childhood services (see Graduate Bulletin). A commitment is made to students in the degree programs as faculty assist individuals through a well-defined advisement process. Another function of the department is service, consultation to public and private schools, to federal and state agencies and programs, and to professional organizations. The area of research and scholarly pursuits completes the mission of the department and exists for the purpose of defining problems and identifying solutions that contribute to the improvement of specific educational and pedagogical issues and concerns.

TRANSFER CREDIT POLICY

Courses completed at two-year institutions will not be accepted as transfer credits for upper-level specialty area and professional studies courses numbered 3000 and above. Transfer credit in the major from any institution is subject to approval by the Department of Teacher Education. Reviews must be requested in a timely manner so as to allow for adequate review by the department. Compatibility of course content, length of time since course completion, and adequacy of relevant field experiences will form but not be limited to the criteria for judging acceptance.

ACCEPTANCE OF WORK FROM PREVIOUS DEGREES OR ENROLLMENTS

Course work in the major field completed more than seven years prior to the student's enrollment in either the BSE in Elementary Education or the BSE in Middle Level Education will be reviewed for relevance and may not be acceptable to completion of the BSE degree.

Major in Elementary Education

Bachelor of Science in Education (Kindergarten - Grade 6 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>PHSC 1203 AND PHSC 1201, Physical Science and Laboratory</i> <i>BIOL 1003 AND BIOL 1001, Biological Science and Laboratory</i> <i>ENG 2003, World Literature to 1660 OR</i> <i>ENG 2013, World Literature Since 1660</i> <i>HIST 2763, The United States To 1876 OR</i> <i>HIST 2773, The United States Since 1876</i> <i>HIST 1013, World History To 1500 OR</i> <i>HIST 1023, World History Since 1500</i> <i>POSC 2103, Introduction to United States Government</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Professional Education Requirements:	Sem. Hrs.
Courses denoted below with an asterisk (*) require admission to the Teacher Education Program.	
ELED 2113, Child Growth and Learning	3
*ELED 3103, Effective Assessment in Elementary Grades	3
*ELED 3113, Children's Literature in Elementary Grades	3
*ELED 3143, Integrating the Curriculum and Instructional Strategies for Elementary Students	3
*ELED 3163, Characteristics of and Differentiation of Instruction for Diverse Learners	3
*ELED 3183, Technology in the Elementary Classroom	3
*ELED 4102, Methods of Teaching Language Arts in Elementary Grades	2
*ELED 4104, Teaching Internship I, Elementary	4
*ELED 4112, Methods of Teaching Social Studies in Elementary Grades	2
*ELED 4122, Methods of STEM, Mathematics	2
*ELED 4132, Methods of STEM, Science	2
*ELED 4142, Classroom Management for Elementary Grades	2
*ELED 4216, Teaching Internship II, Kindergarten through Third Grade	6
*ELED 4226, Teaching Internship III, Fourth through Sixth Grade	6
ELSE 3643, The Exceptional Student in the Regular Classroom	3
*RDNG 3203, Foundations of Reading Instruction	3
*RDNG 3223, Content Area Reading and Writing in Elementary School	3
*RDNG 4103, Literacy Assessment, Diagnosis, and Development	3
TE 2003, Introduction to Education	3
Sub-total	59
Additional Requirements:	Sem. Hrs.
ARED 3702, Children and Art	2
GSP 3203, Science for Teachers	3
MATH 2113, Mathematics for School Teachers I	3

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

Major in Elementary Education (cont.)

Bachelor of Science in Education (Kindergarten - Grade 6 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

MATH 2123, Mathematics for School Teachers II	3
MATH 3133, Mathematics for School Teachers III	3
MUED 3612, Music and Methods for the Classroom Teacher	2
PE 3802, Physical Education for Teachers of Young Children	2
Additional Social Science content elective Select one of the following: GEOG 2613, Introduction to Geography GEOG 3603, World Regional Geography ECON 2313, Principles of Macroeconomics ECON 2333, Economic Issues and Concepts	3
Additional General Education Laboratory Science Elective AND Lab	4
Sub-total	25
Licensure Requirement:	Sem. Hrs.
HIST 3083, History of Arkansas	3
Total Required Hours:	125

Major in Middle Level Education

Bachelor of Science in Education (Grades 4 - 8 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023 (Mathematics and Science specialty areas only)</i> <i>PHSC 1203 AND PHSC 1201, Physical Science and Laboratory</i> <i>BIOL 1003 AND BIOL 1001, Biological Science and Laboratory</i> <i>ENG 2003, World Literature to 1660 OR</i> <i>ENG 2013, World Literature Since 1660</i> <i>HIST 2763, The United States To 1876 OR</i> <i>HIST 2773, The United States Since 1876</i> <i>HIST 1013, World History To 1500 OR</i> <i>HIST 1023, World History Since 1500</i> <i>POSC 2103, Introduction to United States Government</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Professional Education Requirements:	Sem. Hrs.
<p>Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. Students must maintain a minimum GPA of 2.75 AND a grade of at least a "C" for each course in the Professional Education Requirements.</p>	
ELSE 3643, The Exceptional Student in the Regular Classroom	3
*MLED 3003, Nature and Needs of the Middle Level Learner	3
*MLED 3013, Literacy Through Literature for the Middle Grades	3
*MLED 3043, Effective Assessment of Middle School Students	3
*MLED 3053, Instructional Models and Strategies in the Middle Grades	3
*MLED 3083, Integration of Technology into the Curriculum	3
<p>Select two of the following depending on specialty area (see below): *MLED 4002, Methods and Materials for Teaching English Language Arts *MLED 4012, Methods and Materials for Teaching Mathematics *MLED 4022, Methods and Materials for Teaching Science *MLED 4032, Methods and Materials for Teaching Social Studies</p>	4
*MLED 4042, Theories and Strategies of Middle Grades Classroom Management	2
*MLED 4073, Key Issues of Teaching and Learning in Middle Grades	3
*MLED 4006, Teaching Internship I	6
*MLED 4116, Teaching Internship II	12
RDNG 3203, Foundations of Reading Instruction	3
*RDNG 4343, Reading in the Content Areas, Middle and Secondary Schools	3
TE 2003, Introduction to Education	3
*TE 3003, Differentiation for Culturally and Linguistically Diverse Learners	3
Sub-total	57
Licensure Requirement:	Sem. Hrs.
HIST 3083, History of Arkansas	3

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

Major in Middle Level Education (cont.)

Bachelor of Science in Education (Grades 4 - 8 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Specialty Areas:	Sem. Hrs.
<p><i>Students must choose two Specialty Areas. Students must have a "C" or better in each course in the Specialty Areas, including General Education courses which fall within the Specialty Areas. Specialty Area courses may be substituted per the advisor's approval.</i></p>	
<p>Specialty of English/Language Arts: Students with this Specialty Area must take the following: ENG 2003, Introduction to World Literature I OR ENG 2013, Introduction to World Literature II ENG 3323, American Literature To 1865 OR ENG 3363, American Literature Since 1865 MLED 3063, Teaching Writing in the Middle School Select one of the following: ENG 2103, Introduction to Poetry and Drama ENG 2113, Introduction to Fiction ENG 3583, Literature for Adolescents ENG 4043, Theory in the Teaching of Composition</p> <p>The following courses taken to satisfy the General Education Requirements require a grade of "C" or better: ENG 1003, Composition I ENG 1013, Composition II ENG 2003, Introduction to World Literature I OR ENG 2013, Introduction to World Literature II</p>	12
<p>Specialty of Mathematics: Students with this Specialty Area must take the following: MATH 2113, Mathematics for School Teachers I MATH 2123, Mathematics for School Teachers II MATH 2194, Survey of Calculus OR MATH 2204, Calculus I MATH 3003, Geometry for the Middle School Teacher MATH 3133, Mathematics for School Teachers III</p> <p>The following courses taken to satisfy the General Education Requirements require a grade of "C" or better: MATH 1023, College Algebra</p> <p><i>NOTE: For individuals choosing Mathematics as a content area for the Middle Level Education program, MATH 1043, Quantitative Reasoning, will not be counted within the required nineteen hours of mathematics content.</i></p>	16
<p>Specialty of Science: Students with this Specialty Area must take the following: CHEM 1003, Introduction to Chemistry GEOG 3723, Introduction to Physical Geography Weather and Climate GSP 3203, Science for Teachers MLED 3093, Teaching Middle Level Science Integrated with Technology, Engineering, and Mathematics</p> <p>The following courses taken to satisfy the General Education Requirements require a grade of "C" or better: MATH 1023, College Algebra BIOL 1003 AND BIOL 1001, Biological Science and Laboratory PHSC 1203 AND PHSC 1201, Physical Science and Laboratory</p>	12

Major in Middle Level Education (cont.)

Bachelor of Science in Education (Grades 4 - 8 License)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

<p>Specialty of Social Studies: Students with this Specialty Area must take the following: ECON 2333, Economic Issues and Concepts GEOG 2613, Introduction to Geography HIST 1013, World History to 1500 OR HIST 1023, World History since 1500 HIST 2763, The United States to 1876 OR HIST 2773, The United States since 1876</p> <p>The following courses taken to satisfy the General Education Requirements require a grade of "C" or better: <i>HIST 2763, The United States To 1876 OR</i> <i>HIST 2773, The United States Since 1876</i> <i>HIST 1013, World History To 1500 OR</i> <i>HIST 1023, World History Since 1500</i> <i>POSC 2103, Introduction to United States Government</i></p>	12
Sub-total	24-28
Total Required Hours:	122-126

Teaching Endorsements

Additional Early Childhood Teaching Endorsement Area for Licensure

The Arkansas Department of Education allows for teachers holding a license for grades K-6 to obtain an endorsement for teaching ages 3 and 4. Those individuals who wish to attain this endorsement must hold a K-6 license before beginning the endorsement process. For students currently enrolled in the K – 6 undergraduate BSE in Elementary Education, there is an opportunity to simultaneously complete the additional 12 hours needed for the add-on endorsement to teach 3 and 4 year olds. All individuals working to complete the Teaching Endorsement for ages 3 and 4, must complete the following four courses with a concluding GPA of 2.7 on the required 12 hours.

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

Requirements:	Sem. Hrs.
ECH 2023, Child Development	3
ECH 3073, Children, Families, and Community Relations: Field Experiences II	3
ECH 3613, Strategies for Supporting Learning through Play	3
ECH 4613, Curriculum and Assessment for Early Care and Education	3
Subtotal	12
Total Required Hours:	12

College of Engineering and Computer Science

Professor Abhijit Bhattacharyya, Dean

Associate Professor Yeonsang Hwang, Associate Dean

PROGRAMS OF STUDY

The College of Engineering and Computer Science offers undergraduate degree programs in a broad spectrum of areas, including a Bachelor of Arts degree in Computer Science; a Bachelor of Science degree in Computer Science; a Bachelor of Science in Civil Engineering degree; a Bachelor of Science in Electrical Engineering degree; a Bachelor of Science and Associate of Applied Science in Land Surveying and Geomatics; a Bachelor of Science in Mechanical Engineering degree; and a Bachelor of Science and an Associate of Science in Engineering Technology degree. Minors are also available in Computer Science, Land Surveying and Geomatics, Engineering and Renewable Technology.

The College of Engineering and Computer Science grants a wide-range of master's degree (M.E.M., M.S., M.S.E., M.S. Engr.) programs and multiple graduate certificates. For further information, see A-State's Graduate Bulletin.

The college is comprised of one department and three programs:

- Department of Computer Science
- Program for Civil Engineering
- Program for Electrical Engineering
- Program for Mechanical Engineering
- Program for Engineering Technology

Department of Computer Science

Associate Professor Hung-Chi Su, Chair

Professors: *Huang, Jiang*

Associate Professors: *Hammerand, Jenness*

Assistant Professors: *Bellis, Causey, Kim, Qualls*

Instructors: *Draganjac, Saldivar*

The course offerings in the department are designed to provide students with the broad background necessary for employment in industry, government, or education, or as a basis for graduate study.

Major in Computer Science

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
CS 1093, Making Connections - Computer Science	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>PHYS 2034, University Physics I OR</i> <i>PHYS 2054, General Physics I</i> <i>ECON 2313, Principles of Macroeconomics OR</i> <i>ECON 2333, Economic Issues & Concepts</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Major Requirements:	Sem. Hrs.
CS 1114, Concepts of Programming	4
CS 2114, Structured Programming	4
CS 2124, OOP and Fundamental Data Structures	4
CS 3113, Algorithms and Advanced Data Structures	3
CS 3233, Operating Systems	3
CS 4113, Software Engineering	3
CS 4143, Java and Application Development	3
CS 4313, Computer Networks	3
CS 4543, Database Systems	3
ENG 3043, Technical Writing	3
MATH 2183, Discrete Structures	3
<p>MATH 2204, Calculus I OR MATH 2143, Business Calculus OR MATH 2194, Survey of Calculus</p>	3-4
PHIL 3723, Computers, Ethics, and Society	3
STAT 3233, Applied Statistics I	3
<p>Upper-level Computer Science Electives <i>MATH 4533 may be used to satisfy this requirement</i></p>	12

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

Major in Computer Science

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Business Track (Select all of the courses in one of the following tracks): Electronic Commerce Track CIT 3353, Mobile and Web Applications Development CIT 4453, Global E-Commerce MKTG 3013, Marketing GCOM 3673, Digital Publishing and Publication Design Information Technology Track CIT 2523, Telecommunications and Networking Essentials CIT 4453, Global E-Commerce CIT 4653, Automatic Data Capture CIT 4853, IT Project Management General Business Track ACCT 2023, Fundamental Accounting Concepts FIN 3713, Business Finance LAW 2023, Legal Environment of Business MGMT 3153, Organizational Behavior MKTG 3013, Marketing	12-15
Sub-total	69-73
Electives:	Sem. Hrs.
Electives	9-13
Total Required Hours:	120

Major in Computer Science

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
CS 1093, Making Connections - Computer Science	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>PHYS 2034, University Physics I OR</i> <i>PHYS 2073 AND 2071, Fundamental Physics and Laboratory</i> <i>ECON 2313, Principles of Macroeconomics OR</i> <i>ECON 2333, Economic Issues & Concepts</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1013 AND CHEM 1011, General Chemistry I and Laboratory	4
CS 2114, Structured Programming	4
CS 2124, OOP and Fundamental Data Structures	4
CS 3113, Algorithms and Advanced Data Structures	3
CS 3123, Programming Languages	3
CS 3223, Computer Organization	3
CS 3233, Operating Systems	3
CS 4113, Software Engineering	3
CS 4143, Java and Application Development	3
CS 4543, Database Systems	3
CS 4713, Analysis of Algorithms	3
EE 3333 AND EE 3331, Digital Electronics I and Laboratory	4
ENG 3043, Technical Writing	3
MATH 2183, Discrete Structures	3
MATH 2214, Calculus II	4
MATH 3243, Linear Algebra	3
PHIL 3723, Computers, Ethics, and Society	3
PHYS 2044, University Physics II OR PHYS 2083 AND 2081, Fundamental Physics II and Laboratory	4
STAT 3233, Applied Statistics I	3
Upper-level Computer Science Electives <i>MATH 4533 may be used to satisfy this requirement</i>	12
Sub-total	75
Electives:	Sem. Hrs.
Electives	6
Total Required Hours:	120

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

Department of Computer Science Minors

Minor in Computer Science

Required Courses:	Sem. Hrs.
CS 2114, Structured Programming & Laboratory	4
CS 2124, OOP & Fund Data Structures & Laboratory	4
CS 3113, Algorithms & Adv Data Structures	3
CS 3233, Operating Systems	3
MATH 2183, Discrete Structures	3
Upper-level Computer Science Elective	3
Total Required Hours:	20

Engineering Programs

One of the hallmarks of modern times is the acceptance of accelerating change, both in technological products and in educational philosophies. Few college graduates in today's workforce function solely with the skills and understanding that they gained in formal degree programs. Recognizing that the undergraduates of Arkansas State University will pursue their careers in an ever changing world, the overall mission of Engineering Programs is to provide a broad education in the fundamentals of engineering while providing opportunities for emphasis in specialized areas of study. An important corollary is the development of the ability to think logically, creatively, and quantitatively, and the skills necessary to effectively communicate both fundamental and applied knowledge. This unified approach provides an inherently flexible base that permits graduates to fill general or specialized positions in industry, government, and private practice or to pursue advanced degrees after graduation.

The engineering profession is concerned with the innovative, effective, and efficient synthesis of ideas, materials, and personnel to create the products, systems, and services needed by society. The knowledge and skills that comprise modern engineering must be developed upon strong foundations of mathematics, the physical sciences, and applied engineering sciences. Because responsible engineering must contribute to the overall goals and values of our society, engineers must develop a basic knowledge and appreciation of mankind's cultural and social history as well as ethical issues. Engineering must reflect an ever growing body of knowledge that includes state-of-the-art professional practice, understanding, and values and requires a lifetime of continuing education. Therefore, the education needed to enter and practice the engineering profession is comprehensive and demanding regardless of the chosen engineering field.

Engineering offers three undergraduate academic programs: Civil Engineering, Electrical Engineering, and Mechanical Engineering. All prerequisite engineering, mathematics, and science courses for all engineering degrees must be completed with a grade of "C" or better before attempting the subsequent engineering courses. Also, each course in the Engineering Core Curriculum must be completed with a grade of "C" or better. In addition to the University requirements for all baccalaureate degrees, all engineering degrees require that one of the two following conditions be met: (1.) "C" or better in each course in the major requirements or (2.) 2.5 or greater grade point average in the major requirements.

Transfer credits are acceptable under criteria consistent with ABET (the accrediting body for engineering programs in the United States), the policies of Arkansas State University, and the approval of the College of Engineering and Computer Science. The transfer student is required to complete a minimum of 32 semester hours of engineering courses at Arkansas State University for graduation.

Students with an undergraduate engineering degree from another university and pursuing a second degree in engineering at Arkansas State University must meet all University requirements and complete a minimum of 32 semester hours of engineering courses at Arkansas State University for graduation. Students having completed an undergraduate engineering degree at Arkansas State University and pursuing a second degree in engineering at Arkansas State University must meet the residency requirements of the University and meet all course requirements for the second degree.

Engineering students eligible for the Honors Program are encouraged to participate in the program. Engineering courses taken for Honors credit must be approved by the College of Engineering and Computer Science, and the Honors Program. The final course in the student's honors program can be an Honors Independent Study (HNRS 4003-6) or Honors Senior Thesis (HNRS 4893-6). Either course would be valuable in preparation for graduate studies.

GENERAL EDUCATION CURRICULUM FOR ENGINEERING

The general education categories / courses listed below are required for all engineering baccalaureate degrees.

General Education Requirements:	Sem. Hrs.
A course may be counted in satisfaction of only one area requirement. With the exception of English courses (ENG), no more than two selections may have the same prefix. A science course and its laboratory will count as a single selection.	
Communication ENG 1003, Composition I ENG 1013, Composition II COMS 1203, Oral Communication (<i>Required Departmental Gen. Ed. Option</i>)	9
Mathematics MATH 2204, Calculus I	4
Science CHEM 1013 AND CHEM 1011, General Chemistry I and Laboratory PHYS 2034, University Physics I	8
Arts and Humanities Fine Arts (select one of the following): ART 2503, Fine Arts - Visual MUS 2503, Fine Arts - Music THEA 2503, Fine Arts - Theatre Humanities (select one of the following): ENG 2003, World Literature to 1660 ENG 2013, World Literature Since 1660 PHIL 1103, Introduction to Philosophy	6
Social Sciences <i>The State Minimum General Education Core allows engineering students to substitute higher-level math and/or science courses as part of this requirement.</i> Select one of the following: HIST 2763, The United States To 1876 HIST 2773, The United States Since 1876 POSC 2103, Introduction to United States Government Substitution of Higher Math (student must complete both): MATH 2214, Calculus II MATH 3254, Calculus III	11
Total:	38

ENGINEERING CORE COURSES

The engineering courses listed below are required for all engineering baccalaureate degrees.

Engineering Core Courses:	Sem. Hrs.
Grade of "C" or better required.	
ENGR 1402, Concepts of Engineering	2
ENGR 1412, Software Applications for Engineers	2
ENGR 2401, Applied Engineering Statistics	1
ENGR 2403, Statics	3
ENGR 3433, Engineering Economics	3
ENGR 4401, Senior Seminar	1
ENGR 4453, Numerical Methods for Engineers	3
ENGR 4463, Senior Design I	3
ENGR 4482, Senior Design II	2
Total:	20

Civil Engineering Program

Associate Professors: *Elsayed, Hwang, Hossain*

Assistant Professors: *Jeong, Ragab*

Instructors: *Stewart*

Civil engineering is the application of mathematics, science, and engineering fundamentals for the benefit of society and the supporting infrastructure systems. Traditional civil engineering areas include:

- environmental engineering
(pollution control including the design of water and waste water facilities);
- water resources
(study of the flow of water over land, under ground and storage);
- transportation engineering
(design of highways and studies of traffic flow);
- structural engineering
(design of building, bridges and other related structures);
- geotechnical engineering
(study of soil behaviors, foundation design, land slides and other topics).

The Civil Engineering Program offers a Bachelor of Science in Civil Engineering (BSCE) with focus in transportation, water resources, structural, and geotechnical areas. Other traditional areas such as materials and environmental are covered in the curriculum, as well as a strong general education component. The faculty is involved in research, solving engineering problems in the community, and consulting work. These experiences are brought into the classroom so that students receive a well-rounded educational experience. This includes learning the engineering theory as well as the practical application of the theory to real-world problems.

The Civil Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org/>.

PROGRAM EDUCATIONAL OBJECTIVES

The Civil Engineering Program educational objectives are:

1. Graduates have successfully advanced in civil engineering practice as evidenced by their achievements and contributions to their employers and the greater engineering community.
2. Graduates have pursued graduate degrees, obtained professional licensure, and/or completed professional development activities in continuing to advance their knowledge base in civil engineering or related professional fields.
3. Graduates are actively working to improve their community and society in general by utilizing and sharing their engineering expertise.

The Civil Engineering Program's outcomes define the knowledge, skills, attitudes, and behaviors that program graduates are expected to have by the time of graduation. Graduates of the Civil Engineering Program will have:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The Civil Engineering Program has published educational objectives that are consistent with the institutional mission and ABET criteria, has a process that periodically documents and demonstrates that the objectives are based on the needs of the program's various constituencies, has an assessment and evaluation process that periodically documents and demonstrates the degree to which these objectives are attained, and uses the assessment results to improve the effectiveness of the program.

Major in Civil Engineering

Bachelor of Science in Civil Engineering

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENGR 1402, Concepts of Engineering (See Engineering Core Courses)	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Engineering	38
Engineering Core Courses:	Sem. Hrs.
Refer to Engineering Core Courses	20
Major Requirements:	Sem. Hrs.
In addition to the University requirements for all Baccalaureate Degrees, a Bachelor of Science in Civil Engineering requires that one of the two following conditions be met: 1. "C" or better in each course in the major courses; OR 2. 2.5 (or greater) grade point average in the major courses listed below.	
CE 2202, Civil Engineering Presentations	2
CE 2223, Plane Surveying	3
CE 3213, Structural Analysis I	3
CE 3224, Civil Engineering Materials	4
CE 3233, Structural Analysis II OR CE 4263, Water and Waste Treatment	3
CE 3253, Engineering Hydrology	3
CE 3263, Introduction to Environmental Engineering	3
CE 3273, Water and Waste Systems	3
CE 4203, Transportation Engineering I	3
CE 4223, Transportation Engineering II	3
CE 4233, Foundation Engineering	3
CE 4243, Reinforced Concrete Design	3
CE 4251, Soil Mechanics Laboratory	1
CE 4253, Soil Mechanics	3
CE 4283, Structural Steel Design	3
CE Elective: CE 3233, Structural Analysis II OR CE 4263, Water and Waste Treatment OR CE 4803, Open Channel Flow OR CE 4813, Groundwater Hydrology OR CE 4823, Earthquake Engineering OR CE 4893, Sustainability and Water Resources OR SUR 4023, Advanced Surveying	3
ENGR 2411, Mechanics of Materials Laboratory	1
ENGR 2413, Mechanics of Materials	3
ENGR 2423, Electric Circuits I OR ENGR 3443, Engineering Thermodynamics I	3
ENGR 3423, Dynamics	3
ENGR 3471, Fluid Mechanics Laboratory	1
ENGR 3473, Fluid Mechanics	3
Sub-total	60

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

Major in Civil Engineering (cont.)

Bachelor of Science in Civil Engineering

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Additional Support Course:	Sem. Hrs.
MATH 4403, Differential Equations	3
BIOL 1063, People and the Environment OR BIO 1003, Biological Science	3
Science Elective: CHEM 1023, General Chemistry II AND CHEM 1021, General Chemistry II Lab OR GEOL 1003, Environmental Geology AND GEOL 1001, Environmental Geology Lab OR PHYS 2044, University Physics II	4
Sub-total	10
Total Required Hours:	128

Electrical Engineering Program

Professors: *Kemp, Kher,*

Assistant Professors: *Minor*

Instructors: *Copelin, Sheppard*

Electrical engineering is a broad field that cuts across many other fields that utilize electrical energy; electrical/electronic systems; computers; electromagnetic devices; communications; and electrical control. Thus, there are numerous subfields under electrical engineering, with new ones, including increasingly multidisciplinary areas of focus (for example, nano-electronics, alternative energy, and bio-electrical engineering) being added periodically. Since electrical, electronic, computer, and electromagnetic/optoelectronic energy, communications, components, systems, and processes undergird nearly every facet of modern society's infrastructure, the demand for electrical, electronic, computer, and related types of engineers is significant and increasing, and electrical engineering is a marketable, lucrative, geographically widespread, and fulfilling career.

An electrical engineering education and career build upon a strong foundation in mathematics, science, and engineering fundamentals, as well as, increasingly, strong laboratory/field, instrumentation, computer, problem solving, design, human relations, teamwork/leadership, economics, and communication knowledge and skills. Historically "non-technical" issues, such as global trade, ethics, litigation, aesthetics, and the environment, are also becoming increasingly important in an electrical engineering career. The Electrical Engineering Program has designed a curriculum to provide its students competence in and sensitivity to these areas. This is reflected in the Bachelor of Science in Electrical Engineering (BSEE) degree program. Student knowledge, capabilities, and professionalism are also enhanced through involvement in the ASU Student Branch of the Institute of Electrical and Electronics Engineers, student research and industrial internship opportunities, seminars, and a variety of other service, social, and professional activities.

A-State electrical engineering graduates have come from diverse backgrounds and localities, can be found in nearly every type of engineering position, and have excelled in their careers. Numerous graduates have acquired advanced degrees (master- and doctoral-level) at other institutions after obtaining the bachelor degree at A-State. Thus, the Electrical Engineering Program does an excellent job in educating its students for the challenges and opportunities associated not only with a successful engineering career, but also with being good scholars, citizens, and contributors to society.

The Electrical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org/>.

PROGRAM EDUCATIONAL OBJECTIVES

The Electrical Engineering Program has a mechanism in place to periodically assess its effectiveness in meeting its educational objectives and outcomes (see below). This assessment process results in periodic modification to specific courses and the overall degree plan so as to better promote the achievement of the objectives and outcomes, themselves periodically formulated and revised, with the assistance of the Electrical Engineering Advisory Council, in relation to the evolving mission and resource base of the Program. This occurs within the context of the evolving needs of the region and nation, and the current state-of-the profession. The specific educational objectives of the BSEE degree program are:

1. Graduates have successfully advanced in electrical/computer engineering or related relevant practice as evidenced by contributions to their employers and the greater professional community.
2. Graduates have pursued graduate degrees or completed professional development activities in continuing to advance their knowledge base in electrical engineering or related professional fields.
3. Graduates have made a broader contribution by providing an engineering or otherwise technical or objective perspective to the challenges and opportunities of society.

The Electrical Engineering Program's outcomes define the knowledge, skills, attitudes, and behaviors that program graduates are expected to have by the time of graduation from the Program. Graduates of the Electrical Engineering Program will have:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Major in Electrical Engineering

Bachelor of Science in Electrical Engineering

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENGR 1402, Concepts of Engineering (See Engineering Core Courses)	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Engineering	38
Engineering Core Courses:	Sem. Hrs.
Refer to Engineering Core Courses	20
Major Requirements:	Sem. Hrs.
<p>Electives denoted with an asterisk (*) may be selected from any courses within the designated elective group; subject to a program advisor's approval. They must make a rational contribution to the student's personal and professional education goals.</p> <p>In addition to the University requirements for all Baccalaureate Degrees, a Bachelor of Science in Electrical Engineering requires that one of the two following conditions be met:</p> <ol style="list-style-type: none"> 1. "C" or better in each course in the major courses; OR 2. 2.5 (or greater) grade point average in the major courses listed below. 	
CS 2114, Structured Programming	4
EE 2322, Electrical Workshop	2
EE 3313, Electric Circuits II	3
EE 3331, Digital Electronics I Lab	1
EE 3333, Digital Electronics I	3
EE 3343, Engineering Fields and Waves	3
EE 3353, Signals and Systems	3
EE 3363, Semiconductor Materials and Devices	3
EE 3383, Principles and Practices in Electrical Engineering	3
EE 3393, Probability and Random Signals	3
EE 3401, Electronics I Laboratory	1
EE 3403, Electronics I	3
EE 4313, Control Systems	3
EE 4353, Power Systems	3
EE 4333, Communications Theory	3
EE 4373, Electronics II	3
EE 4773, Electronics II Laboratory	3
*Electrical Engineering Electives	6
ENGR 2423 AND ENGR 2421, Electric Circuits I and Laboratory	4
ENGR 3443, Engineering Thermodynamics I	3
*Approved Technical Electives	3
PHYS 2044, University Physics II	4
Sub-total	67
Additional Support Course:	Sem. Hrs.
MATH 4403, Differential Equations	3
Total Required Hours:	128

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

Mechanical Engineering Program

Professor: *Bhattacharyya, Jeong*

Associate Professors: *Haran, Seok*

Assistant Professors: *Abutayeh, Fleming*

Instructor: *Walker*

The practice of Mechanical Engineering requires the ability to apply the principles of engineering, basic sciences, and mathematics (including multivariate calculus and differential equations) to model, analyze, design, and realize physical systems, components or processes. Mechanical Engineers must be able to work professionally in both thermal and mechanical systems areas as required in fields such as aerospace and automotive design, biomedical and bioengineering processes, engineering materials research, HVAC design, machinery design, manufacturing processes, power generation, monitoring and control, mechatronics and robotics.

The mission of the Mechanical Engineering Program is to provide quality educational opportunities, promote scholastic achievement, and to encourage creative as well as quantitative analytical methods for problem solving. This is accomplished through:

- effective classroom and laboratory instruction that stress sound engineering fundamentals;
- multiple design experiences in the laboratory, various courses in classroom, and through design competitions; and
- opportunities to participate in research, industrial internships, and in professional engineering societies through student membership.

The Mechanical Engineering Program offers a Bachelor of Science in Mechanical Engineering (BSME) which provides the educational foundation for graduates to pursue a wide range of career opportunities including service as a practicing engineer and pursuit of professional licensure; graduate study in engineering or other fields; or entrance into a professional school such as medicine or law.

The Mechanical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org/>.

PROGRAM EDUCATIONAL OBJECTIVES

The educational objectives for the Mechanical Engineering Program are:

1. Graduates have successfully advanced in mechanical engineering practice as evidenced by their achievements and contributions to their employers and the greater engineering community.
2. Graduates have pursued graduate degrees or completed professional development activities in continuing to advance their knowledge base in the mechanical engineering or related professional fields.
3. Graduates have made a broader contribution to local and national economic development by providing a mechanical engineering perspective to the challenges and opportunities of society.

The Mechanical Engineering Program's outcomes define the knowledge, skills, attitudes, and behaviors that program graduates are expected to have by the time of graduation from the program. Graduates of the Mechanical Engineering Program will have:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions; and
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Major in Mechanical Engineering

Bachelor of Science in Mechanical Engineering

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENGR 1402, Concepts of Engineering (See Engineering Core Courses)	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Engineering	38
Engineering Core Courses:	Sem. Hrs.
Refer to Engineering Core Courses	20
Major Requirements:	Sem. Hrs.
Electives denoted by an asterisk (*) must be chosen from a list of approved electives which is available from Mechanical Engineering advisors and through the department office. In addition to the University requirements for all Baccalaureate Degrees, a Bachelor of Science in Mechanical Engineering requires that one of the two following conditions be met: 1. "C" or better in each course in the major courses; OR 2. 2.5 (or greater) grade point average in the major courses listed below.	
CHEM 1023, General Chemistry II	3
ENGR 2411, Mechanics of Materials Laboratory	1
ENGR 2413, Mechanics of Materials	3
ENGR 2423 AND ENGR 2421, Electric Circuits I and Laboratory	4
ENGR 3423, Dynamics	3
ENGR 3443, Engineering Thermodynamics I	3
ENGR 3471, Fluid Mechanics Laboratory	1
ENGR 3473, Fluid Mechanics	3
ME 2502, Solid Modeling for Mechanical Engineers	2
ME 3504, Process Monitoring and Control	4
ME 3513, Mechanical Vibrations	3
ME 3533, Engineering Thermodynamics II	3
ME 3613, Control Systems for Mechanical Engineers	3
ME 4503, Fluid and Thermal Energy Systems	3
ME 4543, Machine Design	3
ME 4553, Heat Transfer	3
ME 4563, Introduction to Manufacturing Processes	3
ME 4573, Mechanical System Design	3
ME 4613 Introduction to Mechatronics	3
PHYS 2044, University Physics II	4
*ME Electives <i>Students must select 6 credit hours from the following approved ME Electives:</i> ME 3523, Introduction to Robotics Laboratory ME 4523, Introduction to Finite Element Analysis ME 4583, Energy Conversion ME 4593, Design of Heating, Ventilating, and Air-Conditioning Systems	6

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

Major in Mechanical Engineering (cont.)

Bachelor of Science in Mechanical Engineering

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Professional Development Elective <i>This elective may be selected outside the Engineering Programs, subject only to the following list or advisor's approval. It must make a rational contribution to the student's personal and professional education goals. Pre-approved Professional Development Electives:</i> MATH 3243, Linear Algebra MATH 3273, Applied Complex Analysis MATH 3303, Modern Algebra I MATH 3323, Mathematical Modeling MATH 3343, College Geometry MATH 4423, Modern Algebra II MATH 4513, Applied Mathematics MATH 4533, Numerical Methods MATH 4553, Advanced Calculus I MATH 4563, Advanced Calculus II ME 3523, Introduction to Robotics Laboratory ME 4523, Introduction to Finite Element Analysis ME 4593, Design of Heating, Ventilating, and Air-Conditioning Systems STAT 4453, Probability and Statistics I STAT 4463, Probability and Statistics II TECH 3433, AutoCAD 3D Modeling TECH 3453, Advanced Technology Design Solid Works	3
Sub-total	67
Additional Support Course:	Sem. Hrs.
MATH 4403, Differential Equations	3
Total Required Hours:	128

Engineering Program Minors

Minor in Engineering

We propose that each student declaring a minor do so as early in their education as possible and that each student have appointed by the appropriate engineering program director a designated engineering minor advisor in Engineering Programs who will recommend and approve in writing on a designated form any and all engineering courses taken by the student. It is expected that the student's primary academic advisor in his/her major will be informed of the courses recommended by the minor advisor and will consult with the minor advisor as appropriate before releasing the student's academic hold. The program will have sufficient flexibility that in some cases, individually planned hybrid specializations or those outside those currently offered as professional concentration areas for the B.S.-Engineering major (CE, EE, ME), can be accommodated by appropriate selection of courses.

In addition, the awarding of a minor in engineering will require that the student has made a grade of C or better in all courses comprising the 23 credit hours or has a grade point average of 2.5 or above over these courses.

Required Courses:	Sem. Hrs.
Students must maintain a minimum GPA of 2.5 OR a grade of at least a "C" for each course in the minor.	
ENGR 1402, Concepts of Engineering or equivalent <i>Equivalency will be decided by the minor advisor.</i>	2
ENGR 1412, Software Applications for Engineers or equivalent <i>Equivalency will be decided by the minor advisor.</i>	2
ENGR 2403, Statics	3
ENGR 2423 AND ENGR 2421, Electric Circuits I and Laboratory OR ENGR 2413 AND ENGR 2411, Mechanics of Materials and Laboratory	4
Additional credit hours of other ENGR, CE, EE, or ME prefixed courses of 2000, 3000 or 4000 level courses. These courses must include: - At least, one additional regular engineering laboratory course selected from ENGR 2411, Mechanics of Materials Laboratory, ENGR 2421, Laboratory for Electric Circuits I, or any 3000 or 4000-level CE, EE, ENGR or ME laboratory course. - No more than 4 credit hours of these additional 12 hours can be 2000-level. - No more than 3 credit hours of the 12 can be special problems, student research, independent study, internship, honors senior thesis, or other non-standard courses. - The student should be aware that additional credit hours, for example from other engineering, mathematics, or science courses, may be indirectly required to satisfy all formal prerequisite and corequisite requirements for the engineering courses designated for the minor, as per the A-State Undergraduate Bulletin.	12
Total Required Hours:	23

Engineering Program Minors

Minor in Electrical Engineering

As the lines between engineering and scientific disciplines become increasingly blurred, many students are forced to make tough decisions about which major to choose. Traditionally there has been no formal mechanism within the College of Engineering and Computer Science to expose students to substantial academic preparation in more than one department, other than a double-major option, which generally entails a substantial investment of time. A Minor in Electrical Engineering (EE), offered through the Electrical Engineering program, is designed to fill this void by providing an avenue for a diverse education for students outside of the Electrical engineering discipline. Due to the extensive breadth of EE discipline areas, students seeking a minor in EE have a spectrum of choices for the program paths they choose. Path options include Applied Electromagnetics, Circuits, Communications, Control Systems, Embedded systems, etc.

Required Courses: Students must maintain a minimum GPA of 2.5 OR a grade of at least a "C" for each course in the minor.	Sem. Hrs.
CS 2114, Structured Programming	4
ENGR 2421, Electric Circuits I Laboratory	1
ENGR 2423, Electric Circuits I	3
EE 3331, Digital Electronics I Laboratory	1
EE 3333, Digital Electronics I	3
EE 4344, Embedded Systems	4
Any Upper level EE or CS Course	3
Total Required Hours:	19

Engineering Program Minors

Minor in Land Surveying and Geomatics

Students who are majoring in Civil Engineering may elect to complete the Minor in Land Surveying and Geomatics. The student is encouraged to declare the Surveying minor no later than the end of their sophomore year and follow the BSCE degree plan with the Land Surveying and Geomatics minor modifications from that point forward. Civil Engineering advisors will have a modified degree plan for students taking the Surveying minor. For BSCE students, completion of the Land Surveying and Geomatics minor along with the appropriate work experience and references will qualify the student to take the Professional Surveyor (P.S.) licensure exam in the state of Arkansas. The student must earn a grade of C or better in all courses comprising the 18 credit hours or have a grade point average of 2.5 or above over these courses. The Land Surveying and Geomatics minor does not complete the educational requirements for P.S. licensure for non-BSCE majors.

Required Courses: Students must maintain a minimum GPA of 2.5 OR a grade of at least a "C" for each course in the minor.	Sem. Hrs.
SUR 3003, Route and Construction Surveying	3
SUR 3013, Survey Plats and Deeds	3
SUR 3023, Photogrammetry	3
SUR 4003, Boundary Control and Legal Principles	3
SUR 4013, Law and Professionalism in Surveying	3
SUR 4023, Advanced Surveying	3
Total Required Hours:	18

Engineering Technology Program

Associate Professors: *Sharma*

Instructors: *Ren, White*

MISSION STATEMENT

The Engineering Technology Program at Arkansas State University strives to provide a quality technical education necessary for a successful career in various industries. This program prepares students for a wide range of technical careers ranging from manufacturing, management, operations and upcoming renewable energy sector. Graduates of this program are expected to possess technology fundamentals and hands-on technical skills. This program has two intertwined objectives: serving the needs of quality technical education in the region, and supporting the local industry and economy by providing a qualified workforce.

BACHELOR OF SCIENCE DEGREE

The Bachelor of Science degree with a Major in Engineering Technology offers four emphasis areas: *Computer Aided Drafting and Design*, *Computer Systems*, *Technical Studies*, and *Technology Management*. Each program will be tailored to meet the needs of the career specifications designated by the student.

The **Computer Aided Drafting and Design** option is focused to develop and train qualified personnel in the use of computer aided technology for designing objects, real or virtual. The design of geometrics models using parametric procedures, using driven dimension, and tolerances. These procedures in CAD, will allow students the ability to apply the principles in manufacturing settings. Graduates with this emphasis will serve all manufacturing clients such as Civil, Mechanical, Electrical, and Industrial engineering groups.

The **Computer Systems** option is designed to prepare students to manage and troubleshoot computer networks in various settings. Students in this emphasis area take computer networking courses at 2+2 partner institutions.

The **Technical Studies** option is designed to permit the student to tailor a program in accordance with his/her specific interests for which a traditional baccalaureate degree is not attainable.

Students who have successfully completed some of the degree requirements in an occupational environment may continue their education under this educational umbrella.

The **Technology Management** option is designed to prepare a student to apply theories, perceptions, and principles established in the humanities and social and behavioral sciences, as well as sound business practices in a technology-oriented environment. Graduates with this emphasis will serve as liaison between manufacturing or industrial production and the administrators of a company. Consequently, a sound understanding of the basic principles of business, personnel management, and management techniques will be mandatory.

Prior Learning Assessment is a program that enables students to earn college credit for learning acquired outside of the traditional college classroom. Seminars are provided to assist students in the development of prior learning portfolios. Upon completion of the assessment process, up to 25 percent of the degree requirements may be awarded using TECH 3721-9, Technical Career Subjects and/or TECH 1891-9, Occupational Studies Credit.

Students who are graduates of two-year occupational programs may be considered as candidates to enroll in the Bachelor of Science - Engineering Technology degree program.

The Bachelor of Science - Engineering Technology degree is accredited by the Higher Learning Commission.

Major in Engineering Technology

Bachelor of Science

Emphasis in Computer Aided Drafting and Design

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
UC 1013, Making Connections (or equivalent course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
CIT 3013 Management Information Systems	3
ENG 3043, Technical Writing	3
MGMT 3153, Organizational Management OR Sociology Elective OR Psychology Elective	3
RET 3113, Fund. Applications of Renewable Energy	3
TECH 3773, Statistics OR STAT 3233, Applied Statistics I	3
TECH 3863, Industrial Safety	3
TECH 4813, Operations Systems Research	3
TECH 4823, Quality Assurance	3
TECH 4853, Lean 6 Sigma for Manufacturing	3
TECH 4883, Work Center Management	3
Sub-total	30
Emphasis Area (Computer Aided Drafting and Design):	Sem. Hrs.
Grade of "C" or better required for all Emphasis Area Requirements	
MATH 1033, Plane Trigonometry	3
TECH 2703 Technical Graphics and AutoCAD	3
TECH 2863, Principles of Technology	3
TECH 3413, AutoCAD / Inventor	3
TECH 3433, AutoCAD 3-D Modeling	3
TECH 3453, Advanced Technology Design - Solid Works	3
TECH 3843, Manufacturing Materials and Processes	3
TECH 3853, Computer Aided Manufacturing (CAM)	3
TECH 3873, Tool Design	3
TECH 4743, Computer Numeric Control	3
TECH 4873, Motion and Time Study	3
Sub-total	33
Electives:	Sem. Hrs.
Electives	19
Total Required Hours:	120

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

Major in Engineering Technology

Bachelor of Science Emphasis in Computer Systems

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
UC 1013, Making Connections (or equivalent course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
CIT 3013 Management Information Systems	3
ENG 3043, Technical Writing	3
MGMT 3153, Organizational Management OR Sociology Elective OR Psychology Elective	3
RET 3113, Fund. Applications of Renewable Energy	3
TECH 3773, Statistics OR STAT 3233, Applied Statistics I	3
TECH 3863, Industrial Safety	3
TECH 4813, Operations Systems Research	3
TECH 4823, Quality Assurance	3
TECH 4853, Lean 6 Sigma for Manufacturing	3
TECH 4883, Work Center Management	3
Sub-total	30
Emphasis Area (Computer Systems):	Sem. Hrs.
Grade of "C" or better required for all Emphasis Area Requirements Courses denoted below with an asterisk (*) cannot be taken on the A-State campus; they are taught only at the 2+2 program institutions.	
RET 4123, Energy Conservation and Efficiency	3
* TECH 1013, Networking Essentials - Cisco I	3
* TECH 1023, Router Technologies - Cisco II	3
* TECH 2033, Advanced Routing and Switching - Cisco III	3
* TECH 2043, WAN Technologies and Design - Cisco IV	3
TECH 2863, Principles of Technology	3
Technology and Renewable Energy Technology Electives (TECH, RET)	15
Sub-total	33
Electives:	Sem. Hrs.
Electives	19
Total Required Hours:	120

Major in Engineering Technology

Bachelor of Science Emphasis in Technical Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
UC 1013, Making Connections (or equivalent course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
CIT 3013 Management Information Systems	3
ENG 3043, Technical Writing	3
MGMT 3153, Organizational Management OR Sociology Elective OR Psychology Elective	3
RET 3113, Fund. Applications of Renewable Energy	3
TECH 3773, Statistics OR STAT 3233, Applied Statistics I	3
TECH 3863, Industrial Safety	3
TECH 4813, Operations Systems Research	3
TECH 4823, Quality Assurance	3
TECH 4853, Lean 6 Sigma for Manufacturing	3
TECH 4883, Work Center Management	3
Sub-total	30
Emphasis Area (Technical Studies):	Sem. Hrs.
Grade of "C" or better required for all Emphasis Area Requirements	
RET 4123, Energy Conservation and Efficiency	3
TECH 2863, Principles of Technology	3
TECH 3843, Manufacturing Materials and Processes	3
Technical Electives (ENGR, MATH, PHYS, CHEM, RET, CIT)	12
Technology and Renewable Energy Technology Electives (TECH, RET)	12
Sub-total	33
Electives:	Sem. Hrs.
Electives	19
Total Required Hours:	120

Major in Engineering Technology

Bachelor of Science Emphasis in Technology Management

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
UC 1013, Making Connections (or equivalent course)	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
CIT 3013 Management Information Systems	3
ENG 3043, Technical Writing	3
MGMT 3153, Organizational Management OR Sociology Elective OR Psychology Elective	3
RET 3113, Fund. Applications of Renewable Energy	3
TECH 3773, Statistics OR STAT 3233, Applied Statistics I	3
TECH 3863, Industrial Safety	3
TECH 4813, Operations Systems Research	3
TECH 4823, Quality Assurance	3
TECH 4853, Lean 6 Sigma for Manufacturing	3
TECH 4883, Work Center Management	3
Sub-total	30
Emphasis Area (Technology Management):	Sem. Hrs.
Grade of "C" or better required for all Emphasis Area Requirements	
RET 4123, Energy Conservation and Efficiency	3
TECH 2863, Principles of Technology	3
TECH 3713, Fiscal Aspects	3
TECH 3753, Legal Aspects	3
TECH 3843, Manufacturing Materials and Processes	3
Accounting Electives	3-6
Management Electives	6-9
Technology and Renewable Energy Technology Electives (TECH, RET)	3-9
Sub-total	33
Electives:	Sem. Hrs.
Electives	19
Total Required Hours:	120

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

ASSOCIATE OF SCIENCE IN ENGINEERING TECHNOLOGY

The Associate of Science degree with a Major in Engineering Technology will allow the student to meet the general education requirements, the degree preconditions, and utilize the opportunities to exercise work experience or prior education that may contribute to this degree option.

The program allows students to participate in a two-year program to meet the needs of industry while preserving the option of earning a baccalaureate degree in the future. It permits industry to meet its educational and training requirements when a four-year degree is not warranted.

The student must complete a minimum of 60 credit-hours of work and must adhere to all policies established by the university. Flexibility is provided through counseling and the review of prior experience which may be substituted for formal college credit.

The Associate of Science-Technology is accredited by The Higher Learning Commission.

Major in Engineering Technology

Associate of Science

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Science Degrees (p. 79)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i>	
Major Requirements:	Sem. Hrs.
TECH 2703, Technical Graphics and AutoCAD	3
TECH 2863, Principles of Technology	3
TECH 3773, Statistics OR STAT 3233, Applied Statistics I OR	3
Technology Electives	9
Sub-total	18
Electives:	Sem. Hrs.
Technical Electives (TECH, RET, CIT, ENGR, CS, MATH)	7
Total Required Hours:	60

Technology Program Minors

Minor in Renewable Energy Technology

Required Courses:	Sem. Hrs.
RET 3113, Fundamentals and Applications of Renewable Energy	3
RET 4013, Process Technology for Agricultural Products	3
RET 4023, Advanced Bioenergy	3
RET 4113, Advanced Renewable Energy Systems	3
RET 4123, Energy Conservation and Efficiency	3
RET 4313, Wind Energy Technology	3
Total Required Hours:	18

Land Surveying and Geomatics Program

The Land Surveying and Geomatics program teaches students how to identify, measure, quantify, map, and analyze specific details and locations on the earth's surface. Students will learn applications of mathematics and basic sciences as they develop skills with modern software and hardware tools used in the surveying industry. Graphical presentation methodology and technical communication skills will be learned to allow students to share the information they obtain with professionals in other industries such as construction, engineering, real estate, city planning, subdivision development, conservation, and many others. Careers in land surveying and geomatics normally require a mix of both indoor and outdoor work, and expertise with modern surveying equipment will be developed through laboratory activities and related classroom responsibilities. Students will be eligible to proceed toward professional licensure as a Professional Surveyor upon completion of either the Bachelor of Science or Associate of Applied Science degree, and all students will be encouraged to take the Fundamentals of Surveying exam before completing their coursework.

Two degrees are offered by Arkansas State University in Land Surveying and Geomatics. The Bachelor of Science degree requires 120 credit hours of coursework and can be completed in four years. The B.S. degree provides students with a well-rounded educational experience and exposure to surveying fundamentals as well as business principles and general engineering technology concepts. The Associate of Applied Science degree requires 60 credit hours and can be completed in two years. The A.A.S. degree is more targeted to specific surveying fundamentals with a reduced general education component compared to the B.S. degree. Concerning Professional Surveying licensure, either degree completes the educational component required in Arkansas by A.C.A. §17-48-203. Students completing the A.A.S. would generally need to complete six years of work experience before becoming eligible for licensure, but B.S. students would have a work experience requirement of four years.

The Land Surveying and Geomatics program outcomes define the knowledge, skills, and behaviors that program graduates are expected to have by the time of graduation. Graduates of the B.S. Land Surveying and Geomatics program will have:

1. An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.
2. An ability to formulate or design a system, process, procedure or program to meet desired needs.
3. An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.
4. An ability to communicate effectively with a range of audiences.
5. An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.
6. An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

Graduates of the A.A.S. Land Surveying and Geomatics program will have:

1. An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.
2. An ability to conduct experiments or test theories, as well as to analyze and interpret data.
3. An ability to function on teams.
4. An understanding of professional and ethical responsibility.
5. An ability to communicate effectively.

Major in Land Surveying and Geomatics

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>PHYS 2054, General Physics I</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements	
AGST 3503, Geospatial Data Applications	3
AGST 3543, Fundamentals of GIS/GPS	3
AGST 4511, Unmanned Aircraft Systems	1
AGST 4543, Advanced GIS for Agriculture and Natural Resources	3
AGST 4773, Remote Sensing	3
CE 2223, Plane Surveying	3
MATH 1033, Plane Trigonometry	3
REI 3413, Real Estate Practice	3
SUR 3003, Route and Construction Surveying	3
SUR 3013, Survey Plats and Deeds	3
SUR 3023, Photogrammetry	3
SUR 4003, Boundary Control and Legal Practices	3
SUR 4013, Law and Professionalism in Surveying	3
SUR 4023, Advanced Surveying	3
SUR 4033, Surveying Practicum	3
Sub-total	43

Support Courses:	Sem. Hrs.
Grade of "C" or better required for all Support Courses OR 2.5 (or greater) grade point average in the Support Courses listed	
CE 2202, Civil Engineering Presentations	2
CS 1013, Introduction to Computers OR CIT 1503, Microcomputer Applications	3
ENG 3043, Technical Writing	3
MGMT 3123, Principles of Management	3
MGMT 3183, Entrepreneurship	3
REI 4413, Real Estate Law	3
TECH 3413, AutoCAD Inventory	3
TECH 3433, AutoCAD 3D Modeling	3
TECH 3773, Statistics OR STAT 3233, APplied Statistics I	3
TECH 3863, Industrial Safety	3
Sub-total	29
Electives:	Sem. Hrs.
Electives	10
Total Required Hours:	120

Major in Land Surveying and Geomatics

Associate of Applied Science

A complete 4-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 41)	
First Year Making Connections Course	Sem. Hrs.
UC 1013, Making Connections	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Science Degrees (p. 79)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite PHYS 2054, General Physics I</i>	
Major Requirements:	Sem. Hrs.
AGST 3503, Geospatial Data Applications	3
AGST 3543, Fundamentals of GIS/GPS	3
CE 2202, Civil Engineering Presentations	2
CE 2223, Plane Surveying	3
MATH 1033, Plane Trigonometry	3
REI 3413, Real Estate Practice	3
SUR 3003, Route and Construction Surveying	3
SUR 3013, Survey Plats and Deeds	3
SUR 3023, Photogrammetry	3
SUR 4003, Boundary Control and Legal Practices	3
SUR 4013, Law and Professionalism in Surveying	3
SUR 4023, Advanced Surveying	3
SUR 4033, Surveying Practicum	3
Sub-total	38
Total Required Hours:	60

College of Liberal Arts and Communication

Professor Carl M. Cates, Dean

Associate Professor Gina Hogue, Associate Dean

MISSION STATEMENT

The mission of the College of Liberal Arts and Communication is to provide students and the region with innovative educational opportunities that will enable lifelong learning, professional leadership, and engaged lives.

Encompassing the areas of fine arts, humanities, media and communication, and social sciences, the College of Liberal Arts and Communication aims to:

- Provide excellent instruction to all students in the essential skills of oral communication, writing, critical thinking, and appreciation of their cultural heritage through the general education components of degree requirements;
- Create a dynamic transformative education experience to prepare students for their professional careers or further study and their roles as leaders in a global society;
- Promote an understanding and appreciation of diversity in all its various forms and the ways it can contribute to the enrichment of society;
- Expand diversity and global awareness by encouraging the study of languages and participation in international exchange programs;
- Enhance and promote faculty scholarly, creative, and professional development;
- Encourage interdisciplinary programs and collaborative research;
- Facilitate and develop outreach activities to enrich the minds and hearts of pre-collegiate students, alumni, and diverse communities of the Mississippi Delta Region and greater Arkansas.

The College of Liberal Arts and Communication offers a wide range of undergraduate degree programs including a Bachelor of Arts in Art (emphasis in Art History), Communication Studies (and emphases in Interpersonal, Organizational, and Public Communication), Criminology, Digital Innovations, English, History, Music (and concentration in Jazz Studies), Philosophy, Political Science, Sociology, Theatre (and emphases in Acting, Design and Technology, and Musical Theatre), and World Languages and Cultures (emphases in French, Global Studies, and Spanish); a Bachelor of Fine Arts in Art (emphases in Art Education and Studio Art) and Graphic Design (and emphasis in Digital Design); a Bachelor of Music (concentrations in Composition as well as Voice, Keyboard, and Instrumental Performance); a Bachelor of Music Education (concentrations in Instrumental and Vocal Music Education); a Bachelor of Science in Creative Media Production (emphases in Corporate Media, Graphic Communication, and Sports Media), Multimedia Journalism, and Strategic Communication; and a Bachelor of Science in Education in English, Social Science, and World Languages and Cultures (emphases in French and Spanish). Most degree programs offer minors. Minors are also available in the following fields: African-American Studies, Children's Advocacy Studies, Cognitive Science, Folklore Studies, French, German, History and Philosophy of Science and Technology, Interdisciplinary Family Studies, International Studies, Medieval Studies, Modern European Studies, Religious Studies, Spanish, Women and Gender Studies, and Writing Studies. A minor in Homeland Security and Disaster Preparedness is offered in partnership with the College of Nursing and Health Professions. The College provides an Associate of Applied Science degree in Law Enforcement and certificates in Digital Humanities, Museum Studies, Nonprofit Communication, Social Media Management, Spanish for the Professions, and Swift Coding. It also provides pre-professional advisement for law school as part of its Political Science, Philosophy, History, and Criminology majors.

The College of Liberal Arts and Communication grants a full range of masters' degree (M.A., M.M., M.M.E., M.P.A., and M.S.E.) programs, several Educational Specialist degree (Ed.S.) programs, and an interdisciplinary doctoral degree (Ph.D.) program (Heritage Studies). For further information, see A-State's Graduate Bulletin.

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

In addition to its academic programs, the college provides outreach to the community through National Public Radio affiliate KASU, the annual Delta Symposium, exhibitions, plays, concerts, and recitals.

MEDIA AND COMMUNICATION DEPARTMENT REQUIREMENTS

In addition to meeting the general requirements, candidates for the Bachelor of Science degree in Multimedia Journalism and Strategic Communication must complete the following:

1. Take at least 72 hours outside of the above-named programs.
2. Earn no more than three hours of internship credit towards the 120 hours required for graduation.
3. Take a senior exit exam on the study day prior to final exams of his or her last semester of enrollment.
4. Complete an exit survey and submit a resume prior to graduation.

CREATIVE MEDIA PRODUCTION DEGREE REQUIREMENTS

In addition to meeting the general requirements, candidates for the Bachelor of Science degree in Creative Media Production must complete the following:

1. Take a senior exit exam in the media portfolio class in the last semester of enrollment.
2. Complete a program evaluation survey and submit a resume prior to graduation.
3. Present for faculty and advisory board review a portfolio website that meets specified requirements.

FOREIGN LANGUAGE REQUIREMENT

In addition to general and program-specific requirements, candidates for the Bachelor of Arts degree in Art, Criminology, English, History, Music, Philosophy, Political Science, and Sociology must demonstrate proficiency in a foreign language. This may be done in either of the following ways.

1. By completing the second semester of the intermediate year of foreign language at the college level. Students with no foreign language experience must enroll in the first semester of the elementary year and complete 12 hours of a single language. Students with some experience and proficiency should consult with a member of the language faculty about their readiness for more advanced courses. (No credit will be awarded for courses waived.)
2. By passing an examination acceptable to the foreign language faculty as proof of proficiency equivalent to completion of the second semester of the intermediate year of a foreign language at the college level.

BACHELOR OF SCIENCE IN EDUCATION GRADUATION REQUIREMENTS

In addition to meeting the University Requirements for all Baccalaureate Degrees as presented by the University, and the Teacher Education Program Requirements as presented by the College of Education and Behavioral Science, all candidates for a Bachelor of Science in Education degree in the College of Liberal Arts and Communication must also have a grade point average of 2.70 in the major area. This must be maintained through graduation. (However, all students admitted prior to August 24, 2015 are required to maintain a 2.50 overall and for the major area.)

Department of Art + Design

Professor Temma Balducci, Chair

Professors: *Gipson, Rowe, Salvest, Vickrey*

Associate Professors: *Arnell, Ford, Whiteland, Wilkinson*

Assistant Professors: *Baker, Parker*

Instructors: *Buckley, Fulcher, Long, McCarroll, Sullivan*

MISSION STATEMENT

The Department of Art + Design is dedicated to the creative, aesthetic and cultural development of visual art students that builds upon a well-rounded liberal arts education. The faculty prepares its students to assume leadership positions in their professional lives while maintaining a commitment to the conceptual and aesthetic standards of their chosen discipline. The department develops and supports a nurturing creative community that builds confidence through academic rigor and provides an environment in which students can build and refine their craft, develop critical thinking skills, and realize their full potential. Graduates of the Department of Art + Design join the community as socially responsible artists, designers, educators and historians ready to contribute to diverse and changing creative fields.

The Bachelor of Arts degree provides a liberal arts-fine arts education in art history. Art history provides practice in analysis, interpretation, critical thinking, and writing skills. This degree is good preparation for a student planning to work toward an advanced degree in art history. A certificate in Museum Studies is also available to help students prepare for a job in a variety of museum fields. The Department also offers a certificate in Swift Coding.

No grade below C in courses with an ART/ARTH/ARED/ARTM prefix may be applied to the Bachelor of Arts with an Emphasis in Art History Degree. A cumulative 2.75 GPA (or higher) in all courses with an ART/ARTH/ARED/ARTM prefix is required for the Bachelor of Arts with an Emphasis in Art History Degree.

The Bachelor of Fine Arts degree programs are designed to prepare students for professional careers as a classroom art teacher, graphic designer, or studio artist. The BFA in Graphic Design, the BFA in Graphic Design (with emphasis in Digital Design) or the BFA in Art (with emphasis in Studio Art or Art Education) is the initial professional degree, and it is the requisite degree for the student who plans to pursue a studio-oriented post-baccalaureate degree.

No grade below C in courses with an ART/ARTH/ARED/ARTM/GRFX prefix may be applied to the Bachelor of Fine Arts Degree. A cumulative 2.75 GPA (or higher) in all courses with an ART/ARTH/ARED/ARTM/GRFX prefix is required for the BFA degree.

Arkansas State University is an Accredited Institutional member of the National Association of Schools of Art and Design.

BFA/TRANSFER REVIEW POLICY

BFA review (ART 3330) is an admissions screening procedure for the BFA of Fine Arts (Major in Art: Studio Art or Art Education). Students should enroll in ART 3330 the semester they will complete the BFA Art Major Core. Students must pass BFA Review PRIOR to enrollment for required 3000-level ART courses, except ART 3033, Drawing III. Prerequisites are a grade of C or better in ART 1013, ART 1023, ART 1033, ART 1043, ARTH 2583, ARTH 2593, and a 2.75 GPA in all ART, ARTH, ARED and GRFX courses. In addition, Art Education students are encouraged to have a passing score for the Teacher Education Application exam. Students will be limited to two attempts to pass the BFA Review. **Minors and Certificates do not participate in the Review.**

Graphic Design Review (GRFX 3400) is an admissions screening procedure for the BFA (Major in Graphic Design: Graphic Design or Graphic Design with an Emphasis in Digital Design) Students should enroll in GRFX 3400 the semester they are completing GRFX 2303 Typography and Layout. Students must pass the Graphic Design Review PRIOR to enrollment for 3000-level GRFX courses. Prerequisites are a grade of C or better in ART 1013, ART 1023, ART 1033, ART 1043, ARTH 2583, ARTH 2593, and GRFX 2303, and a 2.75 GPA in ART, ARTH and GRFX courses.

Transfer credit is awarded based on evaluation by the chair and/or curriculum specialists. Students must provide the course title, description, and syllabus (when required). Grades from these courses are included in the GPA requirements for ART 3330 and GRFX 3400. Artwork from these courses will be included in the BFA Review (see above).

Major in Art

Bachelor of Arts Emphasis in Art History

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ARTH 2583, Survey of Art History I Making Connections	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Major Requirements, including prerequisites.	
ART 1013, Design I	3
ART 1023, Design II	3
ART 1033, Drawing I	3
ART 1043, Drawing II	3
ARTH 2583, Survey of Art History I	3
ARTH 2593, Survey of Art History II	3
Sub-total	18
Art History Emphasis:	Sem. Hrs.
Grade of "C" or better required for all ART/ARTH/ARED courses applied to the Bachelor of Arts Degree, including prerequisites.	
ARTH 2603, Global Art History and Visual Literacy	3
ARTH 2890, Content Knowledge Review	0
Art History 3000-level Time Frame One (select one of the following): ARTH 3013, Egyptian and Near Eastern Art and Architecture ARTH 3023, Greek and Roman Art and Architecture ARTH 3033, Late Antique and Eastern Mediterranean Art and Architecture	3
Art History 3000-level Time Frame Two (select one of the following): ARTH 3043, Asian Art and Architecture ARTH 3053, Medieval and Renaissance Art and Architecture ARTH 3063, Baroque and Rococo Art and Architecture	3
Art History 3000-level Time Frame Three (select one of the following): ARTH 3073, Nineteenth Century Art and Architecture ARTH 3083, Twentieth Century Art and Architecture ARTH 3093, Global Contemporary Art 1980 to Present	3
Art History 3000-level Elective	3
ARTH 3890, Critical Thinking Review	0
Art History 4000-level Electives	6
ARTH 4013, History of the Museum and Collecting	3
ARTM 4113, Museum Internship	3
ARTH 4893, Advanced Research	3
LIR 1011, Introduction to Academic Research	1
History Elective	3

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

Major in Art (cont.)

Bachelor of Arts Emphasis in Art History

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Select one Philosophy Elective from the following: PHIL 3313, Philosophy of Religion PHIL 3623, Eastern Philosophy PHIL 4723, Aesthetics	3
Select one Anthropology Elective from the following: ANTH 2233, Intro to Cultural Anthropology (cannot satisfy both general education and Anthropology elective) ANTH 3203, Intro to Archaeology	3
Select two Studio Art or Art Education Electives from the following: ARED 3803, Teaching Art in the Elementary Grades ART 3033, Drawing III ART 3063, Painting ART 3083, Printmaking ART 3093, Ceramics ART 3103, Sculpture ART 3403, Photography	6
Select one Theatre Elective from the following: THEA 1223, Principles of Stage Design THEA 2223, Fundamentals of Stagecraft THEA 2243, Costume Construction THEA 2263, Fashion History	3
Sub-total	49
Electives:	Sem. Hrs.
Electives	6-18
Total Required Hours:	120

Major in Art

Bachelor of Fine Arts Emphasis in Studio Art

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ARTH 2583, Survey of Art History I Making Connections	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 87)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i>	
B.F.A. Art Major Core:	Sem Hrs.
Grade of "C" or better required for all B.F.A. Art Major Core Requirements, including prerequisites.	
ART 1013, Design I	3
ART 1023, Design II	3
ART 1033, Drawing I	3
ART 1043, Drawing II	3
ART 3033, Drawing III	3
ARTH 2583, Survey of Art History I	3
ARTH 2593, Survey of Art History II	3
Sub-total	21
Studio Art Requirements:	Sem. Hrs.
Grade of "C" or better required for all Studio Art Requirements, including prerequisites.	
ART 3063, Painting	3
ART 3083, Printmaking	3
ART 3093, Ceramics	3
ART 3103, Sculpture	3
ART 3403, Photography	3
Sub-total	15
Emphasis Area (Studio Art):	Sem. Hrs.
Grade of "C" or better required for all ART/ARTH/ARED courses applied to the Bachelor of Fine Arts Degree, including prerequisites.	
ART Studio Emphasis Areas: Drawing/Painting, Printmaking, Photography, Ceramics, Sculpture (At least 15 of the 39 hours must be taken at the 3000 or 4000 level in one Art Studio Emphasis Area.)	39
Art History Electives	9
ART 3330, BFA Review	0
ART 4320, Exhibition Preparation	0
ART 4331, Senior Exhibition	1
Sub-total	49
Total Required Hours:	120

Major in Art

Bachelor of Fine Arts Emphasis in Art Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ARTH 2583, Survey of Art History I Making Connections	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>HIST 2763, The United States To 1876 OR</i> <i>HIST 2773, The United States Since 1876</i> <i>POSC 2103, Introduction to United States Government</i> <i>PSY 2013, Introduction to Psychology</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i>	
B.F.A. Art Major Core:	Sem Hrs.
Grade of "C" or better required for all B.F.A. Art Major Core Requirements, including prerequisites.	
ART 1013, Design I	3
ART 1023, Design II	3
ART 1033, Drawing I	3
ART 1043, Drawing II	3
ART 3033, Drawing III	3
ARTH 2583, Survey of Art History I	3
ARTH 2593, Survey of Art History II	3
Sub-total	21
Studio Art Requirements:	Sem. Hrs.
Grade of "C" or better required for all Studio Art Requirements, including prerequisites.	
ART 3063, Painting	3
ART 3083, Printmaking	3
ART 3093, Ceramics	3
ART 3103, Sculpture	3
ART 3403, Photography	3
Sub-total	15
Emphasis Area (Art Education):	Sem. Hrs.
Grade of "C" or better required for all ART/ARTH/ARED/GRFX courses applied to the Bachelor of Fine Arts Degree, including prerequisites.	
ARED 3803, Teaching Art in the Elementary Grades	3
ARED 4703, Concepts in Art Education	3
*EDAR 4523, Methods and Materials for Teaching Art	3
ART 3330, BFA Review	0
Upper-level ART, ARED or GRFX	18
Upper-level Art History	6
Sub-total	33

Major in Art (cont.)

Bachelor of Fine Arts Emphasis in Art Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*TIAR 4826, Teaching Internship in the Secondary School	12
Sub-total	26
Total Required Hours:	130

Major in Digital Innovations

Bachelor of Science Concentration in Graphic Communications

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i> <i>CMAC 1003, Mass Communication</i> <i>PSY 2103, Introduction to Psychology</i> <i>POSC 2103, Introduction to US Government</i>	
Digital Innovations Requirements:	Sem. Hrs.
Grade of "C" or better required for all GRFX Requirements, including prerequisites.	
GRFX 1111, Design Technology	1
GRFX 1112, Design Literacy	2
GRFX 2703, Interaction Design	3
GRFX 2783, Human Centered Design	3
GRFX 3703, Front End Web Development	3
GRFX 3713, 3D Digital and Game Design	3
GRFX 3783, Patterns in Application Design	3
GRFX 4603, Graphic Design Internship	3
GRFX 4773, Design Build I	3
GRFX 4783, Design Build II	3
GRFX 4792, Digital Innovations Portfolio	2
Sub-total	29
Concentration in Graphic Communications:	Sem. Hrs.
GCOM 2673, Digital Prepress Workflow	3
GCOM 3673, Desktop Publishing and Publication Design	3
MDIA 2053, Introduction to Visual Communications	3
MDIA 2313, Multimedia Production	3
MDIA 3673, Seminar in Digital Media and Design	3
Sub-total	15
Electives:	Sem. Hrs.
Electives	38
Total Required Hours:	120

Major in Digital Innovations

Bachelor of Science Concentration in Strategic Communications

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i> <i>CMAC 1003, Mass Communication</i> <i>PSY 2103, Introduction to Psychology</i> <i>POSC 2103, Introduction to US Government</i>	
Digital Innovations Requirements:	Sem. Hrs.
Grade of "C" or better required for all GRFX Requirements, including prerequisites.	
GRFX 1111, Design Technology	1
GRFX 1112, Design Literacy	2
GRFX 2703, Interaction Design	3
GRFX 2783, Human Centered Design	3
GRFX 3703, Front End Web Development	3
GRFX 3713, 3D Digital and Game Design	3
GRFX 3783, Patterns in Application Design	3
GRFX 4603, Graphic Design Internship	3
GRFX 4773, Design Build I	3
GRFX 4783, Design Build II	3
GRFX 4792, Digital Innovations Portfolio	2
Sub-total	29
Concentration in Strategic Communications:	Sem. Hrs.
STCM 4333, Social Media Measurement	3
CMAC 4073, Communications Law and Ethics	3
COMS 4383, Computer Mediated Communication	3
STCM 4113, Integrated Marketing Communications	3
STCM 4213, Social Media in Strategic Communications	3
Sub-total	15
Electives:	Sem. Hrs.
Electives	38
Total Required Hours:	120

Major in Graphic Design

Bachelor of Fine Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ARTH 2583, Survey of Art History I Making Connections	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i>	
B.F.A. Art Major Core:	Sem Hrs.
Grade of "C" or better required for all B.F.A. Art Major Core Requirements, including prerequisites.	
ART 1013, Design I	3
ART 1023, Design II	3
ART 1033, Drawing I	3
ART 1043, Drawing II	3
ART 3033, Drawing III	3
ARTH 2583, Survey of Art History I	3
ARTH 2593, Survey of Art History II	3
Sub-total	21
Studio Art Requirements:	Sem. Hrs.
Grade of "C" or better required for all Studio Art Requirements, including prerequisites.	
ART 3063, Painting	3
ART 3083, Printmaking	3
ART 3093, Ceramics	3
ART 3103, Sculpture	3
ART 3403, Photography	3
Sub-total	15
Additional Requirements:	Sem. Hrs.
ARTH 3573, History of Graphic Design	3
Art History Elective	3
Sub-total	6
Graphic Design Requirements:	Sem. Hrs.
Grade of "C" or better required for all Graphic Design Requirements, including prerequisites.	
GRFX 1111, Design Technology	1
GRFX 2103, Ideation	3
GRFX 2203, Introduction to Graphic Design	3
GRFX 2303, Typography and Layout	3
GRFX 2703, Interaction Design	3
GRFX 3303, Intermediate Typography	3
GRFX 3400, Graphic Design Review	0
GRFX 3503, Identity Design	3
GRFX 3603, Advertising Design	3

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

Major in Graphic Design (cont.)

Bachelor of Fine Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

GRFX 3703, Front End Web Development	3
GRFX 4103, Photography for the Graphic Designer	3
GRFX 4503, Professional Practice for Design	3
GRFX 4603, Graphic Design Internship	3
GRFX 4803, Portfolio Capstone	3
Select two of the following: ART 4063, Advanced Painting ART 4083, Advanced Printmaking ART 4103, Advanced Sculpture GRFX 4143, Advanced Photography for the Graphic Designer GRFX 4703, Advanced Digital Studio	6
Sub-total	43
Total Required Hours:	120

Major in Graphic Design

Bachelor of Fine Arts Emphasis in Digital Design

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ARTH 2583, Survey of Art History I Making Connections	-
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MUS 2503, Fine Arts - Music</i> <i>THEA 2503, Fine Arts - Theatre (Required Departmental Gen. Ed. Option)</i>	
B.F.A. Art Major Core:	Sem Hrs.
Grade of "C" or better required for all B.F.A. Art Major Core Requirements, including prerequisites.	
ART 1013, Design I	3
ART 1023, Design II	3
ART 1033, Drawing I	3
ART 1043, Drawing II	3
ART 3033, Drawing III	3
ARTH 2583, Survey of Art History I	3
ARTH 2593, Survey of Art History II	3
Sub-total	21
Studio Art Requirements:	Sem. Hrs.
Grade of "C" or better required for all Studio Art Requirements, including prerequisites.	
ART 3063, Painting	3
ART 3083, Printmaking	3
ART 3093, Ceramics	3
ART 3103, Sculpture	3
ART 3403, Photography	3
Sub-total	15
Additional Requirements:	Sem. Hrs.
ARTH 3573, History of Graphic Design	3
Art History Elective	3
Sub-total	6
Emphasis Area (Digital Design):	Sem. Hrs.
Grade of "C" or better required for all Graphic Design Requirements, including prerequisites.	
DIGI 2003, Introduction to Coding with Swift	3
DIGI 3003, Intermediate Coding with Swift	3
DIGI 4003, Advanced Studio in Swift Coding	3
GRFX 1111, Design Technology	1
GRFX 2103, Ideation	3
GRFX 2203, Introduction to Graphic Design	3
GRFX 2303, Typography and Layout	3
GRFX 2703, Interaction Design	3

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

Major in Graphic Design (cont.)

Bachelor of Fine Arts Emphasis in Digital Design

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

GRFX 3400, Graphic Design Review	0
GRFX 3703, Front End Web Development	3
GRFX 3713, 3D Digital and Game Design	3
GRFX 4603, Graphic Design Internship	3
GRFX 4703, Advanced Digital Studio (must take twice)	6
GRFX 4813, Digital Design Portfolio Capstone	3
Select one of the following: ART 4063, Advanced Painting ART 4083, Advanced Printmaking ART 4093, Advanced Ceramics ART 4103, Advanced Sculpture	3
Sub-total	43
Total Required Hours:	120

Certificate in Museum Studies

The certificate in Museum Studies is designed to give practical experience in the study of cultural objects and an understanding of the departments, tasks, and current methods of a working museum for students who are interested in pursuing a career in a museum.

Required Courses:	Sem. Hrs.
ARTH 4013, History of the Museum and Collecting	3
ARTM 4023, Museum Fundamentals I: Collections Management and Museum Law	3
ARTM 4033, Museum Fundamentals II: Exhibition Seminar	3
ARTM 4113, Museum Internship	3
Select two Electives from the following: ANTH 3233, Native American Culture in the Mid South ARTH 3013, Egyptian and Near Eastern Art and Architecture ARTH 3023, Greek and Roman Art and Architecture ARTH 3033, Late Antique and Eastern Mediterranean Art and Architecture ARTH 3043, Asian Art and Architecture ARTH 3053, Medieval and Renaissance Art and Architecture ARTH 3063, Baroque and Rococo Art and Architecture ARTH 3073, Nineteenth Century Art and Architecture ARTH 3083, Twentieth Century Art and Architecture ARTH 3093, Global Contemporary Art 1980 to Present ENG 3613, Introduction to Folklore ENG 3623, American Folklore ENG 3633, Native American Verbal Art ENG 3643, African-American Folklore HIST 3013, Civilizations of Africa HIST 3043, Asian History Since 1500 HIST 3083, History of Arkansas HIST 3123, Latin America, The Colonial Period HIST 3133, Latin America, The National Period HIST 3173, Classical Mediterranean Civilization HIST 3183, Medieval Europe HIST 3193, The Crusades HIST 3223, Renaissance and Reformation Europe HIST 3273, Modern Europe, 1750 to Present HIST 3283, Society and Thought in Europe HIST 3303, The Modern History of the Middle East 1800 to the Present HIST 3323, United States Environmental History HIST 3333, The Practice of History HIST 3393, Introduction to Digital Humanities HIST 3483, The United States from 1917-1941 HIST 3493, The United States Since 1945 HIST 3503, U.S. Foreign Relations since 1900 HIST 3563, Constitutional History of the United States HIST 3603, The American South HIST 3623, The American West HIST 3653, The American Indian HIST 3673, African American History I HIST 3683, African American History II HIST 3693, United States Women's History HIST 3743, The Urban Revolution in America HIST 3853, U.S. Civil Rights Movement HIST 4573, Digital History Seminar MKTG 3013, Marketing MKTG 4073, Social Media Marketing STCM 4213, Social Media in Strategic Communications	6
Total Required Hours:	18

Certificate in Swift Coding

This certificate is not available to majors in BFA Graphic Design, Emphasis in Digital Design

Required Courses:	Sem. Hrs.
DIGI 2003, Introduction to Coding with Swift	3
DIGI 3003, Intermediate Coding with Swift	3
DIGI 4003, Advanced Studio in Swift Coding	3
Total Required Hours:	9

Department of Art + Design Minors

Minor in Art

Required Courses: Grade of "C" or better required for all ART/ARTH Minor Requirements, including prerequisites (Department of Art + Design minimum) Courses used to meet the requirements for the major cannot be used to meet the requirements for the minor.	Sem. Hrs.
ART 1013, Design I	3
ART 1023, Design II	3
ART 1033, Drawing I	3
ART 1043, Drawing II	3
Upper-level electives in Art	9
Total Required Hours:	21

Minor in Art History

Required Courses: Grade of "C" or better required for all ART/ARTH Minor Requirements, including prerequisites (Department of Art + Design minimum) Courses used to meet the requirements for the major cannot be used to meet the requirements for the minor.	Sem. Hrs.
ARTH 2583, Survey of Art History I	3
ARTH 2593, Survey of Art History II	3
Upper-level electives in Art History	12
Total Required Hours:	18

Minor in Digital Design

Required Courses: Grade of "C" or better required for all ART/ARTH/GRFX Minor Requirements, including prerequisites (Department of Art + Design minimum) Courses used to meet the requirements for the major cannot be used to meet the requirements for the minor. Students pursuing the Digital Design Minor will need to submit a Prerequisite Waiver form to be enrolled in a GRFX class. (GRFX courses are restricted to Graphic Design Majors.)	Sem. Hrs.
GRFX 1111, Design Technology	1
GRFX 2103, Ideation	3
GRFX 2303, Typography and Layout	3
GRFX 2703, Interaction Design	3
GRFX 3703, Front End Web Development	3
GRFX 3713, 3D Digital and Game Design	3
GRFX 3753, Motion Graphics	3
Total Required Hours:	19

Department of Communication

Professor Marceline Hayes, Chair

Professors: *Fowler, Hill*

Associate Professors: *Hall, Pan*

Assistant Professors: *Anderson, Bhandari, Tetteh, Thatcher*

Instructors: *Bahn, Moskal, Scott*

The Department of Communication offers a Bachelor of Arts in Communication Studies and a Bachelor of Science in Strategic Communication. Students may choose an optional emphasis in public communication, interpersonal communication, or organizational communication in the Communication Studies program. The Department of Communication also offers Certificates in Nonprofit Communication and Social Media Management.

COMMUNICATION STUDIES PROGRAM:

Communication Studies focuses on the ways that people make use of both verbal and nonverbal messages to generate meanings within various contexts, cultures, and media. Since 75% of a person's day is spent communicating in some way, the importance of being able to communicate clearly cannot be overemphasized. Communication skills are essential to personal satisfaction and academic success, as well as employment.

Courses provide a strong theoretical foundation in communication as well as an emphasis on improvement in practical communication skills. Majors in Communication Studies have the flexibility to focus on specific areas of interest while obtaining a thorough understanding of communication. Students may also choose to become involved with departmental activities such as the debate team or Lambda Pi Eta, the national honor society for communication students.

STRATEGIC COMMUNICATION PROGRAM:

Strategic Communication uses public relations, advertising, social media, and organizational communication to build mutually beneficial relationships with key stakeholders. Effective organizations use strategic communication to help achieve their goals and objectives and recognize that groups inside and outside the organizations are critical to their success. Communication is strategic when it uses research and evaluation to determine how goals and objectives are effectively reached.

Students graduating from this program will know and understand how to use advertising, public relations, social media, branding, crisis communication, media relations, research methods and evaluation tools to help organizations communicate with their publics. They will be prepared to work for companies big and small, governmental agencies, and nonprofit organizations such as universities, hospitals, museums and NGOs.

Students earning a Bachelor of Science in Strategic Communication must complete the following:

1. Take at least 72 hours outside of the three Bachelor of Science degrees offered in the Departments of Media and Communication.
2. Earn no more than three hours of internship credit towards the 120 hours required for graduation.
3. Take a senior exit exam on the study day prior to final exams of his or her last semester of enrollment.
4. Complete an exit survey and submit a resume prior to graduation.

Major in Communication Studies

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>CMAC 1003, Mass Communications in Modern Society</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
COMS 2243, Principles of Argumentation	3
COMS 2313, Communication Theory	3
COMS 2373, Introduction to Interpersonal Communication	3
COMS 3363, Communication Research Methods OR COMS 3433, Communication Criticism	3
COMS 4533, Communication Studies Capstone	3
Communication Studies Electives (21 hours required; 18 hours must be upper-level): STCM 3023, Principles of Advertising COMS 2253, Introduction to Health Communication COMS 3203, Business and Professional Communication COMS 3243, Principles of Persuasion COMS 3253, Principles of Listening COMS 3363, Communication Research Methods <i>If not taken to satisfy the core requirement</i> COMS 3373, Gender Communication COMS 3433, Communication Criticism <i>If not taken to satisfy the core requirement</i> COMS 4203, Small Group Communication COMS 4243, Interpersonal Communication COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 431V, Special Problems COMS 4323, Communication in Personal Relationships COMS 4373, Conflict Resolution COMS 4383, Computer Mediated Communication COMS 4403, Health Communication COMS 4423, Narratives in Health and Healing COMS 4433, Health Communication Campaigns COMS 4503, Internship in Communication Studies STCM 3003, Principles of Public Relations STCM 4603, Crisis Communication	21
Sub-total	36
Electives:	Sem. Hrs.
Electives	46
Total Required Hours:	120

Major in Communication Studies

Bachelor of Arts

Emphasis in Interpersonal Communication

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: CMAC 1003, <i>Mass Communications in Modern Society</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
COMS 2243, Principles of Argumentation	3
COMS 2313, Communication Theory	3
COMS 2373, Introduction to Interpersonal Communication	3
COMS 3363, Communication Research Methods OR COMS 3433, Communication Criticism	3
COMS 4533, Communication Studies Capstone	3
Communication Studies Electives: STCM 3023, Principles of Advertising COMS 2253, Introduction to Health Communication COMS 3203, Business and Professional Communication COMS 3243, Principles of Persuasion COMS 3253, Principles of Listening COMS 3363, Communication Research Methods <i>If not taken to satisfy the core requirement</i> COMS 3373, Gender Communication COMS 3433, Communication Criticism <i>If not taken to satisfy the core requirement</i> COMS 4203, Small Group Communication COMS 4243, Interpersonal Communication COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 431V, Special Problems COMS 4323, Communication in Personal Relationships COMS 4373, Conflict Resolution COMS 4383, Computer Mediated Communication COMS 4403, Health Communication COMS 4423, Narratives in Health and Healing COMS 4433, Health Communication Campaigns COMS 4503, Internship in Communication Studies STCM 3003, Principles of Public Relations STCM 4603, Crisis Communication	9
Sub-total	24
Emphasis Area (Interpersonal Communication):	Sem. Hrs.
COMS 4243, Interpersonal Communication	3
COMS 4323, Communication in Personal Relationships	3
COMS 4373, Conflict Resolution	3
COMS 4403, Seminar in Health Communication	3
Sub-total	12
Electives:	Sem. Hrs.
Electives	46
Total Required Hours:	120

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

Major in Communication Studies

Bachelor of Arts

Emphasis in Organizational Communication

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: CMAC 1003, <i>Mass Communications in Modern Society</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
COMS 2243, Principles of Argumentation	3
COMS 2313, Communication Theory	3
COMS 2373, Introduction to Interpersonal Communication	3
COMS 3363, Communication Research Methods OR COMS 3433, Communication Criticism	3
COMS 4533, Communication Studies Capstone	3
Communication Studies Electives: STCM 3023, Principles of Advertising COMS 2253, Introduction to Health Communication COMS 3203, Business and Professional Communication COMS 3243, Principles of Persuasion COMS 3253, Principles of Listening COMS 3363, Communication Research Methods <i>If not taken to satisfy the core requirement</i> COMS 3373, Gender Communication COMS 3433, Communication Criticism <i>If not taken to satisfy the core requirement</i> COMS 4203, Small Group Communication COMS 4243, Interpersonal Communication COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 431V, Special Problems COMS 4323, Communication in Personal Relationships COMS 4373, Conflict Resolution COMS 4383, Computer Mediated Communication COMS 4403, Health Communication COMS 4423, Narratives in Health and Healing COMS 4433, Health Communication Campaigns COMS 4503, Internship in Communication Studies STCM 3003, Principles of Public Relations STCM 4603, Crisis Communication	9
Sub-total	24
Emphasis Area (Organizational Communication):	Sem. Hrs.
COMS 3203, Business and Professional Communication	3
COMS 4203, Small Group Communication	3
COMS 4263, Organizational Communication	3
COMS 4443, Leadership and Communication	3
Sub-total	12
Electives:	Sem. Hrs.
Electives	46
Total Required Hours:	120

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

Major in Communication Studies

Bachelor of Arts

Emphasis in Public Communication

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: CMAC 1003, <i>Mass Communications in Modern Society</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
COMS 2243, Principles of Argumentation	3
COMS 2313, Communication Theory	3
COMS 2373, Introduction to Interpersonal Communication	3
COMS 3363, Communication Research Methods OR COMS 3433, Communication Criticism	3
COMS 4533, Communication Studies Capstone	3
Communication Studies Electives: STCM 3023, Principles of Advertising COMS 2253, Introduction to Health Communication COMS 3203, Business and Professional Communication COMS 3243, Principles of Persuasion COMS 3253, Principles of Listening COMS 3363, Communication Research Methods <i>If not taken to satisfy the core requirement</i> COMS 3373, Gender Communication COMS 3433, Communication Criticism <i>If not taken to satisfy the core requirement</i> COMS 4203, Small Group Communication COMS 4243, Interpersonal Communication COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 431V, Special Problems COMS 4323, Communication in Personal Relationships COMS 4373, Conflict Resolution COMS 4383, Computer Mediated Communication COMS 4403, Health Communication COMS 4423, Narratives in Health and Healing COMS 4433, Health Communication Campaigns COMS 4503, Internship in Communication Studies STCM 3003, Principles of Public Relations STCM 4603, Crisis Communication	9
Sub-total	24
Emphasis Area (Public Communication):	Sem. Hrs.
COMS 3243, Principles of Persuasion	3
COMS 4253, Intercultural Communication	3
COMS 431V, Special Problems	3
STCM 3003, Principles of Public Relations	3
Sub-total	12
Electives:	Sem. Hrs.
Electives	46
Total Required Hours:	120

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

Major in Strategic Communication

Bachelor of Science

A complete 8-semester degree plan is available at <http://registrar.astate.edu/>.

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: CMAC 1003, <i>Mass Communication in Modern Society</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
STCM 3133, Interactive Advertising	3
STCM 4003, Account Planning & Management	3
STCM 4333, Social Media Measurement	3
STCM 2143, Strategic Writing I	3
STCM 3043, Principles of Strategic Communication	3
STCM 3143, Strategic Writing II	3
STCM 3553, Strategic Visual Communication	3
STCM 4073, Strategic Communication Law and Ethics	3
STCM 4213, Social Media in Strategic Communications	3
STCM 4753, Strategic Communication Case Studies OR STCM 4763, Strategic Communication Campaigns	3
STCM 4773, Internship	3
Electives in Media and/or Communication	9
Sub-total	42
Electives:	Sem. Hrs.
Electives	40
Total Required Hours:	120

Department of Communication Certificates

Certificate in Health Communication

Required Courses:	Sem. Hrs.
COMS 4403, Seminar in Health Communication	3
COMS 4253, Intercultural Communication, OR COMS 4263, Organizational Communication	3
COMS 4433, Health Communication Campaigns	3
Select one of the following: COMS 4423, Narratives in Health and Healing COMS 4243, Interpersonal Communication STCM 4503, Seminar in Nonprofit Communication STCM 4603, Crisis Communication	3
Total Required Hours:	12

Certificate in Nonprofit Communication

The Program will prepare students for communication roles within the nonprofit sector.

Required Courses:	Sem. Hrs.
COMS 4263, Organizational Communication	3
STCM 4213, Social Media in Strategic Communications	3
STCM 3553, Strategic Visual Communication	3
STCM 4503, Seminar in Nonprofit Communication	3
Total Required Hours:	12

Certificate in Social Media Management

The Program will prepare students to have the skills, depth, and focus to develop, implement and manage communication strategies that employ digital advertising campaigns and social media strategies, measure effectiveness of online advertising campaigns, and construct multimedia content for online and social media sites to achieve strategic communication goals of organizations.

Required Courses:	Sem. Hrs.
STCM 3133, Interactive Advertising	3
STCM 4333, Social Media Measurement	3
STCM 4213, Social Media in Strategic Communications	3
STCM 4753, Strategic Communications Case Studies	3
Total Required Hours:	12

Certificate in Public Relations and Advertising

The Program will prepare students for careers in the public relations and advertising industries.

Required Courses:	Sem. Hrs.
STCM 2143, Strategic Writing I	3
STCM 3003, Principles of Public Relations OR STCM 3023, Principles of Advertising OR STCM 3043, Principles of Strategic Communication	3
STCM 3333, Advertising Strategy and Sales	3
Select two of the following: STCM 3013, Public Relations Tools and Techniques STCM 3033, Advertising Elements and Execution STCM 4113, Integrated Marketing and Communications STCM 4603, Crisis Communication STCM 4633, Trending Topics	6
Total Required Hours:	15

Certificate in Debate and Forensics

This program will prepare students for careers in debate and forensics.

Required Courses:	Sem. Hrs.
COMS 2243, Principles of Argumentation	3
COMS 3211, Intercollegiate Debate (3 semesters)	3
COMS 3433, Communication and Criticism	3
Select one of the following: COMS 3243, Principles of Persuasion COMS 4203, Small Group Communication COMS 431V, Special Problems	3
Total Required Hours:	12

Department of Communication Minors

Minor in Communication Studies

Required Courses:	Sem. Hrs.
COMS 1203, Oral Communication	3
COMS 2313, Communication Theory	3
COMS 2243, Principles of Argumentation	3
COMS 2373, Introduction to Interpersonal Communication	3
COMS 3363, Human Communication Research Methods	3
Upper-level Communication Studies Elective	3
Total Required Hours:	18

Minor in Strategic Communication

Required Courses:	Sem. Hrs.
STCM 2143, Strategic Writing I	3
STCM 3043, Principles of Strategic Communication	3
STCM 3553, Strategic Visual Communication	3
STCM 4213, Social Media in Strategic Communication	3
Six hours of upper-level electives from Strategic Communication or chosen from the Communications Studies courses below: COMS 3243, Principles of Persuasion COMS 4203, Small Group Communication COMS 4263, Organizational Communication COMS 4373, Conflict Resolution COMS 4403, Health Communication	6
Total Required Hours:	18

Department of Criminology, Sociology, and Geography

Associate Professor Veena Kulkarni, Chair

Professors: *Stroud*

Associate Professors: *Donaghy, Kulkarni*

Assistant Professors: *Kendig, Kim, Ozkan, Panageotou, Rukus, Williams, Wright*

Instructors: *Brady*

The Department of Criminology, Sociology, and Geography offers to students courses designed to provide them with a better understanding of themselves and their environment. Within this multi-disciplinary department, students have an opportunity to receive a baccalaureate degree in one of two areas: Criminology and Sociology.

Majors in the Department of Criminology, Sociology, and Geography are prepared for many professions including teaching, government service, law, business, research, cartography, and community planning; and for professional careers within the criminal justice system such as police, truancy and probation officers, parole officers, and correctional and research personnel.

Major in Criminology

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
SOC 1013, Making Connections Sociology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>Twelve hours in Social Sciences (Required Departmental Gen. Ed. Option), including one of the following:</i> GEOG 2613, Introduction to Geography POSC 2103, Introduction to U. S. Government PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology</p>	
Language Requirement:	Sem. Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
CRIM 1023, Introduction to Criminal Justice	3
CRIM 2263, Criminal Evidence and Procedure OR POSC 3183, Criminal Law and the Constitution	3
CRIM 3183, Institutional Corrections OR CRIM 3193, Community Corrections	3
CRIM 3223, Police and Society	3
CRIM 3263, Criminology	3
CRIM 4243, Social Justice	3
CRIM 4493, Capstone in Criminology	3
SOC 3383, Social Statistics	3
SOC 4293, Methods of Social Research	3

Major in Criminology (cont.)

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Electives (select 21 hours from the following): CRIM 2043, Community Relations CRIM 2253, Criminal Investigation CRIM 2263, Criminal Evidence and Procedure <i>If not used for major core course requirement.</i> CRIM 3323, Juvenile Delinquency CRIM 3423, Serial Homicide CRIM 4103, Criminal Justice Systems CRIM 460V, Special Problems CRIM 470V, Internship HIST 3583, History of Law Enforcement POSC 3113, American Municipal Government POSC 3143, State and Local Government POSC 3183, Criminal Law and the Constitution <i>If not used for major core course requirement.</i> POSC 4533, Environmental Law and Administration PSY 3413, Adolescent Psychology PSY 4533, Abnormal Psychology SOC 2223, Social Problems SOC 3273, Social Stratification SOC 3293, Self and Society SOC 3353, Minority Groups SOC 3463, Collective Behavior SOC 4003, Perspectives on Death and Dying SOC 4063, Sociology of Disasters SOC 4073, Sociology of Family Violence OR SW 4213, Introduction to Domestic Violence SOC 4203, Social Deviance SOC 4233, Social Organization SOC 4243, Social Theory SOC 4253, Rural Sociology SOC 4263, Terrorism as a Social Movement SOC 4273, World Population and Society SOC 4283, Qualitative Data Analysis SOC 4323, Applied Research SOC 4333, Sociology of Youth Subcultures SOC 4363, Environmental Sociology SW 3323, Substance Abuse: Intervention and Treatment SW 3343, Child Abuse and Neglect	21
Sub-total	48
Electives:	Sem. Hrs.
Electives	22-34
Total Required Hours:	120

Major in Sociology

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
SOC 1013, Making Connections Sociology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>Twelve hours in Social Sciences (Required Departmental Gen. Ed. Option), including one of the following:</i> GEOG 2613, Introduction to Geography POSC 2103, Introduction to U. S. Government PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology</p>	
Language Requirement:	Sem. Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
SOC 2213, Introduction to Sociology <i>If taken to meet General Education Requirement, substitute another SOC course for Major Requirement.</i>	3
SOC 2223, Social Problems	3
SOC 3273, Social Stratification	3
SOC 3383, Social Statistics	3
SOC 4243, Social Theory	3
SOC 4273, World Population and Society	3
SOC 4293, Methods of Social Research	3
SOC 4323, Applied Research	3

Major in Sociology (cont.)

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Electives (select 24 hours from the following): ANTH 2233, Introduction to Cultural Anthropology CRIM 3263, Criminology CRIM 3323, Juvenile Delinquency SOC 2323, Community Sociology SOC 3003, Sociology of Gender SOC 3223, Sociology of Families SOC 3293, Self and Society SOC 3313, Sociology of Sexuality SOC 3333, Sociology of Health & Illness SOC 3353, Minority Groups SOC 3363, Sociology of Religion SOC 3463, Collective Behavior SOC 4003, Perspectives on Death and Dying SOC 4063, Sociology of Disasters SOC 4073, Sociology of Family Violence OR SW 4213, Introduction to Domestic Violence SOC 4203, Social Deviance SOC 4213, Childhood and Adolescence SOC 4233, Social Organization SOC 4253, Rural Sociology SOC 4263, Terrorism as a Social Movement SOC 4283, Qualitative Data Analysis SOC 4323, Applied Research <i>If not taken to satisfy the core requirement.</i> SOC 4333, Sociology of Youth Subcultures SOC 4353, Sociology of Aging SOC 4363, Environmental Sociology SOC 4423, Sociology of Medicine SOC 460V, Special Problems SOC 4703, Internship	24
Sub-total	48
Electives:	Sem. Hrs.
Electives	22-34
Total Required Hours:	120

Law Enforcement

Associate of Applied Science

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
BIOL 1003 AND 1001, Biological Science and Laboratory	4
CS 1013, Introduction to Computers	3
ENG 1003, Composition I	3
ENG 1013, Composition II	3
HIST 1013, World History To 1500 OR HIST 1023, World History Since 1500	3
MATH 1023, College Algebra	3
PE 1002, Concepts of Fitness	2
Select one of the following: CHEM 1013 AND 1011, General Chemistry I and Laboratory PHSC 1203 AND 1201, Physical Science and Laboratory PHYS 2054, General Physics I	4
Select one of the following: HIST 2763, The United States To 1876 HIST 2773, The United States Since 1876 POSC 2103, Introduction to United States Government	3
Select one of the following: ANTH 2233, Introduction to Cultural Anthropology ECON 2333, Economic Issues and Concepts ECON 2313, Principles of Macroeconomics PSY 2013, Introduction to Psychology	3
Sub-total	31
Major Requirements:	Sem. Hrs.
COMS 1203, Oral Communication	3
CRIM 1023, Introduction to Criminal Justice	3
CRIM 2043, Community Relations	3
CRIM 2263, Criminal Evidence and Procedure	3
CRIM 3223, Police and Society	3
CRIM 3263, Criminology OR CRIM 3323, Juvenile Delinquency	3
HLTH 2523, First Aid and Safety	3
POSC 3113, American Municipal Government	3
SOC 2213, Introduction to Sociology	3
Criminology Elective	3
Sub-total	30
Electives:	Sem. Hrs.
Electives	2
Total Required Hours:	63

Department of Criminology, Sociology and Geography Minors

Minor in Criminology

Required Courses:	Sem. Hrs.
CRIM 1023, Introduction to Criminal Justice	3
CRIM 2263, Criminal Evidence and Procedure OR POSC 3183, Criminal Law and the Constitution	3
CRIM 3183, Institutional Corrections OR CRIM 3193, Community Corrections	3
CRIM 3223, Police and Society	3
CRIM 3263, Criminology OR CRIM 3323, Juvenile Delinquency	3
CRIM 4103, Criminal Justice Systems	3
Total Required Hours:	18

Minor in Homeland Security and Disaster Preparedness

The minor in Homeland Security and Disaster Preparedness is a multidisciplinary program offered in the College of Nursing and Health Professions and the College of Liberal Arts and Communication. The structure of the minor provides specialized training within each of the three tracks. The introductory and Non-Government Organizations courses provide the common framework necessary for the integration of these field and the cooperative efforts of the specialists working within them.

Required Courses:	Sem. Hrs.
DPEM 3503, Principles of Disaster Preparedness and Emergency Management	3
DPEM 4563, NGO Agencies in DPEM	3
Select three courses from within a single track:	9
<p>Track 1: Healthcare in Homeland Security and Emergency Preparedness DPEM 2233, Principles of Healthcare Emergency Management DPEM 2353, Global Perspectives in Disaster Preparedness DPEM 3553, Ethics and the Law in DPEM DPEM 4513, Physical Care of CBRNE Injuries DPEM 4523, Risk Identification and Prevention DPEM 4533, Disaster and Mental Health NRS 4223, Forensic Nursing SW 4203, Crisis Intervention</p> <p>Track 2: Disaster Preparedness, Response and Operations Management POSC 3503, Principles of Public Administration POSC 4513, Disaster Response Operation Management STCM 4603, Crisis Communications</p> <p>Track 3: Sociocultural & Political Disaster Preparedness SOC 3363, Sociology of Religion OR SW 4363, Religion and Spirituality in Social Work Practice SOC 4003, Perspectives on Death and Dying SOC 4063, Sociology of Disasters SOC 4263, Terrorism as a Social Movement</p>	
Choose one elective from one other track.	3
Total Required Hours:	18

Department of Criminology, Sociology and Geography Minors

Minor in Children's Advocacy Studies

Required Courses:	Sem. Hrs.
SW 3313, Child Welfare	3
SW 3343, Child Abuse and Neglect	3
SW/CRIM/SOC 4383, Child Welfare and the Law (Capstone Course)	3
Select one of the following: SOC 4073, Sociology of Family Violence SW 3323, Substance Abuse SW 4213, Introduction to Domestic Violence	3
Select one of the following: ECH 2023, Child Development PSY 3403, Child Psychology SOC 4213, The Sociology of Childhood and Adolescence	3
Select one of the following: CRIM 3323, Juvenile Delinquency PSY 3613, Cultural Psychology SOC 2223, Social Problems	3
Total Required Hours:	18

Minor in Interdisciplinary Family Studies

Required Courses:	Sem. Hrs.
Interdisciplinary Course: NRS/ECH/PSY/SOC 4053, Today's Families Interdisciplinary Approaches <i>The Interdisciplinary Course may only be completed once for credit, regardless of prefix. Student should complete a minimum of twelve hours in the minor before registering for the Interdisciplinary course.</i>	3
Sociology: SOC 3223, Sociology of Families OR SOC 4213, The Sociology of Childhood and Adolescence	3
Human Development (select one of the following): ECH 2023, Child Development PSY 3403, Child Psychology PSY 3413, Adolescent Psychology	3
Families in Social Contexts: SW 3313, Introduction to Child Welfare OR SW 3343, Child Abuse and Neglect	3
Family and Health (select one of the following): HLTH 3563, Human Sexuality NRS 3353, Aging and the Older Adult NS 2203, Basic Human Nutrition	3
Select one of the following: PSY 3613, Cultural Psychology SOC 2223, Social Problems SOC 4073, Sociology of Family Violence SW 4213, Introduction to Domestic Violence	3
Total Required Hours:	18

Minor in Sociology

Required Courses:	Sem. Hrs.
SOC 2213, Introduction to Sociology	3
SOC 2223, Social Problems	3
SOC 3273, Social Stratification	3
Sociology elective	3
Upper-level Sociology electives	6
Total Required Hours:	18

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

Department of English and Philosophy

Professor Janelle Collins, Chair

Professors: *Ball, Calloway, Cave, Hansen, Hendershot, Lamm, Lott, Moore, Sartorelli, Schichler, Spikes*

Associate Professors: *Burns, Caton, Chappel-Daniel, Merritt, Narey*

Assistant Professors: *Aryal, Beauchamp, Chamberlain, Tribbett, Weimer*

Instructors: *Bridges, Duclos, C. Williams, G. Williams*

Courses offered in English are designed to promote the effective use of oral and written English; to encourage selective and interpretative reading; to increase the capacity to understand and appreciate the classics, the humanities, and the fine arts; and to foster the development of personal philosophies based upon time-tested truths.

It is assumed that any student enrolling in any literature class will be able to demonstrate competent writing ability.

The program for students majoring in English is designed to afford a liberal education to meet the needs of teacher certification; to create a humane basis for careers in business, in the learned professions, or in government; and to prepare for graduate study.

Courses offered in philosophy are designed to provide students with the knowledge and logical skills to understand and critically evaluate the intellectual, moral, and religious choices they encounter.

The program for students majoring in philosophy seeks to provide the background necessary for those preparing for law school, seminary, and graduate school as well as for those who simply seek a liberal education as the foundation of a career in business or industry.

WRITING CENTER

The department offers a special free service to students at all levels: a writing center designed to help students with individual problems. Contact the department office for details.

Major in English

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
ENG 2103, Introduction to Poetry and Drama	3
ENG 2113, Introduction to Fiction	3
ENG 4800, Senior Project	0
British Literature (select three of the following): <i>Students must select either ENG 3223 or ENG 3263. Students must select at least one course from British literature before 1800 and at least one course from British literature since 1800.</i> ENG 3223, British Literature to 1800 ENG 3263, British Literature since 1800 ENG 3233, Shakespeare ENG 3243, British Drama to 1800 ENG 3293, British Novel ENG 4183, Renaissance Drama Excluding Shakespeare ENG 4213, Medieval Literature ENG 4233, Sixteenth-Century Literature ENG 4243, Seventeenth-Century Literature ENG 4253, Restoration and Neoclassical Literature ENG 4263, Romantic Literature ENG 4273, Victorian Literature ENG 4283, Modern British Literature	9
American Literature (select two of the following): <i>Students must take either ENG 3323 or ENG 3363.</i> ENG 3323, American Literature to 1865 ENG 3363, American Literature since 1865 ENG 3373, Regional American Literature ENG 3393, American Novel ENG 4333, American Romanticism ENG 4353, American Realism and Naturalism ENG 4373, Modern American Literature	6
Multicultural Literature (select one of the following): ENG 3633, Native American Verbal Art ENG 3643, African-American Folklore ENG 4363, African-American Literature ENG 4383, Multi-Ethnic American Literature ENG 4453, Women Writers	3
Global Literature: ENG 3453, Global Literature OR ENG 3473, Contemporary Literature	3
Theory ENG 3103, Introduction to Contemporary Literary Theory	3

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

Major in English (cont.)

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Upper-level Writing (select one of the following): ENG 3003, Advanced Composition ENG 3053, Introduction to Digital Writing ENG 4483, Special Topics in Writing Studies ENG 4703, Persuasive Writing	3
Upper-level English Elective	3
Optional Concentration in Writing: <i>Students electing to complete the B.A. in English with the Optional Concentration in Writing must take one writing course as part of the "Upper-level Writing" requirement for all majors. They must also complete the three upper-level writing courses listed below.</i> ENG 3003, Advanced Composition ENG 3023, Creative Writing ENG 4023, Advanced Creative Writing	0-9
Sub-total	36-45
Electives:	Sem. Hrs.
Electives <i>English B.A. majors are encouraged to develop a strong outside area of concentration.</i>	25-46
Total Required Hours:	120

Major in English

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem Hrs.
ENG 2103, Introduction to Poetry and Drama	3
ENG 2113, Introduction to Fiction	3
ENG 3003, Advanced Composition	3
ENG 3233, Shakespeare OR ENG 3243, British Drama Before 1880	3
ENG 3583, Literature for Adolescents	3
ENG 4053, The English Language OR ENG 4083, Introduction to Linguistics	3
ENG 4063, Comparative Modern Grammars	3
ENG 4043, Theory in the Teaching of Composition	3
Upper-level American literature electives	6
Upper-level British literature elective	3
Upper-level English Electives	6
Sub-total	39
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section. B.S.E. English majors seeking admission to the Teacher Education Program will be required to demonstrate writing competency at the time of their screening. One of the literature courses must be either multicultural in nature or have a strong multicultural component.	
*EDEN 4553, Methods and Materials for Teaching English in the Secondary School	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TIEN 4826, Teaching Internship in the Secondary School	12
Sub-total	32
Additional General Requirements for Teacher Education:	Sem Hrs.
HLTH 2513, Principles of Personal Health	3
Electives:	Sem Hrs.
Electives	8
Total Required Hours:	120

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

Major in Philosophy

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
PHIL 1103, Introduction to Philosophy	0-3
PHIL 1503, Logic and Practical Reasoning	3
History of Philosophy (select two of the following): PHIL 3213, History of Ancient and Medieval Philosophy PHIL 3223, History of Modern Philosophy PHIL 4213, Contemporary Philosophy	6
Epistemology/Metaphysics (select one of the following): PHIL 3403, Theory of Knowledge PHIL 3423, Philosophy of Science PHIL 4403, Metaphysics	3
Ethics/Value Theory (select one of the following): PHIL 3713, Ethics in the Health Professions PHIL 3723, Computers, Ethics, and Society PHIL 4703, Contemporary Ethical Issues PHIL 4723, Aesthetics	3
Upper-level Philosophy Electives	12
Sub-total	27-30
Electives:	Sem. Hrs.
Electives	40-55
Total Required Hours:	120

Department of English and Philosophy Minors

Minor in Cognitive Science

Completion of the minor will require eighteen hours in courses related to cognition, learning, development and the mind - at least nine of which must be upper-level courses, and no more than six of which are in the student's major. Students must also complete courses from two of the three main research areas of Psychology, Philosophy and Biology.

Required Courses:	Sem. Hrs.
PHIL 2403, Introduction to Cognitive Science	3
Select fifteen hours from the following: BIO 3033, Evolution BIO 4443 AND 4441, Animal Physiology and Laboratory BIO 4133 AND 4131, Cell Biology and Laboratory PHIL 4403, Metaphysics PHIL 4443, Philosophy of Mind POSC 4003, Political Psychology PSY 3403, Child Psychology PSY 3303, Motivation PSY 3413, Adolescent Psychology PSY 3453, Developmental Psychology PSY 4323, Physiological Psychology PSY 4363, Cognitive Psychology SOC 3293, Self and Society SOC 4213, Sociology of Childhood and Adolescence	15
Total Required Hours:	18

Minor in English

Required Courses:	Sem. Hrs.
ENG 2103, Introduction to Poetry and Drama	3
ENG 2113, Introduction to Fiction	3
English elective in British Literature	3
English elective in American Literature	3
Upper-level Electives in English	6
Total Required Hours:	18

Minor in Folklore Studies

Required Courses:	Sem. Hrs.
ENG 3613, Introduction to Folklore	3
ENG 4643, Independent Fieldwork in Folklore	3
Folklore Studies electives (select four of the following): ENG 3623, American Folklore ENG 3633, Native American Verbal Art ENG 3643, African-American Folklore ENG 4613, Roots Music: Blues, Ballad and Folksong ENG 4623, Mythology ENG 4633, Material Folk Culture	12
Total Required Hours:	18

Department of English and Philosophy Minors

Minor in History and Philosophy of Science and Technology

Completion of the minor will require eighteen hours from the approved courses below, including at least one elective course in each of the following fields of study: philosophy, history, and science.

Required Courses:	Sem. Hrs.
Select one of the following: PHIL 3423, Philosophy of Science PHIL 3713, Ethics in the Health Professions PHIL 3723, Computers, Ethics, and Society PHIL 4733, Environmental Ethics	3
Select one of the following: HIST 3323, United States Environmental History HIST 4553, History of Medicine HIST 4563, Plagues and Pestilence in World History	3
Select one of the following: BIOL 4373, History of Biological Ideas BIO 404V, Special Topics CHEM 4393, Special Topics PHYS 4393, Special Topics	3
Select nine additional hours from the courses above.	9
Total Required Hours:	18

Minor in Philosophy

Required Courses:	Sem. Hrs.
PHIL 1103, Introduction to Philosophy	3
PHIL 1503, Logic and Practical Reasoning	3
Upper-level Elective in History of Philosophy	3
Upper-level Electives in Philosophy	9
Total Required Hours:	18

Minor in Religious Studies

Required Courses:	Sem. Hrs.
ENG 1643, Introduction to Religion	3
Select fifteen hours from the following: ENG 3483, The Bible as Literature ENG 4623, Mythology PHIL 3313, Philosophy of Religion PHIL 3623, Eastern Philosophy SOC 3363, Sociology of Religion SW 4363, Religion and Spirituality in Social Work Practice	15
Total Required Hours:	18

Department of English and Philosophy Minors

Minor in Writing Studies

Required Courses (General Track):	Sem. Hrs.
BSE - English students may substitute EDEN 4553, Methods and Materials for Teaching English in the Secondary School for the Preceptorship and Internship. THEA 4313 and MDIA 3403 cannot be used by students majoring in the departments of Media or Communication to fulfill this minor.	
ENG 3033, Introduction to Writing Studies	3
ENG 4711, Preceptorship in Writing Studies	1
ENG 4722, Internship in Writing Studies	2
Elective from Professional Writing Track (ENG 3003, ENG 3013, ENG 3043, ENG 3053, ENG 4483, or ENG 4703)	3
Elective from Creative Writing Track (ENG 3023, ENG 4023, THEA 4313, or MDIA 3403)	3
Electives in Writing Studies	6
Total Required Hours:	18

Required Courses (Creative Writing Track):	Sem. Hrs.
BSE - English students may substitute EDEN 4553, Methods and Materials for Teaching English in the Secondary School for the Preceptorship and Internship. THEA 4313 and MDIA 3403 cannot be used by students majoring in the departments of Media or Communication to fulfill this minor.	
ENG 3033, Introduction to Writing Studies	3
ENG 3023, Creative Writing OR ENG 4023, Advanced Creative Writing (Courses may be repeated with various topics; may also include either THEA 4313 Fundamentals of Playwriting or MDIA 3403 Screenwriting for Narrative Motion Pictures)	9
ENG 4711, Preceptorship in Writing Studies	1
ENG 4722, Internship in Writing Studies	2
Elective in Writing Studies	3
Total Required Hours:	18

Required Courses (Professional Writing Track):	Sem. Hrs.
BSE - English students may substitute EDEN 4553, Methods and Materials for Teaching English in the Secondary School for the Preceptorship and Internship.	
ENG 3003, Advanced Composition	3
ENG 3013, Practical Writing	3
ENG 3033, Introduction to Writing Studies	3
ENG 3043, Technical Writing	3
ENG 4711, Preceptorship in Writing Studies	1
ENG 4722, Internship in Writing Studies	2
Elective in Writing Studies	3
Total Required Hours:	18

Department of English and Philosophy Minors

Minor in Women and Gender Studies

Required Courses:	Sem. Hrs.
<p>Select eighteen hours from the following: <i>At least nine hours must be upper-level courses, and no more than six may be in the student's major.</i></p> <p>WGS 3003, Sociology of Gender WGS 3313, Sociology of Sexuality WGS 3333, Women's Health: Past, Present and Future WGS 3373, Gender Communication WGS 3693, United States Women's History WGS 3773, Topics in Feminist Philosophy WGS 4123, Women and Politics WGS 4233, Gender and the Body in Modern and Contemporary Art WGS 4323, Diversity and Media WGS 4453, Women Writers WGS 4473, U.S. Southern Women's History WGS 4483, History of Sexuality in America WGS 4743, Social and Political Philosophy WGS 4763, Philosophy of Sex</p>	18
Total Required Hours:	18

Department of History

Associate Professor Justin Castro, Chair

Professors: *Gilbert, Jones-Branch, Sydorenko, Wilkerson-Freeman*

Associate Professors: *Buford, Edwards, Hogue, Hronek, Hu, Maynard, Salo*

Assistant Professors: *Barnhouse, Davis*

The Department of History offers to all students of the university courses of general cultural and educational value. It seeks not only to acquaint students with the development of human civilization and with their duties as citizens, but to advance them toward their vocational and professional objectives.

The major in history with the Bachelor of Arts degree is recommended for those seeking a liberal education and aspiring to careers in history, law, theology, journalism, and library work; in local, state, and national public service; in business where a knowledge of domestic and foreign affairs is desirable; and in every area which requires an understanding of human activity.

The major in social science with the Bachelor of Science in Education degree is offered specifically to prepare teachers of social science in institutions of secondary education.

The Department of History also offers a Certificate in Digital Humanities that prepares students to apply the critical thinking, creative skills, and subject knowledge of the humanities to practical work in the digital world.

Major in History

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
HIST 1003, Introduction to History and Social Studies	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Twelve hours of Social Sciences or six hours of Humanities. (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
HIST 1013 AND HIST 1023 <i>One course may also be counted in General Education.</i>	3-6
HIST 2763 AND HIST 2773 <i>One course may also be counted in General Education.</i>	3-6
HIST 3333, The Practice of History	3
HIST 4803, Senior History Seminar	3
Elective History Courses (at least nine hours must be at the 4000 level):	
Upper-level United States History electives	9
Upper-level European History electives	6
Upper-level World History electives	6
Upper-level History electives	6
Sub-total	39-45
Electives:	Sem. Hrs.
Electives <i>The Department of History recommends that its majors select minors in fields approved by their academic advisors.</i>	25-43
Total Required Hours:	120

Major in Social Science

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
HIST 1003, Introduction to History and Social Studies	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 87)	35
Students with this major must take the following: <i>HIST 1013, World History to 1500 OR</i> <i>HIST 1023, World History since 1500</i> <i>POSC 2103, Introduction to United States Government</i> <i>PSY 2013, Introduction to Psychology</i> <i>SOC 2213, Introduction to Sociology (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem Hrs.
HIST 1013, World History to 1500 OR HIST 1023, World History since 1500	3
HIST 2763, The United States to 1876	3
HIST 2773, The United States since 1876	3
HIST 3083, Arkansas History	3
HIST 3333, The Practice of History	3
HIST 3673, African-American History I OR HIST 3683, African-American History II	3
HIST 4312, Computer Technologies for the History/Social Sciences Educator	2
POSC 3193, Arkansas Government and Politics	3
Economics elective	3
Geography electives	6
Upper-level Political Science elective	3
Sociology elective	3
Upper-level United States history electives (see advisor for additional information).	6
Upper-level world history electives (see advisor for additional information).	6
Sub-total	50
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section. All BSE Social Science candidates must take the appropriate PRAXIS Series Exams required for licensure in Arkansas and report their test results to the Department of History before graduation.	
*EDSS 4603, Methods and Materials for Teaching Social Studies in the Secondary School	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TIHI 4826, Teaching Internship in the Secondary School	12
Sub-total	32
Total Required Hours:	120

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

Certificate in Digital Humanities

Required Courses:	Sem. Hrs.
HIST 3393, Introduction to the Digital Humanities	3
HIST 4573, Digital History Seminar	3
HIST 470V, Capstone Project in Digital Humanities	3
Select three of the following: ART 1013, Design I ART 1023, Design II CS 1114, Concepts of Programming CS 2114, Structured Programming ENG 3053, Introduction to Digital Writing GCOM 1813, Introduction to Digital Publishing GRFX 1111, Design Technology GRFX 3713, 3D Digital and Game Design MDIA 2053, Introduction to Visual Communications MDIA 2313, Multimedia Production MDIA 3313, Audio and Video Production STCM 3553, Strategic Visual Communication	9-11
Total Required Hours:	18-20

Department of History Minors

Minor in African-American Studies

Required Courses:	Sem. Hrs.
HIST 3673, African American History I	3
HIST 3683, African American History II	3
Select one of the following: ENG 3643, African American Folklore ENG 4363, African American Literature Survey HIST 3853, The U.S. Civil Rights Movement POSC 3163, Black Politics	3
African-American Studies electives (select three of the following): COMS 4253, Intercultural Communications ENG 3643, African American Folklore ENG 4363, African American Literature Survey ENG 4383, Multi-Ethnic American Literature HIST 3013, Civilizations of Africa HIST 3853, The U.S. Civil Rights Movement MDIA 4323, Diversity and Media PHIL 4773, Defining Race POSC 3163, Black Politics POSC 3213, African Political Systems SOC 3353, Minority Groups Other relevant course approved by the African-American Studies minor advisor in the History Department	9
Total Required Hours:	18

Minor in History

Required Courses:	Sem. Hrs.
History Electives	6
Upper-level United States History Electives	6
Upper-level European or World History Electives	6
Total Required Hours:	18

Minor in Medieval Studies

Required Courses:	Sem. Hrs.
An Independent Study course approved by major advisor may be substituted for any category (maximum - 3 hours)	
HIST 3183, Medieval Europe	3
Select two or three of the following: ARTH 3053, Medieval and Renaissance Art and Architecture ENG 4213, Medieval Literature PHIL 3213, History of Ancient and Medieval Philosophy POSC 3413, Classical and Medieval Political Theory	6-9
Select two or three of the following: HIST 3193, The Crusades HIST 3223, Renaissance and Reformation Europe HIST 4213, History of England, 55 B.C. to A.D. 1689 HIST 4243, The Vikings HIST 4593, Special Topics in World History (as approved by major advisor)	6-9
Total Required Hours:	18

Department of History Minors

Minor in Modern European Studies

Required Courses:	Sem. Hrs.
POSC 3223, European Political Systems	3
Select three of the following: HIST 3273, Modern Europe, 1750 to Present HIST 3283, Society and Thought in Europe HIST 4123, Soviet Russia HIST 4223, History of Great Britain 1688-1982	9
Select two of the following: ENG 3263, British Literature since 1800 ENG 4283, Modern British Literature FR 3613, French Civilization GER 3173, German Civilization PHIL 3223, History of Modern Philosophy History course from the list above	6
Total Required Hours:	18

Minor in United States History

Required Courses:	Sem. Hrs.
United States History Electives	6
Upper-level United States History (through 1876) Electives	6
Upper-level United States History (after 1876) Electives	6
Total Required Hours:	18

School of Media and Journalism

Professor Brad Rawlins, Director

Professors: *Fears, Pitts, Zeng*

Associate Professors: *Bowman, Combs*

Assistant Professors: *Sitton*

Instructors: *Armstard, Mishra, Perkins, Pillow, Roberts*

The School of Media and Journalism offers Bachelor of Science degrees in Creative Media Production and Multimedia Journalism. . In the Creative Media Production program, students can emphasize in corporate media, graphic communication, and sports media. The School also offers Certificates in Corporate Media, Graphic Communication, Media Ministry and Sports Media and a Minor in Multimedia Journalism. The School is accredited by the Accrediting Council on Education in Journalism and Mass Communication.

CREATIVE MEDIA PRODUCTION PROGRAM:

The creative media production program prepares students for the world of media production, from concept to program completion. Through hands-on instruction and conceptual coursework, students learn how to create and distribute content for multiple media platforms.

Creative Media Production is designed to nurture students with a passion for storytelling and communicating, and a talent for expressing themselves through visual media. This preparation provides a solid foundation on which to build their careers in a variety of rewarding professions.

MULTIMEDIA JOURNALISM PROGRAM:

The multimedia journalism program prepares student journalists and news practitioners to generate, research, write, and produce newsworthy content across the spectrum of news media. Through hands-on instruction, practical workplace experience and conceptual coursework, students learn how to create and distribute content for print, radio, television, digital, interactive, social and mobile media.

Multimedia journalism is designed to develop news judgment, talent for performance and teamwork, and storytelling skills applicable to a variety of professions and media outlets. This program builds the foundation on which graduates can establish a career in modern news media across platforms.

CREATIVE MEDIA PRODUCTION DEGREE REQUIREMENTS

Students earning a Bachelor of Science from the School of Media and Journalism must complete the following:

1. Take a senior exit exam in the media portfolio class in the last semester of enrollment.
2. Complete a program evaluation survey and submit a resume prior to graduation.
3. Present for faculty and advisory board review a portfolio website that meets specified requirements.

MULTIMEDIA JOURNALISM DEGREE REQUIREMENTS

Students earning a Bachelor of Science from the School of Media and Journalism must complete the following:

1. Take at least 72 hours outside of the three Bachelor of Science degrees offered in the School of Media and Journalism.
2. A minor outside of the School of Media and Journalism. The minor must be approved by the student's advisor.
3. Earn no more than three hours of internship credit towards the 120 hours required for graduation.
4. Take a senior exit exam on the study day prior to final exams of his or her last semester of enrollment.
5. Complete an exit survey and submit a resume prior to graduation.
6. Present for faculty review a portfolio website that meets specified requirements

Major in Creative Media Production

Bachelor of Science Emphasis in Corporate Media

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>CMAC 1003, Mass Communications in Modern Society</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
GCOM 1813, Introduction to Digital Publishing	3
MDIA 2023, Media Aesthetics	3
MDIA 2033, Writing for Creative Media I	3
MDIA 2123, Audio Production I	3
MDIA 2223, Video Production I	3
MDIA 3323, Media Analytics and Data Visualization	3
MDIA 3413, Writing for Creative Media II	3
MDIA 4123, Media Management and Entrepreneurship	3
MDIA 4363, Multimedia Storytelling	3
MDIA 4812, Media Portfolio	2
Sub-total	29
Emphasis Area (Corporate Media):	Sem. Hrs.
MDIA 1011, Experiential Media I	1
MDIA 3011, Experiential Media II	1
MDIA 3123, Audio Production II	3
MDIA 3223, Video Production II	3
MDIA 3233, Video Production III	3
MDIA 4353, Corporate Media Production	3
MDIA 4473, Media Production Practicum	3
Sub-total	17
Electives:	Sem. Hrs.
Upper-level MDIA electives	6
Electives	30
Sub-total	36
Total Required Hours:	120

Major in Creative Media Production

Bachelor of Science Emphasis in Graphic Communication

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>CMAC 1003, Mass Communications in Modern Society</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
GCOM 1813, Introduction to Digital Publishing	3
MDIA 2023, Media Aesthetics	3
MDIA 2033, Writing for Creative Media I	3
MDIA 2123, Audio Production I	3
MDIA 2223, Video Production I	3
MDIA 3323, Media Analytics and Data Visualization	3
MDIA 3413, Writing for Creative Media II	3
MDIA 4123, Media Management and Entrepreneurship	3
MDIA 4363, Multimedia Storytelling	3
MDIA 4812, Media Portfolio	2
Sub-total	29
Emphasis Area (Graphic Communication):	Sem. Hrs.
GCOM 2673, Digital Prepress Workflow	3
MDIA 2043, Basic Digital Photography	3
MDIA 3373, Introduction to Internet Communications	3
GCOM 3603, Graphic Production Systems	3
GCOM 3673, Desktop Publishing and Publication Design	3
GCOM 4643, Graphic Communications Management Seminar	3
MDIA 4603, Internship	3
Sub-total	21
Electives:	Sem. Hrs.
Upper-level MDIA electives	6
Electives	26
Sub-total	32
Total Required Hours:	120

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

Major in Creative Media Production

Bachelor of Science Emphasis in Sports Media

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>CMAC 1003, Mass Communications in Modern Society</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
GCOM 1813, Introduction to Digital Publishing	3
MDIA 2023, Media Aesthetics	3
MDIA 2033, Writing for Creative Media I	3
MDIA 2123, Audio Production I	3
MDIA 2223, Video Production I	3
MDIA 3323, Media Analytics and Data Visualization	3
MDIA 3413, Writing for Creative Media II	3
MDIA 4123, Media Management and Entrepreneurship	3
MDIA 4363, Multimedia Storytelling	3
MDIA 4812, Media Portfolio	2
Sub-total	29
Emphasis Area (Sports Media):	Sem. Hrs.
MDIA 1011, Experiential Media I	1
MDIA 3011, Experiential Media II	1
MDIA 3123, Audio Production II	3
MDIA 3223, Video Production II	3
MDIA 3233, Video Production III	3
MDIA 3573, Sports Production	3
MDIA 4563, Sports Programming	3
MDIA 4573, Sportscasting	3
Sub-total	20
Electives:	Sem. Hrs.
Upper-level MDIA electives	6
Electives	27
Sub-total	33
Total Required Hours:	120

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

Major in Multimedia Journalism

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>CMAC 1003, Mass Communications in Modern Society</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
MDIA 1013, Principles of Journalism	3
MDIA 2043, Basic Digital Photography	3
MDIA 2201, News Practicum I	1
MDIA 2313, Digital Media Production	3
MDIA 2323, Reporting Words	3
MDIA 3013, Multimedia Reporting	3
MDIA 3063, Editing for Publications and the Web	3
MDIA 3201, News Practicum II	1
MDIA 3363, Modern Media Inquiries	3
MDIA 4003, Media Law and Ethics	3
MDIA 4053, Civic Reporting	3
MDIA 4201, News Practicum III	1
MDIA 4323, Diversity and Media	3
MDIA 4603, Internship	3
<i>Major Electives (Select at least 3 of the following with advisor approval)</i> GCOM 3673, Desktop Publishing and Publication Design MDIA 2053, Introduction to Visual Communications MDIA 2223, Video Production I OR GCOM 1813, Introduction to Digital Publishing MDIA 3003, Feature Writing and Freelancing MDIA 3053, Sports Reporting MDIA 3083, History of the Mass Media MDIA 3093, Photo Storytelling I MDIA 3203, Audio Storytelling MDIA 3383, News in Social Media MDIA 3603, Television Reporting MDIA 4013, Photo Storytelling II MDIA 4023, Public Opinion, Propaganda and the Mass Media MDIA 4103, Data Journalism MDIA 4113, Specialized Reporting MDIA 4123, Media Management and Entrepreneurship MDIA 4552, Photojournalism Practicum and Professional Development	9
Sub-total	45
Minor:	Sem. Hrs.
<i>Must be outside of the Department of Communication and School of Media and Journalism, approved by advisor.</i>	18-21
Electives:	Sem. Hrs.
Electives	16-19
Total Required Hours:	120

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

School of Media and Journalism Certificates

Certificate of Corporate Media

Required Courses:	Sem. Hrs.
MDIA 2223, Video Production I	3
MDIA 3223, Video Production II	3
MDIA 4353, Corporate Media Production	3
MDIA 4483, Broadcast Graphics	3
Total Required Hours:	12

Certificate of Graphic Communication

Required Courses:	Sem. Hrs.
GCOM 1813, Introduction to Digital Publishing	3
GCOM 2673, Digital Prepress Workflow	3
GCOM 3673, Desktop Publishing and Publication Design	3
GCOM 4643, Graphic Communications Management	3
Total Required Hours:	12

Certificate of Media Ministry

Required Courses:	Sem. Hrs.
MDIA 2223, Video Production I	3
MDIA 3673, Seminar in Digital Media and Design	3
MDIA 3443, Media Ministry	3
MDIA 4483, Broadcast Graphics	3
Total Required Hours:	12

Certificate of Sports Production

Required Courses:	Sem. Hrs.
MDIA 2123, Audio Production I	3
MDIA 2223, Video Production I	3
MDIA 3573, Sports Production	3
MDIA 4573, Sportscasting	3
Total Required Hours:	12

School of Media and Journalism Minor

Minor in Multimedia Journalism

Required Courses:	Sem. Hrs.
MDIA 1013, Principles of Journalism	3
MDIA 2313, Digital Media Production	3
MDIA 2323, Reporting Words	3
MDIA 3013, Multimedia Reporting	3
Six hours of upper-level electives offered in Multimedia Journalism	6
Total Required Hours:	18

Department of Music

Professor Lauren Schack-Clark, Chair

Professors: *Crist, Kyriakos, Oliver, Owen, Clark*

Associate Professors: *Collison, Carroll, Labovitz*

Assistant Professors: *Buxbaum, Carey, Faske, Jenkins, Leitteman, Schwab, Simoes, Song, Sullivan*

Instructors: *Coleman, Collins, Henkelmann, Riley*

Our mission is to prepare well-rounded and dynamic musicians and scholars for leadership roles as performers, educators, composers, and arts consumers. We seek to enhance the college experience through musical opportunities at all levels and enrich our community by being a center of artistic excellence, music education, and outreach for the Mid-South region and beyond.”

The department provides curricula which lead to the Bachelor of Music Education, Bachelor of Music, and Bachelor of Arts in music degrees. As appropriate for elementary and secondary licensure in music education, the programs of study for the Bachelor of Music Education degrees (Vocal and Instrumental) include coursework and field experiences at the elementary and secondary levels. Courses specific to Vocal and Instrumental teaching techniques and literature prepare students for entry into their respective areas. The field experiences provide the necessary breadth and depth in observing and applying best pedagogical approaches and use of appropriate materials for music learning in vocal, instrumental, and general music. The Bachelor of Music degree emphasizes composition or performance. The Bachelor of Arts degree with a major in music permits the study of music within a liberal arts curriculum and provides a broad coverage of the entire field of music rather than a heavy concentration in a single area. The Bachelor of Arts degree with an emphasis in Jazz Studies combines the breadth of a liberal arts curriculum with the depth of study into the jazz idiom.

Departmental requirements include recital attendance, performance proficiency, and participation in one or more of the performing organizations.

Students who transfer to Arkansas State University for the purpose of obtaining a degree in music and who have 60 or more college credits may be required to take competency exams in their applied music majors and basic music areas and may be required to take remedial work in these areas if necessary.

Major in Music

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 2611, Keyboard Skills III	1
MUS 2621, Keyboard Skills IV	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS Theory Electives (upper-level courses)	2
MUSP 1100, Recital Attendance (6 semesters)	0
Major Performance Area (seven hours must be upper-level)	9
Music Ensemble (upper-level courses)	8
Sub-total	43
Minor:	Sem. Hrs.
Must be approved by advisor	18-21
Electives:	Sem. Hrs.
Electives	6-15
Total Required Hours:	120

Major in Music

Bachelor of Arts Concentration in Jazz Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem Hrs.
Foreign Language <i>Refer to Foreign Language Requirement in College of Liberal Arts and Communication.</i>	0-12
Major Requirements:	Sem. Hrs.
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUSP 1100, Recital Attendance (6 semesters)	0
Major Performance Area (seven hours must be upper-level)	14
Sub-total	36
Concentration Area (Jazz Studies):	Sem. Hrs.
MUS 1701, Improvisation I	1
MUS 2701, Improvisation II	1
MUS 4701, Improvisation III	1
MUS 2721, Jazz Piano I	1
MUS 2731, Jazz Piano II	1
MUS 3702, Jazz Theory I	2
MUS 3712, Jazz Theory II	2
MUS 4732, Jazz Styles and Analysis	2
MUS 4712, Jazz Arranging I	2
MUS 4722, Jazz Arranging II	2
MUS 3371, Small Ensemble (4 semesters)	4
MUS 3381, Jazz Ensemble (8 semesters)	8
MUS 4322, History of Jazz	2

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

Major in Music (cont.)

Bachelor of Music Concentration in Jazz Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

MUED 4202, Methods and Materials for Teaching Jazz Band	2
MUSP 3130, Half Recital	0
MUSP 4131, Full Recital	1
Subtotal	32
Electives:	Sem. Hrs.
Electives	2-14
Total Required Hours:	120

Major in Music

Bachelor of Music Concentration in Instrumental Performance

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 2611, Keyboard Skills III	1
MUS 2621, Keyboard Skills IV	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS 3432, Counterpoint	2
MUS 3441, Elementary Conducting	1
MUS 4412, Form and Analysis	2
MUS 4512, Church Music OR MUS 4322, History of Jazz	2
MUSP 1100, Recital Attendance (6 semesters)	0
MUSP 1112, (Major Applied Area) 2 semesters - lower-level	4
MUSP 3113, (Major Applied Area) 6 semesters - upper-level	18
Sub-total	53
Concentration Area (Instrumental Performance):	Sem. Hrs.
MUSP 3111, (Secondary Applied Area)	4
MUSP 3130, Half Recital	0
MUSP 4131, Full Recital	1
MUSP 4161, Pedagogy and Performance	2
Music Electives	14
Music Ensemble <i>Must include 4 semesters of Wind Ensemble, Symphonic Winds, or Orchestra.</i>	8
Sub-total	29
Total Required Hours:	120

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

Major in Music

Bachelor of Music Concentration in Voice Performance

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 2611, Keyboard Skills III	1
MUS 2621, Keyboard Skills IV	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS 3432, Counterpoint	2
MUS 3441, Elementary Conducting	1
MUS 4412, Form and Analysis	2
MUS 4512, Church Music OR MUS 4322, History of Jazz	2
MUSP 1100, Recital Attendance (6 semesters)	0
MUSP 1112, (Major Applied Area) 2 semesters - lower-level	4
MUSP 3113, (Major Applied Area) 6 semesters - upper-level	18
Sub-total	53

Major in Music (cont.)

Bachelor of Music Concentration in Voice Performance

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Concentration Area (Voice Performance):	Sem. Hrs.
FR 1013, Elementary French I	3
FR 1023, Elementary French II	3
GER 1013, Elementary German I	3
GER 1023, Elementary German II	3
MUS 3211, Diction for Singers I	1
MUS 3221, Diction for Singers II	1
MUS 3523, Song Literature	3
MUSP 3111, Piano, 2 semesters	2
MUSP 3130, Half Recital	0
MUSP 4131, Full Recital	1
MUSP 4161, Pedagogy and Performance	1
Upper-level Music Electives	2
Music Ensemble (five hours must be upper-level) <i>Must include at least 3 semesters of MUS 3471, Opera Production.</i>	6
Sub-total	29
Total Required Hours:	120

Major in Music

Bachelor of Music Concentration in Keyboard Performance

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS 3432, Counterpoint	2
MUS 3441, Elementary Conducting	1
MUS 4412, Form and Analysis	2
MUS 4512, Church Music OR MUS 4322, History of Jazz	2
MUSP 1100, Recital Attendance (6 semesters)	0
MUSP 1112, (Major Applied Area) 2 semesters - lower-level	4
MUSP 3113, (Major Applied Area) 6 semesters - upper-level	18
Sub-total	49
Concentration Area (Keyboard Performance):	Sem. Hrs.
FR 1013 AND FR 1023, Elementary French I and II OR GER 1013 AND GER 1023, Elementary German I and II	6
MUED 4642, Piano Pedagogy	2

Major in Music (cont.)

Bachelor of Music Concentration in Keyboard Performance

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

MUS 4151, Collaborative Piano (two semesters)	2
MUS 4223, Piano Literature	3
MUS 4512, Church Music (Organ Majors - 2 hours; Piano Majors - 0 hours)	0-2
MUSP 3111, (Secondary Applied Area - advisor approval required)	4
MUSP 3130, Half Recital	0
MUSP 4131, Full Recital	1
Music Electives (Organ Majors - 9; Piano Majors - 11)	9-11
Music Ensemble	4
Sub-total	33
Total Required Hours:	120

Major in Music

Bachelor of Music Concentration in Composition

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 2611, Keyboard Skills III	1
MUS 2621, Keyboard Skills IV	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS 3441, Elementary Conducting	1
MUS 3422, Elementary Orchestration and Choral Arranging	2
MUS 3432, Counterpoint	2
MUS 4412, Form and Analysis	2
MUS 4512, Church Music OR MUS 4322, History of Jazz	2
MUSP 1100, Recital Attendance (6 semesters)	0
MUSP 1112, (Major Applied Area) 2 semesters - lower-level	4
MUSP 3113, (Major Applied Area) 6 semesters - upper-level	18
Sub-total	55

Major in Music (cont.)

Bachelor of Music Concentration in Composition

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Concentration Area (Composition):	Sem. Hrs.
MUS 3451, Choral Conducting OR MUS 3461, Instrumental Conducting	1
MUSP 1112 (Major Performance Area - advisor approval required)	6
MUSP 3112 (Major Performance Area - advisor approval required)	6
MUSP 3130, Half Recital	0
MUSP 4131, Full Recital	1
Music Electives	5
Music Ensemble <i>Must include 4 semesters of large ensemble plus 2 semesters of small ensemble.</i>	8
Sub-total	27
Total Required Hours:	120

Major in Instrumental Music

Bachelor of Music Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts - Theatre</i> <i>PSY 2013, Introduction to Psychology</i> <i>ART 2503, Fine Arts - Visual (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 2611, Keyboard Skills III	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS 3441, Elementary Conducting	1
MUS 3461, Instrumental Conducting	1
MUS 3422, Elementary Orchestration and Choral Arranging	2
MUSP 1100, Recital Attendance (6 semesters)	0
MUSP 1112, (Major Applied Area) 3 semesters - lower-level <i>Those students who declare instrumental music as their major area will take a proficiency exam in their major instrument at the end of the third semester of applied study. Failure to pass this exam will indicate the need to repeat MUSP 1112 until such time as the exam can be passed.</i>	6
MUSP 3112, (Major Applied Area) 3 semesters - upper-level	6
MUED 2231, Vocal Techniques for Instrumentalists	1
MUED 2512, Introduction to K-12 Music Education	2
*MUED 4002, Methods and Materials for Teaching Concert Bands	2
*MUED 4202, Methods and Materials for Teaching Jazz Band	2
*MUED 4623, Methods and Materials for Teaching Elementary School Music	3

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

Major in Instrumental Music (cont.)

Bachelor of Music Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

<p>Choose 1 track with advisor approval. Piano players seeking the BME-Instrumental Degree may choose the track most in line with their professional plans.</p> <p>Woodwind, Brass, Percussion Track</p> <p>MUS 1331, 3331, Symphonic Winds OR MUS 1311, 3311, Wind Ensemble (Repeat 3 times for credit) MUS 1341, 3341, Marching Band (Repeat 3 times for credit) *MUED 4102, Methods and Materials for Teaching Marching Band</p> <p>Choose 5 of the following:</p> <p>MUS 3231, Flute and Saxophone Techniques MUS 3241, Double Reed Techniques MUS 3251, Clarinet Techniques MUS 3281, Percussion Instrument Techniques MUS 3551, High Brass Techniques MUS 3561, Low Brass Techniques</p> <p>String Track</p> <p>*MUED 4302, Methods and Materials for Teaching Orchestra MUS 3281, Percussion Instrument Techniques MUS 3411, Guitar Techniques MUS 3421, Upper String Techniques MUS 3431, Lower String Techniques MUS 3481, Orchestra (repeat 6 times for credit)</p> <p><i>Choose one of the following:</i></p> <p>MUS 3231, Flute and Saxophone Techniques MUS 3241, Double Reed Techniques MUS 3251, Clarinet Techniques MUS 3551, High Brass Techniques MUS 3561, Low Brass Techniques</p>	13
Sub-total	62
<p>Professional Education Requirements:</p> <p>Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.</p>	Sem. Hrs.
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*TIMU 4826, Teaching Internship in the Secondary School	12
Sub-total	26
<p>Additional Requirements for Teacher Education:</p>	Sem. Hrs.
<p>COMS 1203, Oral Communication <i>Students must pass a speech proficiency exam before admittance into the Teacher Education Program. Students who fail the exam must take COMS 1203, Oral Communication.</i></p>	0-3
Total Required Hours:	126-129

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

Major in Vocal Music

Bachelor of Music Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MUS 1403, Music Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>THEA 2503, Fine Arts-Theatre</i> <i>PSY 2013, Introduction to Psychology</i> <i>ART 2503, Fine Arts-Visual (Required Departmental Gen. Ed. Option)</i>	
Major Requirements: Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section. Although three hours of Keyboard Skills are required, failure to pass the proficiency exam will indicate the need to take additional semesters of piano.	Sem. Hrs.
MUS 1631, 3631, Scarlet Voices OR MUS 1641, 3641, Singing Statemen, OR MUS 1351, 3351, Concert Choir <i>Combined for a total of six credits.</i>	6
MUS 1511, Aural Theory I	1
MUS 1521, Aural Theory II	1
MUS 2511, Aural Theory III	1
MUS 2521, Aural Theory IV	1
MUS 1513, Theory I	3
MUS 1523, Theory II	3
MUS 2513, Theory III	3
MUS 2523, Theory IV	3
MUS 1611, Keyboard Skills I	1
MUS 1621, Keyboard Skills II	1
MUS 2611, Keyboard Skills III	1
MUS 3372, History of Western Music I	2
MUS 3382, History of Western Music II	2
MUS 3211, Diction I	1
MUS 3221, Diction II	1
MUS 3441, Elementary Conducting	1
MUS 3451, Choral Conducting	1
MUS 3422, Elementary Orchestration and Choral Arranging	2
MUS 4322, History of Jazz OR MUS 4512, Church Music	2
MUSP 1100, Recital Attendance (6 semesters)	0
MUSP 1111, (Secondary Applied Area) 1 semester <i>Those students who declare piano as their Major Applied Area must use voice as the Secondary Applied Area. Although only one hour of voice is required for this degree, failure to pass the proficiency exam will indicate the need to take additional semesters of voice.</i>	1

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

Major in Vocal Music (cont.)

Bachelor of Music Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

MUSP 1112, (Major Applied Area) 3 semesters - lower-level <i>Those students who declare voice as their major area will take a proficiency exam in singing at the end of the third semester of applied study. Failure to pass this exam will indicate the need to repeat MUSP 1112 until such time as the exam can be passed. There will also be an exit exam at the end of the final semester of applied voice study.</i>	6
MUSP 3112, (Major Applied Area) 3 semesters - upper-level	6
MUSP 4161, Pedagogy and Performance	1
Instrumental Technique Courses (select one of the following): MUS 2231, String Instrument Techniques MUS 3231, Flute and Saxophone Techniques MUS 3241, Double Reed Techniques MUS 3251, Clarinet Techniques MUS 3281, Percussion Techniques MUS 3411, Guitar Techniques MUS 3421, Upper String Techniques MUS 3431, Lower String Techniques MUS 3551, High Brass Techniques MUS 3561, Low Brass Techniques	1
MUED 2241, Instrumental Techniques for Vocalists	1
MUED 2512, Introduction to K-12 Music Education	2
*MUED 4623, Methods and Materials for Teaching Elementary School Music	3
*MUED 4643, Methods and Materials for Teaching Vocal Music	3
Sub-total	61
Professional Education Requirements: Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	Sem. Hrs.
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Instructional Design	5
*TIMU 4826, Teaching Internship in the Secondary School	12
Sub-total	26
Additional Requirements for Teacher Education:	Sem. Hrs.
COMS 1203, Oral Communication <i>Students must pass a speech proficiency exam before admittance into the Teacher Education Program. Students who fail the exam must take COMS 1203, Oral Communication.</i>	0-3
Total Required Hours:	125-128

Department of Music Minors

Minor in Music (Not for Teacher Certification)

Required Courses:	Sem. Hrs.
Twelve hours must be upper-level courses.	
MUS 1511, Aural Theory I	1
MUS 1513, Theory I	3
MUS 1521, Aural Theory II	1
MUS 1523, Theory II	3
Music History (select two of the following): MUS 3372, History of Western Music I MUS 3382, History of Western Music II MUS 4512, Church Music MUS 4322, History of Jazz	4
Applied Music (composition, instrumental, keyboard, or voice; four semesters in one performance area) MUSP 1111, Applied Music MUSP 1112, Applied Music MUSP 3111, Applied Music MUSP 3112, Applied Music	4
Music Electives	6
Total Required Hours:	22

Department of Political Science

Associate Professor William McLean, Chair

Professors: *Reese*

Associate Professors: *Buzby, Harding, Hacker, Tusalem, Wang*

Assistant Professors: *Butcher, Handley, Kim, Wimpy*

Instructors: *Blumberg, Hilson, Washington, Wright*

The Department of Political Science provides students with the information and the intellectual stimulus needed to cope with the problems of modern politics.

A concrete orientation toward specific careers is provided by a program of coursework that prepares students for law school as well as careers in politics, public and foreign service, teaching, journalism, and business. Individual courses focus on urban, state, national, and international government—the executive, judicial, and legislative branches; the politics of Europe, Africa, Mideast, and East Asia; and the theoretical presuppositions underlying political differences within and between nations.

Major in Political Science

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
POSC 1103, Making Connections: Politics and Law	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>Nine hours of Arts or Humanities (Required Departmental Gen. Ed. Option) including the following:</i> <i>PHIL 1103, Introduction to Philosophy.</i></p> <p>NOTE: POSC 2103 will NOT be accepted to fulfill General Education Requirements in this major.</p>	
Language Requirement:	Sem Hrs.
Foreign Language Refer to Foreign Language Requirement in College of Liberal Arts and Communication.	0-12
Major Requirements:	Sem. Hrs.
POSC 2103, Introduction to United States Government	3
POSC 3003, Introduction to Political Analysis	3
<p>*Upper-level Political Science Electives <i>Students must take at least one upper-level course in each of the following areas: American Politics, Comparative Politics, International Relations, Political Theory, Public Administration, and Public Law. Concentration in one of these areas is expected.</i></p>	36
Sub-total	42
Electives:	Sem. Hrs.
Electives	28-40
Total Required Hours:	120

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

Department of Political Science Minors

Minor in Political Science

Required Courses:	Sem. Hrs.
Political Science Electives <i>May not include POSC 2103, Introduction to United States Government</i>	6
Upper-level Political Science Electives	12
Total Required Hours:	18

Minor in Homeland Security and Disaster Preparedness

The minor in Homeland Security and Disaster Preparedness is a multidisciplinary program offered in the College of Nursing and Health Professions and the College of Liberal Arts and Communication. The structure of the minor provides specialized training within each of the three tracks. The introductory and Non-Government Organizations courses provide the common framework necessary for the integration of these field and the cooperative efforts of the specialists working within them.

Required Courses:	Sem. Hrs.
DPEM 3503, Principles of Disaster Preparedness and Emergency Management	3
DPEM 4563, NGO Agencies in DPEM	3
Select three courses from within a single track:	9
<p>Track 1: Healthcare in Homeland Security and Emergency Preparedness DPEM 2233, Principles of Healthcare Emergency Management DPEM 2353, Global Perspectives in Disaster Preparedness DPEM 3553, Ethics and the Law in DPEM DPEM 4513, Physical Care of CBRNE Injuries DPEM 4523, Risk Identification and Prevention DPEM 4533, Disaster and Mental Health NRS 4223, Forensic Nursing SW 4203, Crisis Intervention</p> <p>Track 2: Disaster Preparedness, Response and Operations Management POSC 3503, Principles of Public Administration POSC 4513, Disaster Response Operation Management STCM 4603, Crisis Communications</p> <p>Track 3: Sociocultural & Political Disaster Preparedness SOC 3363, Sociology of Religion OR SW 4363, Religion and Spirituality in Social Work Practice SOC 4003, Perspectives on Death and Dying SOC 4063, Sociology of Disasters SOC 4263, Terrorism as a Social Movement</p>	
Choose one elective from one other track.	3
Total Required Hours:	18

Department of Theatre

Professor Marika Kyriakos, Chair

Associate Professors: *Abernathy*

Assistant Professors: *McLaughlin, Sanburg, Larson*

Instructor: *Hirsch, Robinson*

The Department of Theatre offers coursework leading to the Bachelor of Arts degree in Theatre and a minor in Theatre.

The Bachelor of Arts in Theatre offers a comprehensive approach with emphases in Acting, Design and Technology, and Musical Theatre.

Major in Theatre

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
THEA 1013, Making Connections in Theatre	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: ART 2503, Fine Arts - Visual MUS 2503, Fine Arts - Music (Required Departmental Gen. Ed. Option)	
Major Requirements:	Sem. Hrs.
THEA 1011, Stage Makeup I	1
THEA 1213, Acting I	3
THEA 1223, Principles of Stage Design	3
THEA 2020, Production Practicum (must take twice)	0
THEA 2223, Fundamentals of Stagecraft	3
THEA 2243, Costume Construction	3
THEA 3251, Theatre Laboratory (must take five times)	5
THEA 3603, Directing	3
THEA 4001, Professional Practice Seminar	1
THEA 4293, Theatre History	3
Sub-total	25
Additional Theatre Courses:	Sem. Hrs.
Design (select one of the following): THEA 4223, Scenic Design THEA 4243, Costume Design THEA 4303, Lighting Design THEA 4413, Sound Design and Production	3
Theatre electives	7
Upper-level Theatre electives	6
THEA 2010 AND THEA 2020, Performance and Production Practicum OR THEA 2010, Performance Practicum (must take twice) OR THEA 2020, Production Practicum (must take twice)	0
Sub-total	16
Electives:	Sem. Hrs.
Electives	41
Total Required Hours:	120

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

Major in Theatre

Bachelor of Arts Emphasis in Acting

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
THEA 1013, Making Connections in Theatre	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>ART 2503, Fine Arts - Visual</i> <i>MUS 2503, Fine Arts - Music (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
THEA 1011, Stage Makeup I	1
THEA 1213, Acting I	3
THEA 1223, Principles of Stage Design	3
THEA 2020, Production Practicum (must take twice)	0
THEA 2223, Fundamentals of Stagecraft	3
THEA 2243, Costume Construction	3
THEA 3251, Theatre Laboratory (must take five times)	5
THEA 3603, Directing	3
THEA 4001, Professional Practice Seminar	1
THEA 4293, Theatre History	3
Sub-total	25
Emphasis Area (Acting):	Sem. Hrs.
Select one of the following: THEA 4223, Scenic Design THEA 4243, Costume Design THEA 4303, Lighting Design THEA 4413, Sound Design and Production	3
THEA 2010, Performance Practicum (must take twice)	0
THEA 2202, Voice and Movement I	2
THEA 2252, Musical Theatre Dance	2
THEA 3333, Acting II	3
Select six credits from the following not taken as the Acting requirement: THEA 2242, Social Dance THEA 2262, Tap Dance THEA 2213, Creative Improvisation THEA 2282, Jazz Dance THEA 3213, Audition Techniques THEA 3243, Stage Combat THEA 4343, Acting in Song THEA 4363, Acting Shakespeare	6
Sub-total	16
Electives:	Sem. Hrs.
Electives	41
Total Required Hours:	120

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

Major in Theatre

Bachelor of Arts

Emphasis in Design and Technology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
THEA 1013, Making Connections in Theatre	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: ART 2503, Fine Arts - Visual MUS 2503, Fine Arts - Music (Required Departmental Gen. Ed. Option)	
Major Requirements:	Sem. Hrs.
THEA 1011, Stage Makeup I	1
THEA 1213, Acting I	3
THEA 1223, Principles of Stage Design	3
THEA 2020, Production Practicum (must take twice)	0
THEA 2223, Fundamentals of Stagecraft	3
THEA 2243, Costume Construction	3
THEA 3251, Theatre Laboratory (must take five times)	5
THEA 3603, Directing	3
THEA 4001, Professional Practice Seminar	1
THEA 4293, Theatre History	3
Sub-total	25
Emphasis Area (Design and Technology):	Sem. Hrs.
Select two of the following: THEA 4223, Scenic Design THEA 4243, Costume Design THEA 4303, Lighting Design THEA 4413, Sound Design and Production	6
THEA 2020, Production Practicum (must take twice)	0
Design and Technology (select nine credits from the following): THEA 2233, Stage Makeup II THEA 2253, Stage Management THEA 2263, Fashion History THEA 3253, Scenic Painting THEA 3283, Computer Aided Design	9
Sub-total	15
Electives:	Sem. Hrs.
Electives	42
Total Required Hours:	120

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

Major in Theatre

Bachelor of Arts Emphasis in Musical Theatre

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
THEA 1013, Making Connections in Theatre	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: ART 2503, Fine Arts - Visual MUS 2503, Fine Arts - Music (Required Departmental Gen. Ed. Option)	
Major Requirements:	Sem. Hrs.
THEA 1011, Stage Makeup I	1
THEA 1213, Acting I	3
THEA 1223, Principles of Stage Design	3
THEA 2020, Production Practicum (must take twice)	0
THEA 2223, Fundamentals of Stagecraft	3
THEA 2243, Costume Construction	3
THEA 3251, Theatre Laboratory (must take five times)	5
THEA 3603, Directing	3
THEA 4001, Professional Practice Seminar	1
THEA 4293, Theatre History	3
Sub-total	25
Emphasis Area (Musical Theatre):	Sem. Hrs.
Select one of the following: THEA 4223, Scenic Design THEA 4243, Costume Design THEA 4303, Lighting Design THEA 4413, Sound Design and Production	3
Select either: MUS 1511, Aural Theory I AND MUS 1513, Theory I OR MUS 1503, Fundamentals of Music	3-4
MUS 1211, Elementary Piano OR MUS 1611, Keyboard Skills I	1
THEA 2010, Performance Practicum (must take twice)	0
THEA 2252, Musical Theatre Dance	2
THEA 3333, Acting II	3
THEA 4343, Acting in Song	3

Major in Theatre (cont.)

Bachelor of Arts Emphasis in Musical Theatre

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

MUSP 1112, Performance Applied Music (voice) 2 semesters - lower level Admittance to upper-level Performance Applied Music study involves a proficiency exam given in the last required semester of lower-level study. Failure to pass the exam will result in repetition of the lower-level course and proficiency exam until a satisfactory result is achieved.	4
MUSP 3112, Performance Applied Music (voice) 2 semesters as upper level	4
Dance (select two credits from the following): THEA 2242, Social Dance THEA 2262, Tap Dance THEA 2282, Jazz Dance	2
Sub-total	25-26
Electives:	Sem. Hrs.
Electives	31-32
Total Required Hours:	120

Department of Theatre Minors

Minor in Theatre

Required Courses:	Sem. Hrs.
THEA 1213, Acting I	3
THEA 1223, Principles of Stage Design	3
THEA 3251, Theatre Laboratory	1
THEA 2223, Fundamentals of Stagecraft OR THEA 2243, Costume Construction	3
THEA 2010, Performance Practicum OR THEA 2020, Production Practicum	0
Theatre Electives	8
Total Required Hours:	18

Department of World Languages and Cultures

Professor Janelle Collins, Chair

Associate Professors: *Johnson, Lombeida, Moreno, Owens*

Assistant Professors: *Horowitz, McGee*

The Department of World Languages and Cultures offers courses in French, German, and Spanish, to facilitate the communication skills, knowledge and appreciation of diverse languages and cultures that are necessary for students to achieve a successful professional career in today's global society. Courses offered in world languages are designed to train students to read, write, speak and understand the target language; to acquaint them with the literature and culture of the countries where the target language is spoken; to provide a linguistic tool necessary in many professions; and to afford a source of literacy and aesthetic pleasure. The Department of World Languages and Cultures prepares students to be linguistically competent and literate in the culture(s) associated with the languages studies and offers introductory to advanced level instruction, as well as major and minor degree programs.

The Bachelor of Arts degree with emphasis in French and Spanish is recommended for those who are seeking to employ Spanish or French as a vehicle of communication in their future profession and aspiring careers in any area which requires linguistic and cultural communication skills in these languages.

The Bachelor of Science in Education degree with emphasis in French and Spanish is offered specifically to prepare teachers of Spanish and French for teaching at institutions of primary and secondary education.

The emphasis in Global Studies aims to provide students from across the campus the opportunity to understand better in an interdisciplinary context some of the complexities of our global society. The emphasis draws on offerings in various departments, and also provides a forum for interdisciplinary seminars and specialized courses that focus on international issues. With the help of a faculty advisor, students select courses on the basis of their specific interests related to international issues and their career goals. NOTE: Certain courses from the list may be offered infrequently. Consult the Chair of the relevant department if you have questions on when a course will be offered.

The Certificate in Spanish for the Professions is designed for students who wish to further their communication skills and cultural knowledge to perform language services in professional settings where Spanish is used.

Major in World Languages and Cultures

Bachelor of Arts Emphasis in French

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (French):	Sem. Hrs.
Grade of "C" or better required for all Emphasis Area requirements. At least 12 credit hours must be at the 4000 level. A minimum of six credit hours of study abroad is required.	
FR 3183, French Conversation and Phonetics	3
FR 3413, Introduction to French Literature	3
FR 3463, Advanced French Grammar	3
Select twenty-one hours from the following: FR 3473, Reading and Composition in French FR 3613, French Civilization FR 3623, Contemporary France FR 4203, Advanced Oral Communication in French FR 4413, Survey of French Literature I FR 4423, Survey of French Literature II FR 4503, Special Topics (may be repeated for credit if content varies) Any additional French electives or pre-approved study abroad	21
WLAN 4010, Learning Outcome Assessment	0
Sub-total	30
Electives:	Sem. Hrs.
Electives	52
Total Required Hours:	120

Major in World Languages and Cultures

Bachelor of Arts Emphasis in Global Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (Global Studies): Grade of "C" or better required for all Major Requirements. A minimum of three credit hours of international experience is required.	Sem Hrs.
<p>Select nine hours from the following: <i>Courses are upper-level cultural and literature courses taught in a language other than English. (Transfer credit, including from study abroad, of courses of comparable level may substitute for the options below.)</i> <i>FR/SPAN 2023, Intermediate II, or equivalent preparation, are prerequisites to all courses.</i> <i>Courses denoted with an asterisk (*) must feature a topic on related literature or culture.</i></p> <p>FR 3413, Introduction to French Literature FR 3613, French Civilization FR 3623, Contemporary France FR 4413, Survey of French Literature I FR 4423, Survey of French Literature II *FR 4503, Special Topics *FR 480V, Independent Study in French SPAN 3413, Introduction to Hispanic Literature *SPAN 3503, Advanced Spanish Seminar SPAN 3623, Culture and Civilization: The Americas SPAN 3633, Culture and Civilization: Spain SPAN 4413, Survey of Peninsular Spanish Literature SPAN 4423, Contemporary Spanish Literature SPAN 4443, Survey of Latin American Literature *SPAN 4503, Special Topics *SPAN 480V, Independent Study in Spanish Other courses approved by Global Studies Advisor</p>	9

Major in World Languages and Cultures (cont.)

Bachelor of Arts Emphasis in Global Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

<p>Select twenty-one hours from the following: <i>No more than nine hours may have the same prefix, and no more than nine hours may be applied to another major.</i></p> <p>ARTH 3053, Medieval and Renaissance Art and Architecture ARTH 3063, Baroque and Rococo Art and Architecture ARTH 3073, Nineteenth Century Art and Architecture ARTH 4303, Independent Study in Art History COMS 4253, Intercultural Communication ECON 4353, Economic Development ECON 4363, Global Environmental Policies ENG 3453, Global Literature ENG 3473, Contemporary Literature ENG 3613, Introduction to Folklore HIST 3013, Civilizations of Africa HIST 3123, Latin America, The Colonial Period HIST 3133, Latin America, The National Period HIST 3223, Renaissance and Reformation Europe HIST 3273, Modern Europe, 1750 to Present HIST 3283, Society and Thought in Europe HIST 3303, The Modern History of the Middle East HIST 4113, Imperial Russia HIST 4123, Soviet Russia HIST 4133, History of Ancient China HIST 4143, The Rise of Modern China HIST 4213, History of England 55 BC to AD 1689 HIST 4223, History of Great Britain, 1688 To 1982 HIST 4273, History of Mexico HIST 4593, Special Topics in World History INST 4503, Special Topics INST 4803, Independent Study PHIL 3623, Eastern Philosophy PSY 3613, Cultural Psychology SOC 4263 Terrorism as a Social Movement SOC 4273, World Population and Society Other courses approved by Global Studies Advisor</p>	21
INST 4603, Capstone Project in Global Studies	3
WLAN 4010 Learning Outcome Assessment	0
Sub-total	33
Electives:	Sem. Hrs.
Electives	49
Total Required Hours:	120

Major in World Languages and Cultures

Bachelor of Arts Emphasis in Spanish

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (Spanish):	Sem. Hrs.
Grade of "C" or better required for all Emphasis Area requirements. At least 12 credit hours must be at the 4000 level. A minimum of six credit hours of study abroad is required.	
SPAN 3183, Spanish Conversation	3
SPAN 3413, Introduction to Hispanic Literature	3
SPAN 3463, Advanced Spanish Grammar	3
SPAN 3473, Reading and Composition in Spanish	3
SPAN 4703, Internship in Spanish	3
Select twelve hours from the following: <i>Minimum one course on the Americas and one course on Spain.</i> SPAN 3503, Advanced Spanish Seminar (may be repeated for credit if content varies) SPAN 3623, Culture and Civilization, The Americas SPAN 3633, Culture and Civilization, Spain SPAN 4413, Survey of Peninsular Spanish Literature SPAN 4423, Contemporary Peninsular Spanish Literature SPAN 4443, Survey of Latin American Literature SPAN 4503, Special Topics (may be repeated for credit if content varies)	12
Select twelve hours of additional courses not previously taken from the following: SPAN 3013, Spanish Phonetics SPAN 3483, Introduction to Translation and Interpretation SPAN 3503, Advanced Spanish Seminar (may be repeated for credit if content varies) SPAN 3703, Spanish for International Business SPAN 3723, Spanish for Professional Use SPAN 4203, Advanced Oral Communication in Spanish Any additional Spanish electives or pre-approved study abroad or maximum one course related to the target language or culture not taught in the target language (requires advisor approval)	12
WLAN 4010, Learning Outcome Assessment	0
Sub-total	39
Electives:	Sem. Hrs.
Electives	43
Total Required Hours:	120

Major in World Languages and Cultures

Bachelor of Science in Education Emphasis in French

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>HIST 2763, The United States To 1876 OR</i> <i>HIST 2773, The United States Since 1876</i> <i>POSC 2103, Introduction to United States Government</i> <i>PSY 2013, Introduction to Psychology</i> <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i></p>	
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (French):	Sem Hrs.
Grade of "C" or better required for all Major Requirements. At least 12 credit hours must be at the 4000 level. A minimum of six credit hours of study abroad is required.	
FR 3183, French Conversation and Phonetics	3
FR 3413, Introduction to Literature	3
FR 3463, Advanced French Grammar	3
FR 3473, Reading and Composition in French	3
<p>Select twenty-seven hours from the following: FR 3613, French Civilization FR 3623, Contemporary France FR 4203, Advanced Oral Communication in French FR 4413, Survey of French Literature I FR 4423, Survey of French Literature II FR 4503, Special Topics (may be repeated for credit if content varies) Any additional French electives or pre-approved study abroad</p>	27
WLAN 4010 Learning Outcome Assessment	0
Sub-total	39
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section. An advisory Oral Proficiency Interview (OPI) must be completed before admission to this teacher education program, and an official OPI must be completed prior to the teaching internship. A level of intermediate-mid must be attained for admission to the teacher education program, and a level of advanced-low must be reached prior to graduation.	
*EDLA 4633, Methods and Materials for Teaching Second Languages	3
ELED 2113, Child Growth and Learning	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
*SCED 3515, Performance Based Instructional Design	5
*SCED 4713, Educational Measurement with Computer Applications	3

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

Major in World Languages and Cultures (cont.)

Bachelor of Science in Education Emphasis in French

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

TE 2003, Introduction to Education	3
*TILA 4826, Teaching Internship in the Secondary School	12
Sub-total	35
Additional Requirements for Teacher Education:	Sem. Hrs.
COMS 1203, Oral Communication	3
Electives:	Sem. Hrs.
Electives	5
Total Required Hours:	120

Major in World Languages and Cultures

Bachelor of Science in Education Emphasis in Spanish

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
ENG 1023, Making Connections Humanities	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>HIST 2763, The United States to 1876 OR</i> <i>HIST 2773, The United States since 1876</i> <i>POSC 2103, Introduction to United States Government</i> <i>PSY 2013, Introduction to Psychology</i> <i>Six hours of Humanities (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
See emphasis area below.	
Emphasis Area (Spanish):	Sem Hrs.
Grade of "C" or better required for all Major Requirements. At least 12 credit hours must be at the 4000 level. A minimum of six credit hours of study abroad is required.	
SPAN 3183, Spanish Conversation	3
SPAN 3413, Introduction to Hispanic Literature	3
SPAN 3463, Advanced Spanish Grammar	3
SPAN 3473, Reading and Composition in Spanish	3
SPAN 4703, Internship in Spanish	3
Select twelve hours from the following: <i>Minimum one course on the Americas and one course on Spain.</i> SPAN 3503, Advanced Spanish Seminar (may be repeated for credit if content varies) SPAN 3623, Culture and Civilization, The Americas SPAN 3633, Culture and Civilization, Spain SPAN 4413, Survey of Peninsular Spanish Literature SPAN 4423, Contemporary Peninsular Spanish Literature SPAN 4443, Survey of Latin American Literature SPAN 4503, Special Topics (may be repeated for credit if content varies)	12
Select twelve hours of additional courses not previously taken from the following: SPAN 3013, Spanish Phonetics SPAN 3483, Introduction to Translation and Interpretation SPAN 3703, Spanish for International Business SPAN 3723, Spanish for Professional Use SPAN 4203, Advanced Oral Communication in Spanish Any additional Spanish electives or pre-approved study abroad	12
WLAN 4010 Learning Outcome Assessment	0
Sub-total	39
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section. An advisory Oral Proficiency Interview (OPI) must be completed before admission to this teacher education program, and an official OPI must be completed prior to the teaching internship. A level of intermediate-mid must be attained for admission to the teacher education program, and a level of advanced-low must be reached prior to graduation.	
*EDLA 4633, Methods and Materials for Teaching Second Languages	3
ELED 2113, Child Growth and Learning	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3

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

Major in World Languages and Cultures (cont.)

Bachelor of Science in Education Emphasis in Spanish

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

PSY 3703, Educational Psychology	3
*SCED 3515, Performance Based Instructional Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
TE 2003, Introduction to Education	3
*TILA 4826, Teaching Internship in the Secondary School	12
Sub-total	35
Additional Requirements for Teacher Education:	Sem. Hrs.
COMS 1203, Oral Communication	3
Electives:	Sem. Hrs.
Electives	5
Total Required Hours:	120

Certificate in Spanish for the Professions

The Certificate in Spanish for the Professions is designed for students who wish to further their communication skills and cultural knowledge to perform language services in professional settings where Spanish is used.

Required Courses:	Sem. Hrs.
SPAN 3723, Spanish for Professional Use	3
<i>Select one of the following:</i> SPAN 3483, Introduction to Translation and Interpretation SPAN 3703, Spanish for International Business	3
<i>Select two of the following:</i> SPAN 3183, Spanish Conversation SPAN 3463, Advanced Spanish Grammar SPAN 3473, Reading and Composition in Spanish SPAN 3503, Advanced Spanish Seminar SPAN 3623, Culture and Civilization, the Americas SPAN 3633, Culture and Civilization, Spain SPAN 4203, Advanced Oral Communication in Spanish	6
Total Required Hours:	12

Department of World Languages and Cultures Minors

Minor in French

Required Courses:	Sem. Hrs.
FR 2023, Intermediate French II	3
Upper-level French Electives	15
Total Required Hours:	18

Minor in German

Required Courses:	Sem. Hrs.
GER 2023, Intermediate German II	3
Upper-level German Electives	15
Total Required Hours:	18

Minor in Spanish

Required Courses:	Sem. Hrs.
SPAN 2023, Intermediate Spanish II	3
Upper-level Spanish Electives	15
Total Required Hours:	18

Department of World Languages and Cultures Minors

Minor in International Studies

The Minor in International Studies aims to provide students from across the campus the opportunity to understand better in an interdisciplinary context some of the complexities of our global society. Particularly suited for students in History, Political Science, English, World Languages, and International Business, the minor draws on existing offerings in these and other departments, and also provides a forum for interdisciplinary seminars and specialized courses that focus on international issues.

NOTE: Certain courses from this list may be offered infrequently. Consult the Chair of the relevant department if you have questions on when a course will be offered.

Required Courses: Any student who completes the necessary courses may declare this minor and have it appear on the transcript. Each Department which offers a course included in the minor will determine for its own majors whether courses taken for a student's minor can also count toward the major.	Sem. Hrs.
<p>Select 12 hours from the following (no more than two courses may have the same prefix):</p> ARTH 3053, Medieval and Renaissance Art and Architecture ARTH 3063, Baroque and Rococo Art and Architecture ARTH 3073, Nineteenth Century Art and Architecture ARTH 4303, Independent Study in Art History COMS 4253, Intercultural Communication ECON/IB 4103, International Trade ENG 3453, Global Literature ENG 3473, Contemporary Literature ENG 3613, Introduction to Folklore FIN/IB 3813, International Financial Mgmt and Banking GEOG 3603, World Regional Geography GEOG 3663, Geography of Africa HIST 3013, Civilizations of Africa HIST 3123, Latin America, The Colonial Period HIST 3133, Latin America, The National Period HIST 3223, Renaissance and Reformation Europe HIST 3273, Modern Europe, 1750 to Present HIST 3283, Society and Thought in Europe HIST 3303, The Modern History of the Middle East HIST 4113, Imperial Russia HIST 4123, Soviet Russia HIST 4133, History of Ancient China HIST 4143, The Rise of Modern China HIST 4213, History of England 55 BC to AD 1689 HIST 4223, History of Great Britain, 1688 To 1982 HIST 4273, History of Mexico HIST 4593, Special Topics in World History IB 3013, Global Experience IB 4133, International Law IB 4273, Special Problems INST 4503, Special Topics INST 4803, Independent Study MGMT 4123, International Management MKTG 4113, International Marketing PHIL 3623, Eastern Philosophy POSC 3203, Introduction to Comparative Politics POSC 3213, African Political Systems POSC 3223, European Political Systems POSC 3303, Introduction to International Policies POSC 4223, Middle Eastern Political Systems POSC 4313, International Organization POSC 4323, Foreign Policy Analysis PSY 3613, Cultural Psychology SOC 4263, Terrorism as a Social Movement SOC 4273, World Population and Society Other courses approved by International Studies Advisor	12

Department of World Languages and Cultures Minors

Minor in International Studies (cont.)

<p>Select six hours from the following (both courses must have the same prefix): <i>FR/GER/SPAN 2023, Intermediate II, or equivalent preparation, are prerequisites to all courses. Courses denoted with an asterisk (*) must feature a topic on related literature or culture.</i></p> <ul style="list-style-type: none"> FR 3413, Introduction to French Literature FR 3613, French Civilization FR 3623, Contemporary France FR 4413, Survey of French Literature I FR 4423, Survey of French Literature II *FR 4503, Special Topics *FR 480V, Independent Study in French GER 3173, German Civilization GER 3413, Introduction to German Literature *GER 480V, Readings in German SPAN 3413, Introduction to Hispanic Literature *SPAN 3503, Advanced Spanish Seminar SPAN 3623, Culture and Civilization: The Americas SPAN 3633, Culture and Civilization: Spain SPAN 4413, Survey of Peninsular Spanish Literature SPAN 4423, Contemporary Spanish Literature SPAN 4443, Survey of Latin American Literature *SPAN 4503, Special Topics *SPAN 480V, Independent Study in Spanish Other courses approved by International Studies Advisor 	6
Total Required Hours:	18

College of Nursing and Health Professions

Professor Susan Hanrahan, Dean

The College of Nursing & Health Professions was constituted with the beginning of the academic year 1982, and came about as a result of the inclusion of three programs which had been offered in other units of the university. The undergraduate programs of the college are baccalaureate degree curricula in nursing, clinical laboratory sciences, communication disorders, magnetic resonance imaging (MRI), dietetics, radiologic sciences, disaster preparedness and emergency management, and social work, and associate degree programs in clinical laboratory science, nursing, occupational therapy assistant, paramedic, disaster preparedness and emergency preparedness, and physical therapist assistant. Information on graduate programs in the college (communication disorders, nursing, health sciences, occupational therapy, physical therapy, athletic training, disaster preparedness and emergency management, and social work) can be found in the A-State Graduate Bulletin.

ACCREDITATION AND REGISTRATION

Both the associate degree and the baccalaureate degree programs in nursing are approved by the Arkansas State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN) (3343 Peachtree Rd NE, Suite 850, Atlanta, GA 30326; (404) 975-5000; www.acenursing.org/). Upon completion of these programs the student is eligible for the National Council of State Boards of Nursing Licensing Examination (NCLEX-RN), and after passing the examination, is licensed as a Registered Nurse by the state(s) to which application was made.

The Clinical Laboratory Scientist and Clinical Laboratory Technician programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd, Suite 720, Rosemont, IL 60018-5119, 773-714-8880. Graduates of these programs are eligible for the national certifying examinations in their specialty through the American Society of Clinical Pathologists.

The baccalaureate degree in Communication Disorders is a preprofessional degree designed to prepare students for graduate study in speech-language pathology. Both curriculum and practicum experiences have been designed to partially fulfill requirements for the Certificate of Clinical Competence issued by the American Speech-Language Hearing Association.

The accreditation of Arkansas State University's nutrition and dietetics education program has been placed on probationary status by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, 800/877-1600, ext. 5400.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and its Web address is www.acoteonline.org.

Both the Doctor of Physical Therapy (DPT) and the Physical Therapist Assistant (PTA) programs are accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 N. Fairfax Street, Alexandria, VA 22314, 703-706-3245.

The Radiography, Radiation Therapy, and MRI programs are accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Dr., Suite 900, Chicago, IL, 60606-2901. Graduates are eligible to sit for the national certifying examination of the American Registry of Radiologic Technologists. The Diagnostic Medical Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

The Social Work Program is accredited by the Council on Social Work Education, CSWE, 1725 Duke Street, Suite 500, Alexandria, VA 22314-3457, 703-683-8099.

All degrees in the Disaster Preparedness & Emergency Management program are accredited by the Council for the Accreditation of Emergency Management Education, 11589 Skeet Club Road, Suite 102-109, High Point, NC 27265. Its web address is www.caeme.edu.

Most state and national board application forms ask if the applicant has ever been convicted of a crime. Certain crimes (e.g., controlled substance use or sale) may make the applicant ineligible for the examination. If a student has any reason to believe that he/she may be ineligible for the state or national board examinations, he/she should discuss this with the program director or the respective licensing agency.

APPLICATION POLICIES AND PROCEDURES

Admission to Arkansas State University does not automatically admit one to the programs offered by the College of Nursing and Health Professions. The college has a selective admissions policy due to professional requirements and limited clinical sites for placement of students. **All remediation requirements must be completed prior to beginning the professional component of any Nursing or Health Professions program.**

For a listing of the criteria used by admission committees in selecting students for the various programs, contact the appropriate department chair or program director (Nursing 972-3074; Clinical Laboratory Sciences 680-8596; Radiologic Sciences 972-3073; Physical Therapy 972-3591; Communication Disorders 972-3106; Social Work 972-3984; Dietetics 680-8598; Occupational Therapy 972-2610; Health Studies 680-4863; Disaster Preparedness and Emergency Management 680-8286) Courses in clinical laboratory sciences, occupational therapy assistant, physical therapist assistant, radiologic sciences, nursing, and Dietetics (with the exception of NS 2203, NRS 3353, NRS 3333, NRS 4393, NRS 2392 and NRSP 2391), are open only to students admitted to the professional level of those respective programs. Some courses with an HP prefix are open to any student who meets the university admission requirements. Enrollment in certain 3000 and 4000 level CD courses requires admission to the undergraduate communication disorders program.

After being admitted to Arkansas State University, students should obtain an application form from the department or program office or website. The application, together with other required materials, must be submitted in accord with the deadlines listed below. All transcripts and documents submitted in support of an application become the property of the university and cannot be returned to the applicant or forwarded to another school or individual.

Students seeking admission to an A-State nursing program after withdrawing from or being dismissed from another nursing program must submit with their application a letter of good standing from each such nursing program attended. Students are ineligible for enrollment into the 4th/Final semester of the AASN program.

DEADLINE FOR RECEIVING APPLICATIONS

Students will be notified in writing of the decision of the admissions committee. It is the responsibility of each student to see that all required documents have been received by the appropriate program in the College of Nursing and Health Professions by the deadline date. No student will be considered for admission until the file is complete and all requirements are met.

Clinical Laboratory Sciences - Bachelor of Science

April 15 of the sophomore year for the junior-senior clinical years. Prior to this time the student is enrolled in the clinical laboratory science program as a pre-clinical laboratory scientist major.

Clinical Laboratory Sciences - Associate of Applied Science

April 15 for official admission to the Fall semester. Prior to this time, the student is enrolled in the clinical laboratory science program as a pre-clinical laboratory technician major.

Communication Disorders - Bachelor of Science

No deadlines. Admission to the undergraduate communication disorders program requires the following: 3.2 or better GPA for BIO 2223 and 2201, PSY 2013, CD 2653, CD 2104, CD 2203, and CHEM 1013 and 1011 (or other approved physical science options with lab.) Repeated courses will be included in the calculation of the GPA; "C" or better in ENG 1003, ENG 1013; "B" or better in MATH 1023; 2.75 or better overall GPA; fifteen (15) clock-hours of documented, prescribed observation; a speech and hearing screening; and a minimum of 30 hours of earned academic credit.

Health Studies – Bachelor of Science

Students wishing to pursue the Bachelor of Science in Health Studies (BSHS) program must apply to Arkansas State University and meet all admission requirements established by the university. Students must apply and be accepted into the program in order to begin upper level HP classes. Students must complete HP 2112, Introduction to the US Healthcare System, with a grade of 'C' or better, have a GPA above 2.5 and a minimum of 45 credit hours completed. All general education and major requirements must be completed with a grade of "C" or better.

Radiography Component (Junior Year) of Bachelor of Science in Radiologic Sciences

October 31 for admission to the Spring semester. Students are accepted based on 1) Prerequisite course GPA; 2) Entrance Exam scores; 3) interview scores. NOTE: Students completing prerequisite work or a Medical Imaging and Radiation Sciences program at A-State receive extra points toward admission score.

Cardiovascular-Interventional Technology – Bachelor of Science in Radiologic Sciences

April 1 for Fall enrollment. Students are accepted based on 1) cumulative GPA, 2) selected course grades, 3) interview, and 4) modality clinical evaluations. All categories are converted to a point system. Students wishing to apply must have completed all core requirements and an accredited radiography program. A-State radiography program students receive extra points when calculating total scores.

Mammography – Bachelor of Science in Radiologic Sciences

April 1 for Summer I enrollment. Students are accepted based on 1) cumulative GPA, 2) selected course grades, 3) interview, and 4) modality clinical evaluations. All categories are converted to a point system. Students wishing to apply to the Mammography program must have completed all core requirements and the Radiography component prior to fall semester. Breast sonography is included in this track for a Women's Health approach to patient care. A-State radiography program students receive extra points when calculating total scores.

Medical Imaging Informatics – Bachelor of Science in Radiologic Sciences

April 1 for Fall enrollment. Students are accepted based on 1) cumulative GPA, 2) selected course grades, 3) interview, and 4) modality clinical evaluations. All categories are converted to a point system. Students wishing to apply to the Informatics program must have completed all core requirements and the Radiography component prior to fall semester. A-State radiography program students receive extra points when calculating total scores.

Magnetic Resonance Imaging - Bachelor of Science in Radiologic Sciences

April 1 for Summer I enrollment. Students are accepted based on 1) cumulative GPA, 2) selected course grades, 3) interview, and 4) modality clinical evaluations. All categories are converted to a point system. Students wishing to apply to the MRI program must have completed all core requirements and the Radiography component prior to fall semester. A-State radiography program students receive extra points when calculating total scores.

Diagnostic Medical Sonography - Bachelor of Science in Radiologic Sciences

April 1 for Summer I enrollment. Students are accepted based on 1) cumulative grade point average, 2) selected course grades, 3) interview, and 4) modality clinical evaluations. All categories are converted to a point system. Students wishing to apply to the Sonography program must have completed all core requirements and the Radiography component prior to fall semester. A-State radiography program students receive extra points when calculating total scores.

Radiation Therapy - Bachelor of Science in Radiologic Sciences

April 1 for Fall enrollment. Students are accepted based on 1) cumulative GPA, 2) selected course grades, 3) interview, and 4) modality clinical evaluations. All categories are converted to a point system. Students wishing to apply to the Radiation Therapy program must be enrolled or have completed an accredited school of Radiologic Technology. A-State graduates receive extra points when calculating total scores.

Imaging Specialist (Bridge Program) - Bachelor of Science in Radiologic Sciences

The "Bridge Program" offers the Imaging Specialist track of the BSRS in General Radiography. Admission is granted at the beginning of each semester. Only applicants who have 1) completed the associate degree in Radiologic Technology from a school approved by the American Registry of Radiologic Technologists OR 2) passed the national certification boards through the American Registry of Radiologic Technologists OR 3) completed curriculum reviewed and accepted by Dept. Chair will be considered.

Bachelor of Science in Nursing

June 7 for Fall enrollment in sophomore nursing courses and the LPN to BSN track. November 15 and June 7 for transfer/admission/readmissions for subsequent semester. Registered nurses must apply during the semester enrolled in NRS 3312.

Applicants into the sophomore level must have at least 30 semester hours with a cumulative GPA of 3.0 or above completed by application deadline (June 7). Required prerequisite courses must be completed with a "C" or better by application deadline. Due to space availability, applicants for admission will be ranked based on the GPA of all completed courses that apply toward the BSN Degree.

2nd Degree Accelerated BSN

March 15 for August Interim enrollment. A baccalaureate degree in another discipline plus all major required support courses must be completed by the end of the Spring semester.

Students seeking readmission, advance standing or transfer credit for nursing courses must be aware that nursing knowledge changes rapidly. Therefore, if three or more years have elapsed since the previous education experience, students may be required to meet additional requirements before progression in a specific nursing program.

RN to BSN Online

To facilitate movement through the BSN curriculum for students who have previously completed an AASN or Diploma program, a specially designed track has been developed for registered nurses who have demonstrated clinical proficiency. This track is fully online and may be completed part- or full-time. The clinical capstone component will be individualized based upon the applicant and will utilize a local clinical facilitator. The length of study depends upon previous college credits and the courses needed to fulfill BSN requirements. Most RNs with an associate degree can complete the BSN program in two years or less of full-time study.

Associate of Applied Science in Nursing

June 7 for admission to the Fall semester for LPN to AASN students at campus site and distance-learning sites; October 1 and June 7 for transfer/readmission for subsequent semester. Deadline for traditional AASN program at the Mountain Home and West Memphis campuses is October 1st. Applicants must complete required prerequisite support courses with a cumulative GPA of 2.0 or better. A "C" or better must be earned in ALL required courses. Applicants for admission will be ranked based upon prerequisites, admission testing scores, and overall GPA. All traditional AASN applicants must have CNA certification from Arkansas Office of Long Term Care or an equivalent state recognized CNA certification. All LPN to AASN applicants must have an unencumbered nursing license.

Online LPN To Associate of Applied Science in Nursing

April 15 for admission to the Fall semester for Online LPN to AASN students. Applicants must complete required prerequisite support courses with a cumulative GPA of 2.5 or better. A "C" or better must be earned in ALL required courses. All Online LPN to AASN applicants must have an unencumbered nursing license and MUST be residents of the state of Arkansas.

Dietetics - Bachelor of Science

April 1 after sophomore year for admission in Fall semester.

In order for students to apply for admission into the Coordinated Program in Dietetics, they must meet the following conditions: cumulative GPA of 2.8 on a 4.0 scale of all college work attempted; English proficiency requirements, if foreign born; completion of program prerequisites with a minimum grade of "C" required in all courses; complete HESI A2 admission exam.

Class size is limited due to the availability of supervised practice sites. All applicants may not be accepted into the program.

Occupational Therapist Assistant - Associate of Applied Science

Students must apply for admission into the Occupational Therapy Assistant program by March 1 for Fall enrollment. Prior to admission into the program students must complete 28 prerequisite course hours with a minimum grade of "B" required in all prerequisite courses.

Physical Therapist Assistant - Associate of Applied Science

Students are encouraged to declare as Physical Therapist Assistant (PTA) majors. Students may apply to the PTA program during the spring semester of the year in which they plan to start the program. Application deadline is March 1 of each year.

Doctor of Physical Therapy

A-State does offer the Doctor of Physical Therapy degree (DPT). Deadlines for application can be obtained by contacting the program office at (870) 972-3591.

Social Work — Bachelor of Social Work

Students must be admitted to the program before they will be allowed to take Social Work major courses. Students must have a minimum of 45 hours with a GPA of at least 2.75 overall. Generally, students will be admitted during the second semester of their sophomore year. Consideration for admission to the program will be in the spring semester. Specific due dates for materials will be posted on the notice board outside the departmental office. Students should follow the criteria in the Social Work Student Handbook available on the web.

PROBATION, RETENTION, AND READMISSION

All programs in the College of Nursing and Health Professions have policies governing probation, retention, and readmission.

Probation: When the cumulative, semester, or session grade point average falls below 2.00, the student in occupational therapist assistant, physical therapist assistant, radiologic technology, associate degree nursing, or baccalaureate degree nursing, or Dietetics will be placed on probation. At the end of the next semester or session of enrollment the cumulative grade point average must be at least 2.00 for the student to remain in his/her respective program.

Retention: A student may **NOT** continue in the following programs if the requirements (listed below) are not maintained:

- A. Clinical laboratory sciences programs: if a grade lower than "C" is received in any biological, chemistry or CLS course, or the student fails to maintain an overall GPA of 2.00 in his/her respective program.
- B. Any medical imaging and radiologic science program: if a grade of lower than a "C" is received in any MIRS degree course.
- C. Associate degree nursing program: if a grade lower than "C" is received in a required nursing course, if the student withdraws from a nursing course to avoid a failing grade or if the GPA is less than 2.00 in the required support courses upon entry to the last semester of the program.
- D. Baccalaureate degree nursing program: if a grade lower than "C" is received in a required nursing course, if the student withdraws from a nursing course to avoid a failing grade, or if the grade is less than "C" in the required laboratory sciences upon entry to the sophomore and junior level nursing courses.
- E. Dietetics program: if a grade lower than "C" is received in any degree course.
- F. Occupational therapist assistant program: if a grade lower than "C" is received in any OTA course.
- G. Physical therapist assistant program: if a grade lower than "C" is received in any PTA course.
- H. Baccalaureate degree social work program: if a grade lower than "C" is received in any social work course or if a student fails to maintain a 2.75 GPA in the program.

Readmission: If students are not allowed to continue in a program because of the above stipulations, readmission will be considered only after the student submits a formal application for readmission to the appropriate department or program.

- A. Students are **NOT** eligible for readmission if:
 1. the cumulative grade point average is lower than 2.00. (2.75 for social work student)
 2. the student has received a final grade lower than "C" twice in the same course, or has received a grade lower than "C" in professional courses in two separate semesters in the same program. [In Nursing, withdrawal from a nursing course to avoid a failing grade is considered the same as receiving a grade lower than "C."]
- B. Procedures for application for readmission:
 1. A student must submit to:
 - a. the CLS programs a completed application form obtainable from the program's website, <http://www.astate.edu/college/conhp/departments/clinical-laboratory-sciences/> by the deadline date for applications as noted under "Application Procedures."
 - b. the Radiography program a completed application form obtainable from the program director's office sixty (60) days prior to the first day of registration of the semester for which readmission is sought.
 - c. any MIRS program contact program director for readmission.
 - d. the School of Nursing a completed Nursing application packet by the deadline date for applications as noted under "Application Procedures." Students are required to pass a standardized readmission exam based on previous successful course work. Recommendation of faculty is required.
 - e. the Dietetics Program a completed application form obtainable from the program's website <http://www.astate.edu/college/conhp/departments/dietetics/> by the deadline date noted under "Application Procedure."
 - f. the OTA program students must repeat the application process during the next cycle.
 - g. the BSW program students must repeat the application process during the next cycle.
 2. All applications for readmission must include a current and complete official transcript.
 3. Readmission to any program will be dependent upon space available, regardless of student qualifications.

DISCLAIMER

Given the rapid changes in health care and technology, the programs in the College of Nursing and Health Professions reserve the right and responsibility to revise the curriculum to anticipate societal needs for health care. Therefore, students are strongly advised to contact the program directors for current requirements.

VACCINATION AND SKIN TESTING

Students **ADMITTED** to any program in the College of Nursing and Health Professions must present the following immunization and test documentation:

1. Rubella and rubeola (Arkansas statute).
2. Mumps and varicella vaccination or titer (clinical affiliate (hospital) requirements when working with infants and children).
3. If no hepatitis immunization or titer, then must begin the Hepatitis B vaccine series prior to enrolling in a clinical practicum class. All students except C.D. must have completed the Hepatitis B series before enrolling in the first practicum course of their program.
4. TB skin test each year that the student is enrolled in a clinical practicum. If skin test is positive, documentation of treatment status must be submitted.
5. Cardiopulmonary resuscitation (CPR) certification is required before taking any practicum courses. Certification status must be maintained and documentation submitted to the appropriate department throughout enrollment in any program.
6. An annual influenza vaccine.
7. Urine drug screen.

MALPRACTICE INSURANCE

Before being assigned to clinical practicums all students in College of Nursing and Health Professions' programs are required to purchase malpractice/liability coverage. Assistance in arranging for coverage will be made through program directors.

CRIMINAL BACKGROUND CHECKS AND DRUG TESTING

Some of the clinical agencies used by the programs in the College of Nursing and Health Professions require criminal background checks and/or drug testing prior to placement for assigned practicums. Information for obtaining the background check and drug testing is provided by the program. Costs are to be borne by the student.

In addition, the state of Arkansas requires criminal background checks for students seeking admission to some of the professional programs in the college. These costs are also to be borne by the student.

BASIC DISASTER LIFE SUPPORT

All students admitted to a professional program in the College of Nursing and Health Professions must complete the Basic Disaster Life Support requirement prior to graduation.

STUDENT EMPLOYMENT

Programs in the College of Nursing and Health Professions require an unusual amount of the students' time, and students should pay particular attention to the section on "Student Academic Load" in the Academic Regulations section in this Bulletin. Outside employment may need to be adjusted to course and clinical requirements scheduling.

TRANSPORTATION

Students are required to provide their own transportation when assigned to all practicums, including field experience in surrounding counties or other states. When determining educational costs, consideration should be given to this additional expense.

Department of Clinical Laboratory Sciences

Associate Professor Stacy Walz, Chair

Associate Professors: *Payne*

Assistant Professors: *Bednar, Skaggs*

The field of clinical laboratory science offers opportunities for students who are interested in the biological and chemical sciences. Clinical laboratory scientists are academically prepared, skilled laboratory workers who perform a variety of analyses which aid the physician in the diagnosis and treatment of patients.

The Associate of Applied Science-Clinical Laboratory Technician degree is a two-year program which permits students to achieve the status of clinical laboratory technician (CLT). The program is carefully articulated with the baccalaureate program in clinical laboratory sciences.

The BS-Clinical Laboratory Scientist degree is a 4-year program which provides an understanding of the theoretical and scientific fundamentals underlying the procedures involved, which include a broad based knowledge in the principles of human biology, chemistry, analytical instrumentation, and a familiarity with the educational and managerial aspects associated with one who occupies a professional role in a wide variety of settings.

Students seeking admission to the AAS degree program must have a minimum GPA of 2.5 or better. Students seeking admission to the BS degree program must have a minimum GPA of 2.5 or better.

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

For more information about the CLS Program, go to:

<http://www.astate.edu/college/conhp/departments/clinical-laboratory-sciences/>.

Major in Clinical Laboratory Sciences

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
CLS 1003, Making Connections CLS	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2103 AND 2101, Microbiology for Nursing and Laboratory</i> <i>Nine hours of Arts or Humanities (Required Departmental Gen. Ed. Option)</i></p>	
Major Requirements:	Sem. Hrs.
BIO 2203 AND 2201, Anatomy and Physiology I and Laboratory	4
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CLS 3153, Clinical Biochemistry	3
CLS 1512 AND 1511, Principles of Clinical Lab Sciences and Laboratory	3
CLS 1521 AND 1531, Body Fluids and Laboratory	2
CLS 2523 AND 2521, Hematology I and Laboratory	4
CLS 2533 AND 2531, Medical Microbiology I and Laboratory	4
CLS 2543 AND 2541, Clinical Chemistry I and Laboratory	4
CLS 2563 AND 2561, Immunohematology I and Laboratory	4
CLS 2573 AND 2571, Clinical Immunology and Serology and Laboratory	4
CLS 3223 AND 3221, Hematology II and Laboratory	4
CLS 3343, Principles of Disease	3
CLS 3512 AND 3511, Medical Parasitology and Laboratory	3
CLS 4113 AND 4111, Clinical Chemistry II and Clinical Issues and Topics in Clinical Chemistry II	4
CLS 4333 AND 4331, Immunohematology II and Clinical Issues and Topics in Immunohematology II	4
CLS 4443 AND 4441, Medical Microbiology II and Clinical Issues and Topics in Medical Microbiology II	4
CLS 4174, Clinical Practicum I	4
CLS 4184, Clinical Practicum II	4
CLS 4194, Clinical Practicum III	4
CLS 4204, Clinical Practicum IV	4
CLS 4222, Senior Seminar I	2
CLS 4232, Senior Seminar II	2
Sub-total	86
Total Required Hours:	124

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

Major in Clinical Laboratory Sciences

Associate of Applied Science

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory</i>	
Major Requirements:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
CHEM 1013 AND 1011, General Chemistry I and Laboratory	4
CLS 1512 AND 1511, Basic Principles and Laboratory	3
CLS 1521 AND 1531, Body Fluids and Laboratory	2
CLS 2514, Clinical Practicum I	4
CLS 2523 AND 2521, Hematology I and Laboratory	4
CLS 2524, Clinical Practicum II	4
CLS 2533 AND 2531, Medical Microbiology I and Laboratory	4
CLS 2543 AND 2541, Clinical Chemistry I and Laboratory	4
CLS 2551, Case Studies and Review for the MLT	1
CLS 2563 AND 2561, Basic Blood Banking and Laboratory	4
CLS 2573 AND 2571, Clinical Immunology and Laboratory	4
CLS 3512 AND 3511, Medical Parasitology and Laboratory	3
CLS 3514, Clinical Practicum III	4
CLS 3524, Clinical Practicum IV	4
Sub-total	53
Total Required Hours:	72

Department of Communication Disorders

Assistant Professor Amy Shollenbarger, Chair

Professors: *McDaniel*

Associate Professors: *Good*

Assistant Professors: *Akbari, Brantley, Pait*

COMMUNICATION DISORDERS: The Bachelor of Science degree in Communication Disorders is a preprofessional degree program which provides students with academic and practical preparation considered essential for success in the Communication Disorders graduate program. The undergraduate curriculum offers students a broad base of preparation in general education requirements, the sciences associated with communication and its disorders, anatomy and physiology, and a number of basic methods courses associated with the identification and treatment of a variety of communication disorders.

ADMISSION REQUIREMENTS

In order for students to be admitted into the Bachelor of Science in Communications Disorders, they must meet the following conditions:

1. An overall GPA of 2.75
2. 'C' or better in:
 - ENG 1003, Composition I
 - ENG 1013, Composition II
3. 'B' or better in Math 1023, College Algebra
4. An average GPA of 3.2 or higher in the following courses (repeated courses will be included in the calculation of the GPA):
 - BIO 2203 **AND** 2201, Human Anatomy/Physiology I and Laboratory
 - CD 2104, Anatomy and Physiology of CD with Laboratory
 - CD 2203, Phonetics
 - CD 2653, Introduction to Communication Disorders
 - CHEM 1013 **AND** 1011, Chemistry and Laboratory (or other approved general education physical science option with lab)
 - PSY 2013, Introduction to Psychology
5. Complete 15 clock hours of supervised observation in the ASU Speech and Hearing Center
6. Complete a free speech and hearing screening at the ASU Speech and Hearing Center

PROBATION, RETENTION AND READMISSION

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

Major in Communication Disorders

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
CD 1003, Making Connections Communication Disorders	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>PSY 2013, Introduction to Psychology</i> <i>BIO 2203 AND 2201, Human Anatomy and Physiology and Laboratory</i> <i>Additional Communication, Fine Arts and Humanities, or Social Sciences course (Required Departmental Gen. Ed. Option)</i></p>	
Major Requirements:	Sem. Hrs.
<p><i>BIO 2203 AND 2201, CD 2104, CD 2203, CD 2653, PSY 2013 and CHEM 1013 AND 1011 (or other approved general education physical science option with lab) must be completed with an average GPA of 3.2 or better as a prerequisite for admission into the undergraduate program in Communication Disorders. Repeated courses will be included in the calculation of the GPA. Refer to the previous page for a complete list of admission requirements.</i></p> <p><i>Courses denoted with an asterisk (*) require admittance into the undergraduate Communication Disorders Program.</i></p>	
CD 2104, Anatomy and Physiology of Speech	4
CD 2203, Phonetics	3
CD 2653, Introduction to Communication Disorders	3
CD 3003, Speech and Hearing Science	3
CD 3023, Diagnosis in Communication Disorders	3
CD 3303, Normal Language Development	3
CD 3402, American Sign Language I	2
*CD 3503, Audiology	3
CD 3553, Clinical Observations in Communication Disorders	3
CD 3703, Clinical Management Techniques in CD	3
*CD 3803, Service Delivery in Communication Disorders	3
CD 4063, Multicultural Issues in Communication Disorders	3
CD 4203, Organic Speech Disorders	3
*CD 4254, Neurological Bases and Disorders of Human Communication	4
*CD 4303, Language Intervention for Individuals with Mild Disabilities	3
CD 4403, Aural Rehabilitation	3
*CD 4553, Craniofacial Anomalies	3
*CD 4753, Clinical Practice I	3
*CD 4703, Articulation and Phonological Disorders	3
CD 4873, Research Problems in Communication Disorders	3
<p>Aging elective (select one of the following): CD 3113, Aging in Communication SOC 4353, Sociology of Aging NRS 3353, Aging and the Older Adult</p>	3

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

Major in Communication Disorders (cont.)

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Counseling elective (select one of the following): CD 3653, Clinical Interactions in CD COMS 4403, Seminar in Health Communication PSY 4053, Today's Families Interdisciplinary Approaches	3
Psychology electives (select one of the following): PSY 3403, Child Psychology PSY 3703, Educational Psychology PSY 3413, Adolescent Psychology PSY 4343, Learning Processes PSY 3453, Developmental Psychology PSY 4363, Cognitive Psychology	3
Statistics elective (select one of the following): PSY 3103 AND 3101, Quantitative Methods and Lab SOC 3383, Social Statistics STAT 3233, Applied Statistics I	3-4
Sub-total	73-74
Electives:	Sem. Hrs.
Electives	8-9
Total Required Hours:	120

Department of Disaster Preparedness and Emergency Management Program

Assistant Professor Joseph Richmond, Chair

Assistant Professors: *Hyman, Poku*

The Bachelor of Science (BS) in Disaster Preparedness & Emergency Management (DPEM) offers a unique opportunity for students and current professionals in the field that bridges the gap between academia and practice. Originating from the College of Nursing and Health Professions (CNHP), the degree has a strong healthcare component that makes it unique among disaster preparedness, emergency management or homeland security programs. Within the 120 hour curriculum students complete both Basic and Advanced Disaster Life Support and take core courses devoted to the physical care of chemical, biological, radiation, nuclear and explosive injuries and disaster mental health; risk identification; disaster mental health and other courses devoted to the healthcare aspects of the pillars of emergency management. Many courses include practicum experiences with a strong healthcare focus; practicum experiences can be individualized to include medical centers, community care settings, government agencies, non-government agencies and others reflective of the discipline. Hospital Emergency Response is included in the degree program.

Upon graduation students have multiple opportunities for employment, certifications and/or licensures. All graduates may be eligible for certified emergency manager status, depending on the regulations in their states and the International Association of Emergency Managers. All disciplines are in need of experts in disaster preparedness. Potential employment venues include government, health care, business, education, non-government agencies as well as many others. A career path map can be found on the DPEM web site.

Faculty are certified and licensed in multiple disciplines. They are active members of regional, national and international emergency medicine/disaster health committees and are committed to retaining disaster health as a key component of the BS in DPEM.

PROGRAM PREREQUISITES

1. Minimum GPA of 2.0 on all transfer work
2. Completion of the A-State admission application process with acceptance

PROBATION, RETENTION AND READMISSION

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

Probation:

1. Grade of D or F in a discipline course
2. Semester or cumulative GPA less than 2.0
3. Failure to be accepted at a mandatory practicum site
4. Unprofessional behavior

Retention:

1. Minimum grade of C in all discipline courses
2. Minimum GPA of 2.0
3. Meet acceptance criteria for practicum site (unique to each site)
4. Professional behavior in all discipline courses/practicum experience

Readmission

1. Reapply to the program
2. Minimum GPA of 2.0
3. Faculty recommendation

Freshmen in residence on the A-State campus must take the First Year Experience. For more information about the program, go to: <http://www.astate.edu/college/conhp/degrees/>.

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

Major in Disaster Preparedness and Emergency Management

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i></p> <p>Students with this major must take the following for AAS degree: <i>CS 1013, Introduction to Computers OR</i> <i>CIT 1503, Microcomputer Applications</i></p>	
Major Requirements:	Sem. Hrs.
DPEM 1101, Introduction to Incident Management	1
DPEM 1111, Introduction to Resource Management	1
DPEM 1121, Introduction to CBRNE	1
DPEM 1703, Introduction to Community Response	3
DPEM 2223, Hazardous Materials Containment	3
DPEM 2233, Principles of Healthcare Emergency Management	3
DPEM 2303, Environmental Health Training in Emergency Response	3
DPEM 2313, Pandemic Planning and Preparedness	3
DPEM 2323, Respiratory Protection	3
DPEM 2343, Emergency Responder HAZMAT Technician for CBRNE	3
DPEM 2353, Global Perspectives in Disaster Preparedness <i>Includes Core Disaster Life Support (CDLS).</i>	3
DPEM 2363, Fundamentals of CBRNE Crime Scene Management	3
DPEM 3503, Principles of Disaster Preparedness and Emergency Management <i>Includes Basic Disaster Life Support (BDLS).</i>	3
DPEM 3553, Ethical and the Law in Disaster Preparedness and Emergency Management	3
DPEM 3573, Business Continuity in DPEM	3
DPEM 4513, Physical Care of CBRNE Injuries	3
DPEM 4523, Risk Identification and Prevention	3
DPEM 4533, Disaster and Mental Health	3
DPEM 4553, Capstone in Homeland Security and Disaster Preparedness	3
DPEM 4563, Non-Governmental Agencies & DPEM	3
DPEM 4713, Advanced Information Officer	3
DPEM 3593, Research Concepts in DPEM	3
Sub-total	60
Emphasis Area:	Sem. Hrs.
<i>In consultation with their advisor, students must select courses within one area of emphasis (for example: Disaster Preparedness & Emergency Management, Law Enforcement, Health Care, Administration.) Fifteen hours must be upper-level.</i>	22
Total Required Hours:	120

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

Major in Disaster Preparedness and Emergency Management

Associate of Applied Science

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i>	
Major Requirements:	Sem. Hrs.
DPEM 1101, Introduction to Incident Management	1
DPEM 1111, Introduction to Resource Management	1
DPEM 1121, Introduction to CBRNE	1
DPEM 1703, Introduction to Community Response	3
DPEM 2223, Hazardous Materials Containment	3
DPEM 2233, Principles of Healthcare Emergency Management	3
DPEM 2303, Environmental Health Training in Emergency Response	3
DPEM 2313, Pandemic Planning and Preparedness	3
DPEM 2323, Respiratory Protection	3
DPEM 2343, Emergency Responder HAZMAT Technician for CBRNE	3
DPEM 2353, Global Perspectives in Disaster Preparedness <i>Includes Core Disaster Life Support (CDLS).</i>	3
DPEM 2363, Fundamentals of CBRNE Crime Scene Management	3
Sub-total	30
Emphasis Area:	Sem. Hrs.
<i>In consultation with their advisor, students must select courses within one area of emphasis (for example: Disaster Preparedness & Emergency Management, Law Enforcement, Health Care, Administration, or EMT. Requirements for the EMT emphasis can be found in the Emergency Medical Services section of the College of Nursing and Health Professions. All other emphases' courses are to be determined with the advisor.)</i>	11
Total Required Hours:	60

Disaster Preparedness and Emergency Management Program Minors

Minor in Homeland Security and Disaster Preparedness

The minor in Homeland Security and Disaster Preparedness is a multidisciplinary program offered in the College of Nursing and Health Professions and the College of Liberal Arts and Communication. The structure of the minor provides specialized training within each of the three tracks. The introductory and Non-Government Organizations courses provide the common framework necessary for the integration of these fields and the cooperative efforts of the specialists working within them.

Required Courses:	Sem. Hrs.
DPEM 3503, Principles of Disaster Preparedness and Emergency Management	3
DPEM 4563, NGO Agencies in DPEM	3
Select three courses from within a single track:	9
<p>Track 1: Healthcare in Homeland Security and Emergency Preparedness DPEM 2233, Principles of Healthcare Emergency Management DPEM 2353, Global Perspectives in Disaster Preparedness DPEM 3553, Ethics and the Law in DPEM DPEM 4513, Physical Care of CBRNE Injuries DPEM 4523, Risk Identification and Prevention DPEM 4533, Disaster and Mental Health NRS 4223, Forensic Nursing SW 4203, Crisis Intervention</p> <p>Track 2: Disaster Preparedness, Response and Operations Management POSC 3503, Principles of Public Administration POSC 4513, Disaster Response Operation Management PR 4603, Crisis Communications</p> <p>Track 3: Sociocultural & Political Disaster Preparedness SOC 3363, Sociology of Religion OR SW 4363, Religion and Spirituality in Social Work Practice SOC 4003, Perspectives on Death and Dying SOC 4063, Sociology of Disasters SOC 4263, Terrorism as a Social Movement</p>	
Choose one elective from one other track.	3
Total Required Hours:	18

Emergency Medical Services

Assistant Professor Sara Walker, Program Director

Emergency Medical Services programs are offered to ensure entry-level and competent Emergency Medical Technicians and Paramedics in the cognitive, psychomotor, and affective learning domains. Multiple options for completion of these programs exist: The Certificate of Proficiency in Emergency Medical Technician-Basic (EMT-Basic), an Emphasis in EMT-Basic within the AAS of Disaster Preparedness & Emergency Management (DPEM), a Technical Certificate in Paramedic or an AAS in Paramedic. Students successfully completing these programs, with a grade of C or better in all courses, will be eligible to sit for the National Registry examination to become a licensed EMS provider. These programs have an emphasis on emergent pre-hospital care as well as emergency care in the hospital. The EMT-Basic requires 12 hours of specific courses and the Paramedic contains 50.5 credit hours of specific courses. All students will enter as degree seeking in the AAS in Paramedic or the AAS in DPEM-EMT Emphasis and may earn the Technical Certificate in EMT or Technical Certificate in Paramedic enroute to the AAS in Paramedic. Those wishing to complete the full AAS in Paramedic or the Emphasis in DPEM will also complete the general education requirements for AAS degrees. All courses integrate lecture and lab in a seamless fashion. Clinical and field experiences are at medical centers, specialty clinics or hospitals and ambulance services

PROGRAM PREREQUISITES

1. Completion of the A-State admission application process with acceptance
2. Physical exam
3. Background check (includes drug screen and driving records)

PROBATION, RETENTION AND READMISSION

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

Probation:

1. Grade of D or F in a discipline course
2. Semester or cumulative GPA less than 2.0
3. Failure to be accepted at a mandatory practicum site

Retention:

1. Minimum grade of C in all discipline courses
2. Minimum GPA of 2.0
3. Meet acceptance criteria for practicum site (unique to each site)
4. Professional behavior in all discipline courses/practicum experience

Readmission

1. Reapply to the program
2. Minimum GPA of 2.0
3. Faculty recommendation

Freshmen in residence on the A-State campus must take the First Year Experience. For more information about the program, go to: <http://www.astate.edu/college/conhp/degrees/>.

Major in Disaster Preparedness and Emergency Management

Associate of Applied of Science Emphasis in EMT - Basic

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i>	
Major Requirements:	Sem. Hrs.
DPEM 1101, Introduction to Incident Management	1
DPEM 1111, Introduction to Resource Management	1
DPEM 1121, Introduction to CBRNE	1
DPEM 1703, Introduction to Community Response	3
DPEM 2223, Hazardous Materials Containment	3
DPEM 2233, Principles of Healthcare Emergency Management	3
DPEM 2303, Environmental Health Training in Emergency Response	3
DPEM 2313, Pandemic Planning and Preparedness	3
DPEM 2323, Respiratory Protection	3
DPEM 2343, Emergency Responder HAZMAT Technician for CBRNE	3
DPEM 2353, Global Perspectives in Disaster Preparedness <i>Includes Core Disaster Life Support (CDLS).</i>	3
DPEM 2363, Fundamentals of CBRNE Crime Scene Management	3
Sub-total	30
Emphasis Area (EMT - Basic):	Sem. Hrs.
EMS 1041, Introduction to Emergency Medical Services	1
EMS 1057, Basic Emergency Medical Technician	7
EMS 1062, Emergency Medical Technician Clinical	2
EMS 1072, Emergency Medical Technician Field Experience	2
Sub-total	12
Total Required Hours:	61

Major in Paramedic

Associate of Applied Science

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements: Grade of "C" or better required for all General Education Requirements, including prerequisites.	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80) Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i>	19
Prerequisite Requirements:	Sem. Hrs.
EMS 1041, Introduction to EMS	1
Major Requirements:	Sem. Hrs.
EMSP 2217, Anatomy and Physiology for Paramedics with Lab	7
EMSP 2222, Cardiac Dysrhythmias	2
EMSP 2233, Patient Assessment and Airway Management	3
EMSP 2244, Medical Emergencies I	4
EMSP 2252, Paramedic Clinical I (90 hours)	2
EMSP 226V, Paramedic Field Experience I (67 hours)	1.5
EMSP 2314, Medical Emergencies I	4
EMSP 2323, Traumatic Injuries	3
EMSP 2333, Shock and Resuscitation	3
EMSP 2352, Paramedic Clinical II (90 hours)	2
EMSP 236V, Paramedic Field Experience II (67 hours)	1.5
EMSP 2412, Special Populations	2
EMSP 2424, Emergency Management	4
EMSP 243V, Paramedic Clinical III (67 hours)	1.5
EMSP 2242, Paramedic Field Experience III (90 hours)	2
EMSP 2457, Paramedic Field Internship (315 hours)	7
Sub-total	49.5
Total Required Hours:	69.5

Certificate of Proficiency in Emergency Medical Technician - Basic

This program is intended to prepare students for entry-level practice as an Emergency Medical Technician. The resulting certificate will allow the student to test for national certification as an EMT. Didactic content, lab skills, hospital clinicals and pre-hospital experience provide the environment for students to excel in their education to becoming an EMT. This certificate is to be completed for-credit, enroute to the AAS in Paramedic or for non-credit on a case-by-case basis.

Requirements:	Sem. Hrs.
EMS 1041, Introduction to Emergency Medical Services	1
EMS 1057, Basic Emergency Medical Technician	7
EMS 1062, Emergency Medical Technician Clinical	2
EMS 1072, Emergency Medical Technician Field Experience	2
Total Required Hours:	12

Technical Certificate in Paramedic

This program is intended to prepare students for entry-level practice as Paramedic. The resulting certificate will allow the student to test for national certification as a Paramedic. The program includes didactic content, required lab sessions, hospital clinicals and pre-hospital experience, which will prepare competent paramedics in the cognitive, psychomotor and affective learning domains. This certificate is to be completed for-credit, enroute to the AAS in Paramedic or for non-credit on a case-by-case basis.

Requirements:	
Prerequisites	Sem. Hrs.
EMS 1041, Introduction to EMS	1
Sub-total	1
Paramedic Requirements	Sem. Hrs.
EMSP 2217, Anatomy and Physiology for Paramedics with Lab	7
EMSP 2222, Cardiac Dysrhythmias	2
EMSP 2233, Patient Assessment and Airway Management	3
EMSP 2244, Medical Emergencies I	4
EMSP 2252, Paramedic Clinical I (90 hours)	2
EMSP 226V, Paramedic Field Experience I (67 hours)	1.5
EMSP 2314, Medical Emergencies II	4
EMSP 2323, Traumatic Injuries	3
EMSP 2333, Shock and Resuscitation	3
EMSP 2352, Paramedic Clinical II (90 hours)	2
EMSP 236V, Paramedic Field Experience II (67 hours)	1.5
EMSP 2412, Special Populations	2
EMSP 2424, Emergency Management	4
EMSP 243V, Paramedic Clinical III (67 hours)	1.5
EMSP 2242, Paramedic Field Experience III (90 hours)	2
EMSP 2457, Paramedic Field Internship (315 hours)	7
Sub-total	49.5
Total Required Hours:	50.5

Health Studies Program

Assistant Professors: *Holcomb*

The Bachelor of Science in Health Studies degree (BSHS) serves a three-fold purpose for students: 1) planning to seek employment in a health or health related area upon graduation; 2) desiring a bachelor's degree following an associate's degree in health disciplines and 3) planning a health career that requires a post-baccalaureate plan of study.

This degree does not lead to a professional credential or state licensure. It does prepare students for roles in community health, support services, health care navigation, claims services, medical sales and patient services. Online certification is available in some areas such as compliance officer, health advocate and coding specialist.

The value of this degree is that it provides a baseline of skills and education in areas that are of tremendous importance to the health of Arkansans. Students will study chronic illness, prevention, wellness, healthcare advocacy, patient safety, health information technology, health systems, interdisciplinary practice, aging, mental health and cultural competence. A basic foundation of knowledge will allow the graduate to bridge from health to health care which will be important in a diverse array of health settings.

The passage of the Affordable Care Act has “redesigned” workforce roles and created new employment opportunities in the process. The American Hospital Association, in its “Workforce Roles in a Redesigned Primary Care Model”, discusses the emergence of new team members that connect patients with providers and community resources. These members might be called health coaches, health care navigators, population assistants or community health aides.

PROGRAM PREREQUISITES

Two separate degree tracks are available for the BSHS: The Professional Track and Non-Professional Track. The Professional Track requires students to have an Associate of Applied Science (AAS) degree in an allied health related field (e.g., Physical Therapist Assistant, Clinical Laboratory, Nursing, Radiologic Technology). The Non-Professional Track does not require students to hold an AAS degree.

PROBATION, RETENTION AND READMISSION

Students wishing to pursue the BS in Health Studies (BSHS) must apply to Arkansas State University and meet all admission requirements established by the university. A 2.5 cumulative GPA is required for admission. Students must declare the BSHS major and schedule a meeting with a BSHS advisor. All general education and major requirements must be completed with a grade of “C” or better.

Major in Health Studies

Bachelor of Science (Professional Track)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PTA 1013, Making Connections in Rehab Services	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science and Baccalaureate degrees (pp. 79-81)	35
Students with this major must take the following for BS degree: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory PHYS 2054, General Physics I PSY 2013, Introduction to Psychology COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Physical Therapist Assistant Program:	Sem. Hrs.
PTA AAS Degree Requirements	38
Major Requirements:	Sem. Hrs.
CLS 4212, Interpreting Laboratory Data	2
HP 3233, Preventive Health	3
HP 3353, Public Health: Principles and Practice	3
HP 3453, Healthcare Navigation and Advocacy	3
HP 3463, Introduction to Pharmaceuticals	3
HP 3673, Critical Issues in Health	3
HP 3783, Issues in Mental Health	3
HP 4103, Patient Education in Health Care	3
HP 4213, Chronic Illness	3
HP 4323, Patient Safety	3
HP 4443, Healthcare Management	3
HP 4543, Healthcare Service Delivery	3
NRS 3353, Aging and the Older Adult	3
PHIL 3713, Ethics in Health Professions	3
Sub-total	41
Required Support Courses:	Sem. Hrs.
HP 2112, Introduction to the United States Healthcare System	2
Electives:	Sem. Hrs.
Electives (must include at least 4 upper-level hours)	6
Total Required Hours:	125

Major in Health Studies

Bachelor of Science (Non-Professional Track)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CLS 4212, Interpreting Laboratory Data	2
HP 3123, Introduction to Disease	3
HP 3233, Preventive Health	3
HP 3353, Public Health: Principles and Practice	3
HP 3413, Cultural Competence In The Health Professions	3
HP 3453, Healthcare Navigation and Advocacy	3
HP 3463, Introduction to Pharmaceuticals	3
HP 3673, Critical Issues in Health	3
HP 3783, Issues in Mental Health	3
HP 4103, Patient Education in Health Care	3
HP 4213, Chronic Illness	3
HP 4323, Patient Safety	3
HP 4443, Healthcare Management	3
HP 4543, Healthcare Service Delivery	3
NRS 3353, Aging and the Older Adult	3
PHIL 3713, Ethics in Health Professions	3
Sub-total	47
Required Support Courses:	Sem. Hrs.
DPEM 2233, Principles of Healthcare Emergency Management	3
HLTH 2513, Principles of Personal Health	3
HP 2013, Medical Terminology	3
HP 2112, Introduction to the United States Healthcare System	2
NS 2203, Basic Human Nutrition	3
SOC 2223, Social Problems	3
Sub-total	17
Electives:	Sem. Hrs.
Electives	18
Total Required Hours:	120

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

Department of Medical Imaging and Radiation Sciences

Associate Professor Cheryl DuBose, Chair

Associate Professors: *Barymon, Caldwell, Rollins, White*

Assistant Professors: *Cooper, Nutt, Wooten, Youngman*

The Radiologic Sciences Programs are administered by the Department of Medical Imaging & Radiation Sciences in the College of Nursing and Health Professions. The degree is designed to produce baccalaureate prepared, radiologic science professionals who are multi-skilled, multi-competent practitioners.

The Medical Imaging & Radiation Sciences graduate is a professional who is a competent, multi-skilled, entry-level practitioner. Technologists who are educated in multiple modalities and skills have better job prospects than those with just one area of expertise. This is the foundational philosophy of the Department of Medical Imaging and Radiation Sciences. Students will learn at least two imaging modalities or skill sets in approximately 32-37 months.

The role of the multi-skilled technologist is multi-faceted and developed through extensive study in the areas of liberal education, professional values, core competencies, core knowledge and role development. This knowledge base prepares the beginning baccalaureate graduate to function in the world of medical imaging and radiation therapy. The program is a "1 plus 1" model, meaning all students begin with radiography coursework, followed by one of six "tracks" for their final year.

OUR MISSION

The Department of Medical Imaging and Radiation Sciences (MIRS) exists to provide a comprehensive, multi-skilled education preparing students for entry-level practice in the medical imaging and radiation therapy professions.

GOALS AND OUTCOMES FOR MEDICAL IMAGING AND RADIATION SCIENCES

1. Students will be clinically competent.
2. Students will demonstrate acceptable problem solving skills.
3. Students will communicate effectively with peers, medical staff, and patients.
4. Students will demonstrate professional behavior and attitudes.

THE BSRS PROGRAM

Students who are accepted into the program (see program admission) complete all core radiography program courses, then select a senior year emphasis from one of the following tracks:

Cardiovascular-Interventional Technology
Diagnostic Medical Sonography
Magnetic Resonance Imaging
Mammography/Breast Sonography
Medical Imaging Informatics
Radiation Therapy

NOTE: Students must consult an advisor when choosing their senior year modality track. Space in some tracks is limited and thus admission is competitive.

DESCRIPTION OF TRACKS

First Year:

Radiography: Provides students with the skills necessary to administer radiation for imaging various body systems.

Second Year:

Computed Tomography: Certificate program provides students with the skills necessary to operate CT scanners and construct sectional images through computer enhancement. The CT certificate is available to all BSRs students.

Cardiovascular-Interventional Technology: Provides students with the skills necessary to operate specialized radiographic equipment and control specific images through various imaging enhancements.

Diagnostic Medical Sonography: Provides students with the skills necessary to operate sonographic equipment and control images through various enhancements.

Magnetic Resonance Imaging: Provides students with the skills necessary operate MRI scanners and construct sectional images through computer enhancement.

Mammography/Breast Sonography: Provides students with the skills needed to operate specialized mammography equipment, position patients accurately, perform invasive breast procedures, and learn the basics of breast ultrasound.

Medical Imaging Informatics: Provides students with the skills necessary to manipulate patient images and data for use and storage.

Radiation Therapy: Provides students with the skills necessary to operate therapeutic radiation systems and thus become a professional, entry level radiation therapist.

All areas of study include both classroom instruction and experiences in a clinical setting in an area health care institution. This provides students with opportunities for direct patient care involving those who are sick and injured, as well as those for whom radiologic diagnosis or treatment is indicated.

All students, prior to formal admission, will be advised by the Departmental Advisor when planning their schedule.

Students who have completed an accredited radiography program at another institution are eligible to apply for one of the senior year tracks or complete the "Bridge Program" Imaging Specialist track in General Radiography (see below).

ACCREDITATION

All primary pathway programs are accredited by appropriate programmatic accrediting bodies:

1. Radiography, Radiation Therapy and MRI are accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).
2. Diagnostic Medical Sonography is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Upon completion of the baccalaureate degree, students are prepared to sit for the national certification exams in radiography and their specialty modality(ies).

PROGRAM ADMISSION

After completing the required support courses (with at least a 2.5 GPA), students must:

1. take an entrance exam (instructions are found on the Department website)
2. complete the admission application (found on the Department website.)
3. complete the criminal background check acknowledgement document (found on the application)

Applicants to the BSRS Program are selected by the Admissions Committee using the following criteria:

1. Support course grade point average
2. Interview
3. Entrance exam scores

Each category listed is translated to a scaled system of points. Once scaled, students are ranked accordingly. The top 50 will be asked for an interview. All required materials must be received in the Department Office by 5:00 p.m. October 31. (See the Department website for further details.)

NOTE: Student completing general education courses and required support courses on the A-State campus will be awarded extra points toward the final score. Students who prove proficiency in Spanish receive additional points toward the final score. (See website for proof process.)

PROGRAM LENGTH

Roughly 32-37 months, depending on track selected.

ACCEPTANCE POLICY FOR SENIOR YEAR TRACKS

The Department does not guarantee acceptance into the program of choice for students entering the second year of the multi-competency BSRS program. Acceptance for Radiation Therapy, Sonography, MRI, Mammography, Cardiovascular-Interventional, and Imaging Informatics students may require all or some of the following:

1. Select course GPA of 3.0 or higher
2. Interview by program director

CURRICULUM

Note that the Department of Medical Imaging and Radiation Sciences reserves the right to make curriculum changes at any time and all students must comply with such changes.

PROBATION, RETENTION AND READMISSION

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

EXPENSES

In addition to tuition and costs, Radiography students will incur the following expenses:

1. The cost of textbooks will vary each semester, with a majority of the total cost occurring in the first semester of the professional program. Textbook costs for the first semester may be as much as \$700. These texts are used throughout the program.
2. Students will be required to purchase uniforms. Approximately \$250 should be estimated for uniforms in the first year of the program.
3. Students are required to purchase personalized radiographic markers. This is a one-time fee of around \$45.
4. CPR certification is required. Some classes are free, while others may charge a nominal fee.
5. Students are required to pay \$150 annual fee for online clinical software program to be used for clinical courses.

BSRS "BRIDGE" PROGRAM

Radiologic Technologists who are currently enrolled or possess an associate degree or certificate from an accepted accredited program at another institution may pursue the BSRS through the "Bridge Program". To be admitted to the "Bridge Program," students will receive credit by articulation for their associate degree/certificate radiologic science educational work (46 hours). These will be evaluated on a case-by-case basis.

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

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Emphasis in Cardiovascular-Interventional Technology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
RT 1003, Making Connections in Radiology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
HP 2013, Medical Terminology	3
RAD 2001, Intro to Medical Imaging	1
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition & Evaluation	4
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	51

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Emphasis in Cardiovascular-Interventional Technology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Emphasis Area (Cardiovascular-Interventional Technology):	Sem. Hrs.
RS 3733, Geriatric Considerations in Radiology	3
RS 4413, Cardiovascular Equipment and Intervention	3
RS 4423, Cardiovascular-Interventional Procedures and Instrumentation	3
RS 4433, Cardiac Equipment and Intervention	3
RS 4443, Cardiac Physiology and Procedures	3
RS 4444, Cardiac Clinic	4
RS 4454, Cardiovascular-Interventional Clinical Education	4
RS 4483, Cardiovascular-Interventional Internship	3
RS 4822, Psychosocial Factors in Healthcare	2
Sub-total	28
Required Support Courses:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Total Required Hours:	121

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Emphasis in Diagnostic Medical Sonography

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
RT 1003, Making Connections in Radiology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
HP 2013, Medical Terminology	3
RAD 2001, Introduction to Medical Imaging	1
RAD 3103, Introduction to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition and Evaluation I	3
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	51
Emphasis Area (Diagnostic Medical Sonography):	Sem. Hrs.
RSU 4112, Sectional Anatomy Sonography	2
RSU 4122, Small Parts Sonography	2
RSU 4132, Small Parts Sonography Lab	2
RSU 4213, Physics and Instrumentation I	3
RSU 4223, Abdomen Sonography	3
RSU 4232, Abdomen Sonography Laboratory	2
RSU 4322, OBGYN Laboratory	2
RSU 4323, Physics and Instrumentation II	3
RSU 4413, Vascular Sonography	3
RSU 4422, Vascular Sonography Laboratory	2

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Emphasis in Diagnostic Medical Sonography

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

RSU 4511, Ultrasound Clinic I	1
RSU 4523, Ultrasound Clinical Education II	3
RSU 4534, Ultrasound Clinical Education III	4
RSU 4544, Ultrasound Clinical Education IV	4
RSU 4551, Sonography Clinical Relevancy	1
RSU 4613, Obstetric and Gynecologic Sonography	3
RSU 4622, Obstetric Sonography II	2
RSU 4652, Special Procedures in Sonography	2
Sub-total	44
Required Support Courses:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Total Required Hours:	137

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Emphasis in Magnetic Resonance Imaging

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
RT 1003, Making Connections in Radiology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
HP 2013, Medical Terminology	3
RAD 2001, Intro to Medical Imaging	1
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition & Evaluation	3
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	51

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Emphasis in Magnetic Resonance Imaging

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Emphasis Area (MRI):	Sem. Hrs.
RSMR 4703, MRI Safety and Instrumentation	3
RSMR 4712, Imaging Information Management	2
RSMR 4723, MRI Procedures I	3
RSMR 4733, MRI Procedures II	3
RSMR 4753, MRI Clinical Ed I	3
RSMR 4763, MRI Clinical Education II	3
RSMR 4773, MRI Clinical Education III	3
RSMR 4803, MRI Physical Principles I	3
RSMR 4813, MRI Physical Principles II	3
RSMR 4823, Data Acquisition and Processing	3
RSMR 4833, Advanced MRI Imaging	3
Sub-total	32
Required Support Courses:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Total Required Hours:	125

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Emphasis in Mammography/Breast Sonography

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
RT 1003, Making Connections in Radiology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BJO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
HP 2013, Medical Terminology	3
RAD 2001, Intro to Medical Imaging	1
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition & Evaluation	4
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	51
Emphasis Area (Mammography):	Sem. Hrs.
RS 3122, Legal and Regulatory Environ of Radiology	2
RS 3733, Geriatric Considerations in Radiology	3
RS 4503, Mammography Procedures	3
RS 4513, Mammography Instrumentation	3
RS 4553, Breast Imaging Clinical Education I	3

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Emphasis in Mammography

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

RS 4563, Breast Imaging Clinical Education II	3
RS 4573, Imaging in Women's Health Clinical Education	3
RS 4822, Psychosocial Factors in Healthcare	2
RSU 4213, Ultrasound Physics and Instrumentation I	3
RSU 4323, Physics and Instrumentation II	3
RSU 4833, Breast Sonography	3
Sub-total	31
Required Support Courses:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Total Required Hours:	124

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Emphasis in Medical Imaging Informatics

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
RT 1003, Making Connections in Radiology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
HP 2013, Medical Terminology	3
RAD 2001, Intro to Medical Imaging	1
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition & Evaluation	4
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	51

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Emphasis in Medical Imaging Informatics

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Emphasis Area (Medical Imaging Informatics):	Sem. Hrs.
CIT 1503, Microcomputer Applications	3
CIT 2033, Programming Fundamentals	3
CIT 2523, Telecommunications and Networking	3
CIT 3013, Management Information Systems	3
CIT 3403, Database Management	3
CIT 4523, Advanced Telecommunications	3
CIT 4623, Computer Security	3
CIT 488V, Internship	3
RS 3142, Advanced Imaging and Therapy I	2
RS 3152, Advanced Imaging and Therapy II	2
RSMR 4712, Imaging Information Management	2
RSMR 4713, Imaging Standards of Communication and Interoperability	3
Sub-total	33
Required Support Courses:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Total Required Hours:	126

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Emphasis in Radiation Therapy

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
RT 1003, Making Connections in Radiology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BJO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
HP 2013, Medical Terminology	3
RAD 2001, Intro to Medical Imaging	1
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition & Evaluation	4
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	50

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Emphasis in Radiation Therapy

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Emphasis Area (Radiation Therapy):	Sem. Hrs.
RST 4203, Intro to Radiation Therapy	3
RST 4214, Radiation Therapy Principles and Practice	4
RST 4224, Radiation Therapy Principles and Practice II	4
RST 4234, Radiation Therapy Principles and Practice III	4
RST 4242, Rad Therapy Clinical Treatment Planning	2
RST 4313, Radiation Physics I	3
RST 4323, Radiation Physics II	3
RST 4333, Applied Radiation Biology	3
RST 4413, Rad Protection, Safety, and Quality Management	3
RST 4513, Radiation Therapy Clinical Education I	3
RST 4523, Radiation Therapy Clinical Education II	3
RST 4533, Radiation Therapy Clinical Education III	3
Sub-total	38
Required Support Courses:	Sem. Hrs.
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Total Required Hours:	131

Major in Radiologic Sciences

Bachelor of Science in Radiologic Sciences Imaging Specialist (Bridge Program)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
General Education Requirements:	
See General Education Curriculum for Baccalaureate degrees (p. 78)	Sem. Hrs.
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	35
Hours by Articulation:	
<i>Students will receive credit by articulation for their associate degree/certificate radiologic science educational work.</i>	Sem. Hrs.
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213, Image Acquisition & Evaluation	4
RAD 3223, Sectional Anatomy	3
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4142 AND RAD 4141, Radiographic Procedures IV and Laboratory	3
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Sub-total	51
Imaging Specialist:	
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
DPEM 3503, Principles of Disaster Preparedness	3
DPEM 3613, Radiological Emergencies	3
HP 3413, Cultural Competency	3
RS 3122, Legal & Regulatory Environ of Radiology	2
RS 3142, Advanced Imaging I	2
RS 3152, Advanced Imaging II	2
RS 3633, Pediatric Considerations in Radiology	3

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

Major in Radiologic Sciences (cont.)

Bachelor of Science in Radiologic Sciences Imaging Specialist (Bridge Program)

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

RS 3733, Geriatric Considerations in Radiology	3
RS 4343, Radiologic Administrative Concepts	3
RS 436V, Independent Study in the Radiologic Sciences	3
RS 4463, Statistics for Medical Imaging	3
RS 4822, Psychosocial Factors in Healthcare	2
RS 4852, Advanced Radiologic Pathophysiology I	2
RS 4862, Advanced Radiologic Pathophysiology II	2
Sub-total	40
Total Required Hours:	126

Post-Baccalaureate Certificate in Medical Imaging and Therapy

The certificate will provide students who hold a baccalaureate degree in Radiologic Sciences (BSRS) and a primary pathway certification to return for additional radiologic licensure opportunities. A post-baccalaureate certificate will be awarded to those students who complete the required coursework and who have earned a previous BSRS degree and primary pathway certification (e.g. RT(T); RT(MR); RT(R); RT(S); ARDMS).

Core Requirements (BSRS courses completed previously):

- ARRT or ARDMS certification and registration in a primary pathway area
- BIO 2203 Human Anatomy and Physiology I
- BIO 2201 Human Anatomy and Physiology I Laboratory
- BIO 2223 Human Anatomy and Physiology II
- BIO 2221 Human Anatomy and Physiology II Laboratory
- HP 2013 Medical Terminology

Certificate in Cardiovascular-Interventional Technology

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
RS 4413, Cardiovascular Equipment and Intervention	3
RS 4423, Cardiovascular-Interventional Procedures and Instrumentation	3
RS 4433, Cardiac Equipment and Intervention	3
RS 4443, Cardiac Physiology and Procedures	3
RS 4444, Cardiac Clinic	4
RS 4454, Cardiovascular-Interventional Clinical Education	4
RS 4483, Cardiovascular-Interventional Internship	3
Total Required Hours:	23

Certificate in Diagnostic Medical Sonography

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
RSU 4112, Sectional Anatomy Sonography	2
RSU 4122, Small Parts Sonography	2
RSU 4132, Small Parts Sonography Lab	2
RSU 4213, Physics and Instrumentation I	3
RSU 4223, Abdomen Sonography	3
RSU 4232, Abdomen Sonography Laboratory	2
RSU 4322, OBGYN Laboratory	3
RSU 4323, Physics and Instrumentation II	3
RSU 4413, Vascular Sonography	3
RSU 4422, Vascular Sonography Laboratory	3
RSU 4511, Ultrasound Clinic I	1
RSU 4523, Ultrasound Clinical Education II	3
RSU 4534, Ultrasound Clinical Education III	4
RSU 4544, Ultrasound Clinical Education IV	4
RSU 4551, Sonography Clinical Relevancy	1
RSU 4613, Obstetric and Gynecologic Sonography	3
RSU 4622, Obstetric Sonography II	2
RSU 4652, Special Procedures in Sonography	2
Total Required Hours:	44

Certificate in Magnetic Resonance Imaging

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
RSMR 4703, MRI Safety and Instrumentation	3
RSMR 4712, Imaging Information Management	2
RSMR 4723, MRI Procedures I	3
RSMR 4733, MRI Procedures II	3
RSMR 4753, MRI Clinical Education I	3
RSMR 4763, MRI Clinical Education II	2
RSMR 4773, MRI Clinical Education III	3
RSMR 4803, MRI Physical Principles I	3
RSMR 4813, MRI Physical Principles II	3
RSMR 4823, Data Acquisition and Processing	3
RSMR 4833, Advanced MRI Imaging	3
Total Required Hours:	32

Certificate in Mammography

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
RS 4502, Mammography Procedures	2
RS 4512, Mammography Instrumentation	2
RS 4553, Breast Imaging Clinical Education I	3
RS 4563, Breast Imaging Clinical Education II	3
RS 4573, Imaging in Women's Health Clinical Education	3
RSU 4213, Ultrasound Physics and Instrumentation I	3
RSU 4323, Physics and Instrumentation II	3
RSU 4833, Breast Sonography	3
Total Required Hours:	22

Certificate in Medical Imaging Informatics

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
CIT 1503, Microcomputer Applications	3
CIT 2033, Programming Fundamentals	3
CIT 2523, Telecommunications and Networking	3
CIT 3013, Management Information Systems	3
CIT 3403, Database Management	3
CIT 4523, Advanced Telecommunications	3
CIT 4623, Computer Security	3
CIT 488V, Internship	3
RS 3142, Advanced Imaging and Therapy I	2
RS 3152, Advanced Imaging and Therapy II	2
RSMR 4712, Imaging Information Management	2
RSMR 4713, Imaging Standards of Communication and Interoperability	3
Total Required Hours:	33

Certificate in Radiation Therapy

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
RST 4203, Intro to Radiation Therapy	3
RST 4214, Radiation Therapy Principles and Practice	4
RST 4224, Radiation Therapy Principles and Practice II	4
RST 4234, Radiation Therapy Principles and Practice III	4
RST 4242, Rad Therapy Clinical Treatment Planning	2
RST 4313, Radiation Physics I	3
RST 4323, Radiation Physics II	3
RST 4333, Applied Radiation Biology	3
RST 4413, Rad Protection, Safety, and Quality Management	3
RST 4513, Radiation Therapy Clinical Education I	3
RST 4523, Radiation Therapy Clinical Education II	3
RST 4533, Radiation Therapy Clinical Education III	3
Total Required Hours:	38

Certificate in Radiologic Technology

Core requirements listed on page 349

Required Courses: <i>Students must have previously earned a BSRS degree.</i>	Sem. Hrs.
RAD 3103, Intro to Radiography	3
RAD 3113 AND RAD 3111, Radiographic Procedures I and Laboratory	4
RAD 3122, Radiation Physics and Imaging	2
RAD 3202, Imaging Equipment	2
RAD 3203 AND RAD 3201, Radiographic Procedures II and Laboratory	4
RAD 3213 AND RAD 3211, Image Acquisition & Evaluation I and Lab	4
RAD 3232, Radiography Clinical I	2
RAD 4103 AND RAD 4101, Radiographic Procedures III and Laboratory	4
RAD 4113, Image Acquisition & Evaluation II	3
RAD 4123, Imaging Pathology	3
RAD 4132, Radiobiology	2
RAD 4143, Radiography Clinical II	3
RAD 4203, Radiography Clinical III	3
RAD 4213, Radiography Clinical IV	3
Total Required Hours:	43

Certificate of Proficiency in Computed Tomography

The program will provide students with the skills necessary to perform quality computed tomography exams. The didactic courses satisfy structured education requirements for the ARRT certification examination in computed tomography, while the clinical education component assists students in obtaining the required ARRT clinical experience documentation.

A certificate of proficiency is awarded to those students who complete the required coursework and who meet RT(R) or BSRS graduation requirements.

Required Courses: <i>Students must also meet RT(R) or BSRS graduation requirements.</i>	Sem. Hrs.
RAD 3223, Sectional Anatomy	3
RS 4623, Computed Tomography Instrumentation	3
RS 4633, Computed Tomography Procedures	3
RS 4643, Computed Tomography Clinical Education	3
Total Required Hours:	12

Certificate of Proficiency in Radiologic Sciences Administration

The program will provide students with the fundamental leadership principles needed to direct a Medical Imaging and Therapy department or outpatient center.

A certificate of proficiency is awarded to those students who complete the required coursework and who meet RT(R) or BSRS graduation requirements.

Required Courses: <i>Students must also meet RT(R) or BSRS graduation requirements.</i>	Sem. Hrs.
RS 3122, Legal and Regulatory Environment of Radiology	2
RS 3142, Advanced Imaging and Therapy I	2
RS 3152, Advanced Imaging and Therapy II	2
RS 4343, Radiologic Administrative Concepts	3
RS 436V, Independent Study	1
RS 4463, Statistics for Medical Imaging	3
RS 4822, Psychosocial Factors in Health Care Delivery	2
Total Required Hours:	15

Certificate of Proficiency in Bone Densitometry

The program will provide students with the skills necessary to perform quality bone densitometry exams. The didactic courses satisfy structured education requirements for the ARRT certification examination in bone densitometry, while the clinical education component assists students in obtaining the required ARRT clinical experience documentation.

A certificate of proficiency is awarded to those students who complete the required coursework and who meet RT(R) or BSRS requirements.

Required Courses: <i>Students must also meet RT(R) or BSRS graduation requirements.</i>	Sem. Hrs.
RS 4703, Bone Density Image Production	3
RS 4723, Bone Density Procedures	3
RS 4573, Imaging in Women's Health Clinical Education OR RS 436V, Independent Study in Radiologic Sciences	3
RAD 3103, Introduction to Radiography	3
RAD 3203, Radiographic Procedures II	3
Total Required Hours:	15

School of Nursing

Assistant Professor Sarah Davidson, Interim Associate Dean, Chair, Bachelors Program

Assistant Professor Karen Blue, Chair, Associate Program

Professors: *Snellgrove*

Associate Professors: *Anderson, Hall, Nix, Norman, Shelton, Wimberley*

Assistant Professors: *Allen, Altom, Black, Camp, Davidson, Flannigan, Fleming, Foster, L. Hailey, S. Hailey, Hamill (Beebe), Harmon, Jennings (Mountain Home), Johnston, Kemp, Koekemoer, Latting (Mountain Home), Manning, Martin, Mata, Pfriemer, Phillippe (Mountain Home), Schwartz (West Memphis), Stegall, Thompson, Travis, Wilks (West Memphis), Williams (West Memphis)*

Instructor: *Long*

The mission of the School of Nursing is to educate, enhance and enrich students for evolving professional nursing practice. The School of Nursing values the following as fundamentals essential for entering professional nursing practice: **Integrity** (purposeful decision to consistently demonstrate truth and honesty); **Excellence** (highest quality of nursing education, practice, service and research); **Diversity** (respect for varied dimensions of individuality among populations); **Service** (professional experiences in response to the needs of society); **Learning** (acquisition of knowledge and skills in critical thinking, practical reasoning, and decision making) and **Student Centered** (development of essential skills for lifelong learning, leadership, professionalism, and social responsibility).

The School of Nursing offers the Associate of Applied Science in Nursing and Bachelor of Science in Nursing degrees at the undergraduate level. Completion of either program qualifies students to take the NCLEX-RN examination for licensure as a registered nurse.

ASSOCIATE OF APPLIED SCIENCE IN NURSING: The purpose of the associate level is to prepare graduates who apply the nursing process in the provision of direct nursing care for clients with common, well-defined problems. Therefore, the associate curriculum is grounded in the liberal arts and includes professional values, core competencies, core knowledge and role development. The associate degree graduate is prepared to function as a member of the profession and a manager of care in acute and community based settings.

BACHELOR OF SCIENCE IN NURSING: The nurse prepared at the baccalaureate level is a professional who has acquired a well-delineated and broad knowledge base for practice. We believe that the role of a baccalaureate graduate is multifaceted and developed through extensive study in the areas of liberal education, professional values, core competencies, core knowledge and role development. This knowledge base prepares the beginning baccalaureate graduate to function as a provider of direct and indirect care to individuals, families, groups, communities and populations. The baccalaureate graduate is a member of the profession and a designer, manager and coordinator of care.

2nd DEGREE ACCELERATED BACHELOR OF SCIENCE IN NURSING: ABSN option designed for the graduate of baccalaureate program in another discipline. The option is accelerated and all nursing course work is completed in one year of full time study.

EDUCATIONAL MOBILITY: The nursing faculty is committed to the concept of educational mobility, and has provided a variety of approaches to Licensed Practical Nurses, to Licensed Psychiatric Technician Nurses, and to Registered Nurses prepared at the associate degree and diploma levels. LPNs, LPTNs, and RNs must work closely with their advisors. LPNs and LPTNs must be admitted to the desired program prior to enrolling in any nursing courses (except NS 2203, NRS 3353, NRS 2392, and NRSP 2391). The BSN program has a specially designed RN track to facilitate RNs' movement through the BSN. The track includes a reduction in nursing clinical hours, and clinical experiences designed to accommodate individual learning goals. Detailed information may be obtained from the nursing office (972-3074) relative to earning credit by articulation or examinations.

Prospective students who are LPNs, LPTNs, or RNs applying for admission to any nursing program must have a current unencumbered license to practice nursing.

GENERAL PROGRAM AND ADMISSIONS INFORMATION

Because of the wide diversity of career choices available in the health professions, the program directors may be contacted for information about other career options and their pre-professional curricula.

DISTANCE-LEARNING PROGRAM: The School of Nursing offers nursing courses and programs on-site and by compressed video to selected rural Arkansas sites: ASU-MidSouth (West Memphis); ASU-Mountain Home; and ASU-Beebe.

To contact Distance Learning offices:

A-State (Main campus).....(870) 972-3074
ASU-Beebe(501) 882-8891
ASU-Mountain Home(870) 508-6113
ASU-MidSouth (West Memphis)(870) 733-6031

EARLY GRADUATE PROGRAMS ADMISSION: If a BSN senior has a cumulative GPA of at least 3.75, or a GPA of 3.00 on the last 60 hours, and has the approval of the faculty advisor, the student may take a graduate level course in the final year of the BSN program. The total number of credits per semester may not exceed 15. Students will receive graduate credits only if the requirements for the bachelor's degree (BSN) have been met at the end of the second term, and all requirements for admission to Graduate Programs are met.

CRIMINAL BACKGROUND CHECKS: Based on recent legislation in Arkansas, students admitted to professional programs that require licensure in the state upon graduation, are **required** to have a successful background check to complete **formal admission to a program**. Additionally, Arkansas law requires applicants for licensure by examination to submit to criminal background checks. If an applicant has pleaded guilty or nolo contendere to any offense listed in ACA §17-87-312, he/she is not eligible for Arkansas licensure. (ACA §17-87-312 provides opportunity to request a waiver of eligibility criteria related to a criminal background in certain circumstances.) The State Board of Nursing will follow the licensing restrictions based on criminal records under § 17-3-102. The criminal background check shall be completed no earlier than twelve (12) months prior to the application for licensure by examination.

PROBATION, RETENTION AND READMISSION: Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

TRADITIONAL BSN OPTION

REQUIRED PROGRESSION OF COURSES

Prior to beginning the junior year, students must complete the following:

- BIO 2103 **AND** 2101, Microbiology for Nursing and Laboratory
- BIO 2203 **AND** 2201, Anatomy and Physiology I and Laboratory
- BIO 2223 **AND** 2221, Anatomy and Physiology II and Laboratory
- CHEM 1043 **AND** 1041, Fundamental Concepts of Chemistry I and Laboratory
- CHEM 1052, Fundamental Concepts of Organic and Biochemistry
- NRS 2313, Concepts of Nursing Practice
- NRS 2322, Foundations of Nursing
- NRS 2334, Health Promotion and Introduction to Acute Care Nursing
- NRS 2392, Health Assessment
- NRS 3463, Pathophysiology Based Pharmacology I
- NRSP 2321, Foundations of Nursing Practicum
- NRSP 2343, Nursing Care II
- NRSP 2391, Health Assessment Practicum

EXPENSES

In addition to tuition and costs, nursing students will incur the following expenses:

1. The cost of textbooks will vary each semester, with a majority of the total cost occurring in the first year of the professional program. These texts are used throughout the program.
2. Students will be required to purchase uniforms and equipment. Approximately \$250 should be estimated in the first year of the program.
3. CPR certification is required. Some classes are free, while others may charge a nominal fee.
4. Students are required to pay a prorated standardized testing expense each semester. A contract is provided during the first semester with detailed costs.
5. During NRS 4481, an additional expense will occur for an NCLEX-RN preparation software.

Major in Nursing

Bachelor of Science in Nursing

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
NRS 1123, Making Connections Nursing	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory OR</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory</i> <i>PSY 2013, Introduction to Psychology</i> <i>SOC 2213, Introduction to Sociology</i> <i>Nine hours of Fine Arts or Humanities (Required Departmental Gen. Ed. Option)</i></p>	
Major Requirements:	Sem. Hrs.
NRS 2313, Concepts of Nursing Practice	3
NRS 2322, Foundations of Nursing	2
NRS 2392, Health Assessment	2
NRS 2002, Medical Surgical Nursing I	2
NRS 3103, Medical Surgical Nursing II	3
NRS 3205, Medical Surgical Nursing III	5
NRS 2012, Professional Role Development	2
NRS 3463, Pathophysiology Based Pharmacology I	3
NRS 3473, Pathophysiology Based Pharmacology II	3
NRS 3422, Essentials of Mental Health Nursing	2
NRS 3312, Introduction to Nursing Research	2
NRS 4005, Medical Surgical Nursing IV	5
NRS 4012, Essentials of Obstetric Nursing	2
NRS 4022, Essentials of Pediatric Nursing	2
NRS 4343, Professional Nursing—Community	3
NRS 4542, Health Care Administration	2
NRS 4481, Critical Decision Making and Testing Competencies	1
NRSP 2321, Foundations of Nursing Practicum	1
NRSP 2003, Nursing Practicum I	3
NRSP 2391, Health Assessment Practicum	1
NRSP 3105, Nursing Practicum II	5
NRSP 3205, Nursing Practicum III	5
NRSP 4006, Nursing Practicum IV	6
NRSP 4016, Nursing Practicum V	6
Sub-total	71

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

Major in Nursing

Bachelor of Science in Nursing

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Required Support Courses:	Sem. Hrs.
BIO 2203 AND 2201, Human Anatomy/Physiology I and Laboratory	4
BIO 2223 AND 2221, Human Anatomy/Physiology II and Laboratory	4
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
Statistics elective (2000 level or higher)	3
Sub-total	13
Total Required Hours:	122

Major in Nursing

Bachelor of Science in Nursing Second Degree Accelerated Program

Admission Requirements:	
1. Earned Bachelor Degree 2. Overall GPA of 2.5 3. Acceptable immunization status 4. Completion of the following courses with a "C" or better: BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory BIO 2203 AND 2201, Human Anatomy/Physiology I and Laboratory BIO 2223 AND 2221, Human Anatomy/Physiology II and Laboratory CHEM 1043 AND 1041, Fundamental Concepts of Chemistry I and Laboratory OR CHEM 1013 AND 1011, General Chemistry I and Laboratory CHEM 1052, Fundamental Concepts of Organic and Biochemistry ENG 1003, Composition I ENG 1013, Composition II PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology Statistics elective - 3 credit hours HIST 2763, The United States to 1876 OR HIST 2773, The United States Since 1876 OR POSC 2103, Introduction to United States Government MATH 1023, College Algebra MATH course that requires MATH 1023 as a prerequisite	
Major Requirements:	Sem. Hrs.
NRS 2392, Health Assessment	2
NRS 2423, Introduction to Essentials of Nursing	3
NRS 2433, Essentials of Medical-Surgical Nursing I	3
NRS 2443, Essentials of Nursing Care of the Child-Bearing Family	3
NRS 3312, Introduction to Nursing Research	2
NRS 3422, Essentials of Mental Health Nursing	2
NRS 3423, Essentials of Community Health	3
NRS 3445, Essentials of Medical-Surgical Nursing II	5
NRS 3463, Pathophysiology Based Pharmacology I	3
NRS 3473, Pathophysiology Based Pharmacology II	3
NRS 4362, Professional Role Development	2
NRS 4425, Essentials of Medical-Surgical Nursing III	5
NRS 4443, Essentials of High Acuity Nursing	3
NRS 4542, Health Care Administration	2
NRSP 1422, Foundations of Nursing Practice	2
NRSP 2391, Health Assessment Practicum	1
NRSP 2432, Clinical Experience I	2
NRSP 3433, Clinical Experience II	3
NRSP 3453, Clinical Experience III	3
NRSP 4433, Clinical Experience IV	3
NRSP 4456, Clinical Experience V	6
NRSP 4466, Clinical Experience VI	6
Total Required Hours:	67

LPN-TO-BSN OPTION

A-State participates in the statewide articulation program for licensed practical nurses (LPNs) and registered nurses (RNs) seeking the BSN degree. In that program, LPNs and RNs may earn credit by articulation or by challenge examination, depending on number of years since graduation from the applicant's LPN, diploma or associate degree program in nursing.

Prospective students pursuing these options must meet current criteria relating to eligibility, application deadlines, course work and program policies and procedures. For specific information concerning the LPN-to-BSN program, contact the School of Nursing office at (870) 972-3074.

ADMISSION REQUIREMENTS

1. Current unencumbered LPN License to practice in Arkansas
2. Overall GPA of 3.0
3. Current CPR certification
4. Acceptable immunization status
5. Completion of all lab science and mathematics courses required for a baccalaureate degree in nursing, with a "C" or better in each class.
6. Completion of required support courses.

NOTE: Students meeting the above requirements will be admitted on clinical space availability.

LPN-to-BSN Option

Bachelor of Science in Nursing

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
Required Courses (prior to Junior Year):	Sem. Hrs.
BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory	4
BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory	4
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
CHEM 1043 AND 1041, Fundamental Concepts of Chemistry I and Laboratory OR CHEM 1013 AND 1011, General Chemistry I and Laboratory	4
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
ENG 1003, Composition I	3
ENG 1013, Composition II	3
MATH 1023, College Algebra	3
NRS 2392, Health Assessment	2
NRS 3463, Pathophysiology Based Pharmacology I	3
NRSP 2391, Health Assessment Practicum	1
PSY 2013, Introduction to Psychology	3
SOC 2213, Introduction to Sociology	3
NRS 2012, Professional Role Development	2
HIST 2763, or HIST 2773, or POSC 2103	3
Fine Arts or Humanities (Required Departmental Gen. Ed. Option)	9
Sub-total	53
Major Requirements:	Sem. Hrs.
NRS 330V, LPN-to-BSN (Special Problems)	1
NRS 3312, Introduction to Nursing Research	2
NRS 3103, Medical Surgical Nursing II	5
NRS 3205, Medical Surgical Nursing III	5
NRS 3422, Essentials of Mental Health Nursing	2
NRS 3473, Pathophysiology Based Pharmacology II	3
NRS 4343, Professional Nursing—Community	3
NRS 4005, Medical Surgical Nursing IV	5
NRS 4012, Essentials of Obstetric Nursing	2
NRS 4022, Essentials of Pediatric Nursing	2
NRS 4481, Critical Decision Making and Testing Competencies in Nursing	1
NRS 4542, Health Care Administration	2
NRSP 3105, Nursing Practicum II	5
NRSP 3205, Nursing Practicum III	5
NRSP 4006, Nursing Practicum IV	6
NRSP 4016, Nursing Practicum V	6
Statistics (any 3 hour course)	3
Sub-total	56

LPN-to-BSN Option

Bachelor of Science in Nursing

Hours by Articulation:	Sem. Hrs.
NRS 2313, Concepts of Nursing Practice	3
NRS 2322, Foundations of Nursing	2
NRSP 2321, Foundations of Nursing Practicum	1
NRS 2002, Medical Surgical Nursing I	2
NRSP 2343, Nursing Care II	3
Sub-total	11
Total Required Hours:	120

RN-TO-BSN OPTION

A-State participates in the statewide articulation program for registered nurses (Associate Degree and Diploma RNs) seeking the BSN degree. To facilitate movement through the BSN curriculum, a specially designed track has been developed for registered nurses who have demonstrated clinical proficiency. Clinical course will be individualized based upon the applicant.

The RN-to-BSN option features reduced nursing clinical hours, and clinical experiences are designed to accommodate individual learning goals. The length of study depends upon previous college credits and the courses needed to fulfill BSN requirements. Most RNs with an associate degree can complete the BSN program in two years of full-time study.

APPLICATION

The application must be fully completed and all supporting documents submitted prior to enrollment.

ADMISSION REQUIREMENTS

1. Current unencumbered registered nurse license
2. Overall GPA of 2.5
3. Completion of all required English, Science and Math courses with a "C" or better in each course.
4. Completion of required support courses

NOTE: Students meeting the above requirements will be admitted on space availability.

PROFESSIONAL REQUIREMENTS

1. A current unencumbered registered nursing license
2. Professional liability insurance (minimum: \$1,000,000/\$6,000,000 coverage)
3. Current CPR certification
4. Acceptable immunization status

RN-to-BSN Option

Bachelor of Science in Nursing

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: CHEM 1013 AND 1011, General Chemistry I and Laboratory OR CHEM 1043 AND CHEM 1041, Fundamentals of Chemistry I and Laboratory BIOL 2103 AND BIOL 2101, Microbiology for Nurses and Laboratory PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology	
Major Requirements:	Sem. Hrs.
HP 3413, Cultural Competence in the Health Professions	3
NRS 3713, Evidence Based Practice	3
NRS 3723, Clinical Pathophysiology	3
NRS 4713, Chronic Illness Nursing	3
NRS 4723, High Acuity Nursing	3
NRS 4733, Nursing Management	3
NRS 4743, Community Nursing	3
NRS 4763, Professional Nursing Role	3
NRS Upper-level Nursing elective	6
NRSP 4793, RN-BSN Capstone	3
Sub-total	33
Hours by Articulation:	Sem. Hrs.
NRS 2313, Concepts of Nursing Practice	3
NRS 2322, Foundations of Nursing	2
NRS 2334, Health Promotion and Intro to Acute Care Nursing	4
NRS 2793, Health Assessment and Exam OR NRS 2392, Health Assessment AND NRSP 2391, Health Assessment Practicum	3
NRS 3103, Medical Surgical Nursing II	5
NRS 3473, Pathophysiology Based Pharmacology II	3
NRS 3205, Medical Surgical Nursing III	5
NRSP 2321, Foundations of Nursing Practicum	1
NRSP 2343, Nursing Care II	3
NRSP 3105, Nursing Practicum II	5
NRSP 3205, Nursing Practicum III	5
NS 2203, Basic Human Nutrition	3
Sub-total	42
Required Support Courses:	Sem. Hrs.
BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory	4
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Statistics (2000-level or higher)	3
Sub-total	11
Total Required Hours:	121

TRADITIONAL AASN OPTION

Students must maintain a minimum grade of “C” in all degree-required courses for an Associate of Applied Science in Nursing degree to continue progression. Students must attain CNA certification from Arkansas Office of Long Term Care or an equivalent state recognized CNA certification.

PREREQUISITES

The following courses must be completed prior to acceptance into the program:

- BIO 2203 **AND** 2201, Human Anatomy and Physiology I and Laboratory
- ENG 1003, Composition I
- MATH 1023, College Algebra (or MATH course that requires MATH 1023 as a prerequisite)

REQUIRED PROGRESSION OF COURSES

The following courses must be completed prior to taking NRS 1235 and NRSP 1243:

- BIO 2223 **AND** 2221, Anatomy and Physiology II and Laboratory
- PSY 2013, Introduction to Psychology
- NRS 2392, Health Assessment
- NRSP 2391, Health Assessment Practicum

The following courses must be completed prior to taking NRS 2232, NRS 2233, and NRSP 2244:

- BIO 2103 **AND** 2101, Microbiology for Nursing and Allied Health and Laboratory

LPN-TO-AASN OPTION

Students must maintain a minimum grade of “C” in all degree-required courses for an Associate of Applied Science in Nursing degree to continue progression.

A-State participates in the statewide articulation program for licensed practical nurses (LPNs) seeking the AASN degree. Applicants who completed their LPN/LPTN programs greater than 12 months prior to applying to the AASN program must provide proof of work experience.

ARTICULATION

The following courses/hours are obtained through articulation:

- NRS 1214, Introduction to Nursing (4)
- NRSP 1222, Fundamentals of Nursing Practicum (2)

REQUIRED PROGRESSION OF COURSES

The following courses must be completed prior to first fall semester nursing courses OR prior to taking NRS 1235 and NRSP 1243:

- BIO 2203 **AND** 2201, Human Anatomy/Physiology I and Laboratory
- BIO 2223 **AND** 2221, Human Anatomy/Physiology II and Laboratory
- PSY 2013, Introduction to Psychology
- ENG 1003, Composition I
- MATH 1023, College Algebra (or MATH course that requires MATH 1023 as a prerequisite)
- NRS 2392, Health Assessment
- NRSP 2391, Health Assessment Practicum

The following courses must be completed prior to NRSP 2244:

- BIO 2103 **AND** 2101, Microbiology for Nursing and Allied Health and Laboratory

Major in Nursing

Associate of Applied Science in Nursing

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite BIO 2203 AND 2201, Human Anatomy/Physiology I and Laboratory PSY 2013, Introduction to Psychology (Replaces Computer Fundamentals requirement)</i>	
Major Requirements:	Sem. Hrs.
NRS 1214, Introduction to Nursing	4
NRS 1235, Nursing I	5
NRS 1252, Role Development I	2
NRS 2212, Nursing II Mental Health	2
NRS 2213, Nursing II Medical Surgical	3
NRS 2232, Nursing III Maternal Child	2
NRS 2233, Nursing III Medical Surgical	3
NRS 2251, Role Development II	1
NRS 2392, Health Assessment	2
NRSP 1222, Fundamentals of Nursing Practicum	2
NRSP 1243, Clinical Practicum I	3
NRSP 2223, Clinical Practicum II	3
NRSP 2244, Clinical Practicum III	4
NRSP 2272, Role Development Practicum	2
NRSP 2391, Health Assessment Practicum	1
Sub-total	3
Required Support Courses:	Sem. Hrs.
BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory	4
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Sub-total	8
Total Required Hours:	66

LPN-TO-AASN ONLINE OPTION

Students must maintain a minimum grade of “C” in all degree-required courses for an Associate of Applied Science in Nursing degree to continue progression.

A-State participates in the statewide articulation program for licensed practical nurses (LPNs) seeking the AASN degree. All applicants to the LPN to AASN Online Option MUST provide proof of work experience.

ARTICULATION

The following courses/hours are obtained through articulation:

- NRS 1214, Introduction to Nursing
- NRSP 1222, Fundamentals of Nursing Practicum

REQUIRED PROGRESSION OF COURSES

The following courses must be completed prior to first fall semester nursing courses OR prior to taking NRS 1313 and NRSP 1331:

- BIO 2203 **AND** 2201, Human Anatomy and Physiology I and Laboratory
- BIO 2223 **AND** 2221, Human Anatomy and Physiology II and Laboratory
- PSY 2013, Introduction to Psychology
- ENG 1003, Composition I
- MATH 1023, College Algebra (or MATH course that requires MATH 1023 as a prerequisite)
- NRS 2392, Health Assessment
- NRSP 2391, Health Assessment Practicum

The following courses must be completed prior to NRSP 2361:

- BIO 2103 **AND** 2101, Microbiology for Nursing and Allied Health and Laboratory

The following course must be completed prior to NRSP 2341:

- ENG 1013, Composition II

The following course must be completed prior to NRSP 2371:

- HIST 2763, The United States To 1876 OR
- HIST 2773, The United States Since 1876 OR
- POSC 2103, Introduction to United States Government

Major in Nursing

Associate of Applied Science in Nursing LPN-to-AASN Online

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>BIO 2203 AND 2201, Human Anatomy/Physiology I and Laboratory</i> <i>PSY 2013, Introduction to Psychology (Replaces Computer Fundamentals requirement)</i>	
Prerequisite Requirements:	Sem. Hrs.
NRS 2392, Health Assessment	2
NRSP 2391, Health Assessment Practicum	1
Sub-total	3
Major Requirements:	Sem. Hrs.
NRS 1312, Role Development I	2
NRS 1313, Nursing I Medical Surgical	3
NRS 1321, Role Development II	1
NRS 1323, Nursing II Medical Surgical	3
NRS 2312, Nursing IV Mental Health	2
NRS 2321, Role Development III	1
NRS 2323, Nursing III Medical Surgical	3
NRS 2331, Role Development IV	1
NRS 2332, Nursing V Maternal Child	2
NRS 2333, Nursing VI Medical Surgical	3
NRS 2341, Role Development V	1
NRSP 1331, Clinical Practicum I	1
NRSP 1341, Clinical Practicum II	1
NRSP 2341, Clinical Practicum III	1
NRSP 2351, Clinical Practicum IV	1
NRSP 2361, Clinical Practicum V	1
NRSP 2371, Clinical Practicum VI	1
NRSP 2382, Capstone: Online LPN to AASN	2
Sub-total	30
Required Support Courses:	Sem. Hrs.
BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Laboratory	4
BIO 2223 AND 2221, Human Anatomy and Physiology II and Laboratory	4
Sub-total	8
Hours by Articulation:	Sem. Hrs.
NRS 1214, Introduction to Nursing	4
NRSP 1222, Fundamentals of Nursing Practicum	2
Sub-total	6
Total Required Hours:	66

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

School of Nursing Minors

Minor in Homeland Security and Disaster Preparedness

The minor in Homeland Security and Disaster Preparedness is a multidisciplinary program offered in the College of Nursing and Health Professions and the College of Liberal Arts and Communication. The structure of the minor provides specialized training within each of the three tracks. The introductory and Non-Government Organizations courses provide the common framework necessary for the integration of these field and the cooperative efforts of the specialists working within them.

Required Courses:	Sem. Hrs.
DPEM 3503, Principles of Disaster Preparedness and Emergency Management	3
DPEM 4563, NGO Agencies in DPEM	3
Select three courses from within a single track:	9
<p>Track 1: Healthcare in Homeland Security and Emergency Preparedness DPEM 2233, Principles of Healthcare Emergency Management DPEM 2353, Global Perspectives in Disaster Preparedness DPEM 3553, Ethics and the Law in DPEM DPEM 4513, Physical Care of CBRNE Injuries DPEM 4523, Risk Identification and Prevention DPEM 4533, Disaster and Mental Health NRS 4223, Forensic Nursing SW 4203, Crisis Intervention</p> <p>Track 2: Disaster Preparedness, Response and Operations Management POSC 3503, Principles of Public Administration POSC 4513, Disaster Response Operation Management PR 4603, Crisis Communications</p> <p>Track 3: Sociocultural & Political Disaster Preparedness SOC 3363, Sociology of Religion OR SW 4363, Religion and Spirituality in Social Work Practice SOC 4003, Perspectives on Death and Dying SOC 4063, Sociology of Disasters SOC 4263, Terrorism as a Social Movement</p>	
Choose one elective from one other track.	3
Total Required Hours:	18

Dietetics Program

Assistant Professor JoAnna Cupp, Program Director

Assistant Professors: Sterling, West

The Coordinated Program in Dietetics seeks to provide quality education and experiences for students in the field of dietetics to meet the need for registered dietitians (RD) in the Delta region and beyond. The program provides for the achievement of knowledge and performance requirements for entry-level dietitians through integration of didactic instruction with a minimum of 1200 hours of supervised practice. The supervised practice experiences occur in foodservice, community and clinical settings. Upon graduation, students are eligible to take the national credentialing examination administered by the Commission on Dietetic Registration. After passing the examination, they become registered dietitians.

In addition to RD credentialing, many states have regulatory laws for dietitians and nutrition practitioners. Frequently these state requirements are met through the same education and training required to become a registered dietitian.

Registered dietitians are considered food and nutrition experts. They work in a wide variety of employment settings, including hospitals and healthcare facilities, food & nutrition-related business and industry, sports nutrition & wellness programs, community & public health, education, research areas and private practice.

ADMISSION REQUIREMENTS

In order for students to apply for admission into the Coordinated Program in Dietetics, they must meet the following conditions:

1. Cumulative GPA of 2.8 on a 4.0 scale of all college work attempted.
2. English proficiency requirements, if foreign born.
3. Completion of program prerequisites with a minimum grade of "C" required in all courses.
4. HESI A2 Admission exam.

Class size is limited due to the availability of supervised practice sites. All applicants may not be accepted into the program.

PROBATION, RETENTION AND READMISSION

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

For more information about the dietetics program, go to:

<http://www.astate.edu/college/conhp/degrees/>.

Major in Dietetics

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
UC 1013, Making Connections	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Lab</i> <i>BIO 2103 AND 2101, Microbiology for Nursing and Allied Health and Lab</i> <i>PSY 2013, Introduction to Psychology</i> <i>SOC 2213, Introduction to Sociology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Major Requirements:	Sem. Hrs.
NS 3113, Life Cycle Nutrition	3
NS 3123, Nutritional Biochemistry	3
NS 3133, Food Service Management	3
NS 3143, Food Science and Lab	3
NS 3153, Food and Society	3
NS 3163, Nutrition Education	3
NS 3243, Quantity Foods	3
NS 3253, Nutrition Assessment	3
NS 3263, The Nutrition Care Process	3
CLS 4212, Interpreting Laboratory Data	2
NS 4413, Medical Nutrition Therapy I	3
NS 4442, Professional Development	2
NS 4443, Food Chemistry and Lab	3
NS 4453, Community Nutrition	3
NS 4463, Sports Nutrition	3
NS 4523, Medical Nutrition Therapy II	3
NS 4533, Infant and Child Nutrition	3
NS 4553, Nutrition Counseling	3
NS 4573, Introduction to Nutrition Research	3
NSP 3213, Practicum I	3
NSP 3323, Practicum II	3
NSP 4433, Practicum III	3
NSP 4544, Practicum IV	4
NSP 4654, Practicum V	4

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

Major in Dietetics (cont.)

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Sub-total	72
Required Support Courses: <i>Prior to beginning the junior year, students must complete the following courses.</i>	Sem. Hrs.
BIO 2203 AND 2201, Anatomy and Physiology I and Laboratory	4
BIO 2223 AND 2221, Anatomy and Physiology II and Laboratory	4
NS 2203, Basic Human Nutrition	3
CHEM 1052, Fundamental Concepts of Organic and Biochemistry	2
STAT 3033, Statistics for Health Professions	3
Sub-total	16
Total Required Hours:	126

Department of Occupational Therapy

Associate Professor Christine Wright, Chair

Assistant Professor Andrea Brown, OTA Program Director

Assistant Professors: Sanders

Occupational Therapists provide clinical interventions designed to support individuals across the lifespan participate in their valued activities, roles and routines.

The Occupational Therapy Assistant Program (OTA) is part of the Occupational Therapy Department. The OTA program serves to educate students through the study of occupational science with the goal of preparing students to become clinicians and life-long learners.

The occupational therapy assistant (OTA) is a healthcare provider who assists the occupational therapist in the provision of occupational therapy. The OTA contributes to the occupational therapy process through collaboration with the supervising occupational therapist.

VISION

The vision of the Program in Occupational Therapy Assistant is to educate and graduate a generalist provider who assists the Occupational Therapist in the provision of OT services and participates in interprofessional education and practice development.

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).

Student Learning Outcomes: Committed to learning and professional growth; Client centered, occupation based practice; Effective communication; Sound ethical practice; Clinical reasoning

Themes: Occupational Performance; Scientific and Creative Technology; Practical Experience in Clinical and Societal Environments

Graduates will be: Occupation and client centered practitioners; Life long learners, advocating for the unique role of profession in practice; Ethical practitioners demonstrating sound clinical reasoning

ACCREDITATION

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 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and its Web address is <http://www.acoteonline.org>.

BACKGROUND CHECK

As of January, 2018, NBCOT requires all exam candidates to pass a background check in order to be eligible to sit for the certification exam. This background check is in addition to the background check required by Arkansas law for applicants to the OTA Program. Prospective applicants should be aware that a felony conviction may impact their ability to become certified and licensed as an occupational therapy assistant.

EDUCATIONAL PHILOSOPHY

The Occupational Therapy Assistant Program holds the belief that all people have the right to live life to its fullest, and to engage in all occupations that meet their wants and needs. Humans are active beings whose development over time is influenced by the use of meaningful and goal-directed activities. Through the use of meaningful and goal directed activities along with humans' innate capacity for intrinsic motivation and ability to adapt, humans are able to influence their physical, mental, and spiritual health and well-being as well as their social and physical environments.

Just as occupations are influenced by temporal and cultural contexts, so too is the profession of occupational therapy. While the profession continues to uphold its central belief in the therapeutic value of everyday occupations, the profession also embraces the need to constantly develop new knowledge and approaches that support the use of occupation to elicit maximum functional independence. This evolution of ideas, knowledge, and approaches allows the profession to remain relevant, science-driven, evidence-based, and client-centered in the constantly changing landscape of today's society. Therefore, occupational therapy educational activities and learning experiences must be purposeful and relevant for the student. They must involve active learning and critical inquiry in a collaborative environment that promotes teamwork and respect for the individual.

Major in Occupational Therapist Assistant

Associate of Applied Science

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
First Year Making Connections Course:	Sem. Hrs.
PTA 1013, Making Connections in Rehab Services	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory</i>	
Required Support Courses:	Sem. Hrs.
PSY 2013, Introduction to Psychology	3
PSY 3453, Developmental Psychology	3
Sub-total	6
Major Requirements:	Sem. Hrs.
OTA 2013, Fundamentals of Treatment	3
OTA 2023, Emergence of OT Science	3
OTA 2033, Technology Skills Training I	3
OTA 2043, From Disease to Practice	3
OTA 2053, Adult Practice for the OTA	3
OTA 2063, Pediatrics for the OTA	3
OTA 2071, Fieldwork Education I-A	1
OTA 2081, Fieldwork Education I-B	1
OTA 2093, Technology Skills Training II	3
OTA 2103, OTA in Behavioral Health	3
OTA 2115, Fieldwork Education II-A	5
OTA 2125, Fieldwork Education II-B	5
Sub-total	36
Total Required Hours:	64

Department of Physical Therapy

Professor Shawn Drake, Chair

Professors: *Guffey*

Associate Professors: *Keith, Motts, Phillips, Sloas*

Assistant Professors: *Green, Kendrick, Schweighart*

GRADUATE PROGRAM IN PHYSICAL THERAPY (DPT)

**Arkansas State University
(870) 972-3591**

If you are considering attending Arkansas State University and have the goal of studying Physical Therapy, the following information will be most important to you. The members of the faculty of the PT Program are pleased that you have considered our program. It is important for you to understand some things about Physical Therapy education. The information below should make the process of obtaining a degree in Physical Therapy more understandable.

Physical therapy education is delivered at the graduate level. This is not unique to A-State. All accredited Physical Therapy education programs deliver the entry-level degree at the post-baccalaureate level. This is the nature of PT education.

There is no undergraduate Physical Therapy degree. Yes, there is an Associate Degree in Physical Therapist Assisting at A-State, but this is not the PT degree. If your goal is to become a Physical Therapist, you will need to first complete a four-year degree (bachelor's degree). The Physical Therapy Program does not require any particular major or area of study. We view all undergraduate degrees as being of equal value and potentially appropriate preparation for PT School. We do, however, require certain prerequisite courses (primarily basic math and science courses) to prepare you for the professional courses you will be taking once admitted to graduate school and the PT Program. You should meet with one of the faculty of the PT Program to discuss these courses and how they can fit into your chosen field of undergraduate study.

As you near the completion of your undergraduate degree, you will want to make application to the A-State Graduate Programs and to the PT Program. The PT faculty will assist you with this process. During your undergraduate study you will want to develop a relationship with the PT faculty so that you remain abreast of all steps and processes involved in getting prepared for and applying to the PT program.

There are many issues and details that will need to be addressed as you prepare for PT School. That is why we are committed to helping you. For now, you should simply know that A-State is "the" place to get your education to become a PT. If you are reading this you have already begun the process. You may already have a field of study in mind for your undergraduate degree. That is great. If you are unsure about the undergraduate study, come by and visit. We can make some suggestions.

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

Call us at (870) 972-3591. We are looking forward to helping you make your time at A-State enjoyable and rewarding.

DOCTOR OF PHYSICAL THERAPY PROGRAM

Students should be aware of the Doctor of Physical Therapy (DPT) Program offered at A-State. See **Graduate Bulletin** or contact the PT program office for details at (870) 972-3591.

PHYSICAL THERAPIST ASSISTANT

The PTA assists the PT in patient evaluation and assessment activities, implements treatment programs according to a plan of care, trains patients in exercises and activities of daily living, conducts treatments using special equipment, administers modalities and other treatment procedures, and reports to the PT on patients' responses to treatment.

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

Major in Physical Therapist Assistant

Associate of Applied Science

A complete degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Associate degrees (p. 43)	
First Year Making Connections Course:	Sem. Hrs.
PTA 1013, Making Connections in Rehab Services	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Associate of Applied Science Degrees (p. 80)	19
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite BIO 2203 AND 2201, Human Anatomy and Physiology I and Laboratory PSY 2013, Introduction to Psychology (replaces Computer Fundamental requirement)</i>	
Required Support Courses:	Sem. Hrs.
PHYS 2054, General Physics I (may have a prerequisite) OR PHYS 2133, Survey of Physics for Health Professions	3-4
Major Requirements:	Sem. Hrs.
PTA 2113, Patient Handling	3
PTA 2123, Clinical Kinesiology	3
PTA 2132, Basic Anatomical Systems	2
PTA 2213, Musculoskeletal PT	3
PTA 2223, Physical Agents and Massage	3
PTA 2233, Neuromuscular PT I	3
PTA 2252, Clinical Education I	2
PTA 2263, Pathophysiological Conditions	3
PTA 2271, Physical Therapy Documentation	1
PTA 2303, Neuromuscular PT II	3
PTA 2323, Seminar	3
PTA 2333, Clinical Education II	3
PTA 2343, Clinical Education III	3
PTA 2353, Musculoskeletal PT II	3
Sub-total	38
Total Required Hours:	63-64

Department of Social Work

Assistant Professor Cheryl Knight, Chair

Associate Professors: *Addae, Morton, Guy-Walls*

Assistant Professors: *Pace-Glover, Wolfe*

Instructors: *Wade*

Director of Field Education: *Parker*

The Bachelor of Social Work degree is accredited by the Council on Social Work Education. Completion of this program prepares students for beginning generalist social work practice.

Bachelors level social workers work with a variety of clients in many settings. The skills learned in the curriculum include interviewing skills, assessment skills, and intervention skills. The BSW qualifies the student to sit for the state exam at the Licensed Social Worker level. The state licensing law outlines the level of practice at this level. This is referred to as the Generalist Practice level.

Refer to Probation, Retention and Readmission Policies in the College of Nursing and Health Professions.

ADMISSION AND RETENTION

All candidates for the Bachelor of Social Work must obtain official admission to the Bachelor of Social Work program. Details of application are found on the Bachelor of Social Work website. Students who make formal application must meet the following criteria:

1. Complete a minimum of 45 semester hours.
 2. Achieve and maintain a minimum GPA of 2.75 overall and a 2.75 in major.
 3. Complete with a grade of "C" or better all social work required courses.
 4. Make formal application to the program.
 5. Must meet the criteria listed on the website and be approved by the Program Admissions Committee.
- Since this is a competitive admissions process, meeting minimum eligibility criteria does not guarantee admission to the program.

Bachelor of Social Work

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
SW 1203, Making Connections Social Work	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: POSC 2103, Introduction to United States Government PSY 2013, Introduction to Psychology SOC 2213, Introduction to Sociology COMS 1203 Oral Communication (Required Departmental Gen. Ed. Option)	
Major Requirements:	Sem. Hrs.
PSY 4533, Abnormal Psychology	3
SOC 3383, Social Statistics	3
SW 2203, Introduction to Social Work	3
SW 2223, Social Problems	3
SW 3253, Social Work Practice I	3
SW 3303, Human Behavior in Social Environment I	3
SW 3333, Human Behavior in Social Environment II	3
SW 3363, Cultural Diversity	3
SW 3373, Social Work Research Methods	3
SW 4263, Social Work Practice II	3
SW 4273, Field Experience I	3
SW 4283, Field Experience Seminar	3
SW 4296, Field Experience II	6
SW 4303, Social Work Practice III	3
SW 4313, Social Welfare Policy	3
Social Work electives	12
Sub-total	60
Electives:	Sem. Hrs.
Electives <i>Foreign language, specifically Spanish, is highly recommended. Students choosing language must complete all 12 hours in the sequence.</i>	22
Total Required Hours:	120

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

College of Sciences and Mathematics

Professor Lynn Boyd, Dean

Professor Anne Grippo, Associate Dean

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

The College of Sciences and Mathematics is comprised of three departments:

Department of Biological Sciences

Department of Chemistry and Physics

Department of Mathematics and Statistics

BACHELOR OF SCIENCE IN EDUCATION: B.S.E.

In addition to training in the sciences and pre-professional studies, the college offers the B.S.E. degree for students interested in becoming secondary school teachers. All candidates for the Bachelor of Science in Education degree must have a minimum grade point average of 2.70 on all work attempted overall, on work in the major field, and, if a transfer student, on all work taken at this institution.

Department of Biological Sciences

Professor Stephen Mullin, Chair

Professors: *Bouldin, Boyd, Farris, David Gilmore, Grippo, Johnson, Marsico McKay, Medina-Bolivar, Risch*

Associate Professors: *Bhattacharyya, Boves, Dolan, Fluker, Huss, Rolland, Sikkel, Zhou*

Assistant Professors: *Gustafson, Mangan, Neuman-Lee, Sweet, Wijeratne*

Instructors: *Artim, Diane Gilmore, Huggins, Klotz, Stephens*

The Department of Biological Sciences serves students desiring to gain a broad background in biology; botany; environmental sciences or studies; biotechnology; zoology; or wildlife, fisheries, and conservation. This preparation qualifies students for professional work in health professions, teaching, research, industry, or for graduate study.

The Bachelor of Science in Education degree is awarded to students who are planning to become licensed high school science teachers. All programs in biological sciences are planned for students preparing for careers requiring a broad spectrum in biology or a more specialized area within the biological sciences.

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FOREIGN LANGUAGE REQUIREMENT

All students seeking a baccalaureate degree in the Department of Biological Sciences must demonstrate a basic proficiency in a foreign language. This may be done in one of the following ways:

1. By completing two years of a single foreign language in high school.
2. By completing the second semester of an elementary foreign language course at the college level. Students with previous language experience must consult with a faculty member in World Languages for course placement. Students must complete Elementary Language II.
3. By passing an examination acceptable to the foreign language faculty as proof of proficiency equivalent to successful completion of the second semester of the elementary year of a foreign language at the college level.

Major in Biological Sciences

Bachelor of Science Emphasis in Biology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem. Hrs.
<i>A student must complete the foreign language requirements before being considered a Biological Sciences Major. (Refer to Department of Biological Sciences Foreign Language Requirement).</i>	
Major Requirements:	Sem. Hrs.
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 1503 AND 1501, Biology of Plants and Laboratory	4
BIO 3013 AND 3011, Genetics and Laboratory	4
BIO 3023, Principles of Ecology	3
BIO 4021, Biological Seminar	1
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
MATH 2194, Survey of Calculus OR MATH 2204, Calculus I	4
PHYS 2054, General Physics I	4
PHYS 2064, General Physics II	4
Sub-total	40

Major in Biological Sciences (cont.)

Bachelor of Science Emphasis in Biology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Emphasis Area (Biology):	Sem. Hrs.
BIO 3033, Evolution	3
BIO 3302 AND 3312, Comparative Anatomy and Laboratory	4
BIO 3303 AND 3301, General Entomology and Laboratory OR BIO 3322 AND 3332, Invertebrate Zoology and Laboratory	4
BIO 4443 AND 4441, Comparative Animal Physiology and Laboratory OR BIO 4513, Plant Physiology	3-4
BIO 4104, Microbiology	4
BIO 4133 AND BIO 4131, Cell Biology and Laboratory OR CHEM 4243, Biochemistry	3-4
BIO 4332 AND 4342, Animal Histology and Laboratory OR BIO 4343 AND 4341, Animal Embryology and Laboratory	4
BIO 4542 AND 4541, Mycology and Laboratory OR BIO 4552 AND 4551, Medical Mycology and Laboratory	3
BIO 4704, Plant Systematics OR BIO 4522 AND 4521, Wetland Plant Ecology and Laboratory	3-4
STAT 3233, Applied Statistics I	3
Electives (BIO prefix)	5-8
Sub-total	42
Total Required Hours:	120

Major in Biological Sciences

Bachelor of Science Emphasis in Botany

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023, College Algebra or MATH course that requires MATH 1023 as a prerequisite</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Language Requirement:	Sem. Hrs.
<i>A student must complete the foreign language requirements before being considered a Biological Sciences Major. (Refer to Department of Biological Sciences Foreign Language Requirement).</i>	
Major Requirements:	Sem. Hrs.
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 1503 AND 1501, Biology of Plants and Laboratory	4
BIO 3013 AND 3011, Genetics and Laboratory	4
BIO 3023, Principles of Ecology	3
BIO 4021, Biological Seminar	1
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
MATH 2194, Survey of Calculus OR MATH 2204, Calculus I	4
PHYS 2054, General Physics I	4
PHYS 2064, General Physics II	4
Sub-total	40
Emphasis Area (Botany):	Sem. Hrs.
BIO 3033, Evolution	3
BIO 3303 AND 3301, General Entomology and Laboratory OR BIO 3313 AND 3311, Economic Entomology and Laboratory	4
BIO 3542 AND 3541, Plant Pathology and Laboratory OR BIO 4542 AND 4541, Mycology and Laboratory OR BIO 4552 AND 4551, Medical Mycology and Laboratory	3
BIO 4104, Microbiology	4
BIO 4513, Plant Physiology	3
BIO 4522 AND 4521, Wetland Plant Ecology and Laboratory	3
BIO 4704, Plant Systematics	4
STAT 3233, Applied Statistics I OR CHEM 4243, Biochemistry	3
Sub-total	27
Electives:	Sem. Hrs.
Electives (two hours must be upper-level)	15
Total Required Hours:	120

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

Major in Biological Sciences

Bachelor of Science Emphasis in Pre-professional Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, <i>College Algebra</i> or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, <i>General Chemistry I and Laboratory</i> BIO 2013 AND 2011, <i>Biology of the Cell and Laboratory</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem. Hrs.
A student must complete the foreign language requirements before being considered a Biological Sciences Major. (Refer to Department of Biological Sciences Foreign Language Requirement).	
Major Requirements:	Sem. Hrs.
BIO 1303 AND 1301, <i>Biology of Animals and Laboratory</i>	4
BIO 1503 AND 1501, <i>Biology of Plants and Laboratory</i>	4
BIO 3013 AND 3011, <i>Genetics and Laboratory</i>	4
BIO 3023, <i>Principles of Ecology</i>	3
BIO 4021, <i>Biological Seminar</i>	1
CHEM 1023 AND 1021, <i>General Chemistry II and Laboratory</i>	4
CHEM 3103 AND 3101, <i>Organic Chemistry I and Laboratory</i>	4
CHEM 3113 AND 3111, <i>Organic Chemistry II and Laboratory</i>	4
MATH 2194, <i>Survey of Calculus</i> OR MATH 2204, <i>Calculus I</i>	4
PHYS 2054, <i>General Physics I</i>	4
PHYS 2064, <i>General Physics II</i>	4
Sub-total	40
Emphasis Area (Pre-professional Studies):	Sem. Hrs.
BIO 3302 AND 3312, <i>Comparative Anatomy and Laboratory</i> AND BIO 4443 AND 4441, <i>Comparative Animal Physiology and Laboratory</i> OR BIO 3223 AND 3221, <i>Human Structure and Function I and Laboratory</i> AND BIO 3233 AND 3231, <i>Human Structure and Function II and Laboratory</i>	8
BIO 4104, <i>Microbiology</i>	4
BIO 4133 AND 4131, <i>Cell Biology and Laboratory</i> OR CHEM 4243, <i>Biochemistry</i>	3-4

Major in Biological Sciences (cont.)

Bachelor of Science Emphasis in Pre-professional Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Select three of the following: BIO 3203, Pathophysiology BIO 4103, Virology BIO 4113 AND 4111, Immunology and Laboratory BIO 4123, Cell Signaling BIO 4133 AND 4131, Cell Biology and Laboratory BIO 4143, Pharmacology BIO 4363 AND 4361, Mammalian Neurobiology and Laboratory BIO 4213 AND 4211, Human Genetics and Laboratory BIO 4332 AND 4342, Animal Histology and Laboratory BIO 4343 AND 4341, Animal Embryology and Laboratory BIO 4552 AND 4551, Medical Mycology and Laboratory BIO 4623 AND 4621, Environmental Microbiology and Laboratory CHEM 3153, Survey of Physical Chemistry CHEM 4243, Biochemistry PHIL 3713, Ethics in the Health Professions STAT 3233, Applied Statistics I	9-12
Sub-total	24-28
Electives:	Sem. Hrs.
Electives	14-18
Total Required Hours:	120

Major in Biological Sciences

Bachelor of Science Emphasis in Zoology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
Students with this major must take the following: MATH 1023, <i>College Algebra</i> or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, <i>General Chemistry I and Laboratory</i> BIO 2013 AND 2011, <i>Biology of the Cell and Laboratory</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem. Hrs.
A student must complete the foreign language requirements before being considered a Biological Sciences Major. (Refer to Department of Biological Sciences Foreign Language Requirement).	
Major Requirements:	Sem. Hrs.
BIO 1303 AND 1301, <i>Biology of Animals and Laboratory</i>	4
BIO 1503 AND 1501, <i>Biology of Plants and Laboratory</i>	4
BIO 3013 AND 3011, <i>Genetics and Laboratory</i>	4
BIO 3023, <i>Principles of Ecology</i>	3
BIO 4021, <i>Biological Seminar</i>	1
CHEM 1023 AND 1021, <i>General Chemistry II and Laboratory</i>	4
CHEM 3103 AND 3101, <i>Organic Chemistry I and Laboratory</i>	4
CHEM 3113 AND 3111, <i>Organic Chemistry II and Laboratory</i>	4
MATH 2194, <i>Survey of Calculus</i> OR MATH 2204, <i>Calculus I</i>	4
PHYS 2054, <i>General Physics I</i>	4
PHYS 2064, <i>General Physics II</i>	4
Sub-total	40
Emphasis Area (Zoology):	Sem. Hrs.
BIO 3302 AND 3312, <i>Comparative Anatomy and Laboratory</i>	4
BIO 3303 AND 3301, <i>General Entomology and Laboratory</i> OR BIO 3322 AND 3332, <i>Invertebrate Zoology and Laboratory</i>	4
BIO 4443 AND 4441, <i>Comparative Animal Physiology and Laboratory</i>	4
BIO 4332 AND 4342, <i>Animal Histology and Laboratory</i>	4
BIO 4343 AND 4341, <i>Animal Embryology and Laboratory</i>	4
STAT 3233, <i>Applied Statistics I</i> OR CHEM 4243, <i>Biochemistry</i>	3

Major in Biological Sciences (cont.)

Bachelor of Science Emphasis in Zoology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Botany elective: BIO 3501 AND BIO 3511, Wild Flowers of Arkansas and Laboratory. BIO 3542 AND BIO 3541, Plant Pathology and Laboratory BIO 3553, Economic Botany BIO 4513, Plant Physiology BIO 4522 AND BIO 4521, Wetland Plant Ecology and Laboratory BIO 4542 AND BIO 4541, Mycology and Laboratory BIO 4552 AND BIO 4551, Medical Mycology and Laboratory BIO 4704, Plant Systematics BIO 4714, Dendrology <i>Other courses approved by advisor</i>	2-4
Biology electives (BIO prefix; consult advisor for appropriate course numbers)	5-7
Sub-total	32
Electives:	Sem. Hrs.
Electives (six hours must be upper-level)	10
Total Required Hours:	120

Major in General Science

Bachelor of Science in Education Emphasis in Biology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: MATH 2194, <i>Survey of Calculus</i> OR MATH 2204, <i>Calculus 1</i> CHEM 1013 AND 1011, <i>General Chemistry I and Laboratory</i> BIO 2013 AND 2011, <i>Biology of the Cell and Laboratory</i> POSC 2103, <i>Introduction to United States Government</i> PSY 2013, <i>Introduction to Psychology</i> COMS 1203, <i>Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem. Hrs.
<i>A student must complete the foreign language requirements before being considered a General Science - Biology Major. (Refer to Department of Biological Sciences Foreign Language Requirement).</i>	
Major Requirements:	Sem. Hrs.
BIO 1303 AND 1301, <i>Biology of Animals and Laboratory</i>	4
BIO 1503 AND 1501, <i>Biology of Plants and Laboratory</i>	4
BIO 3013 AND 3011, <i>Genetics and Laboratory</i>	4
BIO 3023, <i>Principles of Ecology</i>	3
BIO 3033, <i>Evolution</i>	3
BIO 4104, <i>Microbiology</i>	4
CHEM 1023 AND 1021, <i>General Chemistry II and Laboratory</i>	4
CHEM 3103, <i>Organic Chemistry I</i>	3
PHYS 2054, <i>General Physics I</i>	4
PHYS 2064, <i>General Physics II</i>	4
Earth Science Electives (select three of the following): GEOG 3723, <i>Introduction to Physical Geography</i> OR GEOG 4633, <i>Climatology</i> GEOL 1003, <i>Environmental Geology</i> PHYS 1103, <i>Introduction to Space Science</i> OR PHYS 3133, <i>Astronomy</i> PHYS 3043, <i>Atmospheric Dynamics</i>	9
Sub-total	46

Major in General Science (cont.)

Bachelor of Science in Education Emphasis in Biology

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
*EDSC 4593, Methods and Materials for Teaching Science in the Secondary School	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Inst. Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TIBI 4826, Teaching Internship in the Secondary School	12
Sub-total	32
Additional General Requirements for Teacher Education:	Sem. Hrs.
HLTH 2513, Principles of Personal Health	3
Total Required Hours:	120

Major in Biotechnology

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2194, Survey of Calculus OR</i> <i>MATH 2204, Calculus 1</i> <i>CHEM 1013 AND CHEM 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Language Requirement:	Sem. Hrs.
<i>A student must complete the foreign language requirements before being considered a Biotechnology Major. (Refer to Department of Biological Sciences Foreign Language Requirement).</i>	
Major Requirements:	Sem. Hrs.
BIO 2042, Biotechnology in a Global Society	2
BIO 3013 AND BIO 3011, Genetics and Laboratory	4
BIO 4033, Bioinformatics and Applications	3
BIO 403V, Special Problems in Biology	3
BIO 4053, Applications in Biotechnology	3
BIO 4063, Biosafety and Ethics in Research	3
BIO 4104, Microbiology	4
BIO 4133 AND BIO 4131, Cell Biology and Laboratory	4
BIO 4153, Laboratory in BioTechniques I	3
BIO 4163, Laboratory in BioTechniques II	3
BIO 4173, Molecular Biology	3
CHEM 1023 AND CHEM 1021, General Chemistry II and Laboratory	4
CHEM 3103 AND CHEM 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND CHEM 3111, Organic Chemistry II and Laboratory	4
CHEM 4243 AND CHEM 4241, Biochemistry and Biochemistry Lab	4
PHYS 2054, General Physics I	4
PHYS 2064, General Physics II	4
STAT 3233, Applied Statistics I	3
Biological Science electives	6
Sub-total	68

Major in Biotechnology (cont.)

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

Additional Support Courses:	Sem. Hrs.
AGRI 4523, Applied Modern Biotechnology OR BIO 5123, Human Genetics (as approved)	3
BIO 1303 AND 1301, Biology of Animals and Laboratory OR BIO 1503 AND 1501, Biology of Plants and Laboratory	4
BIO 4103, Virology OR BIO 4113, Immunology	3
MGMT 3123, Principles of Management OR MGMT 3183, Entrepreneurship	3
Sub-total	13
Total Required Hours:	120

Major in Environmental Studies

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	35
<p>Students with this major must take the following: <i>MATH 1023 College Algebra</i> <i>CHEM 1043 AND 1041, Fundamental Concepts of Chemistry and Laboratory OR PHSC 1203 AND 1201, Physical Science and Laboratory</i> <i>BIO 1503 AND 1501, Biology of Plants and Laboratory</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i></p>	
Language Requirement:	Sem. Hrs.
<i>A student must complete the foreign language requirements before being considered a Environmental Studies Major. (Refer to Department of Biological Sciences Foreign Language Requirement).</i>	
Major Requirements:	Sem. Hrs.
BIO 1063, People and the Environment	3
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 3023, Principles of Ecology	3
BIO 3673, Human Dimensions of Natural Resources	3
BIO 4613, Conservation Biology	3
BIO 4643 AND 4641, Environmental Biology and Laboratory	3
BIO 4203, Biometry	3
BIO 4021, Biological Seminar	1
PSSC 2813, Soils	3

<p>Choose any of the courses below among the five focus areas. Students can choose to stay within one focus area, or may take courses from any focus area depending on interest and career aspirations:</p> <p>Biology Focus BIO 3033, Evolution BIO 3313 AND 3311, Economic Entomology and Laboratory BIO 4333, Marine Biology BIO 4373 AND 4371, Animal Ecology and Laboratory BIO 4813, Curation of Collections BIO 4823, Natural History Collections Research Design</p> <p>Agriculture / Sustainability Focus AGRI 4223, Agriculture and the Environment AGRI 4433, Organic Agriculture Production CE 3263, Introduction of Environmental Engineering GEOG 4613, Conservation of Natural Resources HORT 3253, Urban Forestry PSSC 2811, Soils Laboratory PSSC 4813, Soil Fertility RET 3113, Fundamentals and Applications of Renewable Energy RET 4023, Advanced Bioenergy RET 4113, Advanced Renewable Energy Systems RET 4123, Energy Conservation and Efficiency</p> <p>Geospatial Focus AGST 3543, Fundamentals of GIS/GPS AGST 4543, Understanding Geographic Information Systems AGST 4773, Remote Sensing GEOG 3603, World Regional Geography GEOG 3723, Introduction to Physical Geography, Weather, and Climate</p> <p>Economic / Policy / Social Focus CRIM 2043, Community Relations in the Administration of Justice POSC 3503, Principles of Public Administration POSC 3513, Public Budgeting Process POSC 4143, Public Opinion and Public Policy POSC 4503, Public Policy, Politics and Power POSC 4513, Disaster Response Operation Management POSC 4523, Public Personnel Administration POSC 4533, Environmental Law and Administration</p> <p>Communication Focus MDIA 4003, Communications Law and Ethics COMS 3243, Principles of Persuasion COMS 3253, Principles of Listening COMS 4253, Intercultural Communication COMS 4263, Organizational Communication COMS 4773, Conflict Resolution STCM 4023, Public Opinion, Propaganda and the Mass Media STCM 4603, Crisis Communication STCM 2143, Strategic Writing STCM 3043, Principles of Strategic Communication STCM 3143, Strategic Writing II STCM 4073, Strategic Communication Law and Ethics STCM 4213, Social Media in Strategic Communication STCM 4503, Seminar in Non Profit Communication STCM 4763, Strategic Communication Campaigns</p>	42
Sub-total	69
Electives:	Sem. Hrs.
Electives	13
Total Required Hours:	120

Major in Environmental Science

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
<p>Students with this major must take the following: <i>Students with this major must take the following:</i> MATH 2204, Calculus I CHEM 1013 AND 1011, General Chemistry I and Laboratory BIO 1503 AND 1501, Biology of Plants and Laboratory COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</p>	
Language Requirement:	Sem. Hrs.
<i>A student must complete the foreign language requirements before being considered a Environmental Science Major. (Refer to Department of Biological Sciences Foreign Language Requirement).</i>	
Major Requirements:	Sem. Hrs.
BIO 1063, People and the Environment	3
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 2013 AND 2011, Biology of the Cell and Laboratory	4
BIO 3023, Principles of Ecology	3
BIO 3673, Human Dimensions of Natural Resources	3
BIO 4021, Biological Seminar	1
BIO 4643 AND 4641, Environmental Biology and Laboratory	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
MATH 2214, Calculus II	4
PHYS 2034, University Physics I	4
PHYS 2044, University Physics II	4
STAT 3233, Applied Statistics I	3

Major in Environmental Science (cont.)

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

<p>Choose any of the courses below among the five focus areas. Students can choose to stay within one focus area, or may take courses from any focus area depending on interest and career aspirations:</p> <p>Biology Focus BIO 3013 AND 3011, Genetics and Laboratory BIO 3033, Evolution BIO 4104, Microbiology BIO 4333, Marine Biology BIO 4373 AND 4371, Animal Ecology and Laboratory BIO 4623, Environmental Microbiology BIO 4633, Environmental Toxicology Mechanisms and Impacts</p> <p>Chemistry Focus CHEM 3054, Quantitative Analysis CHEM 3153, Survey of Physical Chemistry CHEM 4043, Environmental Chemistry CHEM 4243, Biochemistry CHEM 4241, Biochemistry Laboratory</p> <p>Agriculture / Sustainability Focus AGRI 4223, Agriculture and the Environment CE 3263, Introduction of Environmental Engineering GEOG 4613, Conservation of Natural Resources PSSC 4813, Soil Fertility</p> <p>Geospatial Focus AGST 3543, Fundamentals of GIS/GPS AGST 4543, Understanding Geographic Information Systems AGST 4773, Remote Sensing GEOG 3723, Introduction to Physical Geography, Weather, and Climate</p> <p>Economic / Policy / Social Focus ECON 4363, Global Environmental Policies GEOG 4113, Water Resource Planning PHIL 4733, Environmental Ethics POSC 4533, Environmental Law and Administration</p>	19
Sub-total	72
Electives:	Sem. Hrs.
Electives	9
Total Required Hours:	120

Major in Wildlife, Fisheries and Conservation

Bachelor of Science Emphasis in Fisheries

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
<p>Students with this major must take the following: <i>Students with this major must take the following:</i> MATH 1054, Precalculus Mathematics or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, General Chemistry I and Laboratory BIO 2013 AND 2011, Biology of the Cell and Laboratory COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</p>	
Language Requirement:	Sem. Hrs.
A student must complete the foreign language requirements before being considered a Major in Wildlife, Fisheries and Conservation Major. (Refer to Department of Biological Sciences Foreign Language Requirement).	
Major Requirements:	Sem. Hrs.
See emphasis area below.	-
Emphasis Area (Fisheries):	Sem. Hrs.
AGST 3543, Fundamentals of GIS/GPS	3
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 1503 AND 1501, Biology of Plants and Laboratory	4
BIO 3013 AND 3011, Genetics and Laboratory	4
BIO 3023, Principles of Ecology	3
BIO 3033, Evolution OR BIO 4333, Marine Biology	3
BIO 4021, Biological Seminar	1
BIO 4301 AND 4302, Aquatic Entomology and Laboratory	3
BIO 4312 AND 4311, Fisheries Biology and Laboratory	3
BIO 4362, Applied Aquaculture OR BIO 4372, Applied Fisheries	2
BIO 4402 AND 4401, Ichthyology and Laboratory	3
BIO 4443, Fisheries Program Internship	3
BIO 4603 AND 4601, Limnology and Laboratory	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
MATH 2194, Survey of Calculus OR MATH 2204, Calculus I	4
PHYS 2054, General Physics I	4
PHYS 2064, General Physics II	4
STAT 3233, Applied Statistics I	3
<p>Select two of the following: BIO 3673, Human Dimensions of Natural Resources BIO 4613, Conservation Biology POSC 4533, Environmental Law and Administration</p>	6

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

Major in Wildlife, Fisheries and Conservation (cont.)

Bachelor of Science Emphasis in Fisheries

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

<p>Botany elective: BIO 3542 AND BIO 3541, Plant Pathology and Laboratory BIO 3553, Economic Botany BIO 4513, Plant Physiology BIO 4522 AND BIO 4521, Wetland Plant Ecology and Laboratory BIO 4542 AND BIO 4541, Mycology and Laboratory BIO 4552 AND BIO 4551, Medical Mycology and Laboratory BIO 4704, Plant Systematics BIO 4714, Dendrology <i>Other courses approved by advisor</i></p>	3-4
<p>Zoology elective: BIO 3303 AND BIO 3301, General Entomology and Laboratory BIO 3313 AND BIO 3311, Economic Entomology and Laboratory BIO 3302 AND BIO 3312, Comparative Anatomy and Laboratory BIO 3322 AND BIO 3332, Invertebrate Zoology and Laboratory BIO 4322 AND BIO 4323, Biology of Marine Mammals and Laboratory BIO 4332 AND BIO 4342, Animal Histology and Laboratory BIO 4333, Marine Biology BIO 4343 AND BIO 4341, Animal Embryology and Laboratory BIO 4352 AND BIO 4351, Mammology and Laboratory BIO 4362, Applied Aquaculture BIO 4363 AND BIO 4361, Mammalian Neurobiology and Laboratory BIO 4372, Applied Fisheries BIO 4373 AND 4371, Animal Ecology and Laboratory BIO 4382 AND BIO 4392, Parasitology and Laboratory BIO 4403, Comparative Vertebrate Reproduction BIO 4412 AND BIO 4411, Herpetology and Laboratory BIO 4423 AND BIO 4421, Ornithology and Laboratory BIO 4433, Field Experience in Marine Environments BIO 4443 AND 4441, Comparative Animal Physiology and Laboratory <i>An individual course cannot be used as both a required course and an elective.</i></p>	3-5
<p>Electives: Choose from Botany and/or Zoology electives above. <i>An individual course cannot be used as both a required course and an elective.</i></p>	7-10
Sub-total	81
Total Required Hours:	120

Major in Wildlife, Fisheries and Conservation

Bachelor of Science Emphasis in Wildlife

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
BIO 1013, Making Connections - Biology	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
<p>Students with this major must take the following: <i>Students with this major must take the following:</i> MATH 1054, Precalculus Mathematics or MATH course that requires MATH 1023 as a prerequisite CHEM 1013 AND 1011, General Chemistry I and Laboratory BIO 2013 AND 2011, Biology of the Cell and Laboratory COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</p>	
Language Requirement:	Sem. Hrs.
A student must complete the foreign language requirements before being considered a Major in Wildlife, Fisheries and Conservation Major. (Refer to Department of Biological Sciences Foreign Language Requirement).	
Major Requirements:	Sem. Hrs.
See emphasis area below.	-
Emphasis Area (Wildlife):	Sem. Hrs.
AGST 3543, Fundamentals of GIS/GPS	3
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 1503 AND 1501, Biology of Plants and Laboratory	4
BIO 3013 AND 3011, Genetics and Laboratory	4
BIO 3023, Principles of Ecology	3
BIO 4021, Biological Seminar	1
BIO 4311 AND 4312, Fishery Biology and Laboratory OR BIO 4402 AND 4401, Ichthyology and Laboratory OR BIO 4603 AND 4601, Limnology and Laboratory	3-4
BIO 4373 AND 4371, Animal Ecology and Laboratory	4
BIO 4413, Wildlife Program Internship OR BIO 403V, Special Problems in Biology	3
BIO 4653 AND 4651, Wildlife Management and Laboratory	4
BIO 4663 AND 4661, Wildlife Management Investigational Techniques and Laboratory	4
BIO 4704, Plant Systematics	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
GEOL 1003 AND 1001, Environmental Geology and Laboratory OR PSSC 2813 AND 2811, Soils and Laboratory	4
MATH 2194, Survey of Calculus OR MATH 2204, Calculus I	4
STAT 3233, Applied Statistics I	3

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

Major in Wildlife, Fisheries and Conservation (cont.)

Bachelor of Science Emphasis in Wildlife

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

<p>Select two of the following: BIO 3673, Human Dimensions of Natural Resources BIO 4613, Conservation Biology POSC 4533, Environmental Law and Administration</p>	6
<p>Select two of the following: BIO 4352 AND 4351, Mammalogy and Laboratory BIO 4412 AND 4411, Herpetology and Laboratory BIO 4423 AND 4421, Ornithology and Laboratory</p>	6-7
<p>Botany elective: BIO 3501 AND BIO 3511, Wild Flowers of Arkansas and Laboratory. BIO 3542 AND BIO 3541, Plant Pathology and Laboratory BIO 3553, Economic Botany BIO 4513, Plant Physiology BIO 4522 AND BIO 4521, Wetland Plant Ecology and Laboratory BIO 4542 AND BIO 4541, Mycology and Laboratory BIO 4552 AND BIO 4551, Medical Mycology and Laboratory BIO 4714, Dendrology <i>Other courses approved by advisor</i></p>	3
<p>Communication elective: ENG 3043, Technical Writing <i>See advisor for acceptable substitutions.</i></p>	3
<p>Zoology electives: BIO 3303 AND BIO 3301, General Entomology and Laboratory BIO 3313 AND BIO 3311, Economic Entomology and Laboratory BIO 3302 AND BIO 3312, Comparative Anatomy and Laboratory BIO 3322 AND BIO 3332, Invertebrate Zoology and Laboratory BIO 4322 AND BIO 4323, Biology of Marine Mammals and Laboratory BIO 4332 AND BIO 4342, Animal Histology and Laboratory BIO 4333, Marine Biology BIO 4343 AND BIO 4341, Animal Embryology and Laboratory BIO 4352 AND BIO 4351, Mammalogy and Laboratory BIO 4362, Applied Aquaculture BIO 4363 AND BIO 4361, Mammalian Neurobiology and Laboratory BIO 4372, Applied Fisheries BIO 4382 AND BIO 4392, Parasitology and Laboratory BIO 4403, Comparative Vertebrate Reproduction BIO 4412 AND BIO 4411, Herpetology and Laboratory BIO 4423 AND BIO 4421, Ornithology and Laboratory BIO 4433, Field Experience in Marine Environments BIO 4443 AND 4441, Comparative Animal Physiology and Laboratory <i>An individual course cannot be used as both a required course and an elective.</i></p>	5-7
Sub-total	81
Total Required Hours:	120

Department of Biological Sciences Minors

Minor in Biology

Required Courses:	Sem. Hrs.
BIOL 1003 AND 1001, Biological Science and Laboratory may be substituted for one (1) of the core combinations, but this is NOT recommended; Biological Science does NOT serve as a prerequisite for any upper-level electives, so choosing this course as one of the core courses may limit the choices of electives that students may choose.	
Select two of the following core combinations: BIO 1303 AND 1301, Biology of Animals and Laboratory BIO 1503 AND 1501, Biology of Plants and Laboratory BIO 2013 AND 2011, Biology of the Cell and Laboratory	8
Upper-level BIO Electives including co-requisite laboratory sections if applicable	12
Total Required Hours:	20

Minor in Marine Science

Required Courses:	Sem. Hrs.
Other applicable courses may be added in the future to select from as appropriate.	
BIO 4333, Marine Biology	3
BIO 4433, Field Experiences in Marine Systems	3
BIO 4413, Wildlife Internship	3
Electives (select six hours from the following): <i>Other courses may be substituted with departmental approval.</i> BIO 4323, Marine Mammals BIO 4322, Marine Mammals Laboratory BIO 4402, Ichthyology BIO 4401, Ichthyology Laboratory BIO 3322, Invertebrate Zoology BIO 3332, Invertebrate Zoology Laboratory	6
Total Required Hours:	18

Department of Biological Sciences Certificate

Certificate in Health Coaching

Required Courses:	Sem. Hrs.
Other applicable courses may be added in the future to select from as appropriate.	
BIO 3251, Introduction to Pathology	1
BIO 3261, Health Coaching I	1
BIO 3271, Health Coaching II	1
BIO 3241, Physical Diagnosis	1
BIO 2013 and BIO 2011, Biology of the Cell and Laboratory	4
BIO 3223 and BIO 3221, Human Structure and Function I and Laboratory	4
BIO 3233 and BIO 3231, Human Structure and Function I and Laboratory	4
BIO 3203, Pathophysiology	3
Electives (select one of the following): <i>Other courses may be substituted with departmental approval.</i> BIO 3013 and BIO 3011, Genetics and Laboratory BIO 4104, Microbiology BIO 4223, Human Endocrinology	3-4
Total Required Hours:	22-23

Department of Chemistry and Physics

Associate Professor William Burns, Chair

Professors: *Draganjac, Johnson, Kennon, Lorence, Sustich*

Associate Professors: *Alam, Ali, Biswas, Carroll, Hershberger, Izadyar, Koizumi, Merten, Ontko, Zhang*

Instructors: *Ahmed, K. Burns, Rougeau*

The courses in chemistry and physics are designed to prepare individuals for a variety of post-baccalaureate options. The Bachelor of Science degree is for individuals who are seeking employment as chemical or physical professionals, or who wish to continue studies toward a Masters or Ph.D. Students who are looking to pursue a further degree in law, medicine, dentistry, or pharmaceuticals will find either the B.S. degrees in chemistry or physics or the Bachelor of Arts in Chemistry as an option for entry into the appropriate post-baccalaureate program. The Bachelor of Science Education degrees will lead to a rewarding career in secondary science education. In many of these programs, there are sufficient elective hours to allow students to customize their degrees for careers as diverse as technical librarians, salesmen, writers, or translators.

Arkansas State University is on the approved list of the Committee on Professional Training (CPT) of the American Chemical Society. For certification of the completion of CPT standards for the B.S. degree in chemistry, students are recommended to take calculus-based physics.

RECOMMENDED PROGRAM FOR PRE-MEDICAL AND PRE-DENTAL STUDENTS

Students who wish to pursue a Doctor of Medicine or Doctor of Dentistry degree after finishing their baccalaureate studies are recommended to follow the program requirements for a Bachelor of Science in either chemistry or physics (see Pre-Professional Studies Emphasis Area in the listed degree requirements). Those who are seeking a Doctor of Pharmacy degree are recommended to pursue a Bachelor of Arts in Chemistry degree.

Major in Chemistry

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 2002, Computers in Chemistry	2
CHEM 2004, Descriptive Inorganic Chemistry	4
CHEM 3054, Quantitative Analysis	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
CHEM 3124, Physical Chemistry	4
CHEM 3134, Physical Chemistry II	4
CHEM 4204, Inorganic Chemistry	4
CHEM 4224, Instrumentation	4
CHEM 4243, Biochemistry	3
CHEM 427V, Research in Chemistry	3
CHEM 4281, Chemistry Seminar	1
CHEM 4501, Chemistry Capstone	1
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
PHYS 2034, University Physics I	4
PHYS 2044, University Physics II	4
Sub-total	62
Electives:	Sem. Hrs.
Electives	19
Total Required Hours:	120

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

Major in Chemistry

Bachelor of Science Emphasis in Pre-Health Profession Studies

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 2002, Computers in Chemistry	2
CHEM 2004, Descriptive Inorganic Chemistry	4
CHEM 3054, Quantitative Analysis	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
CHEM 3124, Physical Chemistry	4
CHEM 3134, Physical Chemistry II	4
CHEM 4204, Inorganic Chemistry	4
CHEM 4224, Instrumentation	4
CHEM 4243, Biochemistry	3
CHEM 427V, Research in Chemistry	3
CHEM 4281, Chemistry Seminar	1
CHEM 4501, Chemistry Capstone	1
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
PHYS 2034, University Physics I	4
PHYS 2044, University Physics II	4
Sub-total	62
Emphasis Area (Pre-Health Profession Studies): <i>Six hours of the electives below must be upper-level.</i>	Sem. Hrs.
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
Biology Electives	8
Sub-total	12
Electives:	Sem. Hrs.
Electives	7
Total Required Hours:	120

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

Major in Chemistry

Bachelor of Arts

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 2004, Descriptive Inorganic Chemistry	4
CHEM 3054, Quantitative Analysis	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
CHEM 3153, Survey of Physical Chemistry	3
CHEM 4243, Biochemistry	3
CHEM 4501, Chemistry Capstone	1
PHYS 2054, General Physics I AND PHYS 2064 General Physics II OR PHYS 2034, University Physics I AND PHYS 2044, University Physics II	8
Sub-total	35
Electives: <i>Twenty-six hours of the electives below must be upper-level.</i>	Sem. Hrs.
Electives	46
Total Required Hours:	120

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

Major in Chemistry

Bachelor of Arts Emphasis in Pre-pharmacy

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>BIO 2013 AND 2011, Biology of the Cell and Laboratory</i> <i>ECON 2313, Principles of Macroeconomics</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 2004, Descriptive Inorganic Chemistry	4
CHEM 3054, Quantitative Analysis	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
CHEM 3153, Survey of Physical Chemistry	3
CHEM 4243, Biochemistry	3
CHEM 4501, Chemistry Capstone	1
PHYS 2054, General Physics I AND PHYS 2064 General Physics II OR PHYS 2034, University Physics I AND PHYS 2044, University Physics II	8
Sub-total	35
Emphasis Area (Pre-pharmacy):	Sem. Hrs.
BIO 1303 AND 1301, Biology of Animals and Laboratory	4
BIO 4104, Microbiology	4
Sub-total	8
Electives: <i>Twenty-two hours of the electives below must be upper-level.</i>	Sem. Hrs.
Electives	38
Total Required Hours:	120

Major in General Science

Bachelor of Science in Education Emphasis in Chemistry

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>CHEM 1013 AND 1011, General Chemistry I and Laboratory</i> <i>HIST 2763, The United States to 1876 OR</i> <i>HIST 2773, The United States since 1876</i> <i>PSY 2013, Introduction to Psychology</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 2004, Descriptive Inorganic Chemistry	4
CHEM 3054, Quantitative Analysis	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
CHEM 3153, Survey of Physical Chemistry	3
PHYS 2034, University Physics I OR PHYS 2054, General Physics I	4
PHYS 2044, University Physics II OR PHYS 2064, General Physics II	4
Sub-total	31
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
*EDSC 4593, Methods and Materials for Teaching Science in the Secondary School	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Inst. Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TICH 4826, Teaching Internship in the Secondary School	12
Sub-total	32
Additional General Requirements for Teacher Education:	Sem. Hrs.
HLTH 2513, Principles of Personal Health	3
Electives:	Sem. Hrs.
Electives	15
Total Required Hours:	120

Major in Physics

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>PHYS 2034 University Physics I</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1013 AND 1011, General Chemistry I and Laboratory	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CS 2114, Structured Programming	4
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
MATH 4403, Differential Equations	3
PHYS 2044, University Physics II	4
PHYS 3103, Thermal Physics	3
PHYS 3153, Mechanics	3
PHYS 3203, Electromagnetic Theory	3
PHYS 3303, Modern Physics	3
PHYS 3253, Optics	3
PHYS 4353, Mathematical Physics	3
PHYS 4553, Principles of Quantum Mechanics	3
PHYS 459V, Research in Physics	2
PHYS 4693, Research in Physics - Capstone	3
Sub-total	53
Electives: <i>Ten hours of the electives below must be upper-level.</i>	Sem. Hrs.
Electives	28
Total Required Hours:	120

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

Major in General Science

Bachelor of Science in Education Emphasis in Physics

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
PHSC 1003, Making Connections - Chemistry and Physics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>PHYS 2034, University Physics I</i> <i>HIST 2763, The United States to 1876 OR</i> <i>HIST 2773, The United States since 1876</i> <i>POSC 2103, Introduction to United States Government</i> <i>PSY 2013, Introduction to Psychology</i> <i>Twelve hours of Social Sciences (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
CHEM 1013 AND 1011, General Chemistry I and Laboratory	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CS 2114, Structured Programming	4
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
MATH 4403, Differential Equations	3
PHYS 2044, University Physics II	4
PHYS 3153, Mechanics	3
PHYS 3203, Electromagnetic Theory	3
PHYS 3303, Modern Physics	3
Sub-total	36
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
*EDSC 4593, Methods and Materials for Teaching Science in the Secondary School	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3
SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Inst. Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TIPH 4826, Teaching Internship in the Secondary School	12
Sub-total	32
Additional General Requirements for Teacher Education:	Sem. Hrs.
HLTH 2513, Principles of Personal Health	3
Electives:	Sem. Hrs.
Electives	10
Total Required Hours:	120

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

Department of Chemistry and Physics Minors

Minor in Chemistry

Required Courses:	Sem. Hrs.
CHEM 1013 AND 1011, General Chemistry I and Laboratory	4
CHEM 1023 AND 1021, General Chemistry II and Laboratory	4
CHEM 3103 AND 3101, Organic Chemistry I and Laboratory	4
CHEM 3113 AND 3111, Organic Chemistry II and Laboratory	4
Select two of the following: CHEM 3054, Quantitative Analysis CHEM 3153, Survey of Physical Chemistry CHEM 4243 AND 4241, Biochemistry and Laboratory	7-8
Total Required Hours:	23-24

Minor in Physics

Required Courses:	Sem. Hrs.
PHYS 2034, University Physics I	4
PHYS 2044, University Physics II	4
PHYS 3303, Modern Physics	3
Upper-level Physics Electives <i>PHYS 3133 cannot count toward this requirement.</i>	7
Total Required Hours:	18

Department of Mathematics and Statistics

Associate Professor Amanda Lambertus, Chair

Professors: *Paulsen, Miao*

Associate Professors: *Ahn, Lambertus, Melescue, Zhou, Tunno*

Assistant Professors: *Carraway, Milad, Rice*

Instructors: *Banks, Barnett, Crider, Gibson, Griffin, Mann, Manning, Watts*

The course offerings in the department are designed to provide students with the broad background necessary for employment in industry, government, education, or as a basis for graduate study.

Major in Mathematics

Bachelor of Science

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MATH 1093, Making Connections - Mathematics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
<p>Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>PHYS 2034, University Physics I</i> <i>Twelve hours in Social Sciences (Required Departmental Gen. Ed. Option), including one of the following:</i> <i>ANTH 2233, Introduction to Cultural Anthropology</i> <i>GEOG 2613, Introduction to Geography</i> <i>HIST 1013, World History to 1500</i> <i>HIST 1023, World History since 1500</i></p>	
Major Requirements:	Sem. Hrs.
CS 2114, Structured Programming	4
MATH 2183, Discrete Structures	3
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
MATH 3243, Linear Algebra	3
MATH 3303, Modern Algebra I	3
MATH 4403, Differential Equations	3
MATH 4553, Advanced Calculus I	3
PHYS 2044, University Physics II	4
STAT 3233, Applied Statistics I	3
STAT 4453, Probability and Statistics I	3
<p>Select one of the following: MATH 4423, Modern Algebra II MATH 4563, Advanced Calculus II STAT 4463, Probability and Statistics II</p>	3
<p>Mathematics or Statistics Electives (select four of the following): MATH 3273, Applied Complex Analysis MATH 3323, Mathematical Modeling MATH 3343, College Geometry MATH 3353, History of Mathematics MATH 4413, Partial Differential Equations MATH 4423, Modern Algebra II <i>If not taken to satisfy Major Requirements</i> MATH 4513, Applied Mathematics MATH 4533, Numerical Methods MATH 4563, Advanced Calculus II <i>If not taken to satisfy Major Requirements</i> STAT 4483, Statistical Methods Using R STAT 4463, Probability and Statistics II <i>If not taken to satisfy Major Requirements</i></p>	12
Sub-total	52
Electives:	Sem. Hrs.
Electives (Eight hours must be upper-level)	29
Total Required Hours:	120

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

Major in Mathematics

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

University Requirements:	
See University General Requirements for Baccalaureate degrees (p. 42)	
First Year Making Connections Course:	Sem. Hrs.
MATH 1093, Making Connections - Mathematics	3
General Education Requirements:	Sem. Hrs.
See General Education Curriculum for Baccalaureate degrees (p. 78)	36
Students with this major must take the following: <i>MATH 2204, Calculus I</i> <i>PHYS 2034, University Physics I OR</i> <i>PHYS 2054, General Physics I</i> <i>HIST 2763, The United States To 1876 OR</i> <i>HIST 2773, The United States Since 1876</i> <i>POSC 2103, Introduction to United States Government</i> <i>PSY 2013, Introduction to Psychology</i> <i>COMS 1203, Oral Communication (Required Departmental Gen. Ed. Option)</i>	
Major Requirements:	Sem. Hrs.
MATH 2183, Discrete Structures	3
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
MATH 3243, Linear Algebra	3
MATH 3303, Modern Algebra I	3
MATH 3323, Mathematics Modeling	3
MATH 3343, College Geometry	3
MATH 3353, History of Mathematics	3
MATH 4553, Advanced Calculus I	3
STAT 3233, Applied Statistics I	3
STAT 4453, Probability and Statistics I	3
Sub-total	35
Additional Requirements:	Sem. Hrs.
Select one of the following courses: ANTH 2233, Introduction to Cultural Anthropology GEOG 2613, Introduction to Geography HIST 1013, World History to 1500 HIST 1023, World History since 1500	3
PHYS 2044, University Physics II OR PHYS 2064, General Physics II	4
Computer Science Elective	3
Sub-total	10
Professional Education Requirements:	Sem. Hrs.
Grade of "C" or better required for all Professional Education Requirements. Courses denoted below with an asterisk (*) require admission to the Teacher Education Program. For additional information, see Professional Education Requirements for Secondary Majors in the College of Education and Behavioral Science section.	
*EDMA 4563, Methods and Materials for Teaching Mathematics in the Secondary School	3
ELSE 3643, The Exceptional Student in the Regular Classroom	3
PSY 3703, Educational Psychology	3

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

Major in Mathematics (cont.)

Bachelor of Science in Education

A complete 8-semester degree plan is available at <https://www.astate.edu/info/academics/degrees/>

SCED 2513, Introduction to Secondary Teaching	3
*SCED 3515, Performance Based Inst. Design	5
*SCED 4713, Educational Measurement with Computer Applications	3
*TIMA 4826, Teaching Internship in the Secondary School	12
Sub-total	32
Additional General Requirements for Teacher Education:	Sem. Hrs.
HLTH 2513, Principles of Personal Health	3
Electives:	Sem. Hrs.
Electives	1
Total Required Hours:	120

Department of Mathematics and Statistics Certificates

Certificate in Statistics

Required Courses:	Sem. Hrs.
STAT 3233, Applied Statistics I AND STAT 4473, Applied Statistics II	6
Select one of the following: STAT 3133, Applied Categorical Data Analysis STAT 3243, Regression Analysis and Analysis of Variance STAT 4483, Statistical Methods Using R	3
Approved electives in related area	3
Total Required Hours:	12

Department of Mathematics and Statistics Minors

Minor in Mathematics

Required Courses:	Sem. Hrs.
MATH 2204, Calculus I	4
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
Mathematics or Statistics Electives (select three of the following): MATH 3243, Linear Algebra MATH 3273, Applied Complex Analysis MATH 3303, Modern Algebra I MATH 3323, Mathematical Modeling MATH 3343, College Geometry MATH 4403, Differential Equations MATH 4413, Partial Differential Equations MATH 4423, Modern Algebra II MATH 4513, Applied Mathematics MATH 4533, Numerical Methods MATH 4553, Advanced Calculus I MATH 4563, Advanced Calculus II STAT 4453, Probability and Statistics I STAT 4463, Probability and Statistics II	9
Total Required Hours:	21

Minor in Statistics

Required Courses:	Sem. Hrs.
MATH 2214, Calculus II	4
MATH 3254, Calculus III	4
STAT 3233, Applied Statistics I	3
STAT 4453, Probability and Statistics I	3
STAT 4463, Probability and Statistics II	3
STAT 4473, Applied Statistics II	3
Total Required Hours:	20

Department of Military Science and Leadership

The faculty of the Department of Military Science at Arkansas State consists of: A Professor of Military Science (usually a Lieutenant Colonel); Three Assistant Professors (usually a Major and two Captains); and Two Instructors (usually a Master Sergeant and a Sergeant First Class). Their tours with the department last from two to three years.

GENERAL INFORMATION

The Army Reserve Officers' Training Corps (ROTC), is a series of elective college courses, which can lead to a commission as a second lieutenant in either the United States Army, United States Army Reserve or the U.S. Army National Guard. Participation in ROTC provides instruction in leadership and management and helps students develop self-discipline, physical stamina, and confidence. The ROTC program augments the University's objectives by emphasizing academic excellence and the development of personal integrity, honor, and responsibility. Upon commissioning, graduates will serve in the active Army, The United States Army Reserve, or the Army National Guard. Selection for active duty is based on the needs of the service, the individual's preference, and the individual's performance record.

Almost any Army branch is available for those commissioned in the reserve forces (barring physical limitations).

ROTC PROGRAM

There are three paths for completion of the ROTC program which lead to a commission in the U.S. Army:

1. The first and most common path is the traditional (Progression), which is the successful completion of both Military Science and Leadership (MSL) I and MSL II level courses (The Basic Course), followed by completion of the Advanced Program.
2. The second path is completion of any U.S. Armed Forces Basic Training, followed by completion of the Advanced Program.
3. The third path is completion of ROTC Leaders Training Course, followed by completion of the Advanced Program.

THE BASIC COURSE

Any physically able student may enroll in the Basic Course without incurring a military obligation. The ROTC Basic Course normally involves one elective Military Science leadership (MSL) class and a Leadership Lab each semester along with the requisite physical training and Field Training Exercises. You will learn basic military skills, the fundamentals of leadership and start the groundwork toward becoming an Army leader. No more than two MSL courses may be taken simultaneously without the approval of the Professor of Military Science (PMS). Cadets desiring to continue to the Advanced Course to earn an Army commission, who have not completed any U.S. Armed Forces Basic Training, must attend the Cadet Initial Entry Training at Fort Knox, Kentucky prior to their MS III year.

FRESHMAN YEAR: PREPARING FOR SUCCESS AS AN ARMY OFFICER

Topics covered include:

- Introduction to Army Leadership
- Army Customs and Traditions
- Military Operations and Tactics
- Goal Setting and Accomplishment
- Health and Physical Fitness

SOPHOMORE YEAR: THE ROLE OF AN OFFICER

Topics covered include:

- Applied Leadership Theory
- Communications
- Principles of War
- Military Operations and Tactics
- Military Customs and Courtesies

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

U.S. ARMED FORCES BASIC TRAINING

Credit for completion of the basic course is granted for anyone who successfully completes Basic Training in the Army, Air Force, Marine Corps, or the Navy, whether it was active component, guard, or reserve. If Advanced Individual Training is also completed, six hours of elective credit may be available from the university.

CADET INITIAL ENTRY TRAINING (CIET)

Cadet Initial Entry Training (CIET) is the premier leadership program of its kind in the United States. It is designed for college students to receive an intense four-week introduction to Army life and leadership training of the Reserve Officers Training Corps. The objective of the course is to motivate and qualify Cadets for entry into the ROTC Advanced Course as either traditional (Progression) or Lateral Entry Cadets. While attending CIET, Cadets experience Army life and introductions to the responsibilities of being an officer. The course instills confidence and leadership decision-making abilities in the Army and in life. Cadets spend their first few days learning Army basics under the tutelage of drill sergeants. They also take an Army Physical Fitness Test, which consists of sit-ups, push-ups and a two-mile run. Cadets work in a small-group, team-based dynamic in activities to accomplish set goals. Upon successful completion of CIET Cadets are qualified to enroll into the Advanced Course on campus.

Graduate students who did not take the ROTC Basic Course may attend CIET as a substitute for the ROTC Basic course. Upon successful completion of CIET, they are qualified to enroll into the Advanced course.

THE ADVANCED COURSE

The ROTC Advanced Course consists of four courses designed to be taken one each semester during the junior and senior years (or graduate school). Students must attend the Leader Development and Assessment Course (LDAC) between their MSL III and MSL IV year. Upon entry into the Advanced Course, a student must sign a contract recognizing a service obligation. The obligation may be served in either the reserve components (Reserve Component duty can be guaranteed) or the Active Army (depending on the needs of the Army). Cadets in the Advanced Course receive textbooks, uniforms, and a nontaxable subsistence allowance (10 months per year), as well as pay for attending the Cadet Leadership Course at Fort Knox, KY.

Prerequisites for admission to the Advanced Course are:

1. Completion of the Basic Course, CIET and/or U.S. Armed Forces Basic Training, and/or completion of four years of Junior Reserve Officers training Corps in high school.
2. Physical qualification as determined by a Department of Defense Medical Examination Review Board (DoDMERB) or recent military service qualifying physical examination.
3. Selection by the Professor of Military Science.
4. Under 32 years of age by the time of graduation (may be waived in some cases).
5. Pass a screening evaluation.
6. At least two academic years remaining before graduation or be enrolled in graduate school.
7. A grade point average of 2.00 or better for all college work and completion of at least sixty semester hours of college work towards a baccalaureate degree. Applicants will normally be required to have achieved "junior" academic status. In addition to the Military Science and Leadership courses, advanced course students must complete professional military education courses in the fields of Written Communication, Computer Literacy, Mathematic Reasoning, Human Behavior, and Military History. The Communication, Human Behavior, and Mathematic Reasoning requirements are normally met by the General Education Courses offered by the university. The Military History requirement must be met by completing the ROTC Military History course or one of several history classes offered by the university. (Specific course requirements will be prescribed by the PMS, based on a review of the student's enrollment into the advanced course.) Field Training Exercises will be conducted to provide practical experience as required to supplement classroom training.

JUNIOR YEAR: LEADING SMALL TACTICAL UNITS

Topics covered include:

- Command and Staff Functions
- Law of War
- Weapons and Marksmanship Team Dynamics and Peer Leadership
- Army Squad & Platoon-level Operations and Tactics

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

SENIOR YEAR: TRANSITION TO BECOMING AN OFFICER

Topics covered include:

- Training the Force
- Uniform Code of Military Justice
- Ethical Decision Making
- Personnel & Resource Management
- Cultural Awareness
- Post and Installation Support
- Platoon & Company-level Military Operations and Tactics

CADET LEADERSHIP COURSE (CLC)

CLC is the U.S. Army Cadet Command's capstone training event held every summer at Fort Knox, KY. The purpose of the course is to train U.S. Army ROTC Cadets to develop their leadership skills and to evaluate their officer potential. Most Army Cadets attend CLC midway through the Advance Course, between their MS III and MS IV years after having contracted to commission as an Army officer. Successful completion of CLC is a prerequisite to becoming an Army officer through ROTC.

The 29-day course is both physically and mentally challenging and starts with individual training and leads to collective training, building from simple to complex tasks. This building-block approach permits integration of previously-learned skills into follow-on training. This logical, common-sense training sequence is maintained for each training cycle.

CULTURAL UNDERSTANDING & LANGUAGE PROFICIENCY PROGRAM (CULP)

The Army recognizes the need for young leaders to develop more cultural awareness and foreign language proficiency skills. Cultural awareness training is a vital component to the ROTC curriculum. Overseas immersions help educate future leaders in ways the classroom cannot.

A-State Cadets have the opportunity to compete for summer trips to more than 40 countries. These opportunities expose them to everyday life in different cultures and intensifies language study, which helps produce commissioned officers who possess the right blend of language and cultural skills required to support global operations in the 21st Century. Cadets experience up to three different venues during immersion, including humanitarian service, host nation military-to-military contact and education on the social, cultural and historical aspects of the country. Cadets travel in small groups led by senior leader cadre. Trips typically incorporate approximately 20 Cadets and a cadre member traveling in conjunction with a civilian agency or non-governmental agency. The trips last approximately one month, which encompasses the deployment as well as a five-day pre-trip readiness process.

CULP slots are awarded on a competitive basis and take into account GPA, physical fitness scores, an essay and other pertinent selection criteria. Generally offered to Cadets during the summer between their MS I to MS II and MS II to MS III years.

CADET PRACTICAL FIELD TRAINING

The CPFT program is typically made available to select Cadets during the summer between their MS II and MS III years. CPFT includes training at Army Schools and specialty courses for Air Assault, Airborne, Mountain Warfare, Northern Warfare, Special Forces Combat Diver Qualification Course, Cadet Field Training at West Point, Cadet Leadership Development (Infantry) WHINSEC and University Officer Training Center in the United Kingdom.

CPFT allocations are highly-competitive with only about ten percent of the national Cadet population is accepted. The A-State Professor of Military Science will prepare, select and send to CPFT only those Cadets with the highest potential for completing the training and for being commissioned. Cadet Command pays for travel. Billeting and mess are provided by the installation in most cases. All Cadets must meet the course eligibility criteria to be selected.

FINANCIAL ASSISTANCE

1. ROTC Scholarships:

In addition to four-year Army ROTC scholarships which are awarded to high school seniors, two and three-year Army ROTC scholarships are available to college freshmen and sophomores on a competitive basis. Applicants are judged on their potential and aptitude for military service and are evaluated by an academic board chaired by the Professor of Military Science (PMS). ROTC scholarships cover the cost of university tuition, textbook, laboratory fees, and a subsistence allowance for each school month depending on the number of hours completed by the student. High School students applying for four-year scholarships must have their packets completed by January 10th of their senior year. Three-year and two-year scholarship applications must be completed by the spring semester, prior to the first school year of the scholarship.

2. Subsistence Allowance:

A monthly monetary allowance of \$350-\$500 for each school month is paid to Cadets who contract to commission. During the CLC and CIET, Cadets are paid approximately \$700 for the 30 day camp period and provided travel to and from camp. Housing, uniforms and meals are furnished at no expense to the Cadet. The course is conducted at Fort Knox, Kentucky during the summer.

3. Simultaneous Membership Program (SMP):

Individuals may enroll in the Military Science and Leadership Advanced Course while retaining membership in the Army National Guard or Army Reserve. Those wishing to serve in the Army National Guard or Army Reserve during enrollment in the Military Science and Leadership Advanced Course may do so except in certain cases. In addition to receiving Cadet monthly subsistence, these individuals also receive pay (E5 or higher, from previously held grade) from their Army National Guard or Army Reserve unit and qualify for the Montgomery GI Bill and Federal Tuition Assistance benefits.

LEADERSHIP DEVELOPMENT

Military Science students are required to participate in a Leadership Laboratory in addition to classroom requirements. Training consists of military drill and ceremonies, field exercises, simulated leadership problems and familiarization with Army weapons and equipment.

MINOR IN MILITARY SCIENCE AND LEADERSHIP

A minor in Military Science and Leadership is awarded to those Cadets who qualify for enrollment in the Advanced Course and subsequent commissioning as U.S. Army officer.

Minor in Military Science and Leadership

A minor in Military Science and Leadership can be granted only to those students who qualify for enrollment in the Advanced Course and subsequent commissioning as an officer in the U.S. Army.

Required Courses:	Sem. Hrs.
The Advanced Course and Military History Course are the only requirements for students that have been credited for the Basic Course by attendance at the Leaders Training Course or Basic Training, thus requiring only a total of 15 hours.	
Basic Course: MSL 1011, Introduction to the Army and Critical Thinking MSL 1021, Introduction to the Profession of Arms MSL 2032, Leadership and Decisionmaking MSL 2042, Army Doctrine and Team Development	6
Advanced Course: MSL 3053, Training Management and the Warfighting Functions MSL 3063, Applied Leadership in Small Unit Operations MSL 4073, The Army Officer MSL 4083, Company Grade Leadership	12
Military History Course	2-3
Total Required Hours:	20-21

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 5. 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 4 and 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.

Library and Information Resources

Jeffrey R. Bailey, Director of Library Information Resources

Library Faculty: *Creibaum, Crist, Dry, Eskridge, Farmer, Flachsbart, Hallett, Holloway, Margulis, Robinette, Sheppard, Smith*

PURPOSE

The Dean B. Ellis Library is a teaching library. We are directly involved in advancing the teaching, research, and service missions of the university. Library faculty and staff actively provide research consultations and teach students how to access, select, evaluate, and effectively use information in a variety of formats from our print and digital collections. Library and Information Resources courses offer students the opportunity to develop information skills that will help them succeed in other academic courses, make informed decisions, and be productive members of society.

Course Descriptions

All currently offered courses are listed in alphabetical order by prefix and chronologically thereafter. Courses included in the Arkansas Course Transfer System (ACTS) have their ACTS Course Index Numbers listed after the course description. For additional information, please see <http://www.astate.edu/a/registrar/students/transfer-work/>.

****IMPORTANT INFORMATION****

EDBU 4533 METHODS AND MATERIALS IN TEACHING BUSINESS TECHNOLOGY and TIBU 4825 BUSINESS TEACHING INTERNSHIP IN THE SECONDARY SCHOOL, for BSE Students, TIBU 4826 BUSINESS TEACHING INTERNSHIP IN THE SECONDARY SCHOOL, for 2nd Degree Students, are located at other locations on the Class Schedule Search engine. Please follow the directions below for each course to obtain the correct location for each educational course.

EDBU 4533, METHODS AND MATERIALS IN TEACHING BUSINESS TECHNOLOGY

1. Go to Class Schedule Search.
2. Select Method and Mat Teach EDBU Voc.
3. Click on Class Search, METHODSANDMATERIALS IN TEACHING BUSINESS TECHNOLOGY will appear.

BSE students **ONLY**

TIBU 4826, BUSINESS TEACHING INTERNSHIP IN THE SECONDARY SCHOOL

You will receive an email from the Professional Education Program, PEP, office issuing you a permit allowing you to register for this class.

2nd Degree Students

TIBU 4825, BUSINESS TEACHING INTERNSHIP IN THE SECONDARY SCHOOL

You will receive an email from the Professional Education Program, PEP, office issuing you a permit allowing you to register for this class.

2nd Degree Students

ELCI 4013, CURRICULUM AND ASSESSMENT INSTRUCTIONAL THEORY AND PRACTICE, to be taken during Teacher Internship

1. Go to Class Schedule Search
2. Select Educational Leadership Curriculum
3. Click on Class Search, CURRICULUMANDASSESSMENT INSTRUCTIONAL THEORY AND PRACTICE will appear.

Accounting (ACCT)

ACCT 2014. Computerized Accounting Principles Introduction to the accounting process and the use of accounting software. Emphasis on the skills necessary to maintain a computerized set of accounting books and records for small business. Students should not enroll after receiving credit for ACCT 3003. Fall.

ACCT 2023. Fundamental Accounting Concepts Primary emphasis will be in developing an understanding of the fundamental accounting concepts, with secondary emphasis on procedural mechanics. In addition, the student should develop an awareness of the language and environment of American business, an appreciation of accounting methodology, and skill in problem solving. Open only to students not majoring in the College of Business. Fall, Spring.

ACCT 2033. Introduction to Financial Accounting Introduction to accounting and the accounting cycle. Basic accounting and reporting for merchandising and service oriented business organizations. Primary emphasis is on accounting principles applicable to measuring assets, liabilities, owners equity and income. Special measurement problems for partnerships and corporations. Fall, Spring, Summer. (ACTS#: ACCT 2003)

ACCT 2043. Tax Compliance Federal and Arkansas individual income and payroll taxes, as well as Arkansas sales taxes. Topics include record keeping, internal controls, and outputs of the payroll system. A student should not enroll in this course after receiving credit for ACCT 4013. Prerequisite, ACCT 2014 with "C" or better. Spring.

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

- ACCT 2133. Introduction to Managerial Accounting** The course covers basic accounting and reporting for manufacturing companies. The course is also devoted to managerial uses of accounting data for the decision making function and to special accounting reports. Prerequisite, ACCT 2033 with a C or better. Fall, Spring, Summer. (ACTS#: ACCT 2013)
- ACCT 3003. Intermediate Accounting I** An in depth study of accounting statements, the accounting process, and inventory valuation procedures. Prerequisites, ACCT 2033, MATH 2143, STAT 3233, and CIT 1503; all with "C" or better. Fall, Spring, Summer.
- ACCT 3013. Intermediate Accounting II** A detailed study of operational assets, investments, liabilities, and an introduction to the corporate form of organization. Prerequisite, ACCT 2133 and ACCT 3003 with a grade of C or better. Spring, Summer.
- ACCT 3053. Cost Accounting with a Managerial Emphasis** Accounting issues from the viewpoint of the manager. Examination of costing techniques, cost behavior, cost volume profit relationships, and budgeting. Emphasis is on use of relevant information in decision making for managers. Prerequisites, ACCT 2133, MATH 1023 or higher, and CIT 1503; all with a "C" or better. Fall, Summer.
- ACCT 3063. Hospitality Accounting** The accounting principles, concepts, conventions, and information systems utilized in management decision making for the hospitality industry. Focus on internal control, cost control, budgeting, and analysis of financial data. Prerequisites, ACCT 2133, MATH 1023 or higher, and CIT 1503; all with "C" or better. Fall.
- ACCT 4013. Tax Accounting I** Examines the laws, rules, and procedures of federal income taxes for individuals. In addition, the business events and transactions which influence taxable income for individuals are studied. Prerequisites, ACCT 2033, MATH 2143, STAT 3233, and CIT 1503; all with "C" or better. Fall, Spring.
- ACCT 4023. Advanced Accounting and International Issues** Advanced study of accounting concepts and problems in the areas of business combinations, partnerships, and international accounting. Prerequisite, ACCT 3013 with a grade of C or better. Spring.
- ACCT 4033. Accounting Information Systems** Study of the role, design, characteristics, and function of accounting information systems. Prerequisites, ACCT 3013 and CIT 2033 with a grade of C or better. Spring, Summer.
- ACCT 4053. Auditing I** Standards and procedures, code of ethics, form of audit reports and statements, and the principles underlying the verification of data presented in financial reports. Prerequisites, ACCT 3013 and STAT 3233; all with "C" or better. Fall, Summer.
- ACCT 4113. Tax Accounting II** Continuation of Tax Accounting I. Emphasis in this course will be on federal income tax laws for partnerships, fiduciaries, and corporations. Prerequisite, ACCT 4013. Spring.
- ACCT 4123. Government and Not-For-Profit Accounting** Accounting concepts and reporting standards for state or local government entities and not-for-profit organizations. Emphasis is on areas covered in CPA exam content specifications. Prerequisite, ACCT 3013 with a grade of C or better. Spring, Summer.
- ACCT 4133. Accounting Statistics** Statistical concepts and applications for accounting and auditing. Coverage includes sampling, probability, hypothesis testing, regression, data mining, and forecasting. Prerequisite, ACCT 3013 and STAT 3233 with a "C" or better. Fall.
- ACCT 4143. International Accounting** Introduction to international accounting issues including political, legal, and cultural influences, international accounting standards, foreign currency transactions, consolidated reporting for global firms, planning, control, and performance measurement systems, transfer prices and taxation. Prerequisite, ACCT 3013 with C or better. Fall.
- ACCT 4153. Fraud Examination** A study of how and why occupational fraud is committed, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved. Prerequisites, ACCT 2133, MATH 2143, STAT 3233, and CIT 1503; all with "C" or better. Spring.

- ACCT 4163. Estate Planning and Taxation** Introduction to estate planning, including transfer of different types of property during life and at death, documents used in estate planning, and taxation of property transfers at the state and federal levels. Prerequisite, ACCT 4013. Spring.
- ACCT 4173. Advanced Cost Accounting** Continued examination of accounting issues from the viewpoint of the manager. Emphasis is on current issues relevant to cost and managerial accounting. Prerequisite, ACCT 3053 with a C or better. Fall.
- ACCT 4183. Accounting Analytics** Analysis of data analytics and big data technologies related to accounting to help answer business questions, shape corporate strategy, forecast financial trends, and combat fraud. Prerequisite, ACCT 4053 with a C or better. Spring.
- ACCT 430V. Special Problems in Accounting** Individual problems or topics in accounting arranged in consultation with the instructor. Must be approved by department chair. Irregular.
- ACCT 478V. Internship in Accounting** Provides practical financial, managerial, or not for profit experience through work in a meaningful capacity. Prerequisite, 12 hours of accounting above the introductory level and approval of departmental chair. Fall, Spring, Summer.

Agricultural Economics (AGEC)

- AGEC 1003. Introduction to Agricultural Business** Structure and organization of agricultural business. Basic economic principles and their application to agriculture. Fall, Spring.
- AGEC 3003. Agricultural Marketing** Present and alternative systems of marketing farm products. The principles, functions, channels, and agencies involved are described. Emphasis is on measurement of demand, costs, and efficiencies. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323. Fall.
- AGEC 3013. Decision Tools for Agribusiness** Selection of appropriate systems for farm records and agribusiness applications, data analysis, spreadsheets and decision aids, and word processing applications for reports and communication. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323. Fall, Spring.
- AGEC 3023. Cooperatives** Organization, capitalization, and management of cooperative businesses. Operational practices and problems. Role of cooperative organizations in agricultural business. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323. Spring, odd.
- AGEC 3043. Marketing Specialty Agricultural Products** Introduction to marketing high value crops, processed agricultural goods, and specialty items. Topics will include market analysis and testing, financing, pricing, and transportation. Prerequisite, AGEC 1003 or MKTG 3013. Spring, even.
- AGEC 3053. Commodity Futures Markets** Function of futures markets in price discovery, price risk transfer, and speculation. Marketing strategies for agricultural, financial, and other commodities using futures contracts and options on futures. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323. Fall, Spring.
- AGEC 3063. Agricultural Entrepreneurship** Economic importance of risk-taking, the process of designing, launching, and running a new business, cultivating leadership, and personal selling. Prerequisite, AGEC 1003 or ECON 2313. Spring.
- AGEC 4023. 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. Prerequisite, AGEC 3053 or instructor permission. Spring.
- AGEC 4033. 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. Spring.
- AGEC 4053. Agricultural Finance** Financial elements of the farm business. Emphasis will be given to the use and sources of agricultural credit. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323. Spring.

AGEC 4073. Agricultural Business Management Principles and problems involved in acquiring, organizing, and operating successful farms, ranches and other agricultural businesses, balance of enterprises, capital requirements, emphasis on managerial principles and management simulation. Prerequisite, AGECE 1003 or ECON 2313 or ECON 2323. Fall, Spring.

AGEC 4083. 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, AGECE 1003 or ECON 2313 or ECON 2323. Fall, Spring.

AGEC 4093. 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, grade of C or better in AGECE 1003 or ECON 2313 or ECON 2323. Fall.

AGEC 4113. Livestock and Poultry Economics Production and marketing costs associated with raising livestock and poultry, providing value-added meat and protein products to consumers, with emphasis on market analysis of cattle, hog, broiler, turkey, and egg-laying sectors. Prerequisites, ANSC 1613; AGECE 1003 or ECON 2313 or ECON 2323. Spring.

AGEC 4123. Land Economics and Farm Appraisal Physical characteristics of land, economics of land use, and principles of land utilization, classification, conservation, zoning, and land-use planning. Factors governing the price of land, methods of land valuation and appraisal. Prerequisite, AGECE 1003 or ECON 2313 or ECON 2323. Fall.

AGEC 419V. Special Problems in Agricultural Economics For students of senior standing. Approval of the instructor and dean necessary. Credit of one, two, or three hours as arranged. Spring, Fall, Summer.

AGEC 4253. Agricultural and Environmental Data Science Agricultural and environmental data gathering, wrangling, analysis, and visualization with emphasis on introductory programming skills. Prerequisite, AGECE 3013 or instructor permission. Fall.

Agricultural Education (AGED)

AGED 1403. Basic Agricultural Mechanics Introduction to basic wood and metal working tools and equipment used in most mechanics laboratories. Instruction focuses on safety, project design, tool and equipment use. Spring.

AGED 1411. Introduction to Agricultural and Extension Education Philosophy, aims, and objectives of agricultural and extension education. Explanation of programs, career opportunities, and qualifications in agricultural and extension education. Fall, even.

AGED 1441. Introduction to Forestry Emphasis on tree identification, instruments and equipment, tree disease and disorders, forest product uses, timber stand improvement, general p
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regapssa@wt-cpanel.astate.edu A Change of Major and/or Minor Has Been Submitted for Processing 11:05 AM 15 KB rinciples of forest management, map and compass reading, and pulp and sawlog volume estimation. Spring, even.

AGED 2433. Principles of Agricultural Power Electricity and Internal Combustion Engines Agricultural power includes electricity and internal combustion engines. Electricity includes systems, devices, motors, installation and service. Internal combustion power includes small engine repair and maintenance. Prerequisite, AGED 1403. Spring, odd.

AGED 2453. Application of Welding Technologies to Agriculture Principles and practices of various methods of welding technology applied to agriculture. Lecture two hours, laboratory two hours per week. Fall.

AGED 3443. Leadership in Agriculture Principles and practices associated with development of agricultural leaders as individuals or teams from a practical and historical perspective. Developing skills needed to effectively work within agricultural organizations and with individual clientele. Spring, odd.

- AGED 3453. Agricultural Structural Systems** Basic carpentry skills associated with the agricultural environment. Focus of instruction is equipment safety and use, building supplies or materials, skills development in framing, roofing, installation of windows, etc. Two hour lecture and two hour laboratory per week. Fall.
- AGED 4433. Methods of Teaching Agricultural Mechanics** Methods and techniques used to teach and organize the mechanics laboratory. Teaching aids will be emphasized. Lecture two hours, laboratory two hours per week. Prerequisite, AGED 1403. Spring.
- AGED 445V. Practicum in Agricultural Communications** Practicum provides opportunities for students to gain practical experiences in a real working environment with trained professionals in the communications field. Fall, Spring, Summer.
- AGED 4462. Agricultural Youth Organizations** Introduction to the history, purposes, parliamentary procedure, and membership and awards structure. Emphasis on leadership development and advisor responsibilities to agricultural youth organizations 4H, FFA. Fall.
- AGED 4473. International Agriculture Study Tour** To develop an 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. Instructor permission required. Dual Listed AGED 5473. Spring, even.
- AGED 459V. Special Problems in Agricultural Education** For students of senior standing. Approval of the instructor and dean necessary. Credit of one, two, or three hours as arranged. Fall, Spring, Summer.

Agriculture (AGRI)

- AGRI 1213. Making Connections in Agriculture** First semester freshman course centered around the skills and knowledge needed to be a successful ASU Agriculture student, including academic performance, problem solving, critical thinking, self management, university policies, issues, trends, and disciplines in agriculture. Fall.
- AGRI 2213. Genetic Improvement of Plants and Animals** Introduction to agriculturally important plant and animal traits and the methods used to incorporate these into favorable combinations. Fall, Spring.
- AGRI 3233. Applied Agricultural Statistics** Collection, tabulation, and analysis of agricultural data, activities of the state and federal crop reporting services. Fall, Spring.
- AGRI 3813. Agricultural Biosystems I** Modern irrigation and water conservation technologies for agronomic crops, plant genomics and biotechnologies that impact agricultural production, as well as fundamental concepts of integrated pest management and environmental management. Prerequisite, Junior standing or higher. Fall.
- AGRI 3823. Agricultural Biosystems II** Geospatial systems technologies, data management, and digital technologies related to agricultural production and natural resource management; as well as global food production, food safety and security, animal food production and processing technologies, and food-related consumer issues. Prerequisite, Junior standing or higher. Spring.
- AGRI 420V. Internships in Agriculture** Provides field based experience in private business, industry or public agencies which will enhance knowledge and skills needed for career advancement, approval of Internship Committee required. Spring, Fall, Summer.
- AGRI 4223. Agriculture and the Environment** This course will explore the complex and varied interrelationships of agriculture and the environment with the ultimate goal of identifying viable procedures to make agricultural programs more sustainable. Spring.
- AGRI 4233. Experimental Agricultural Statistics** Fundamental concepts of experimental and statistical methods as applied to agricultural research. Spring, even.

AGRI 4433. 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. Prerequisites, PSSC 1303 and ANSC 1613, or instructor permission. Dual-listed with AGRI 5433. Spring, odd.

AGRI 4523. 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. Prerequisites, BIOL 2013 and 2011, CHEM 1052, BIOL 3013 and 3011 or AGRI 2213 or CHEM 4243 or related courses approved by the instructor. Dual-listed with AGRI 5523. Fall.

AGRI 4723. Agricultural Connections, Technical Interpretation and Professional Applications Exercises to synthesize high quality technical information from multiple sources into different types of professional written and verbal presentations, using problem solving exercises. Analytical skills and interactive discussions are emphasized. Prerequisites, AGECE 1003, ANSC 1613, and PSSC 1303. Prerequisites or corequisites, AGRI 3233 or STAT 3233 or TECH 3773. Fall, Spring.

Agricultural Systems Technology (AGST)

AGST 2003. Intro to Agricultural Systems Technology Introduction to physical concepts relevant to different agricultural systems: applied mechanics, agricultural equipment technology, agricultural power trains and machinery management, efficiency and precision. Prerequisites: CS 1013 or CIT 1503, ENG 1013, MATH 1023 or higher. Fall.

AGST 3503. Geospatial Data Applications Basic understanding and utilization of software applications to manage geospatial and tabular data, including text editors, spreadsheets, databases and geodatabases for data: collection, cleaning, joining, filtering, summarization, visualization and unit conversion. Prerequisite: AGST 2003 or CE 2223. Fall, Spring.

AGST 3543. Fundamentals of GIS/GPS Geospatial data acquisition, mapping, and interpretation for human-environment interactions using geographic information systems and the global positioning system. Prerequisites: COMS 1203, ENG 1013, MATH 1023 or higher; Prerequisite or corequisite: AGECE 3013 or AGST 3503 or BIO 3023. Fall, Spring.

AGST 4003. 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. Two hours lecture and two hours lab weekly. Dual listed with AGST 5003. Prerequisites: AGST 2003; PSSC 2813. Spring.

AGST 4022. Irrigation Technology Tools Technical tools and software related to irrigation system hydraulic design and management. Dual listed with AGST 5022. Prerequisites: AGST 3543, AGST 4003. Fall.

AGST 4501. Agricultural Decision Analysis Hands-on experience with cloud/desktop software, spatial algorithms and image processing of georeferenced data obtained from diverse sources, such as human scouts, ground and equipment sensors, and unmanned aerial systems. Dual listed with AGST 5501. Prerequisite: AGST 3543 with a grade of B or better. Fall.

AGST 4511. Unmanned Aircraft Systems Software and mobile applications for designing flight missions, collecting data, and analyzing/interpreting imagery for agricultural practices. Intended to prepare students for the Federal Aviation Administration (FAA) remote pilot license exam. Dual listed with AGST 5511. Prerequisites: AGST 3543, AGST 4773. Fall.

AGST 4543. 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 5543. Prerequisite, AGST 3543 with a grade of B or better. Fall.

AGST 4773. 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. Prerequisite, AGST 3543 with a grade of B or better. Spring.

AGST 4843. Agricultural Systems Technology Capstone Design of modern geospatial solutions for problems related to agriculture, the environment, and natural resources. Restricted to Agricultural Studies majors. Prerequisites: AGST 3503, AGST 4543, AGST 4773. Fall, Spring.

AGST 489V. Special Problems in Agricultural Systems Technology Individualized instruction and/or projects for advanced students. Instructor permission required. Fall, Spring, Summer.

Animal Science (ANSC)

ANSC 1522 Beginning English Equitation Introduction to English equitation and the care and management of riding horses. Fall.

ANSC 1602. Equitation Two hour laboratory course in the selection and care of tack, horsemanship, etiquette, grooming, and equitation. Fall, Spring.

ANSC 1612. Intermediate Western Equitation Refinement of experienced riders skill in the area of western riding. Includes retraining or conditioning older horses, and understanding equine behavior as it relates to riding and training. Four hours of lab per week. Prerequisite, ANSC 1602 or instructor permission. Fall, Spring.

ANSC 1613. Introduction to Animal Science A study of animals that provide food, fiber, and companionship to mankind, including the history and scope of animal agriculture, products produced from animals, reproduction, breeding and genetics, nutrients and digestion, lactation, behavior, and an overview of production systems. Fall, Spring.

ANSC 1621. Introduction to Animal Science Laboratory Students will gain hands on work experience with managing livestock. Fall, Spring.

ANSC 1622. Intermediate Huntseat Equitation and Jumping Refinement of the experienced riders skills in the area of huntseat riding and jumping. Includes flat work and jumping exercises to build skills and condition the horses and riders for jumping. Four hours of lab per week. Prerequisite, ANSC 1602 or instructor permission. Fall, Spring.

ANSC 2012. Stock Horse Equitation Hands-on study of the basic maneuvers involved in training and showing the versatile Stock Horse. Prerequisites, ANSC 1602 or ANSC 1612. Spring.

ANSC 2623. Equine Health and Management Course covers aspects of equine health, diseases, soundness, first aid, preventative maintenance, and management of horses in domestic situations. Three hours of lecture per week. Fall.

ANSC 3003. Companion Animal Nutrition Fundamental concepts of nutrition applied to companion animals including dogs, cats, and other common pets. Prerequisite, ANSC 1613 or BIO 2013. Summer, even.

ANSC 3013. Advanced Western Equitation Advanced techniques and principles of horsemanship associated with Western riding. Daily riding to implement techniques and develop skills in a logical progression for both the rider's ability and the horse's training. Prerequisites, ANSC 1612 or ANSC 2012, and instructor permission. Summer.

ANSC 3203. Companion Animal Care and Management Science and practice of raising and keeping small animals as pets or companion animals. Topics related to nutrition and feeding, training, reproduction, breeding, grooming, housing and equipment, preventative medicine, and common diseases will be covered. Prerequisites, ANSC 1613 or BIOL 1003 or BIO 2013. Fall, even.

ANSC 3613. Nutritional Management of Animals Principles of animal nutrition, composition of feedstuffs, diet formulation, and nutritional management of cattle, horses, sheep, swine, poultry, dogs and cats. Two hours lecture, two hours laboratory per week. Prerequisite, ANSC 1613. Fall.

- ANSC 3633. Veterinary Anatomy and Physiology** Structure and function of the body in farm animals. Includes lectures on cardiac, renal, respiratory and muscle physiology, neurology, histology, bone development and endocrine control of the above systems. Prerequisite, ANSC 1613. Fall.
- ANSC 3653. Meat Science and Processing** Study of meat science and meat processing. Properties of fresh and processed meats. Instruction in the preservation of meat and meat products, including hands on experience in processed meat manufacturing, curing, and barbecuing. Fall.
- ANSC 3663. Small Ruminant Production** Methods of management in producing sheep and goats. Lecture two hours, laboratory two hours per week. Prerequisite, ANSC 1613. Spring, even.
- ANSC 3703. Poultry Production** Management of laying and brooding flocks, raising of replacements, study of all economic factors relating to efficient production and marketing. Lecture two hours, laboratory two hours per week. Spring.
- ANSC 4003. Current Issues in Animal Agriculture** Identify, research, and interpret major issues impacting animal agriculture using creative problem solving and critical thinking skills. Prerequisites, ANSC 1613 and Senior Standing. Fall, Spring.
- ANSC 4613. Horse Production** Selection, breeding, feeding, management, marketing of horses, and equitation. Lecture two hours, laboratory two hours per week. Prerequisite, ANSC 1613. Spring.
- ANSC 4623. Beef Cattle Production** Management practices of commercial and purebred herds. Lecture two hours, laboratory two hours per week. Spring, odd.
- ANSC 4633. Diseases of Farm Animals** Prevention, treatment, and control of common diseases, including problems of hygiene and sanitation. Prerequisite, ANSC 3633. Summer, even.
- ANSC 4653. 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. Dual listed as ANSC 5653. Prerequisite, ANSC 1613. Spring.
- ANSC 4663. Principles of Breeding** Basic application of genetic principles to the improvement of farm animals. Fall.
- ANSC 4673. Digestive Physiology and Nutrition of Domestic Animals** The role of nutrients and physiological and metabolic mechanisms involved in nutrient utilization by domestic animals. Emphasis on food producing animals, horses, dogs, cats, and catfish. Prerequisite, ANSC 1613, and CHEM 1013 or CHEM 1043. Spring.
- ANSC 4683. Reproductive Physiology** Anatomy, physiology, endocrinology, and biochemistry of reproduction in farm animals. Management topics include artificial insemination, estrus synchronization, induction of parturition, embryo transfer, and reproductive disease prevention. Prerequisite, ANSC 1613. Spring.
- ANSC 4733. Endocrinology of Farm Animals** Endocrinology system and its role in lactation, reproduction, digestion, and metabolism. Summer, odd.
- ANSC 4743. Equine Nutrition** This course provides students an understanding of the principles of nutrition and their application to feeding horses. Digestive physiology, feed ingredients, feeding and grazing programs for various classes of horses and interactions of nutrition, diseases, and environment will be discussed. Prerequisite, ANSC 1613 or instructor permission. Summer, odd.
- ANSC 478V. Special Problems in Animal Science** Each student will develop a problem in students special interest field. This group will meet for two hours per week and report the progress on problems. Fall, Spring, Summer.

Anthropology (ANTH)

- ANTH 2233. Introduction to Cultural Anthropology** Introduction to the concept of culture. Fall, Spring, Summer. (ACTS#: ANTH 2013)
- ANTH 2243. Introduction of Physical Anthropology** Introduces primatology, human population genetics and micro evolution. Fall.
- ANTH 3203. Introduction to Archaeology** Methods, theory, history, and techniques of archaeology as a branch of anthropology and a world survey of the prehistoric development of culture. Spring, odd.
- ANTH 3233. Native American Culture in the Mid-South** Study of the regions early inhabitants, with field work opportunities. Offered in alternative years. Prerequisites, ANTH 2233 or permission of the instructor. Spring, even.
- ANTH 460V. Special Problems** Individually directed problems in Anthropology. Must be arranged with the professor and approved by department chair. Irregular.

Art Education (ARED)

- ARED 3702. Children and Art** Processes and methods for integrating art with the elementary classroom experience, as designed for the non-art major; may not be used to satisfy any art degree. Prerequisite, 30 semester hours. Fall, Spring, Summer.
- ARED 3803. Teaching Art in the Elementary Grades** Techniques and strategies for teaching visual art to children in the elementary grades, developing an art curriculum, and learning to assess children's artwork are the focus of this course. Prerequisite, a grade of C or better in ART 1013, ART 1033, ARTH 2583, and ARTH 2593; 30 semester hours completed. Spring.
- ARED 4703. Concepts in Art Education** A study of historical and contemporary philosophical concepts in art education. Prerequisites, a grade of C or better in ARED 3803; acceptance into a teacher education program. Spring.
- ARED 4753. Independent Study in Art Education** Individual study of approved topics in Art Education. May be repeated for credit. Prerequisite, instructor permission. Fall, Spring.
- ARED 4763. Special Topics in Art Education** Advanced studies on a topic in Art Education. May be repeated for credit. Prerequisite, a grade of C or better in ARED 3803; or instructor permission. Fall, Spring.

Art (ART)

- ART 1013. Design I** Fundamental principles of design and the theory of color. This course requires three or more hours per week outside of class. Fall, Spring.
- ART 1023. Design II** Basic vocabulary and principles of three dimensional design. Formal and conceptual decision making skills are developed through fundamental exercises in additive, subtractive, substitutive and constructive processes. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in ART 1013 and ART 1033. Fall, Spring.
- ART 1033. Drawing I** Fundamental elements of drawing, including skill, observation, material and technique. This course requires three or more hours per week outside of class. Restricted to BA in Art, BA in Theatre, BFA in Art, BFA in Graphic Design and Minor in Art. Fall, Spring, Summer.

- ART 1043. Drawing II** Builds on fundamental drawing skills using a broad range of materials and techniques while expanding subject matter and considering abstraction, process, conceptual thinking and incorporating digital tools. This course requires three or more hours per week outside of class. Prerequisite, a grade of C or better in ART 1033. Fall, Spring, Summer.
- ART 1053. Elective Drawing for Non Majors** Fundamental elements of drawing, including skill, observation, material and technique. This course requires three or more hours per week outside of class. May only be taken once. Restricted to non-Art majors. Fall, Spring, Summer.
- ART 1063. Elective Painting for Non majors** Introduction to painting with color. This course requires three or more hours per week outside of class. May be taken only once. Restricted to non-Art Majors. Fall, Spring.
- ART 1073. Elective Fine Art Photography for Non majors** Introduction to photography as a means of personal expression. This course requires three or more hours per week outside of class. May be taken only once. Restricted to non-Art majors. Fall, Spring.
- ART 1083. Elective Printmaking for Non majors** Basic techniques in printmaking media such as monotype, relief or screen printing. This course requires three or more hours per week outside of class. May only be taken once. Restricted to non-Art Majors. Fall, Spring.
- ART 1093. Elective Ceramics for Non majors** Basic exploration of techniques of clay manipulation including the use of the potter's wheel. Selected pieces will be fired. This course requires three or more hours per week outside of class. May be taken only once. Restricted to non-Art Majors. Fall, Spring.
- ART 2503. Fine Arts-Visual** FINEARTS. Introduction to major artists, media, styles and works of art within their cultural and historical contexts for the non-art major. Note, this course does not meet general education requirements for any degree in art. Fall, Spring, Summer. (ACTS#: ARTA 1003)
- ART 2523. Introduction to Game Design** Foundational principles and theories of game design, development, and analysis. Students create their own board games and concepts. This course requires three or more hours per week outside of class. Fall.
- ART 3033. Drawing III** Students will focus on the human figure through drawing sessions employing life models, undergoing detailed studies of anatomy, and creating independent projects involving the figure. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in ART 1013, ART 1033 and ART 1043. Fall, Spring, Summer.
- ART 3063. Painting** Introduction to composition and techniques in painting media. This course requires three or more hours per week outside of class. Prerequisite, a grade of CR in ART 3330 or GRFX 3400. Fall, Spring.
- ART 3073. Watercolor Painting** Emphasis on the development of composition and techniques with transparent watercolor media including color theory and various methodologies. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of C or better in ART 3063 and a grade of CR in ART 3330. Fall.
- ART 3083. Printmaking** Covers intaglio, relief, screen printing, lithography and contemporary printmaking techniques. This course requires three or more hours per week outside of class. Prerequisites, a grade of CR in ART 3330 or GRFX 3400. Fall, Spring.
- ART 3093. Ceramics** Introduction to ceramic materials and techniques, wheelthrown and handbuilt forms. Glazing and firing undertaken. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of CR in ART 3330 or GRFX 3400. Fall, Spring.
- ART 3103. Sculpture** Studio practice and experimentation in three dimensional design. Clay, wood, metal, and other materials are used. This course requires three or more hours per week outside of class. Prerequisites, a grade of CR in ART 3330 or GRFX 3400. Fall, Spring.
- ART 3183. Unique Prints and Artist Books** Techniques for making unique prints and artist's books. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, junior standing. Spring, Summer.

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- ART 3283. Printmaking for Designers** Hands-on application of photographic, graphic, and digital artwork in two dimensions. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, junior standing. Fall.
- ART 3330. BFA Review** Admissions screening, transfer screening for all BFA students. Artistic practice emphasized through written statement, oral presentation and portfolio review. Students may take this course only twice. Passing is prerequisite for required 3000-level ART courses. Prerequisites, a grade of C or better in ART 1013, ART 1023, ART 1033, ART 1043, ARTH 2583, and ARTH 2593; a 2.75 GPA in all ART, ARTH, and ARED courses; and advisor permission. Fall, Spring.
- ART 3403. Photography** Photographic concepts, historical precedents, aesthetics, equipment, techniques, and processes, both silver based and digital. Emphasis is placed on photography as applied to art and design. This course requires three or more hours per week outside of class. Prerequisite, a grade of CR in ART 3330 or GRFX 3400. Fall.
- ART 3433. Digital Illustration** Introduction to illustration using computer applications. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 1013, ART 1033, and ART 1043, or instructor permission. Fall, Spring.
- ART 3503. New Media** Artworks created in relation to screen, time and code-based media. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of CR in ART 3330 or GRFX 3400, or instructor permission. Fall, Spring.
- ART 3863. Intermediate Painting** Explores color and space using a variety of subjects and approaches requiring both drawing and painting skills. Emphasis on historical and contemporary art in relation to studio practice. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of C or better in ART 3063; or instructor permission. Fall, Spring
- ART 4033. Advanced Drawing** Working from various subject matter, including the figure model, in different media. Experimental studies in composition and technique. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3033, and a grade of CR in ART 3330; or instructor permission. Fall, Spring.
- ART 4063. Advanced Painting** Individual work for advanced students. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3063, and a grade of CR in ART 3330; or instructor permission. Fall, Spring.
- ART 4083. Advanced Printmaking** Specific print media produced in series. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of B or better in ART 3083, and a grade of CR in ART 3330; or instructor permission. Fall, Spring.
- ART 4093. Advanced Ceramics** Continuation of ceramics work. Independent projects for advanced students. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in 6 hours of ART 3093, and a grade of CR in ART 3330; instructor permission required. Fall, Spring.
- ART 4103. Advanced Sculpture** Continuation of sculpture work with emphasis on development of personal direction. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3103, and a grade of CR in ART 3330; or instructor permission. Fall, Spring.
- ART 4320. Exhibition Preparation** Focus on information pertaining to the preparation for ART 4330. Prerequisites, a grade of CR in ART 3330; a minimum GPA of 2.75 in all work with ART, ARTH, or ARED prefix; and permission of department chair. Students MUST meet the prerequisite requirements or they will not be allowed to register for this course. Fall and Spring.

- ART 4331. Senior Exhibition** Capstone course required for all graduating BFA Studio Art emphasis students. This course requires three or more hours per week outside of class. Prerequisites, a grade of CR in ART 3330 and ART 4320; a minimum GPA of 2.75 in all work with an ART, ARTH, ARTM, or ARED prefix; advisor, instructor, and department chair permission required; 12 hours of 15 hour emphasis area completed prior to senior exhibition semester. Fall, Spring.
- ART 435V. Independent Study in Studio** Faculty-guided self-directed studio practice for the advanced student. Open to all art media. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, advisor and instructor permission. Fall, Spring.
- ART 4373. Special Topics in Art** Advanced studies in a particular medium or topic in studio art. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of CR in ART 3330, or instructor permission. Irregular.
- ART 4433. Advanced Digital Illustration** Advanced studies in various illustrative materials and techniques. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of CR in ART 3330, a grade of C or better in ART 3433; or instructor permission. Fall, Spring.
- ART 4443. Film Based Photography** Advanced studies of photographic equipment, techniques and processes with emphasis on personal expression. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3403, and a grade of CR in ART 3330; or instructor permission. Fall.
- ART 4453. Advanced Photography** Advanced studies in photography as fine art, includes silver and nonsilver based processes with emphasis on aesthetic expression. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of C or better in ART 3403. Fall, even.

Art History (ARTH)

- ARTH 2583. Survey of Art History I** General investigation of the historical development of art and architecture from prehistoric periods to the Renaissance, including Western and Non-Western Art. First Year Experience for Art Majors. Fall, Spring. (ACTS#: ARTA 2003)
- ARTH 2593. Survey of Art History II** Continuation of ARTH 2583, covering the period from the Renaissance to today, including Western and Non-Western art and architecture. Fall, Spring. (ACTS#: ARTA 2103)
- ARTH 2603. Global Art and Visual Literacy** Visual arts from a global perspective, focusing on non-European cultures and emphasizing student's ability to critically evaluate images and understand the built environment. Prerequisites, a grade of C or better in ART 2503 or ARTH 2583 or ARTH 2593; or instructor permission. Spring.
- ARTH 2890. Content Knowledge Review** Exam evaluating familiarity with stylistic qualities for major works of art taken prior to enrollment in 3000-level ARTH courses. Restricted to BA in Art, emphasis in Art History majors. Prerequisites, a grade of B or better in ARTH 2583, ARTH 2593 and ARTH 2603; or instructor permission. Fall, Spring.
- ARTH 3013. Egyptian and Near Eastern Art and Architecture** Survey of ancient Egypt and the Near East within their cultural and historic contexts from the Neolithic period to Alexander the Great; issues related to cultural heritage policy, preservation, and the art market. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Fall, even.
- ARTH 3023. Greek and Roman Art and Architecture** Survey of the Greco-Roman cultural tradition from the emergence of urban centers in Athens and Rome to the shift to Medieval culture after the fall of Rome (ca. 1000 BCE – 400 CE). Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Fall, odd.

- ARTH 3033. Late Antique and Eastern Mediterranean Art and Architecture** Survey of Late Antique and Medieval artistic traditions of Judaism, early Christianity, and Islam, focusing on the relationship between style, political context, and religious devotion. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Spring, even.
- ARTH 3043. Asian Art and Architecture** Survey of the art and architecture of Asia, from the Neolithic period to today, focusing on the relationship between style and cultural exchange. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Fall, odd.
- ARTH 3053. Medieval and Renaissance Art and Architecture** Formation and development of art and architecture from the Carolingian period to the end of the Renaissance, focusing on how style was affected by historical context and changing religious practices. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Spring, odd.
- ARTH 3063. Baroque and Rococo Art and Architecture** Survey of art and architecture immediately following the Renaissance, focusing on the political and cultural developments that influenced the period. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or permission of the instructor. Fall, even.
- ARTH 3073. Nineteenth Century Art and Architecture** Global survey of major artists and works of art, focusing on Europe and America from the 1780s to the end of the nineteenth century. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Fall, odd.
- ARTH 3083. Twentieth Century Art and Architecture** Global survey of major artists and works of art with a focus on Europe and America in the twentieth century. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Spring, even.
- ARTH 3093. Global Contemporary Art 1980 to Present** Global survey of major artists and works of art from 1980 to the present day. Prerequisites, ARTH 2583 or ARTH 2593 or ART 2503; or instructor permission. Spring, odd.
- ARTH 3573. History of Graphic Design** A historical overview of visual communication from the origins of printing and typography, through the impact of industrial technology, to the development of modern graphic design. Prerequisites, declared Graphic Design major; a grade of C or better in ARTH 2583 and ARTH 2593; or instructor permission. Fall.
- ARTH 3890. Critical Thinking Review** Assessment course for BA major in Art (emphasis in Art History) that will review critical thinking and writing skills; must be taken prior to enrollment in 4000-level courses. Restricted to BA in Art, emphasis in Art History majors. Fall, Spring.
- ARTH 4013. History of the Museum and Collecting** History of collecting and the museum as an institution, from private collections in the Dutch Republic to contemporary issues in museology. Prerequisites, junior level standing; or instructor permission. Fall, even.
- ARTH 4233. Gender and the Body in Modern and Contemporary Art** A thematic look at the many ways the human body has been represented in visual culture from the early 19th century to the present day with a focus on both high art and popular culture. Prerequisites, junior level standing; or instructor permission. Cross-listed as WGS 4233. Fall, odd.
- ARTH 4303. Independent Study in Art History** Individual directed study and investigation of pertinent areas in the history of art. May be repeated for credit. Prerequisites, instructor permission. Fall, Spring.
- ARTH 4313. Special Topics in Art History** Advanced studies on a topic in the history of art. May be repeated for credit. Prerequisites, junior level standing; or instructor permission. Irregular.
- ARTH 4803. Art Theory and Criticism** This course develops a link between art criticism and studio practice, relating contemporary art production and critical theory. Includes written reports and oral presentations concerning methodology and results of research. Prerequisites, a grade of CR in ART 3330; a minimum of 48 hours ART/ARTH courses; or instructor permission. Spring.
- ARTH 4893. Advanced Research** Research and writing of an art historical essay that proves an original thesis; to be completed in the final semester. Restricted to BA in Art, Art History emphasis majors. Prerequisites, 2.75 GPA in all ART/ARE/ARTH courses, a grade of "Credit" in ARTH 2890 and ARTH 3890, 12 hours of ARTH and instructor permission. Fall, Spring.

Museum Studies (ARTM)

ARTM 4023. Museum Fundamentals I: Collections Management and Museum Law Instruction and hands-on practice in managing historical and anthropological collections, including object-handling, accessioning, deaccessioning, cataloguing, loans, valuating collections, conservation environments, registration transactions and forms, museum law and policies. Prerequisites, junior level standing or instructor permission. Fall, even.

ARTM 4033. Museum Fundamentals II: Exhibition Seminar Hands-on practice in exhibit development and production, including topic and object selection, curatorial research, mocking up, label writing, and basic program evaluation. Prerequisites, ARTM 4023 or instructor permission. Spring, odd.

ARTM 4113. Museum Internship Practical application of art history and training in museology in a professional setting. Prerequisites, junior level standing; or instructor permission. Fall, Spring.

Business Communication (BCOM)

BCOM 2563. Business Communication Theories and principles of written, interpersonal, and oral communication. Prerequisite, ENG 1013. Fall, Spring, Summer. (ACTS#: BUSI 2013)

BCOM 3573. Managerial Communication Advanced business communication course to develop business reports and presentations and to investigate technological business communication systems. Prerequisite, BCOM 2563. Fall, Irregular.

Biology (BIO)

BIO 1013. Making Connections Biology Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.

BIO 1023. Biological Inquiry An inquiry-based introduction to concepts in biology, with an emphasis on behavior, ecology, and evolution. Research-oriented activities will emphasize the skills and attitudes necessary for understanding and conducting scientific inquiry. Fall. Prerequisite, instructor permission.

BIO 1301. Biology of Animals Laboratory Two hours per week. Special course fees may apply. It is recommended this lab be taken concurrently with BIO 1303. Fall, Spring. (ACTS#: BIO 1054)

BIO 1303. Biology of Animals Fundamentals of modern zoology and a survey of the phyla. Lecture three hours per week. Special course fees may apply. Fall, Spring. (ACTS#: BIOL 1054)

BIO 1501. Biology of Plants Laboratory Three hours per week. It is recommended that this lab be taken concurrently with BIO 1503. Special course fees may apply. Fall, Spring (ACTS#: BIOL 1034)

BIO 1503. Biology of Plants Form, structure, function, and reproduction of plants. Lecture three hours per week. Special course fees may apply. Fall, Spring. (ACTS#: BIOL 1034)

BIO 2011. Biology of the Cell Laboratory Two hours per week. Recommended to be taken concurrently with BIO 2013. Special course fees may apply. Prerequisite, CHEM 1011. Fall, Spring.

- BIO 2013. Biology of the Cell** An introduction to structures and processes in cells, including cellular evolution, biologically important molecules, organelle structure and function, and cellular energy. Lecture three hours per week. Special course fees may apply. Prerequisite, CHEM 1013. Fall, Spring.
- BIO 2042. Biotechnology in Global Society** An introduction to the world-wide impact of biotechnology, including applications to plants, animals, and microorganisms. Introduction and exploration of basic concepts of genetic engineering, scientific and ethical issues, and public concerns related to biotechnology. Lecture two hours per week. Spring.
- BIO 2101. Microbiology for Nursing and Allied Health Laboratory** Two hours per week. It is recommended this course be taken concurrently with BIO 2103. Special course fee, 10.00. Fall, Spring. (ACTS#: BIOL 2004)
- BIO 2103. Microbiology for Nursing and Allied Health** Bacteria, viruses, rickettsiae, chlamydiae, molds, yeasts, and protozoans as they relate to human health. Lecture three hours per week. Special course fees may apply. Fall, Spring. (ACTS#: BIOL 2004)
- BIO 2201. Human Anatomy and Physiology I Laboratory** The behavior of matter with respect to life processes, cells, tissues, functional anatomy of integumentary, skeletal, muscular and nervous systems, cat anatomy, nerve and muscle preparations and recordings. Two hours per week. No prerequisites. Special course fees may apply. It is recommended this course be taken concurrently with BIO 2203. Fall, Spring. (ACTS#: BIOL 2404)
- BIO 2203. Human Anatomy and Physiology I** Introduction to the biology of atoms, molecules, organelles and cellular functions, tissues, functional anatomy of integumentary, skeletal, muscular and central nervous systems, interaction with external environment. Three hours per week. Special course fees may apply. No prerequisites. Fall, Spring. (ACTS#: BIOL 2404)
- BIO 2221. Human Anatomy and Physiology II Laboratory** Major sense organs, autonomic nervous system and internal environment, neuro endocrine control mechanisms, respiratory and cardiovascular functions, oxygen and carbon dioxide transport, liver functions, digestive, renal and reproductive processes. Three hours per week. Special course fees may apply. Prerequisites, BIO 2201 and BIO 2203. It is recommended this course be taken concurrently with BIO 2223. Fall, Spring. (ACTS#: BIOL 2414)
- BIO 2223. Human Anatomy and Physiology II** Major sense organs, autonomic nervous system and internal environment, neuro endocrine control mechanisms, respiratory and cardiovascular functions, oxygen and carbon dioxide transport, liver functions, digestive, renal and reproductive processes. Three hours per week. Special course fees may apply. It is recommended this course be taken concurrently with BIO 2221. Fall, Spring. (ACTS#: BIOL 2414)
- BIO 3011. Genetics Laboratory** DNA observation, DNA isolation, heredity and variation with applications to bacteria, plants and animals will be investigated in the laboratory. Three hours per week. It is recommended this course be taken concurrently with BIO 3013. Special course fees may apply. Fall, Spring.
- BIO 3013. Genetics** A study of the principles of heredity including Mendelian genetics, population and evolutionary genetics, and molecular genetics with a focus on patterns of human inheritance. Special course fees may apply. Prerequisites, BIO 2013 and BIO 2011. Fall, Spring.
- BIO 3023. Principles of Ecology** An introduction to the study of relationships and interactions of organisms and their environment. Special course fees may apply. Prerequisites, BIO 1501, BIO 1503, BIO 1301, and BIO 1303. Fall, Spring.
- BIO 3033. Evolution** A critical review of evolutionary principles, primarily the neo Darwinian theory, with comparisons to newly emerging theories. Lecture, selected readings, writings, and group discussions. Special course fees may apply. Prerequisites, BIOL 1001 and 1003 or higher. Spring.
- BIO 3051. Try Out the Classroom** Introductory classroom experience led by ASU STEM faculty and area teachers. Topics include Arkansas science/math curriculum, classroom management, laboratory safety, and basic teaching skills. Students will develop and present science/math activities in area classrooms and campus outreach. Prerequisites, 8 BIO credit hours. Fall.

- BIO 3201. Introduction to Medical and Dental Practices** This course introduces students to the diversity of specialty practices within the fields of medicine and dentistry. Enrollment limited to students seeking a career in dentistry, medicine, podiatry, or optometry. Graded pass or fail, credit cannot be applied to degree requirements. Special course fees may apply. Spring.
- BIO 3203. Pathophysiology** The physiology of pathological disturbances and inborn errors. Mechanism of disturbance, body compensating efforts, and adaptive responses of humans. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 2223 and BIO 2221, or BIO 3233 and BIO 3231. Fall, Spring.
- BIO 3211. Techniques for Medical Exam Test Taking** This course introduces students to the Medical College Aptitude Test, MCAT. Basic scientific principles and test taking strategies within the fields of medicine will be covered. Prerequisites, enrollment limited to students seeking a career in medicine. Graded pass or fail, credit cannot be applied to degree requirements. Spring.
- BIO 3221. Human Structure and Function I Laboratory** Two hours per week. Special course fees may apply. Special course fees may apply. It is recommended this course be taken concurrently with BIO 3223. Fall, Spring.
- BIO 3223. Human Structure and Function I** This course covers the structure and function of the human organism. Topics covered include, cellular function, skeletal, muscular and nervous systems. Special course fees may apply. Prerequisite, BIO 1301, BIO 1303, CHEM 1023 and 1021. Fall, Spring.
- BIO 3231. Human Structure and Function II Laboratory** Two hours per week. Special course fees may apply. It is recommended this course be taken concurrently with BIO 3233. Fall, Spring.
- BIO 3233. Human Structure and Function II** This course covers the structure and function of the human organism. Topics covered include special senses and endocrine, respiratory, cardiovascular, digestive, urinary, reproductive and integumentary systems. Special course fees may apply. Prerequisites, BIO 3223 and BIO 3221. Fall, Spring.
- BIO 3241. Physical Diagnosis** This course provides an introduction to clinical medicine for pre-medical students by teaching the basics of physical examination. Prerequisite, BIO 1303 and BIO 1301. Enrollment limited to pre-medical students. Special course fees may apply. Graded pass or fail, credit cannot be applied to degree requirements. Fall.
- BIO 3251. Introduction to Pathology** This course introduces pre-medical students to presentation, physical findings, etiology and basic treatment of a number of common diseases and conditions. Special course fees may apply. Prerequisite, BIO 1303 and BIO 1301. Enrollment limited to pre-medical students. Graded pass or fail, credit cannot be applied to degree requirements. Spring.
- BIO 3261. Health Coaching I** Opportunities for pre-medical students to better understand and practice concepts of healthcare, especially the interactions of a health care provider and the patient. Prerequisite, BIO 3251 and instructor permission. Graded pass or fail. Fall.
- BIO 3271. Health Coaching II** Extensive practical experience for pre-medical students working as facilitators for health care providers and their patients. Prerequisite, BIO 3261 and instructor permission. Graded pass or fail. Spring.
- BIO 3301. General Entomology Laboratory** Two hours per week. It is recommended this course be taken concurrently with BIO 3303. Special course fees may apply. Fall.
- BIO 3302. Comparative Anatomy** Chordate morphology, phylogeny, ontogeny, organology, and homology. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, odd.
- BIO 3303. General Entomology** Identification, structure, and life history of the principal insect orders. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall.
- BIO 3311. Economic Entomology Laboratory** Two hours per week. It is recommended this course be taken concurrently with BIO 3313. Special course fees may apply. Spring.

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- BIO 3312. Comparative Anatomy Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 3302. Fall, odd.
- BIO 3313. Economic Entomology** Life history, distribution, and control of injurious insects. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Spring.
- BIO 3322. Invertebrate Zoology** Classification and natural history of representative invertebrates. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Spring.
- BIO 3332. Invertebrate Zoology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 3322. Spring.
- BIO 3501. Wild Flowers of Arkansas** Identification and conservation of wild flowers in Arkansas, plus studying those that are edible, endangered or rare, poisonous, or may be used in flower gardens. Lecture one hour per week. Open to all majors. Special course fees may apply. Summer, odd every 4 years.
- BIO 3511. Wild Flowers of Arkansas Laboratory** Two hours per week. To be taken concurrently with BIO 3501. Special course fees may apply. Summer, odd every 4 years.
- BIO 3541. Plant Pathology Laboratory** Two hours per week. To be taken concurrently with BIO 3542. Special course fees may apply. Spring, odd.
- BIO 3542. Plant Pathology** Nature, cause, and control of diseases of orchard, garden, and field crops. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1501 and BIO 1503. Spring, odd.
- BIO 3553. Economic Botany** Economic plants and their use by man. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1501 and BIO 1503. Summer, even every 4 years.
- BIO 3673. Human Dimensions of Natural Resources** Evolution of human perception of natural resources, sociocultural beliefs and practices of traditional societies, lessons for effective conservation/management plans of marine and terrestrial/freshwater systems, and global case studies. Fall, odd.
- BIO 4001. 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. Special course fees may apply. Prerequisite, eight hours upper-level biology. Instructor permission required. Fall, even.
- BIO 4003. Laboratory Techniques in Electron Microscopy Laboratory** Six hours per week. To be taken concurrently with BIO 4001. Special course fees may apply. Fall, even.
- BIO 4011. Microtechnique** Methods of killing, fixing, staining, and mounting tissues. Lecture one hour per week. Special course fees may apply. Prerequisites, BIO 1501, BIO 1503, CHEM 3103, and CHEM 3101. Fall, odd.
- BIO 4012. Microtechnique Laboratory** Four hours per week. To be taken concurrently with BIO 4011. Special course fees may apply. Fall, odd.
- BIO 4013. Population Genetics** This course will investigate the theories describing the temporal nature of the genetic structure of populations. There will be an emphasis on problem solving applying statistical tools. Intended for students entering the disciplines of systematics, conservation, agriculture, and wildlife and fisheries sciences. Special course fees may apply. Fall, even.
- BIO 4021. Biological Seminar** Conferences, readings, and reports on material relevant to the biological sciences. Required of all department majors. Open only to biology department majors with 16 hours or more of course work in the subject area. Special course fees may apply. Fall, Spring.

- BIO 4033. 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. Prerequisite, BIO 3013. Spring.
- BIO 403V. Special Problems in Biology** Specific area with the topic and mode of inquiry agreed upon by student and instructor. Registration may be repeated with various topics. Registration must be approved by the program director. Special course fees may apply. Fall, Spring, Summer.
- BIO 404V. Special Topics in 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 and approach. Number of credit hours will vary. Special course fees may apply. Instructor permission required. May be repeated for a total credit of 6 hours. Fall, Spring.
- BIO 4053. Applications in Biotechnology** A capstone course which 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. Prerequisite, BIO 3013. Spring.
- BIO 4063. 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. Prerequisite, BIO 2013. Fall.
- BIO 4103. Virology** The structure, function, and classification of viruses, and their impact on modern society and the biological world. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 2103 or BIO 3013 or BIO 4104 or BIO 4133. Fall, even.
- BIO 4104. Microbiology** Morphology, physiology, taxonomy and cultivation of bacteria, viruses, fungi, and protozoans with an emphasis on medically relevant bacteria. Relationship of microorganisms to animals, plants, and the environment. Lecture two hours per week and laboratory four hours per week. Prerequisites, CHEM 1023 and BIO 2013 or instructor permission. Special course fees may apply. Fall, Spring.
- BIO 4111. Immunology Laboratory** Study of classical and current immunology techniques such as ELISA, immuno electrophoresis and Western Blot analysis. Laboratory 3 hours per week. Special course fees may apply. Prerequisites, BIO 2013 and CHEM 1013. Fall.
- BIO 4113. 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. Special course fees may apply. Prerequisites, BIO 2013 and CHEM 1013. Fall.
- BIO 4123. Cell Signaling** This course will provide an understanding of key concepts about cellular signaling mechanisms, major signaling pathways identified to date, and about the methods used to study these pathways. Three hours per week during spring semester. Special course fees may apply. Prerequisites, BIO 2013 or BIO 4133, or permission of the instructor. Spring, odd.
- BIO 4131. Cell Biology Lab** Two hours per week. To be taken concurrently with BIO 4133. Special course fees may apply. Spring.
- BIO 4133. Cell Biology** Organization and activities of cells, with emphasis on the ultrastructure and function of cellular organelles. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 2011, BIO 2013, CHEM 1023 and CHEM 1021. Spring.
- BIO 4143. Pharmacology** The study of drugs and their mechanisms of action at the system, cellular, and molecular levels. Special course fees may apply. Prerequisites, BIO 2203 and BIO 2223, or BIO 3223 and BIO 3233, BIO 4104, and CHEM 4243. Spring, even.
- BIO 4153. Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electrophoresis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Special course fees may apply. Prerequisites, BIO 3011, BIO 3013, BIO 4131, BIO 4133, CHEM 4241, and CHEM 4243; or instructor permission. Fall.

- BIO 4163. Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Special course fees may apply. Prerequisite, BIO 4153. Spring.
- BIO 4173. Molecular Biology** Fundamental principles of molecular biology and their application. Emphasis on integrating technologies, past and present, to explore gene structure, regulation and function in driving biological processes. Prerequisite, BIO 3013 or instructor permission. Spring.
- BIO 4201. Issues in Human Ecology Laboratory** Two hours per week. To be taken concurrently with BIO 4202. Special course fees may apply. Summer, odd.
- BIO 4202. Issues in Human Ecology** Abroad ecological approach demonstrating problems of modern society such as environmental deterioration, hunger, and resource depletion. Lecture two hours per week. Special course fees may apply. Summer, odd.
- BIO 4213. Human Genetics** Current advances in the understanding of the human genome. Lecture three hours per week. Prerequisite, BIO 3013. Special course fees may apply. Fall, odd.
- BIO 4223. Human Endocrinology** Control of physiological processes by hormones. Types of chemical messengers, impact on cells, tissues and organs, and interrelationships of organ systems with respect to hormones will be studied. Important endocrine disorders will also be addressed. Special course fees may apply. Prerequisites, BIO 2013 or CHEM 4243, AND BIO 2223 and BIO 2221 or BIO 3233 and BIO 3231. Spring.
- BIO 4301. Aquatic Entomology** Identification, life histories, and 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. Special course fees may apply. Prerequisites, BIO 3301, BIO 3303, and BIO 3123 or BIO 4371 and BIO 4373. Spring, odd.
- BIO 4302. Aquatic Entomology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4301. Spring, odd.
- BIO 4311. Fisheries Biology** Identification, ecology, food habits, management, and behavior of fishes. Lecture one hour per week. Special course fees may apply. Prerequisites, BIO 1303 and BIO 1301. Summer, even.
- BIO 4312. Fisheries Biology Laboratory** Four hours per week. To be taken concurrently with BIO 4311. Special course fees may apply. Summer, even.
- BIO 4322. Marine Mammals Laboratory** Hands on experience on the classification, anatomy, and behavior of marine mammals. Concurrent enrollment in BIO 4323. Special course fees may apply. Instructor permission required. Spring, odd.
- BIO 4323. 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. Special course fees may apply. Prerequisites will be at least two the following courses, BIO 3312, BIO 4352, BIO 4653, BIO 3023, or BIO 3033. Instructor permission required. Spring, odd.
- BIO 4332. Animal Histology** Cells and tissues of the organ systems of vertebrates. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 3302 and BIO 3312. Spring.
- BIO 4333. Marine Biology** Overview of the diverse discipline of marine biology. Emphasis on life history but will incorporate aspects of chemistry, microbiology, molecular biology, and ecology of marine systems. Also includes marine fisheries, conservation biology, aquaculture, pharmacology, resource management, and public policy. Special course fees may apply. Prerequisites, BIO 1303 and BIO 1301 or BIOL 1003 and 1001, and BIO 3023, or instructor permission. Dual listed BIO 5333. Spring, even.
- BIO 4341. Animal Embryology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4343. Spring.

- BIO 4342. Animal Histology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4332. Spring.
- BIO 4343. 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. Special course fees may apply. To be taken concurrently with BIO 4341. Prerequisites, BIO 1301 and BIO 1303. Spring.
- BIO 4351. Mammology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4352. Fall, even.
- BIO 4352. Mammology** Classification, distribution, structure, ecology, adaptations, and economic importance of mammals. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, even.
- BIO 4361. Mammalian Neurobiology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4363. Fall, odd.
- BIO 4362. Applied Aquaculture** Field course in which principles of aquaculture are applied within several public and private enterprises. Intended for the student interested in wildlife, fisheries biology, and agriculture. Special course fees may apply. Prerequisites, BIO 4311 and BIO 4312. Summer.
- BIO 4363. Mammalian Neurobiology** A detailed study of the mammalian nervous system with particular emphasis on morphological aspects. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303, or BIO 2223 and BIO 2221, or instructor permission. Fall, odd.
- BIO 4371. Animal Ecology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4373. Fall, odd.
- BIO 4372. 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. Summer.
- BIO 4373. Animal Ecology** The relationship of animals to their chemical, physical, and biological environment, and the distribution of animal life. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 3023. Fall, odd.
- BIO 4382. Parasitology** Parasites of vertebrates and plants, with emphasis on protozoan and helminth parasites of man and domestic animals. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Spring.
- BIO 4392. Parasitology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4382. Spring.
- BIO 4401. Ichthyology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4402. Fall, even.
- BIO 4402. Ichthyology** Taxonomy, distribution, natural history, and economic importance of fishes, with emphasis on Arkansas species. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, even.
- BIO 4403. Comparative Vertebrate Reproduction** This combined lecture and lab course surveys major events in the vertebrate reproductive cycles and patterns. Special course fees may apply. Prerequisites, BIO 4441 and BIO 4443, or BIO 3323 and 3321. Dual Listed BIO 5403. Fall, even.
- BIO 4411. Herpetology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4453. Spring, even.
- BIO 4413. Wildlife Program Internship** Participation in a professional wildlife or fisheries educational, management or research program activity. Internship is arranged by the student and may be a volunteer or paid position. Entails a minimum of 160 work hours. Special course fees may apply. Must be approved by advisor or chair. Fall, Spring, Summer.

- BIO 4421. Ornithology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4423. Spring.
- BIO 4423. Ornithology** Morphology, physiology, taxonomy, behavior, ecology, natural history, zoogeography, and evolution of birds. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Spring.
- BIO 4433. Field Experience in Marine Environments** Hands on experience with living and non living components of environments. Emphasis on marine organisms and habitats but will incorporate human interactions associated with marine environments. Course is comprised of an intensive 12 day, 10 hours a day, field trip to an appropriate marine environment. Special course fees may apply. Prerequisites, BIO 4333, or BIOL 1003 and BIOL 1001, or instructor permission.
- BIO 4441. Comparative Animal Physiology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4443. Fall, even.
- BIO 4443. 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. Dual Listed BIO 5443. Fall, even.
- BIO 4453. Herpetology** Examination of the biology amphibians and reptiles, with emphasis on evolutionary history, behavior, physiology, morphology, and ecology. Prerequisites, BIO 1301 and 1303. Spring, even.
- BIO 4513. Plant Physiology** General principles of conduction, cellular reactions, respiration, growth, photosynthesis, movement, hormones, and metabolism in plants. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1501, BIO 1503, and CHEM 2064 or 3103 and 3101. Spring, even.
- BIO 4521. Wetland Plant Ecology Laboratory** Two hours per week. To be taken concurrently with BIO 4522. Special course fees may apply. Fall, odd.
- BIO 4522. Wetland Plant Ecology** A study of plant responses to environmental factors during germination, growth, reproduction, and dormancy. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 3023 or permission of professor or chair. Fall, odd.
- BIO 4541. Mycology Laboratory** Two hours per week. To be taken concurrently with BIO 4542. Special course fees may apply. Fall, even every 4 years. Fall, odd.
- BIO 4542. Mycology** Morphology, cytology, genetics, and physiology of fungi. Lecture two hours per week. Four hours per week. To be taken concurrently with BIO 4541. Special course fees may apply. Fall, odd.
- BIO 4551. Medical Mycology Laboratory** Two hours per week. To be taken concurrently with BIO 4552. Special course fees may apply. Fall, even.
- BIO 4552. Medical Mycology** Cutaneous, systemic, and opportunistic fungus diseases mycoses of man and other animals. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1501 and BIO 1503. Fall, even.
- BIO 4601. Limnology Laboratory** Two hours per week. To be taken concurrently with BIO 4603. Special course fees may apply. Fall, odd.
- BIO 4603. Limnology** Physicochemical conditions of fresh water, and their effects on aquatic life, including plankton analysis and bottom fauna studies. Lecture three hours per week. Special course fees may apply. Prerequisite, BIO 1301 and BIO 1303. Fall, odd.
- BIO 4611. 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 4613. Conservation Biology** 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. Special course fees may apply. Prerequisites, BIO 3023 or instructor permission. Spring.
- BIO 4623. Environmental Microbiology** Study of the physiology and diversity of microorganisms and their role in cycling of nutrients and mineralization of pollutants in the world. Special course fees may apply. Prerequisites, CHEM 1023 and BIO 2013, or BIO 4104, or BIO 4133. Spring, odd.
- BIO 4633. 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 4133 and BIO 4131, or CHEM 4243 or instructor permission. Lecture three hours per week. Special course fees may apply. Fall, even.
- BIO 4641. Environmental Biology Laboratory** Field and laboratory exposure to 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. Laboratory three hours per week. Prerequisites, BIO 3023 or BIO 4373, BIO 4633 or instructor permission. To be taken concurrently with BIO 4643. Special course fees may apply. Fall, odd.
- BIO 4643. Environmental Biology** Exposure to 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 biology. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 3023 or BIO 4373, BIO 4633, or instructor permission. Fall, odd.
- BIO 4651. Wildlife Management Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4653. Fall.
- BIO 4653. Wildlife Management** The ecology and management of wildlife species and their environment, with emphasis on fish, waterfowl, upland game birds, and mammals. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall.
- BIO 4661. Wildlife Management Investigational Techniques Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4661. Spring.
- BIO 4663. Wildlife Management Investigational Techniques** Identification of wildlife problems, project design, interpretation and construction of wildlife maps, food habit and census techniques, wildlife populations and habitat analyses, predictive population dynamics, and introduction to modeling and wildlife decision making procedures. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Spring.
- BIO 4704. 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. Special course fees may apply. Prerequisites, BIO 1501 and BIO 1503. Spring.
- BIO 4714. 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. Dual listed with BIO 5714. Special course fees may apply. Prerequisites, BIO 1501 and BIO 1503. Fall, even.
- BIO 4813. 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 with BIO 5813. Prerequisites, BIO 1301, BIO 1303, BIO 1501 and BIO 1503; or instructor permission. Fall, odd.
- BIO 4823. 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. Prerequisite, BIO 4813 or instructor permission. Spring, even.

Biological Science (BIOL)

BIOL 1001. Biological Science Laboratory Two hours per week. It is recommended this course be taken concurrently with BIOL 1003. Special course fees may apply. Fall, Spring, Summer. (ACTS#: BIOL 1004, BIOL 1024)

BIOL 1003. Biological Science The major characteristics and processes of life emphasizing the human organism. Promotes understanding of diversity and unity among living organisms with focus on ecological interactions and responsibilities of people within their social and natural environment. Lecture three hours per week. Special course fees may apply. It is recommended that this course be taken concurrently with BIOL 1001. Fall, Spring, Summer. (ACTS#: BIOL 1004)

BIOL 1033. Biology of Sex Biological basis of sex and reproduction with an emphasis on humans. Course will provide students with a basic functional understanding of human systems, which will lead to informed decisions regarding sexual and reproductive health. Lecture three hours per week. Special course fees may apply. Prerequisite, None. It is recommended this course be taken concurrently with BIOL 1001. Spring.

BIOL 1063. People and the Environment Major environmental issues facing our society will be covered to equip students to become part of the solution to many environmental challenges confronting us this century. Lecture three hours per week. It is recommended this course be taken concurrently with BIOL 1001. Special course fees may apply. Fall, Spring.

Business Technology (BTEC)

BTEC 429V. Special Problems in Business Technology Individual problems in Business Technology arranged in consultation with the instructor, must be approved by the department chair. Special course fees may apply. Irregular.

Business (BUSN)

BUSN 1003. First Year Experience Business Required course for all first semester freshmen. Course content is centered around the skills and knowledge needed to be a successful ASU student, including academic performance, problem solving, critical thinking, self management and group building skills, university policies and other relevant issues. Fall.

BUSN 1012. First Year Seminar in Business Exploration of career path options in business to assist students in understanding qualities, skills, and abilities employers are seeking. Spring.

BUSN 200V. Business Internship I Internship credit for students with a declared major in the Neil Griffin College of Business who have secured an internship directly related to that major while having completed fewer than 60 hours. Prerequisite, Permission of Internship Director. Fall, Spring, Summer.

BUSN 300V. Business Internship II Internship credit for students with a declared major in the Neil Griffin College of Business who have secured an internship directly related to that major while having completed fewer than 12 upper level hours in their major. Prerequisites, Junior standing and permission of the Internship Director. Fall, Spring, Summer.

Communications Disorders (CD)

CD 1003. Making Connections Communication Disorders Open to incoming Freshmen only. This course will provide both an introduction to the nature of university education and a general orientation to the functions and resources of the university as a whole. This section of First Year Seminar is a special health professions section and will include a focus on understanding and appreciating communication disorder majors. Fall.

- CD 1103. Voice and Articulation Improvement** Designed to aid students experiencing difficulty with oral communication because of one or more of the following reasons, missing final consonants, misarticulation, mispronunciations, improper grammar, monotone speech, harsh, nasal, or breathy voice, not using pitch inflections to carry meaning, and speaking too fast. Irregular.
- CD 2104. Anatomy and Physiology of Communication** An introductory study of the nervous system and a detailed study of normal anatomy and physiology related to speech, swallowing, and language. The course includes lecture and lab components. Prerequisites, BIO 2201 and BIO 2203. Fall, Spring.
- CD 2203. Phonetics** Emphasis given to analysis of the formation and production of spoken English. Training in the use of the International Phonetic Alphabet. Fall, Spring.
- CD 2653. Introduction to Communication Disorders** A survey of the professions of speech pathology and audiology. Includes an overview of normal speech and language development, types of communication disorders, their typical etiologies, and basic assessment and intervention strategies. Fall, Spring.
- CD 3003. Speech and Hearing Science** This course is a study of topics underlying the human communication process and its physiological measurement including production, transmission, reception and perception. Fall.
- CD 3023. Diagnosis in Communication Disorders** Principles of diagnosis and evaluation of speech and language disorders. Spring.
- CD 3043. Speech Science** A study underlying the human communication process including speech anatomy, production, transmission, and perception. Admission to the Communication Disorders program required. Prerequisite, CD 2103. Irregular.
- CD 3113. Aging in Communication** This course examines the aging process and its impact on communication. Normal and disordered aspects of speech and hearing resulting from aging will be addressed. Emphasis will be on assessment, intervention, and prevention of age related communication disorders. Summer.
- CD 3303. Normal Language Development** Normal development of the oral communication process emphasizing phonological and syntactical development of children. Spring.
- CD 3402. American Sign Language I** An introductory course in American Sign Language and signing Exact English. Emphasis on acquisition of vocabulary and development of receptive language skills. Fall, Spring.
- CD 3503. Audiology** A consideration of the causes of hearing loss, with practical experiences in diagnostic audiometric procedures. Identification of hearing problems, methods of speech and language training, and methods of teaching speech reading discussed and demonstrated. Admission to the Communication Disorders Program required. Prerequisite, CD 3003. Fall.
- CD 3553. Clinical Observations in Communication Disorders** Provides supervised observation experiences of assessment and intervention strategies used by speech-language pathologists to gain an understanding of the basic principles of speech, language, and hearing therapy and diagnostic evaluations, and observational techniques. Spring.
- CD 3653. Clinical Interactions in Communication Disorders** The purpose of this course is to provide students with an understanding of the counseling process related to the delivery of services in communication disorders. Summer.
- CD 3703. Clinical Management Techniques in Communication Disorders** This course provides students with knowledge regarding principles and procedures used in the management of individuals with communication disorders including the identification of target behaviors, target measurement and reinforcement practices to effect change in behavior. Registration restricted to Communication Disorders majors. Spring.
- CD 3803. Service Delivery in Communication Disorders** An introduction to speech language programs, their organization and administration. Fifteen hours of clinical observation required. Admission to the Communication Disorders program required. Fall.

- CD 4063. Multicultural Issues in Communication Disorders** Diversity and culturally appropriate intervention procedures and strategies in speech-language-hearing services. Prerequisite, Admission to the Communication Disorders Program. Dual listed as CD 5063. Fall.
- CD 4203. Organic Speech Disorders** This course examines the characteristics of a number of organic disabilities that impact human communication. Included in this course are the primary etiologies of the disability, the salient symptoms of the disability, the real or potential impact of the disability on the development, use, and maintenance of communication, and the impact of the resulting communication disorders on the client's life and family. Spring.
- CD 4254. 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. Admission to the Communication Disorders program required. Spring.
- CD 4303. Language Intervention for Individuals with Mild Disabilities** Assessment procedures for evaluating language disorders and language intervention procedures for individuals with mild disabilities. Admission to the Communication Disorders program required. Prerequisite, CD 3303 or instructor permission. Fall.
- CD 4403. Aural Rehabilitation** Method of instruction in auditory training, speech reading, and hearing aid orientation. Prerequisite, CD 3503 or instructor permission. Spring.
- CD 4451. Introduction to Clinical Practice** Management of articulatory and language impaired client to include assessment, IEP and lesson plan development, and intervention. Admission to the Communication Disorders program required. Prerequisites, CD 3703, CD 3803, and CD 4303. Irregular.
- CD 4502. American Sign Language II** An advanced course designed to continue development of basic language skills in American Sign Language and Signing Exact English. Prerequisite, Instructor permission. Fall, Spring.
- CD 4553. Craniofacial Anomalies and Communication Disorders** A study of the speech, language, hearing, and swallowing disorders associated with cleft palate and other craniofacial syndromes. Prerequisites, Admission to the UG Program in Communication Disorders. Fall.
- CD 4703. Articulation and Phonological Disorders** Principles and procedures for assessment, treatment, and facilitative techniques in disorders of articulation and phonology affecting various ages and cultures. Admission to the Communication Disorders program required. Prerequisite, CD 2203. Dual-listed with CD 5703. Fall.
- CD 4753. Clinical Practice I** Students will provide direct clinical services, gain practice in critical thinking, team-building, assessment, report writing, development of treatment plans, and session plans. Prerequisites, CD 3803, CD 4303, and CD 4703. Spring.
- CD 4755. Practicum in Communication Disorders** Clinical experience with clients with speech, language, and acoustical disabilities. Must meet requirements for student teaching. Irregular.
- CD 480V. Special Topics Workshop** A specially 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 may be repeated for credit. Irregular.
- CD 4873. Research Problems in Communication Disorders** Individual research problems in communication sciences and disorders arranged in consultation with the instructor. Restricted senior level students in the Department of Communication Disorders. Prerequisites, PSY 3103 and 3101, or SOC 3383 and 3381, or COMS 3363, or STAT 3233. Irregular.
- CD 489V. Independent Study in Communication Disorders** Student may engage in studying specific problems in Communicative Disorders. May not be repeated. Prerequisites, Senior standing and approval from professor and department chair. Irregular.

Civil Engineering (CE)

- CE 2202. Civil Engineering Presentations** An introduction to computer aided design, CAD, for civil engineers with applications in civil engineering drawings. Different types of civil engineering drawings will be developed and presented in the course. Corequisite, CE 2223. Spring.
- CE 2223. Plane Surveying** Theory and practice of plane surveying. Introduction to route design. Lecture two hours, laboratory four hours per week. Prerequisite, C or better in MATH 1033 or MATH 2204. Fall.
- CE 3213. Structural Analysis I** Analysis of determinate and indeterminate structures and trusses, shear and moment diagrams, influence lines and moving loads, and deflection calculations. Lecture three hours per week. Prerequisite, C or better in ENGR 2403. Corequisite, ENGR 2413. Spring.
- CE 3224. Civil Engineering Materials** Theory and application of materials used in civil engineering. Nature of materials, aggregate testing, concrete testing, concrete mix design, masonry, asphalt testing, and asphalt mix design. Lecture three hours, laboratory three hours per week. Prerequisite, C or better in ENGR 2413 and 2411. Fall.
- CE 3233. Structural Analysis II** Use of finite element modeling for analysis of structures. Study of ASCE 7-XX live, dead, wind, and seismic loadings and their applications in finite element modeling. Lecture three hours per week. Prerequisite, C or better in CE 3213. Fall.
- CE 3253. Engineering Hydrology** Studies of the hydrologic cycle, solar radiation and meteorology, precipitation, evaporation, transpiration, groundwater flow, hydrographs, flood routing, and probability concepts. Lecture three hours per week. Prerequisite, C or better in ENGR 3473. Spring.
- CE 3263. Introduction to Environmental Engineering** Introduction to environmental engineering fundamentals, concepts of mass balance, water and wastewater treatment, air pollution, solid waste management, and hazardous waste. Lecture three hours per week. Prerequisites, C or better in BIOL 1003 or BIOL 1063; CHEM 1013 and MATH 2204. Fall.
- CE 3273. Water and Waste Systems** Projection of water requirements and wastewater flows, water and waste systems hydraulics, design of water distribution systems, sanitary sewers, stormwater collection systems, and pumping systems. Lecture three hours per week. Prerequisites, C or better in CE 3253. Fall.
- CE 4203. Transportation Engineering I** Introduction to concepts of transportation systems, principles of traffic theories, traffic engineering and operation, and transportation planning including basic concepts of public policy, administration, and involvement in transportation planning. An intersection design project is required. Prerequisite, C or better in CE 2202. Fall.
- CE 4223. Transportation Engineering II** Principles of highway survey and locations, geometric design, highway materials, pavement design, highway drainage, and pavement management. A highway design project is required. Prerequisite, C or better in CE 3224 and CE 4203. Corequisites, CE 4251 and CE 4253. Dual listed as CE 5223. Spring.
- CE 4233. Foundation Engineering** Prediction of soil variation, soil investigations, stress distribution and bearing capacity, settlement analysis and foundation performance. The design and analysis of retaining structures and lateral earth pressures, shallow foundations, pile foundations. One foundation design project is required. Prerequisite, C or better in CE 2202 and CE 4253. Dual listed as CE 5233. Fall.
- CE 4243. Reinforced Concrete Design** Analysis and design of beams and slabs for bending and shear, reinforcement placement, deflection calculations, and column analysis. Prerequisite, C or better in CE 3213. Dual listed as CE 5243. Fall.
- CE 4251. Soil Mechanics Laboratory** Experiments in analysis of soil systems including index properties, compaction, compressibility and shear strength. Corequisite, CE 4253. Spring.
- CE 4253. Soil Mechanics** Physical properties of soils as used in design, specific gravity, grain size distribution, plasticity, permeability, compressibility, consolidation and shear strength. Corequisite, ENGR 3473. Dual listed as CE 5253. Spring.

- CE 4263. 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 3253 and 3263. Dual listed as CE 5263. Spring.
- CE 4283. Structural Steel Design** Analysis and design of tension members, beams, columns, and beam-columns. Prerequisite, C or better in CE 3213. Dual listed as CE 5283. Spring.
- CE 429V. Special Problems in Civil Engineering** Individually directed problems in civil engineering for juniors and seniors. A course outline and project summary listing the goals and expected outcomes must be approved by the student advisor and the program director. Prerequisites are dependent on the nature of the special problem. Irregular.
- CE 4803. 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. Corequisite, CE 3253. Spring, odd.
- CE 4813. Groundwater Hydrology** Physical principles governing groundwater flow and dynamics and the impact of human activity on the groundwater sources. Prerequisite, C or better in CE 3253. Fall, odd.
- CE 4823. Earthquake Engineering** Causes of earthquakes, characteristics of earthquake ground motions, magnitude and intensity measurements, free and forced vibration, numerical methods, elastic response spectra, soil liquefaction, general seismic code requirements. Prerequisites, C or better in CE 3233, CE 4251 and CE 4253. Dual listed as CE 5823. Spring, even.
- CE 4893. 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 5293. Prerequisite, C or better in CE 3253 and CE 3263. Fall, even.

Chemistry (CHEM)

- CHEM 1003. Introduction to Chemistry** Fundamentals of chemical terms and applications to laboratory studies. Extensive drills on calculations and use of hand held calculator in problem solving. Recommended for those with no prior study of chemistry. Special course fees may apply. Corequisite or prerequisite, MATH 0003, MATH 0013, or MATH 1023. Fall, Spring.
- CHEM 1011. General Chemistry I Laboratory** Introduction and development of hands-on techniques essential to the use of fundamental equipment and glassware common in all laboratory based sub-fields of chemistry. Computer-based graphical and statistical analysis of data. Three hours per week. Special course fees may apply. Prerequisite or corequisite, CHEM 1013. Fall, Spring, Summer. (ACTS#: CHEM 1414)
- CHEM 1013. General Chemistry I** Study of chemical reactions and equations, periodic relationships, the gaseous state, and the fundamentals of atomic theory, quantum theory, electronic structure, chemical bonding, stoichiometry and thermochemistry. Special course fees may apply. Prerequisite, MATH 1023 or ACT composite score of 23 or higher. Prior completion of CHEM 1003 or high school chemistry strongly recommended. Fall, Spring, Summer. (ACTS#: CHEM 1414)
- CHEM 1021. General Chemistry II Laboratory** Continuation of CHEM 1011, with focus on demonstrating mastery of selected hands-on laboratory techniques and computer-assisted graphical and statistical analysis of data. Three hours per week. Corequisite or prerequisite, CHEM 1023. Prerequisite, CHEM 1011. Fall, Spring, Summer. (ACTS#: CHEM 1424)
- CHEM 1023. General Chemistry II** Study of liquids, solids, solutions and the fundamentals of chemical kinetics, chemical equilibria, acids and bases, thermodynamics, and electrochemistry. Special course fees may apply. Prerequisites, CHEM 1011 and C or better in CHEM 1013. Fall, Spring, Summer. (ACTS#: CHEM 1424)
- CHEM 1041. Fundamental Concepts of Chemistry Laboratory** Special course fees apply. Corequisite, CHEM 1043. Fall, Summer.

- CHEM 1043. Fundamental Concepts of Chemistry** A one semester chemistry survey course introducing selected fundamental concepts including dimensional analysis, mole concept, atomic and molecular structure, nomenclature, chemical reactions, thermochemistry, intermolecular interactions, gases, mixtures, kinetics, equilibrium and acid base chemistry. Corequisite, CHEM 1041. Fall, Summer.
- CHEM 1052. Fundamental Concepts of Organic and Biochemistry** A continuation of CHEM 1043 with a focus on the role of chemistry in human body functions. Prerequisites CHEM 1043 and CHEM 1041. Fall, Spring.
- CHEM 2002. Computers in Chemistry** Introduction to computer software and common practices used in the analysis and presentation of scientific data. Corequisite or prerequisite, CHEM 1023 and CHEM 1021. Spring.
- CHEM 2004. Descriptive Inorganic Chemistry** Systematic study of the chemistry of the elements with problem solving using microcomputers. Lecture four hours per week. Special course fees may apply. Prerequisite, CHEM 1021 and C or better in CHEM 1023. Fall.
- CHEM 2393. Special Problems** Selected special or current topics of interest to faculty and students that require no prerequisite courses. This course is appropriate for a general student audience. See individual semester schedules for more information about each offering. Irregular.
- CHEM 3051. Try Out the Classroom** Introductory classroom experience led by ASU STEM faculty and area teachers. Topics include Arkansas science/math curriculum, classroom management, laboratory safety, and basic teaching skills. Students will develop and present science/math activities in area classrooms and campus outreach. Prerequisites, 8 CHEM credit hours. Fall.
- CHEM 3054. Quantitative Analysis** Emphasizes quantitative and critical analysis based on standard analytical techniques and instrumentation. Topics include statistics, material equilibria, basic skills in instrumentation and electroanalytical methods. Lecture two hours, laboratory six hours per week. Special course fees may apply. Prerequisites, MATH 2204 or 2194, CHEM 1021, and C or better in CHEM 1023. Spring.
- CHEM 3101. Organic Chemistry I Laboratory** Laboratory skills illustrating the principles of Organic Chemistry I. Three hours per week. Special course fees may apply. Corequisite or prerequisite, CHEM 3103. Credit for this course is contingent upon earlier or simultaneous completion of CHEM 3103. Fall, Spring, Summer.
- CHEM 3103. Organic Chemistry I** Study of the nomenclature, bonding, preparations and reactions of compounds of carbon, including aliphatic and aromatic hydrocarbons, haloalkanes, alcohols, and ethers. Lecture three hours per week. Special course fees may apply. Prerequisites, CHEM 1021 and C or better in CHEM 1023. Fall, Spring, Summer.
- CHEM 3111. Organic Chemistry II Laboratory** Laboratory skills illustrating the principles of Organic Chemistry II. Three hours per week. Special course fees may apply. Prerequisite, CHEM 3101. Credit for this course is contingent upon earlier or simultaneous completion of CHEM 3113. Fall, Spring, Summer.
- CHEM 3113. Organic Chemistry II** Continuation of Organic Chemistry I, including the study of phenols, aldehydes, ketones, carboxylic acids and their derivatives, amines, proteins, carbohydrates, lipids and nucleic acids. Spectroscopic methods of structure determination are also presented. Lecture three hours per week. Special course fees may apply. Prerequisites, CHEM 3101 and C or better in CHEM 3103. Fall, Spring, Summer.
- CHEM 3124. Physical Chemistry I** Systematic, rigorous development of fundamental chemical concepts presented in a unified lecture and laboratory format. Special course fees may apply. Prerequisites, PHYS 2044 or PHYS 2064, and MATH 3254. Fall.
- CHEM 3134. Physical Chemistry II** Systematic, rigorous development of fundamental chemical concepts presented in a unified lecture and laboratory format. Prerequisite, CHEM 3124. Spring.
- CHEM 3153. Survey of Physical Chemistry** A one semester course exploring the systematic development of fundamental chemical concepts. Special course fees may apply. Prerequisites, PHYS 2044 or PHYS 2064, MATH 2204 or MATH 2194, CHEM 3113. Spring.

- CHEM 4043. 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 and control procedures will be covered. Special course fees may apply. Prerequisites, CHEM 3103 and CHEM 3101. Fall, even.
- CHEM 4204. 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. Special course fees may apply. Prerequisites, CHEM 3124. Spring.
- CHEM 4224. Instrumentation** Application and operational theories of modern instruments. Laboratory includes use of gas chromatography, infrared, ultraviolet visible and atomic absorption, spectroscopy, and electrochemical techniques. Lecture two hours, laboratory six hours per week. Special course fees may apply. Prerequisites, CHEM 3054, CHEM 3124. Fall.
- CHEM 4241. Biochemistry Laboratory** Experiments aimed to acquaint the student with problems and more important methods of biochemical research. Laboratory three hours per week. Special course fees may apply. Corequisite, CHEM 4243. Fall.
- CHEM 4243. Biochemistry** Presentation of the important areas of modern biochemistry and a description of methods commonly employed in biochemical research. Lecture three hours per week. Special course fees may apply. Prerequisites, CHEM 3113 and 3111. Fall, Spring.
- CHEM 427V. Research in Chemistry** Directed study in some specialized phase of chemistry designed to provide experience in independent investigations. Special course fees may apply. Prerequisite, permission of the Chemistry Departments Independent Studies Committee. Fall, Spring, Summer.
- CHEM 4281. Chemistry Seminar** Preparation and presentation of a professional quality computer based seminar focusing on research completed during Research in Chemistry, CHEM 427V. Chemistry majors are required to take this course in their senior year. Prerequisite, third hour of CHEM 427V. Spring.
- CHEM 4343. Pharmacology** The study of drugs and their mechanisms of action at the system, cellular, and molecular levels. Special course fees may apply. Prerequisites, BIO 2223 or BIO 3233, BIO 4104, and CHEM 4243. Spring.
- CHEM 4393. Special Problems** Selected special or current topics of interest to faculty and students that require prerequisite coursework. See individual semester schedules for more information about each offering. Registration restricted by instructor permission. Irregular.
- CHEM 4443. Advanced Biochemistry** A continuation of CHEM 4243 biochemistry with a focus on anabolic metabolism and bioinformation processes vital in biological systems and current research in biochemistry and medical correlates. Dual listed as CHEM 5243. Prerequisite, CHEM 4243. Spring.
- CHEM 4501. Chemistry Capstone** A one-credit required course for all chemistry majors, focused on applying knowledge learned in various chemistry courses to solving broad, integrated chemical problems. Prerequisite, Chemistry major, submission of Application/Intent to Graduate Form. Fall, Spring.

Computer Information Technology (CIT)

- CIT 1503. Microcomputer Applications** Students will learn basic computer skills that can be used immediately, throughout college, and beyond. Emphasis on learning basic office applications in word processing, spreadsheets, databases, and presentation graphics. Fall, Spring.
- CIT 2033. Programming Fundamentals** An introduction to Windows programming using Microsoft Visual Studio or a similar integrated development environment. Students learn to write programs using an object oriented programming language and incorporating sequence, selection, and repetition structures. Prerequisite, CIT 1503 or CS 1013. Fall.

- CIT 2413. Word Processing I** Introduction to word processing concepts and applications. Prerequisite, Ability to keyboard. Fall.
- CIT 2523. Telecommunications and Networking Essentials** This course will examine basic networking fundamentals. These include networking media, connectivity, devices, telecommunications protocols, and different networking models. Spring.
- CIT 2543. Keyboarding for Professionals** Covers entry level and advanced level job simulations in legal, medical, technical, accounting, and other firms. Prerequisite, Keyboarding I or equivalent. Summer. (ACTS#: BUSI 1103)
- CIT 3013. Management Information Systems** Provides understanding of information needs of management, information technology used by various business subsystems, and how technology can be utilized for competitive advantage. Prerequisites, CIT 1503 or CS 1013; ACCT 2023 or ACCT 2033; and ECON 2313. Fall, Spring, Summer.
- CIT 3033. Intermediate Programming** Continuation of CIT 2033 (Programming Fundamentals). Uses language taught from previous semester in CIT 2033. Emphasis is on array processing, multiple document applications, database interactivity, and programmer-written functions and classes. Pre/Co-requisite, CIT 3013. Prerequisites, "C" or better in CIT 2033; or instructor permission. Spring.
- CIT 3353. Mobile and Web Applications Development** Development of web and mobile applications from design to deployment. Includes markup, client-side and server side, stylesheet, and related languages, as well as associated development technologies. Pre/Co-requisite, CIT 3013. Prerequisite, programming course with a grade of "C" or better. Fall.
- CIT 3403. Database Management** Enterprise-wide database theory and SQL with the use of industry standard DBMS, such as MySQL, Oracle, or SQL Server. Pre/Co-requisite, CIT 3013. Fall.
- CIT 3413. Advanced Database Management** Extends the coverage of CIT 3403 using a popular DBMS. Topics include client applications, object oriented database development, and data security. Pre/Co-requisite, CIT 3013. Prerequisite, "C" or better in CIT 3403. Spring.
- CIT 3523. Operations Management** Introduction to the operations function in manufacturing and services. Emphasis on continual improvement of systems for producing goods and services. Pre/Co-requisite, CIT 3013. Prerequisites, CIT 1503; ACCT 2023 or ACCT 2033; and STAT 3233. Fall, Spring, Summer.
- CIT 3533. Microcomputer Applications II** Continuation of CIT 1503 to cover advanced topics in the area of spreadsheets and databases. Prerequisite, CIT 1503 or CS 1013, and CIT 2033. Fall.
- CIT 3603. Systems Analysis and Design** Covers the basic techniques used in the analysis, design, and implementation of computer based information systems. Provides overview of the systems development life cycle, systems documentation and program specifications, data gathering and information reporting activities, transition from analysis to design. Pre/Co-requisite, CIT 3013. Corequisite, CIT 3403. Fall.
- CIT 3623. LAN Administration** Covers topics pertinent to the administration of a local area network. Topics include, user management, file management, security, and network printing. Pre/Co-requisite, CIT 3013. Prerequisite, computer literacy. Fall.
- CIT 3663. Data Mining** Theory and practice of knowledge discovery in databases (KDD) with emphasis on predictive modeling and model evaluation using computer software such as SAS to perform data mining. Pre/Co-requisite, CIT 3013. Prerequisites, STAT 3233; or instructor permission. Fall, odd.
- CIT 3853. Computer Forensics** Students are introduced to information systems role in forensic computing. Emphasis will be on the retrieval, preservation, and analysis of computer data which might be used in legal cases. Suggest previous criminology courses or experience for FOSC majors before enrolling. Pre/Co-requisite, CIT 3013. Prerequisite, CIT 1503 or CS 1013. Fall.

- CIT 409V. Special Problems in Computer Information Technology** Individual problems in CIT arranged on a case by case basis after consultation with the instructor. Student must meet departmental requirements before enrolling in this course. Pre/Co-requisite, CIT 3013. Fall, Spring, Summer.
- CIT 4453. Global E-Commerce** Provides an understanding of the technologies behind E-commerce and how they enable the delivery of goods and services using electronic formats in a global context. Pre/Co-requisite, CIT 3013. Spring.
- CIT 4503. Business Technology Methods** The present status and software usage of business technology personnel. Special attention is given to instructional innovations. Intended for BSE majors. Pre/Co-requisite, CIT 3013. Fall.
- CIT 4513 Business Technology Field Experience** Provides business technology teachers, under direct supervision, the opportunity to develop and refine vocational competencies in office occupation. Special course fees may apply. Pre/Co-requisite, CIT 3013. Summer.
- CIT 4523. Advanced Network Telecommunications** This course builds on the fundamental concepts covered in CIT 2523 by extensive coverage of major topics that include routing protocols, wireless LAN infrastructure, internet working hardware, TCP/IP subnetting, VLANs, and network security. Pre/Co-requisite, CIT 3013. Prerequisite, CIT 2523. Fall.
- CIT 4533. Word Processing II** Advanced word processing concepts and applications. Pre/Co-requisite, CIT 3013. Prerequisites, CIT 2413; or instructor permission. Spring.
- CIT 4603. Microcomputer Applications III** Course three of the study of the role of a software suite as a tool used in business. The applications covered will include, Word Processing, Spreadsheet, Database, and electronic presentations. Pre/Co-requisite, CIT 3013. Prerequisite, CIT 3533. Spring.
- CIT 4623. Computer Security** Discusses the primary topics of computer security needed by IT professionals in both commercial and military installations. Includes access control, cryptography, continuity planning, physical security, and the overall management of security issues. Pre/Co-requisite, CIT 3013. Spring.
- CIT 4653. Automatic Data Capture** Methods, technologies, systems, and standards used in supply chain information systems and e-business for automatically identifying objects, and collecting and transferring data. Technologies such as bar coding, RFID, smart cards, magnetic striping, biometrics, GPS, real time locating, and voice data entry, as well as their business applications are addressed. Pre/Co-requisite, CIT 3013. Prerequisites, CIT 2033, and CIT 2523. Corequisite, CIT 3603. Fall.
- CIT 4853. IT Project Management** Provides students with the information needed to manage a technical project within a business environment. Students will work a project simulation through the project management cycle from project team selection to project implementation. Taken during last semester or with instructor permission. Pre/Co-requisite, CIT 3013. Spring.
- CIT 4863. Current Topics in CIT** The content of this course will be based upon current issues within the business world as they relate to the use of computer and information technology. Pre/Co-requisite, CIT 3013. Prerequisite, minimum of 60 hours. Irregular.
- CIT 488V. Internship in CIT** Provides practical information technology experience in a CIT setting. Students will be assigned to work with an outside organization to gain real world training. Pre/Co-requisite, CIT 3013. Prerequisites, Permission of Department Chair and Internship Director required. Fall, Spring, Summer.

Clinical Laboratory Science (CLS)

- CLS 1003. Making Connections Clinical Laboratory Science** Open to incoming Freshmen only. This course will provide both an introduction to the nature of university education and a general orientation to the functions and resources of the university as a whole. This section of First Year Seminar is a special health professions section and will include a focus on understanding and appreciating various health professions and how laboratory professionals interact with other health care professionals. Fall.

- CLS 1511. Principles of Clinical Laboratory Science Laboratory** Development of laboratory skills techniques which are applicable in all clinical laboratory areas. Open to other students who may have an interest in the clinical laboratory profession. Corequisite, CLS 1512. Fall, Spring.
- CLS 1512. Principles of Clinical Laboratory Science** Introduction to concepts utilized throughout all the clinical laboratory areas. Open to other students who may have an interest in the clinical laboratory profession. Corequisite, CLS 1511. Fall, Spring.
- CLS 1521. Urine and Body Fluid Analysis** Theory and analysis of urine and body fluids, excluding blood, in normal and pathological states. Techniques of analysis include physical, chemical, and microscopic procedures. Corequisite, CLS 1531. Spring.
- CLS 1531. Urine and Body Fluid Analysis Laboratory** Performance of body fluid testing procedures necessary to function in a clinical body fluid laboratory. Corequisite, CLS 1521. Spring.
- CLS 2514. Clinical Practicum I** Allows students to become proficient in the areas of chemistry, utilizing the highly sophisticated equipment located in this discipline. Students will become members of the health care team under the direction of the clinical staff. Prerequisites, CLS 1511, CLS 1512, CLS 2541, CLS 2543, CHEM 1011, CHEM 1013. Fall, Spring, Summer.
- CLS 2521. Hematology I Laboratory** Performance of laboratory procedures necessary to function in a clinical hematology laboratory. Prerequisites, CLS 1512 and CLS 1511 or permission of the instructor. Corequisite, CLS 2523. Fall.
- CLS 2523. Hematology I** Discussion of the formation, morphology, and function of various blood cells and the principles of hemostasis. Includes the theoretical elements of related laboratory procedures. Prerequisites, CLS 1512 and CLS 1511 or permission of the instructor. Corequisite, CLS 2521. Fall.
- CLS 2524. Clinical Practicum II** Allows the students to become proficient in the areas of hematology and urinalysis, utilizing the highly sophisticated equipment located in these disciplines. Students will become members of the health care team under the direction of the clinical staff. Prerequisites, CLS 1511, CLS 1512, CLS 1521, CLS 1531, CLS 2521, CLS 2523. Fall, Spring, Summer.
- CLS 2531. Medical Microbiology I Laboratory** Performance of laboratory procedures necessary to function in the microbiology section of a clinical laboratory. Prerequisite, BIO 2101 and BIO 2103. Corequisite, CLS 2533. Fall.
- CLS 2533. Medical Microbiology I** Study of pathology, biochemistry, and identification of organisms causing infectious diseases in humans. Includes collection and processing of specimens. Prerequisite, BIO 2103 and BIO 2101. Corequisite, CLS 2531. Fall.
- CLS 2541. Clinical Chemistry I Laboratory** Laboratory methods and techniques for the analysis of body fluids including routine assessment of body metabolism, renal function, liver function, electrolytes and acid and base balance, enzymes, and other analytes. Corequisite, CLS 2543. Pre or corequisite, CLS 1511, CLS 1512, CHEM 1013, CHEM 1011. Spring.
- CLS 2543. Clinical Chemistry I** Analysis of body fluids with correlation to both health and disease. Theoretical concepts include testing for body metabolism, renal function, liver function, electrolytes, acid and base balance, enzymes, and other routine assessment. Corequisite, CLS 2541. Pre or corequisites, CLS 1511, CLS 1512, CHEM 1013, CHEM 1011. Spring.
- CLS 2551. Case Studies and Review for the MLT** Cross-discipline case studies and formal review for the national certification examination. Spring.
- CLS 2561. Immunohematology I Laboratory** Performance of procedures necessary to function in a clinical blood bank. Prerequisites, CLS 2523, CLS 2521, CLS 2573, CLS 2571, BIO 2223 and BIO 2221. Corequisites, CLS 2563. Fall.
- CLS 2563. Immunohematology I** Discussion of the principles involved in compatibility testing, antigen and antibody identification, donor blood acquisition and preparation, and a basic discussion of relevant diseases. Prerequisites, CLS 2523, CLS 2521, CLS 2573, CLS 2571, BIO 2223 and BIO 2221. Corequisite, CLS 2561. Fall.

- CLS 2571. Clinical Immunology and Serology Laboratory** Performance of laboratory procedures necessary to function in the serology section of a clinical laboratory. Prerequisites, BIO 2201 and BIO 2203. Corequisite, CLS 2573. Spring.
- CLS 2573. Clinical Immunology and Serology** Immunity in health and disease will be discussed. Provides theoretical basis of serological diagnostic procedures including techniques of test performance. Prerequisites, BIO 2201 and BIO 2203. Corequisite, CLS 2571. Spring.
- CLS 3153. Clinical Biochemistry** A study of the biochemical principles that make up the chemical and molecular aspects of the clinical chemistry laboratory. Case studies will apply biochemical principles involved in day to day practices and how they work in disease processes. Prerequisite, CHEM 3103 and CHEM 3101. Spring.
- CLS 3221. Hematology II Laboratory** Performance of advanced laboratory procedures, recognition of cells and lab values related to hematology disorders, development of cases related to specified hematology disorders. Prerequisites, CLS 2523 and CLS 2521. Corequisite, CLS 3223. Fall.
- CLS 3223. Hematology II** In depth discussion of hematologic disorders, causes, laboratory results, and treatment. Prerequisites, CLS 2521 and CLS 2523. Corequisite, CLS 3521. Fall.
- CLS 3343. Principles of Diseases for the Clinical Laboratory Sciences** Introduction to disease processes in the major systems of the body, with practical applications for clinical laboratory personnel. Enrollment restricted to CLS, BS students. Prerequisite, Junior status. Fall.
- CLS 3511. Medical Parasitology Laboratory** Performance of laboratory procedures used in the recovery and identification of parasites from tissues, exudates, and body fluids. Corequisite, CLS 3512. Summer.
- CLS 3512. Medical Parasitology** Discussion of acquisition, pathogenesis, and epidemiology of parasitic infections, as well as, the diagnosis of parasitic infections based upon symptomology and the microscopic examination of tissues, exudates, and body fluids. Corequisite, CLS 3511. Summer.
- CLS 3514. Clinical Practicum III** Enhances learning experiences in microbiology and parasitology. Students will become members of the health care team under the direction of the clinical staff. Prerequisites, CLS 3511, CLS 3512, CLS 2531, CLS 2533. Fall, Spring, Summer.
- CLS 3524. Clinical Practicum IV** Enhances the learning experiences in serology and blood bank techniques. Students will become members of the health care team under the direction of the clinical staff. Prerequisites, CLS 2561, CLS 2563, CLS 2571, CLS 2573. Fall, Spring, Summer.
- CLS 410V. Special Problems in Clinical Laboratory Science** Specific area with the topic and mode of inquiry agreed upon by the student and instructor. Registration may be repeated with various topics. Registration must be approved by the program director. Fall, Spring.
- CLS 4111. Clinical Issues and Topics in Clinical Chemistry II** Web-based Case Study investigations into the complex analysis of body fluids with advanced level content designed for critical thinking in the development, application, analysis, integration, synthesis, and evaluation of clinical chemistry concepts and theories. Prerequisites, CHEM 1013, CHEM 1011, CLS 2541, CLS 2543. Corequisite, CLS 4113. Fall.
- CLS 4113. Clinical Chemistry II** Complex analysis of body fluids with correlation to both health and disease. Theoretical concepts include advanced testing for body metabolism, renal function, liver function, electrolytes, acid and base balance, enzymes, endocrinology and therapeutic drug monitoring. Prerequisites, CHEM 1013, CHEM 1011, CLS 2543, CLS 2541. Corequisite, CLS 4111. Fall.
- CLS 4174. Clinical Practicum I** Clinical laboratory experience in chemistry and special chemistry. A special project is required. Enrollment restricted to CLS majors. Instructor permission is required. Prerequisite, CLS 2541 and CLS 2543. Fall, Spring, Summer.
- CLS 4184. Clinical Practicum II** Clinical laboratory experience in hematology and coagulation and urinalysis. Prerequisite, admission to clinical program. Enrollment restricted to CLS majors. Instructor permission is required. Prerequisites, CLS 2521, CLS 2523. Fall, Spring, Summer.

- CLS 4194. Clinical Practicum III** Clinical laboratory experience in microbiology and parasitology. A special project is required. Enrollment restricted to CLS majors. Instructor permission is required. Prerequisite, CLS 2531 and CLS 2533. Fall, Spring, Summer.
- CLS 4204. Clinical Practicum IV** Clinical laboratory experience in immunohematology and serology. A special project is required. Enrollment restricted to CLS majors. Instructor permission required. Prerequisites, CLS 2571, CLS 2573, CLS 2561, and CLS 2563. Completion of CLS 4331 and CLS 4333 is strongly recommended. Fall, Spring, Summer.
- CLS 4212. Interpreting Laboratory Data** This course is an overview that explains why laboratory tests are ordered and how interpretation of laboratory data is used in the care and welfare of patients. Not open to CLS or CLT students. Spring and Summer.
- CLS 4214. Clinical Practicum V** Clinical laboratory experience in management and clinical electives. A special project is required. Enrollment restricted to CLS majors. Prerequisite, CLS 4174, CLS 4184, CLS 4194, CLS 4204. Instructor permission required. Fall, Spring, Summer.
- CLS 4222. Senior Seminar I** Overview of multiple topics related to advanced clinical laboratory practice, including education, management, quality improvement, and research. Restricted to BS-CLS majors. Fall.
- CLS 4232. Senior Seminar II** Overview of multiple topics related to advanced clinical laboratory practice, plus a formal review in preparation for national certification examinations. Restricted to BS-CLS majors. Spring.
- CLS 4331. Clinical Issues and Topics in Immunohematology II** WEB-based Case Study approach for advanced level content designed for critical thinking in the development, application, analysis, integration, synthesis, and evaluation of concepts and theories in the practice of blood banking and component therapy. Prerequisites: CLS 2521, CLS 2523, CLS 2561, CLS 2563, CLS 2571, CLS 2573. Corequisite: CLS 4333. Spring.
- CLS 4333. Immunohematology II** Discussion of advanced theory related to all facets of blood banking. Emphasis on interpreting cases and identifying appropriate problem solving protocols. Prerequisites, CLS 2561, CLS 2563. Corequisite, CLS 4331. Spring.
- CLS 4441. Clinical issues and Topics in Medical Microbiology II** WEB-based Case Study approach addressing advanced level content of medically important microorganisms. Designed to enhance critical thinking skills through the interpretation, correlation, analysis and differential diagnosis of infectious disease case-oriented material in clinical presentations. Differential diagnoses to be based on the evaluation of patient history, clinical manifestations, and laboratory data. Prerequisites. CLS 2533 and CLS 2531. Corequisite. CLS 4443. Spring.
- CLS 4443. Medical Microbiology II** Discussion of mechanisms of pathogenicity, quality management, nosocomial infections, specimen collection and processing, automation and instrumentation, molecular techniques, and medical microbiology in patient care. Covers the theoretical elements of related laboratory procedures. Prerequisites, CLS 2533 and CLS 2531. Corequisite, CLS 4441. Spring.

Media and Communication (CMAC)

- CMAC 1001. Media Grammar and Style** Writing mechanics for media. An introduction to applying basic grammar, spelling and media style rules and guidelines professionals use for writing across multiple media platforms. Can be taken concurrently with CMAC 2003 with consent of chair. Test-out option available. Fall, Spring, Summer.
- CMAC 1003. Mass Communications in Modern Society** A study of the interaction between society and mass communication through the lenses of history, theory, economics, culture, law, and technology.
- CMAC 3001. Professional Seminar** An overview of professional careers, etiquette, and best practices in a broad range of communication and media based contexts. Fall, Spring.

Communication Studies (COMS)

- COMS 1203. Oral Communication** The theory and practice of communication in interpersonal, small groups, and public speaking contexts, emphasizing proficiency in message organization, delivery, and critical thinking. Fall, Spring, Summer. (ACTS#: SPCH 1003)
- COMS 1211. Intercollegiate Debate** Study and practice of intercollegiate debate. May be repeated for credit. Fall, Spring.
- COMS 2243. Principles of Argumentation** Principles of logical reasoning used in advocacy, analysis, use of evidence, inductive and deductive reasoning. Fall, Spring.
- COMS 2253. Introduction to Health Communication** Communication in healthcare settings. Major topics include patient provider interaction, information dissemination, cultural concerns, ethical issues, and social support. Fall.
- COMS 2313. Communication Theory** Study of foundational and current theories of communication and applications of these theories in communication contexts. Prerequisite, COMS 1203. Spring.
- COMS 2373. Introduction to Interpersonal Communication** A study of interpersonal communication. Prerequisite, COMS 1203. Spring.
- COMS 3203. Business and Professional Communication** Communication needs of people in business and professional settings. Fall, Spring.
- COMS 3211. Intercollegiate Debate** Study and practice of intercollegiate debate. May be repeated for credit. Fall, Spring.
- COMS 3243. Principles of Persuasion** Theory and practice of persuasion as an instrument in motivating human conduct. Fall.
- COMS 3253. Principles of Listening** Principles of listening in the communication process, emphasis on listening improvement. Fall, even.
- COMS 3363. Communication Research Methods** Study of qualitative and quantitative approaches to communication research. Fall, even.
- COMS 3373. Gender Communication** Study of the interrelationship between communication and gender in various contexts. Spring, odd.
- COMS 3433. Communication Criticism** Provides critical approaches from the humanistic condition engaging media, public discourse, and interpersonal communication. Prerequisites, COMS 1203, or PHIL 1503 or PHIL 1103. Summer.
- COMS 4203. Small Group Communication** Group and conference techniques for classroom, business, and professional situations. Spring, Summer.
- COMS 4243. Interpersonal Communication** Emphasis on increasing students capacity for openness, sensitivity, and objective appraisal. Fall, Summer.
- COMS 4253. Intercultural Communication** Identification of barriers and breakdowns to communication among cultures. Spring.
- COMS 4263. Organizational Communication** Dynamics and theories of communication within an organization. Spring, even.
- COMS 431V. Special Problems** Prerequisite, instructor permission. May be repeated twice with different topics. Irregular.
- COMS 4323. 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. Fall, odd.
- COMS 4373. Conflict Resolution** Conflict as a communication variable created through interpersonal interaction in dyads, small groups, families, and organizations. Dual listed as COMS 5373. Summer.

COMS 4383. 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 5383. Prerequisite, COMS 1203, or instructor permission. Spring.

COMS 4403. Seminar in Health Communication Study of the major cultural, interpersonal, and public communication issues affecting health communication. Spring, odd.

COMS 4423. Narratives in Health and Healing Explores the social construction of health, illness, and healing through the study narrative. Dual listed as COMS 5423. Spring.

COMS 4433. Health Communication Campaigns Planning, implementation, and evaluation of health communication campaigns. Prerequisite, COMS 1203. Fall.

COMS 4443. Leadership and Communication Leadership and communication in organizations and society.

COMS 4503. Internship in Communication Studies Field-based experience in a supervised setting that will enhance communication knowledge and skills. Prerequisite: Approval of department chair. Fall, Spring, Summer.

COMS 4533. Communication Studies Capstone Application of skills and knowledge gained in the Communication Studies major through a research project presented orally and in writing. Prerequisites, COMS 2313; COMS 3363 or COMS 3433; instructor permission. Fall, Spring.

Counseling (COUN)

COUN 3023. Foundations of Counseling Overview of the counseling profession, developmental history of the profession, career opportunities and specializations, professional identity development, theoretical approaches, legal and ethical issues, diversity/multicultural concerns, professional advocacy, and educational training and credentialing. Fall.

COUN 3033. Multicultural Issues in the Helping Professions Overview of diverse cultures and their influence on identity development and worldview, and inter/intrapersonal understanding of interacting with diverse individuals for the helping professions. Fall.

COUN 3123. Group Process in Helping Relationships An overview of group dynamics as related to helping professions, group process theories, and how they function from a theoretical perspective and through membership of a process group. Spring.

COUN 3203. Interpersonal Communication Skills for the Helping Professions Experiential training in basic interpersonal helping skills necessary for effective communication in the helping professions. Fall.

COUN 3283. Introduction to Substance Use Disorders An overview of Substance Related and Addictive Disorders, including various models of conceptualizing substance use disorders, prevention approaches, evidence-based treatments, and the impact of family and culture from a counseling perspective. Summer.

COUN 4183. Grief, Loss, and Self-Care for Helping Professionals An overview of the mourning process, normal and complicated grief, contextual influences on grief responses, burnout/compassion fatigue, and self-care strategies for helping professionals. Spring.

Criminology (CRIM)

CRIM 1023. Introduction to Criminal Justice The introductory survey course in criminology, dealing with the main components of the criminal justice system including the police, courts, and corrections, as well as issues and procedures pertinent to the operation of these components. Prerequisite for CRIM 4103. Fall, Spring, Summer. (ACTS#: CRJU 1023)

CRIM 2043. Community Relations in the Administration of Justice Provides an understanding of the complex factors in human relations. The philosophy of law enforcement is examined with the emphasis on the social forces which create social change and disturbance. Spring.

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- CRIM 2253. Criminal Investigation** Includes fundamentals and theory of an investigation, conduct at crime scenes, collection and presentation of physical evidence, and methods used in the police service laboratory. Fall.
- CRIM 2263. Criminal Evidence and Procedure** Rules of Evidence in the context of law enforcement and criminal procedures, personal conduct of officers as witnesses, and the safeguarding of personal constitutional liberties. Fall.
- CRIM 3183. Institutional Corrections** An examination of the context, structure, and dynamics of local, state, and federal criminal confinement facilities. Fall.
- CRIM 3193. Community Corrections** An examination of non-institutional correctional agencies and techniques including probation, parole, diversion, pretrial release, community service, restitution, halfway house, and similar programs. Spring.
- CRIM 3223. Police and Society** Explores the relationship of the police to courts, probation, community corrections, institutional corrections, and parole. Also explores the relationship between police and other social institutions and the philosophy of police as an agent of social control. Spring.
- CRIM 3263. Criminology** Sociological patterns of crime and criminals, with emphasis on causes, effects, and prevention. Fall, Spring.
- CRIM 3323. Juvenile Delinquency** Juvenile delinquency and crime with a focus on causative factors, extent of the problem, and methods of prevention and treatment. Fall.
- CRIM 3423. Serial Homicide** Historical and current trends in serial homicide, including viewpoints of offenders, victims, and law-enforcement community. Fall, Spring.
- CRIM 4103. Criminal Justice Systems** General functions of the individual agencies and the duties and responsibilities of the individuals who perform these functions. Fall.
- CRIM 4243. Social Justice** Social justice in the criminal justice system, including issues of race, class, gender, and sexual orientation. Fall, Spring.
- CRIM 4493. Capstone in Criminology** Senior research project in Criminology intended to demonstrate student's ability to formulate a proposal, collect and analyze data, and present findings. Prerequisites, Declared Criminology major, SOC 3383, SOC 4293. Fall, Spring.
- CRIM 460V. Special Problems** Individually directed problems in Criminology. Must be arranged with the professor and approved by department chair. Irregular.
- CRIM 470V. Internship** Combines supervised work experience with study of selected agencies and organizations. Must be arranged with the professor and approved by the department chair. Fall, Spring, Summer.

Computer Science (CS)

- CS 1013. Introduction to Computers** Applications of computers for general university course work. Elementary operating system usage, creation of data files, spreadsheets for mathematical and scientific data, Internet usage. Corequisite, UC 022V or MATH 0013 or higher. Fall, Spring. (ACTS#: CPSI 1003)
- CS 1093. Making Connections Computer Science** Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.
- CS 1114. Concepts of Programming** Introduction to problem solving, algorithm development, and structured programming. Emphasis will be placed on problem solving and algorithm development. Designed as a first course for students seeking the Bachelor of Arts in Computer Science as well as non-majors. Prerequisite, score of 24 or above on Math ACT or 590 or above on Math SAT, or MATH 1023 or higher. Fall, Spring.

- CS 2114. 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. Prerequisite, C or better in MATH 1023 or MATH 1033 or higher. Fall, Spring.
- CS 2124. OOP and Fundamental Data Structures** Second course in programming, emphasis on data abstraction. Introduction to abstract data types and object-oriented programming. Linked lists, stacks, queues and binary trees. Searching and sorting techniques. Prerequisite, C or better in CS 2114. Fall, Spring.
- CS 3113. Algorithms and Advanced Data Structures** Analysis of data structures and associated algorithms. Examination of advanced tree structures, heaps, hashing techniques, and graph algorithms. Prerequisites, C or better in CS 2124 and MATH 2183, and MATH 2204 or MATH 2143 or MATH 2194. Fall, Spring.
- CS 3123. Programming Languages** Survey of organization and behavior of programming languages. Examination of data typing, control structures, syntactic representation and specification. Prerequisites, CS 2124. Spring.
- CS 3223. Computer Organization** Basic principles of computer architectural design including instruction set principles, pipelining, instruction level parallelism, memory hierarchy, storage systems, and multiprocessing. Prerequisites, MATH 2204 or MATH 2143 or MATH 2194 and CS 2114. Fall.
- CS 3233. Operating Systems** Policies, design issues, and implementation techniques for operating system software. Synchronization, process scheduling, memory and storage management, and system protection. Prerequisite, CS 3113. Spring.
- CS 3613. Web Application Development** Introduction to the fundamentals, design patterns, interfaces, and technologies underlying web application development in a multi-tiered enterprise environment. Prerequisite, "C" or better in CS 2114. Spring.
- CS 4113. Software Engineering** Techniques of design, implementation, automated tools, quality assurance, metrics, and maintenance for large scale software systems. Projects include team programming experience. Dual listed with CS 5113. Prerequisite, CS 3113. Fall.
- CS 4133. Compilers** Techniques for construction of compilers. BNF and EBNF representations. Lexical, syntactic and semantic analysis. Top down and bottom up parsing. Run time systems and code generation. Dual listed with CS 5133. Prerequisite, CS 3113. Fall, even.
- CS 4143. Java Application Development** Introduction to Java; in depth examination of applications including graphics, threading, database, networking, distributed system, and algorithms. Prerequisites, CS 3123, CS 3223, and CS 3233. Spring.
- CS 4213. 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 with CS 5213. Prerequisites, CS 3113. Irregular.
- CS 4223. UNIX Systems Programming** System level programming in UNIX systems. Dual listed with CS 5223. Prerequisite, CS 3113. Fall.
- CS 4313. Computer Networks** Issues and principles involved in the design of computer networks using the OSI reference model as a framework. Dual listed with CS 5313. Prerequisite, CS 3233. Spring.
- CS 4413. Fundamental Computer Graphics** Creation, storage, and manipulation of graphical models of objects. Implementation of graphics routines in both two and three dimensional techniques. Dual listed with CS 5413. Prerequisite, CS 3113. Spring.
- CS 4423. Interactive Computer Graphics** Techniques for creating realistic environments. Topics include hidden surface removal, shading, shadowing, reflection, refraction, and color theory. Dual listed with CS 5423. Prerequisite, CS 3113. Fall.
- CS 4433. Artificial Intelligence** Representation of knowledge and introduction to a functional programming language, search methods and control. Typical applications of artificial intelligence. Dual listed with CS 5433. Prerequisite, CS 3113. Fall.

- CS 4543. 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 with CS 5543. Prerequisite, CS 3113. Fall.
- CS 4613. Mobile Application Development** Creation of mobile applications for iOS and Android devices through a project-based environment, deployment of applications to mobile hardware and effective teamwork. Dual listed with CS 5613. Prerequisite, CS 3113 or instructor permission. Spring.
- CS 4713. Analysis of Algorithms** Analysis of space and time requirements of algorithms. Worst case and average case studies. Greedy algorithms and divide and conquer algorithms. Tractable and intractable algorithms. Dual listed with CS 5713. Prerequisites, CS 3113 and MATH 2214. Fall.
- CS 4723. 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, and turing machines. Dual listed with CS 5723. Prerequisite, CS 3113. Fall, odd.
- CS 4811. Computer Science Seminar** Critical discussion and presentation of papers on current topics in computer science. The prerequisites will vary according to the topic selected, but all students must have taken CS 3113. Irregular.
- CS 4823. 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 with CS 5823. Prerequisite, CS 3113. Irregular.
- CS 482V. Special Problems in Computer Science** Individual problems or topics in computer science arranged in consultation with the instructor must be approved by the department. Prerequisite, CS 3113. Irregular.
- CS 483V. Internship** Supervised work experience participating in application system development in a business and manufacturing environment. Grade earned will be pass or fail. Prerequisites. Permission of the Computer Science faculty and CS 3113. Irregular.

Digital Design (DIGI)

- DIGI 2003. Introduction to Coding with Swift** Foundations in coding using Swift language. Practical application of the tools, techniques, and concepts needed to build a basic iOS app. Fall, Spring.
- DIGI 3003. Intermediate Coding with Swift** Intermediate Swift coding using industry best practices to build the mindset of an app developer. Prerequisite, DIGI 2003. Fall, Spring.
- DIGI 4003. Advanced Studio in Swift Coding** Application of Swift coding concepts to design and build a basic iOS app. Prerequisite, DIGI 3003. Fall, Spring, Summer.

Disaster Preparedness and Emergency Management (DPEM)

- DPEM 1101. Introduction to Incident Management** An introduction to the Incident Command System (ICS) and the National Incident Management System (NIMS), the nationwide template for all government, private-sector, and nongovernmental organizations. Describes the history, features, principles, ICS organizational structure and the relationship between ICS and NIMS. Fall, Spring, Summer.
- DPEM 1111. Introduction to Resource Management** Focuses on resources for personnel who are likely to assume a supervisory position within the Incident Command System (ICS) is provided. This course is designed to enable personnel to operate efficiently during an incident or event within the ICS. Fall, Spring, Summer.
- DPEM 1121. Introduction to CBRNE** Provides instruction on prevention and deterrence, chemical and biological agents, radiological materials, explosives, and the Emergency Response Guidebook. Fall, Spring, Summer.

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- DPEM 1503. Introduction to Community Preparedness** Introduction to clinical and public health concepts for the management of disasters and public health emergencies along with instruction in preparation for pandemics. Fall, Spring, Summer.
- DPEM 1703. Introduction to Community Response** Provides information about disaster preparedness and weapons of mass destruction. Training in basic disaster response skills, such as fire safety, light search and rescue, and disaster medical operations is included. Fall, Spring, Summer.
- DPEM 2213. Principles of HAZMAT Response** Content focuses on immediate response actions associated with life safety, preservation of property, and restoration of an incident site in addition to information relating to the identification of CBRNE hazards. Culminates with performance of defensive-level tasks in a toxic environment. Fall, Spring, Summer.
- DPEM 2223. Hazardous Materials Containment** The goal of this course is to enable students to identify, detect, and categorize chemical, biological, and radiological materials and explosive devices, as well as determine the appropriate equipment and decontamination techniques to use when responding to CBRNE incidents. Fall, Spring, Summer.
- DPEM 2233. Principles of Healthcare Emergency Management** Foundation knowledge in healthcare emergency management to include standards, regulations, organizations, government agencies and stakeholders; disaster planning; staffing and personnel; Personal Protection Equipment and decontamination; evacuation, isolation, and quarantine; ethical issues; financial issues; and public affairs. Fall, Spring, Summer.
- DPEM 2243. CBRNE Incident Practicum** Provides emergency responders and their supervisors with CBRNE-specific response skills, enabling them to safely respond to a suspected incident at a performance defensive level. Fall, Spring, Summer.
- DPEM 2303. Environmental Health Training in Emergency Response** The course supplements the knowledge and experience of the student with a basic understanding of disaster management and the application of environmental health to disaster management and integrates their professional skills into a local-level disaster response, recovery, mitigation and preparedness. Fall, Spring, Summer.
- DPEM 2313. Pandemic Planning and Preparedness** The Pandemic Planning and Preparedness course 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. Fall, Spring, Summer.
- DPEM 2323. Respiratory Protection** Core information to develop, implement, administer, and sustain a respiratory protection program as defined in Code of Federal Regulations is presented. This course is at the site of a Center for Domestic Preparedness (CDP) hosting jurisdiction or department. Fall, Spring, Summer.
- DPEM 2333. HAZMAT Evidence Collection for CBRNE Incident** Enables HAZMAT responders to identify, detect, and categorize chemical, biological, and radiological materials and explosive devices, as well as determine the appropriate equipment and decontamination techniques to use when responding to CBRNE incidents. Fall, Spring, Summer.
- DPEM 2341. Clinician Actions for CBRNE Incidents** This course provides students, future Emergency Medical System responders, with CBRNE-specific response skills, enabling them to safely respond to a suspected incident and provide on-scene care to victims. Fall, Spring, Summer.
- DPEM 2343. Emergency Responder HAZMAT Technician for CBRNE** Provides HAZMAT responders with Chemical, Biological, Radiological, Nuclear, and Explosive -specific response skills, enabling effective response to a suspected incident culminating with performance of these offensive-level tasks in a simulated HAZMAT environment. Fall, Spring, Summer.
- DPEM 2351. Responder Actions for CBRNE Incidents** Provides students, future emergency responders and supervisors, with (CBRNE)-specific response skills, enabling them to safely respond to a suspected CBRNE incident at a performance defensive level. Fall, Spring, Summer.
- DPEM 2353. Global Perspectives in Disaster Preparedness** A focus on global disaster preparedness around the world will be identified including economic, health, political, psychological, cultural and religious impact of current and major historical disasters. Fall, Spring, Summer.

- DPEM 2363. Fundamentals of CBRNE Crime Scene Management** Knowledge of proper implementation of procedures and guidelines for crime scene management when responding to a Chemical, Biological, Radiologic, Nuclear and/or Explosive incident. Fall, Spring, Summer.
- DPEM 2371. Protective Measures for CBRNE Incidents** Provides students, future law enforcement responders, with the ability to train in CBRNE-specific skills, reinforcing their ability to identify suspicious activity that could lead to a CBRNE event and with the knowledge to respond to a CBRNE event. Fall, Spring, Summer.
- DPEM 2381. Law Enforcement Response Actions for CBRNE Incidents** Provides students, law enforcement responders, with CBRNE-specific response skills, enabling them to safely respond to a suspected Weapons of Mass Destruction (WMD) incident at a performance-defensive level. Fall, Spring, Summer.
- DPEM 2391. Initial Response to Suicide Bomb Attacks** Provides students, front line Law Enforcement Officers, with the skills and knowledge to effectively interdict and respond to an imminent suicide bombing attack (person-borne or vehicle-borne) or a non-suicide attack involving a vehicle-borne device. Fall, Spring, Summer.
- DPEM 2402. Civil Disorder in Disasters and Emergencies** The course provides students from state and local law enforcement agencies with the knowledge and skills necessary to prepare for and successfully mitigate threat incidents involving civil disorder.
- DPEM 2412. Command and Planning for Civil Disorder in Disasters and Emergencies** Provides students, emergency responders, with response skills that enable them to safely respond to an incident at the management level culminating in a tabletop exercise. Fall, Spring, Summer.
- DPEM 2422. Extrication Tactics for Civil Disorder in Disasters and Emergencies** Provides students with the ability to identify protester devices; discuss legal issues related extrication from protester devices; compare the roles and responsibilities of the extrication team; demonstrate safe operation of tools and demonstrate methods of extricating individuals. Fall, Spring, Summer.
- DPEM 2433. Basic Sign Language in DPEM** Equips those responding to disasters and other emergencies with communication methods, basic emergency sign language, common etiquette and special considerations for the Deaf and hearing-impaired. Fall, Spring, Summer.
- DPEM 3053. Expanding Incident Management** Advanced application of the Incident Command System (ICS) to prepare students to assume a supervisory role in expanding incidents as required by the National Incident Management System designated by the National Response Framework. Prerequisites, DPEM 1101, DPEM 1111 and DPEM 1121. Fall, Spring, Summer.
- DPEM 3493. Politics of Disaster** Analyzes the effects of the national response framework and presidential directives in disaster preparedness and emergency management. Compares and contrast the role of society, science, and politics in emergency management. Explores the intergovernmental relationships and the globalization of disasters. Fall, Spring, Summer.
- DPEM 3503. Principles of Disaster Preparedness and Emergency Management** An all hazards approach is utilized to identify legal and ethical issues, cultural, political and religious issues, collective behaviors and group panic, role of the media, effective communication, and identification of resources for persons engaged in disaster and emergency preparedness. Fall, Spring, Summer.
- DPEM 3513. Teaching Incident Management** Teaches presentation techniques, conducting practical application, and preparing and maintaining lesson plans appropriate to Incident Command System (ICS) requirements. Includes instructional strategies for ICS 100, 200, 300, 400, 700 & 800. Prerequisites, DPEM 1101, DPEM 1201, DPEM 3053 and DPEM 4053. Fall, Spring, Summer.
- DPEM 3523. Teaching Officer CBRNE Protection** Develops knowledge and skills to create and deliver courses designed to implement strategies to protect law enforcement officers from exposure to Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) to law enforcement. Fall, Spring, Summer.
- DPEM 3533. Teaching CBRNE Awareness** Students learn how to provide instruction to the adult learning audience in Recognition, Avoidance, Isolation and Notification (RAIN) techniques when confronted with chemical agents, biological agents, radiological materials and explosive devices. Fall, Spring, Summer.

- DPEM 3543. Teaching Emergency Response** Provides students with the knowledge and skills to create and deliver Chemical, Biological, Radiological, Nuclear and/or Explosive instruction to the adult learning audience. Results in emergency responders who can deliver lectures and hands-on training to other emergency responders. Fall, Spring, Summer.
- DPEM 3552. Business Continuity in DPEM** Business continuity strategies during disasters and emergencies will be explored utilizing an all hazards approach. Selected business continuity plans in both private and public sectors will be analyzed in relation to simulated or historical disasters. Fall, Spring, Summer.
- DPEM 3553. Ethics and the Law in DPEM** Examines law and ethical dilemmas in disaster preparedness and emergency management. Includes human rights and injustices associated as well as codes of ethics in emergency management and public health emergency laws. Current and historical disasters will be analyzed. Fall, Spring.
- DPEM 3563. Information Technology in DPEM** Social media, visual, mapping, disaster management systems, software and geographic information systems will be explored as a resource for disaster preparedness and emergency management. Overviews of each system will be provided followed by hands-on experiences with the various technology systems. Fall, Spring, Summer.
- DPEM 3573. Business Continuity in DPEM** Provides students with the knowledge and skills to create and implement business continuity plans for disasters and emergencies. Business risk and impact analysis, including financial and budgetary implications, inform development of a business continuity strategy, plan and mitigation practices. Fall, Spring, Summer.
- DPEM 3583. Principles of Communication in DPEM** Analyze procedures and methods to develop and disseminate mass communications during times of disaster. Identify the dynamics of communications during disasters. Explore the laws and regulations pertaining to disaster communications. Recognize and utilize social media resources in disaster response. Fall, Spring, Summer.
- DPEM 3593. Research Concepts in DPEM** Principles of historical research methods and design applied to disasters and emergencies. Prerequisites, must be classified as a Junior. Spring.
- DPEM 3603. Principles of Administration in Emergency Management** Examines laws and regulations relating to emergency management programs in the private and public sector. Ethical dilemmas and professional accountability will be explored utilizing case studies. Community resilience and recovery in times of disaster will be emphasized. Fall, Spring, Summer.
- DPEM 3613. Radiological Emergencies** Provides hands-on practicum, team exercises and practical skills for effective response to a radiological incident. Topics include Radiological Concepts, Radiological Response Team Operations, Commercial Nuclear Power Facilities, Plume Modeling, Radiological Instrumentation, and Personal Protective Equipment and Decontamination. Fall, Spring, Summer.
- DPEM 3623. Homeland Security Exercise Design** Explore types of exercises applicable to emergency management programs. Plan, develop, and conduct exercises to test and evaluate emergency response plans. Analyze the results of disaster exercises in an after action review meeting the Homeland Security Exercise and Evaluation protocols. Fall.
- DPEM 4053. Complex Incident Management** Provides training and resources for students who require advanced application of the Incident Command system (ICS) in an Area Command or Multi-agency Coordination Entity. Students may perform in a management capacity in an Area Command or Multi-agency Coordination Entity. Prerequisites, DPEM 1101, DPEM 1111, DPEM 1121 and DPEM 3053. Fall, Spring, Summer.
- DPEM 4123. Incident Command for All Hazards** Provides students with information to successfully implement proper procedures and guidelines for crime scene management when responding to a Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) incident. The course culminates with incident management actions applied during a CBRNE scenario incident. Prerequisites, DPEM 1101, DPEM 1111 and DPEM 1121. Fall, Spring, Summer.
- DPEM 4133. All Hazards Command and Response** Practicum experience to assume command and response for all hazards. Encompasses Weapons of Mass Destruction (WMD)-related topics and hands-on training on pre-incident planning, response development, domestic and international terrorism, CBRNE agents and materials associated with WMD. Prerequisites, DPEM 1101, DPEM 1121. Fall, Spring, Summer.

- DPEM 430V. Special Problems in Disaster Preparedness and Emergency Management** Exploration of specific disaster preparedness and emergency management areas, with the topic and mode of study agreed upon by the student and the instructor. Course may be repeated with various topics. Registration must be approved by the department chair. Fall, Spring, Summer.
- DPEM 4501. Teaching MCI Hospital Response** Applies previous knowledge and experience to relate the application of environmental health to disaster management. Professional skills are integrated into a scenario including local-level disaster response, recovery, mitigation and preparedness. Prerequisite, DPEM 4733. Fall, Spring, Summer.
- DPEM 4513. Physical Care of CBRNE Injuries** Elucidates recognition, treatment and containment of Category A biological agents, chemical agents and radiologic incidents. Content discussion will include advanced principles of disaster management, worker safety, advanced triage, disaster effects on special populations, laboratory analysis and expanded mental health response. Fall, even.
- DPEM 4523. Risk Identification and Prevention** Identifies actions communities, institutions and governments must take to identify the risk and prevent injury from man made and natural disasters, including acts of terrorism. Course topics include risk assessment, mitigation, surveillance, disaster epidemiology, emerging infections and socio political implications. Fall, odd.
- DPEM 4533. Disaster and Mental Health** Identifies evolving evidence related to the impact of disaster and mass violence on mental health. Considers natural and man-made disasters, short and long term effects and common treatment strategies. Registration restricted to Homeland Security and Disaster Preparedness minors or any major with instructor permission. Spring, even.
- DPEM 4553. Capstone in Homeland Security & Disaster Preparedness** Application of skills and knowledge gained in the minor to the analysis of a specific need or problem and the design of solutions. Teamwork among various specialties with the field. Instructor permission required. Cross listed as POSC 4553. Spring.
- DPEM 4563. NGO Agencies in DPEM** Examines non-government agency response to disasters and other emergencies. Cooperation and collaboration among the agencies will be analyzed. Pre and post-disaster planning as well as acquisition and mobilization of resources will be emphasized. Fall, Spring.
- DPEM 4573. Teaching Radiological Emergency** A comprehensive curriculum designed to introduce students to adult learning characteristics, adult learning styles and preferences, instructional methodologies, and cultural diversity in the training environment. Provides capabilities and knowledge to effectively plan, administer, teach, conduct, and evaluate radiological training courses. Prerequisite, DPEM 3613. Fall, Spring, Summer.
- DPEM 4713. Advanced Information Officer** To prepare students to disseminate credible information to the media and the public during a public health emergency and to manage a Joint Information Center during emergencies. News conference exercises prepare students for a culminating practical experience. Fall, Spring, Summer.
- DPEM 4723. Healthcare Leadership** Focuses on critical decision making, leadership and management skills. Content emphasizes the effectiveness and efficiency of healthcare emergency preparedness while maintaining the overall safety of responders and victims and/or patients. Students strive to make realistic decisions during a facility-based exercise. Fall, Spring, Summer.
- DPEM 4733. Hospital Emergency Response** Prepares students 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. Fall, Spring, Summer.
- DPEM 4743. Medical Operations for CBRNE** Prepares students with CBRNE-specific response skills to participate as members of the emergency response community and safely evaluate and respond to a suspected incident. The course culminates with a practical exercise involving skills learned during the course. Fall, Spring, Summer.
- DPEM 4753. Hazard Assessment and Response** Develops skills to evaluate and respond to incidents through incident planning, conducting decontamination, collecting evidence using the FBI's Crime Scene Search Guidelines, using survey and monitoring equipment to monitor for contamination, and identifying illicit labs and improvised explosive devices. Fall, Spring, Summer.

Driver Education (DRED)

- DRED 4263. Basic Driver Education** Instruction and application in the knowledge, skills, and attitudes needed for teaching safe driving. For certification in driver and traffic education. This is not a learn to drive course. Age requirement of 21 and possession of a valid driver license to enroll for this course. Summer.
- DRED 4273. Advanced Driver Education** Driver and traffic education with emphasis on advanced instruction and research in driver education. Prerequisite, DRED 4263. Summer.

Method and Materials Teaching Economics (ECED)

- ECED 3513. Economics for Teachers** Designed to give school teachers an overall view of the structure and operation of our economic system. Emphasis will be placed on preparing teachers to utilize economic concepts in analyzing current economic problems. For Education majors only, no credit for business majors. Irregular.
- ECED 406V. 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. Irregular.
- ECED 4513. 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 grade levels. Summer.
- ECED 4523. Special Issues and Methods in Economic Education** Detailed examination of selected contemporary economic issues appropriate for grades kindergarten through twelve. Prerequisites, ECON 4513 and instructors approval. Irregular.

Early Childhood Education (ECH)

- ECH 2013. Survey of Early Childhood Education** Focuses on historical and philosophical foundations, current and legal issues, program models and settings and how to apply appropriate strategies to early childhood education programs. Seven clock hours of required observation. Fall, Spring, Summer.
- ECH 2023. Child Development** Study of relevant child development data, encompassing development from conception to the middle childhood years. Practical application of theory is provided through a variety of hands on experiences and observations. Five clock hours of experience with children, as identified by instructors. Fall, Spring, Summer.
- ECH 2033. Introduction to Teaching: Field Experiences I** An overview of the purposes and functions of education. The complex role and responsibilities of a teacher begin to be examined within the school setting. Thirty clock hours of elementary classroom observation required. Prerequisite, 15 semester hours. Fall, Spring.
- ECH 3004. Instructional Models, Strategies and Assessment** Develops pedagogical knowledge, lesson planning skills, and rehearsal of effective assessment and evaluation practices. Content centers on research in teaching and curriculum. Must be admitted to the Teacher Education Program. Prerequisites, TE 2013, ECH 2013, ECH 2033, ECH 2023, ECH 3013, ECH 3043, ECH 3073, ECH 3083, ELSE 3643. Irregular.
- ECH 3013. Children's Literature in the Preschool and Primary Grades** Introduces trade books currently available for young children and the role literature plays in their literacy development. Three clock hours of Field Experience in Preschool through 4th grade settings. Irregular.
- ECH 3043. Program Dev. and Management for Early Care and Education Centers** Provides students with knowledge and skills to develop and manage early childhood programs focusing on the care and education of infants and toddlers. Five clock hours of Field Experience required. Prerequisites, ECH 2013, ECH 2023. Fall, Spring, Summer.

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- ECH 3053. Curriculum Development in Early Childhood Education** Provides students with opportunities to develop and implement appropriate curriculum experiences in the Preschool and Kindergarten setting. Seven hours of clock work in the P through 3 settings. Prerequisites, ECH 2013, ECH 2023. Fall, Spring, Summer.
- ECH 3063. Individualizing Programs for Children and Families** Methods for individualizing programs for young children and their families, based upon individual strengths and needs. Six clock hours of observation required. Fall, Spring, Summer.
- ECH 3073. Children, Families, and Community Relations: Field Experiences II** Requires performance of skills and strategies for developing positive relationships with children and families and provides opportunities for interaction with community resources. A minimum fifty clock hours of field experience with infants, toddlers and preschoolers and 25 hours with agencies. Prerequisites, instructor permission required. Fall, Spring, Summer.
- ECH 3083. Integration of Technology into the Curriculum** Teaches preservice teachers in the early childhood and middle level programs how to integrate educational technology into the classroom curriculum. Prerequisites, Admission to the Teacher Education Program, TE 2013, ECH 2013, ECH 2023 and ECH 2033. Irregular.
- ECH 3603. Literacy for Children and Families** Provides students with knowledge of literacy development beginning at birth, and methods to involve families in the literacy process. Six clock hours of observation is required with infants, toddlers, and preschoolers. Prerequisites, ECH 2013, 2023. Spring.
- ECH 3613. Strategies for Supporting Learning Through Play** Emphasizes the role of play in the development and learning of typically and atypically developing children, play as a mode to understand children, and strategies to use play to support the learning and development of children. Ten clock hours of Field Experience required. Spring.
- ECH 3623. Infants and Toddlers in Early Education** Focused consideration of curriculum, assessment, guidance, environment, family engagement, and staffing for infants and toddlers in group care settings. Five hours field experience required.
- ECH 4002. Classroom Management for Inclusive Settings** Group and individually oriented best practices for classroom management, discipline and positive behavior guidance with a focus on inclusive classrooms. Prerequisites, Admission to the Teacher Education Program, ELSE 3643, ECH 3073. Spring.
- ECH 4012. Organizing and Managing the Learning Environment** Techniques of classroom management, theories of discipline, and positive behavior guidance. Must be admitted to the Teacher Education Program. Prerequisites, TE 2013, ECH 2013, ECH 2023, ECH 2033, ECH 3013, ECH 3043, ECH 3053, ECH 3063, ECH 3073, ECH 3083, ECH 3004, RDNG 3203, ELSE 3643. Corequisites, RDNG 4403, ECH 4013, ECH 4023, ECH 4043. Irregular.
- ECH 4013. Field Experience III Pre-Internship** Observing, teaching, evaluating curriculum and materials, managing classrooms, and addressing the diverse needs and learning strategies of children. 240 clock hours of Field Experiences required. Must be admitted to the Teacher Education Program. Prerequisites, TE 2013, ECH 2013, ECH 2033, ECH 3004, ECH 3013, ECH 3043, ECH 3053, ECH 3063, ECH 3073, ECH 3083, ELSE 3643, RDNG 3203. Corequisites, RDNG 4403, ECH 4012, ECH 4023, ECH 4043. Irregular.
- ECH 4023. Methods and Materials of Language Arts and Social Studies in Early Childhood** Methods for teaching language arts and social studies and the integration of these subjects across the curriculum. Three clock hours of field experience. Must be admitted to the Teacher Education Program. Prerequisites, TE 2013, ECH 2013, ECH 2033, ECH 2023, ECH 3013, ECH 3043, ECH 3053, ECH 3063, ECH 3073, ECH 3083, ECH 3004, ELSE 3643, RDNG 3202. Corequisites, RDNG 4403, ECH 4012, ECH 4013, ECH 4043. Irregular.
- ECH 4043. Methods and Materials of Math and Science in Early Childhood** Acquaints preservice teachers with the scientific and mathematic process skills. Emphasis placed on three types of learning, naturalistic, informal, and structured. Also the interrelatedness of Math and Science. Three clock hours of field experience. Must be admitted to the Teacher Education Program. Prerequisites, ECH 2003, ECH 2013, ECH 2033, ECH 2023, ECH 3013, ECH 3043, ECH 3053, ECH 3063, ECH 3073, , ECH 3004, RDNG 3203, ELSE 3643. Corequisites, RDNG 4403, ECH 4012, ECH 4013, ECH 4023. Fall, Spring.

- ECH 4053. Today's Families: Interdisciplinary Approaches** An interdisciplinary course designed to promote a critical approach to examining the family and its role in society. Prerequisite, twelve hours of coursework in Interdisciplinary Family Minor OR Instructor permission. Spring.
- ECH 4061. Early Childhood Education Symposium** A symposium with an identified theme related to current events or needs in the field of early childhood education. Designed for early childhood professionals. May be repeated. Summer.
- ECH 4086. Teaching Internship in Early Childhood Education Kindergarten** Six semester hours. Prerequisite, Admission to the internship semester as specified by the Office of Professional Programs of the College of Education and Behavioral Science. Must be admitted to the Teacher Education Program. Special course fees may apply. Fall, Spring.
- ECH 4096. Teaching Internship in Early Childhood Education Primary Grades 1 to 3** 6 semester hours. Prerequisite, Admission to the internship semester as specified by the Office of Professional Programs of the College of Education and Behavioral Science. Prerequisites, Admission to the Teacher Education Program. Special course fees may apply. Fall, Spring.
- ECH 4603. Physical and Psychological Environments for Young Children** Explores the physical and psychological environments needed to support development of the whole child. Includes health, safety, nutrition, physical arrangements and space, communication, guidance and group management. Ten clock hours of Field Experience required. Spring.
- ECH 4613. Curriculum and Assessment for Early Care and Education** Develops knowledge for assessing children and implementing appropriate curriculum for young children. Includes study of the curriculum, integrated units, observational methods and self assessment. Ten clock hours of Field Experience required. Fall.
- ECH 4623. Child Care Program Management and Mentoring** Introduction to basic management and administration of child care programs, including programs for out of school time of elementary grade children. Includes policies, procedures, staff supervision and mentoring, funding, finances, licensing, and curriculum implementation. Emphasis on professional development, including ethics and advocacy. Fall.
- ECH 4636. Practicum in Early Care and Education** Students observe and effectively participate in a group setting for young children for extended periods of time, increasingly responsible for all aspects of the group. This course includes a seminar which will focus upon professionalism. Prerequisites, ECH 4623. Summer.
- ECH 480V. Special Topics** Current subjects of interest in Early Childhood Education professionals with appropriate subtitles. All special topics must be approved by teacher education curriculum committee. One, two, or three credit hours. Special topics may be applied as an elective course to a degree program with permission of advisor and department chair prior to enrollment in the course. Must be admitted to Teacher Education Program. Irregular.

Economics (ECON)

- ECON 2113. Business Statistics I** Statistical methods used in studying business and economic data, averages and dispersions, probability, sampling, statistical inference, estimation, tests of hypotheses, index numbers, linear regression and correlation. Prerequisites, MATH 1023 or MATH 2143, and CIT 1503 or CS 1013. Fall, Spring, Summer. (ACTS#: BUSI 2103)
- ECON 2313. Principles of Macroeconomics** National income accounting, inflation and unemployment, competing theories of national income, fiscal policy, the Federal Reserve system and monetary policy, and international trade. Fall, Spring, Summer. (ACTS#: ECON 2103)
- ECON 2323. Principles of Microeconomics** Principles of resource allocation, supply and demand, consumer behavior, costs of production, the competitive model, oligopoly, and factor markets. Fall, Spring, Summer. (ACTS#: ECON 2203)
- ECON 2333. Economic Issues and Concepts** Designed to give the student a basic understanding of our economic system. Basic economic concepts will be explored and contemporary economic problems and issues will be examined in light of the concepts learned. Fall, Spring.

- ECON 3113. Data Analysis** Computer integrated analysis of descriptive and inferential business statistics with an emphasis on the application of statistical techniques and interpretation. Prerequisite, ECON 2113. Irregular.
- ECON 3313. Microeconomic Analysis** Designed to develop an analytical framework for the study of the determination of relative prices and the allocation of resources in a market economy. The course will cover consumer choice and demand, resource utilization and the theory of the firm, competitive market equilibrium and resource allocation, and noncompetitive market structures. Prerequisites, ECON 2313 and 2323. Fall.
- ECON 3323. Money and Banking** Monetary and banking history, with emphasis on the theory of money and banking in the United States, operations of commercial banks and the Federal Reserve System. Prerequisites, ECON 2313 and 2323. Spring.
- ECON 3353. Macroeconomic Analysis** Explains economic theories as they relate to national policy making. Emphasis on causes of inflation and unemployment. Prerequisites, ECON 2313 and 2323. Spring.
- ECON 3363. Labor Economics** The economics of labor markets, factors affecting economy demand for labor and the decisions of workers to supply labor. Current labor market problems such as unemployment, unions, poverty and productivity will be analyzed. Prerequisites, ECON 2313 and 2323. Irregular.
- ECON 370V. Economics Internship** Practice experience in economic research and development. Prerequisites, ECON 2313 and ECON 2323. Permission of department chair and internship director required. Fall, Spring.
- ECON 4023. Free Enterprise and the Market: A Survey of Austrian Economics** Survey of the contributions of the Austrian school of Economics. Topics include the importance of entrepreneurship, the proper role of the state, the socialist calculation debate, the Hayek-Keynes debate, and institutions that facilitate the use of specialized and diffusely-held knowledge. Prerequisites, ECON 2313 and ECON 2323. Spring.
- ECON 4103. International Trade** Economic theory and history of international trade. Topics such as comparative advantage, the effect of protectionism and determination of exchange rates will be emphasized. Prerequisites, ECON 2313 and 2323. This course can be counted as an Economics elective. This course is cross listed as IB 4103. Fall.
- ECON 4143. Export Policy and Procedures** Provides the rationale for exports and provides training on the skills for managing an export business. Coverage includes export promotion and incentives, lines and letters of credit, foreign exchange issues, international trade logistics, export documentation, and security and regulatory issues. Prerequisites, Completion of 60 hours. Cross-listed as IB 4143. Spring.
- ECON 4303. Economics of Sports** Applies microeconomic theory to the sports industry. The course includes discussions of the economics of professional and intercollegiate athletics, applying the concepts of the collective bargaining, cartel behavior, game theory, antitrust issues, and public finance. Prerequisite, ECON 2323. Fall.
- ECON 4313. History of Economic Thought** Brief review of the doctrines of economic thinkers from early time through Marshall. Broader study of modern writers and theories. Prerequisites, ECON 2313 and 2323, or ECON 2333. Irregular.
- ECON 4323. Economic Policy Analysis** 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 and 2323, or ECON 2333. Fall.
- ECON 4333. 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. Prerequisite, ECON 2313, 2323. Spring.
- ECON 4343. Managerial Economics** Practice in the use of economic principles in solving business problems. Areas covered include uncertainty, forecasting, demand analysis, and capital management. Prerequisites, ECON 2313 and 2323, ECON 2113 and CIT 3523. Fall.

ECON 4353. Economic Development Primary concern is with theories and methods of economic development for developing countries. Agriculture, population, investment, natural resources, international relations and economic aid are the main topics of the course. Prerequisites, ECON 2313 and 2323. Irregular.

ECON 4363. Global Environmental Policies This course examines the impact of human activities on ecosystems and vice versa, as well as the use of markets to manage the environment. Topics include environmental services, ecotechnology, pollution control, valuation, economics of climate change and biotechnology. Fall.

ECON 468V. Special Problems in Economics Individual problems in economics arranged in consultation with the instructor. Must be approved by department chair. Fall, Spring, Summer.

Secondary Teaching Methods (ED__ __)

EDAG 4623. Special Methods for Teaching Agricultural Education Overview of major components of an efficient agriculture department at the secondary school level. Emphasis on teaching methods and materials required for the agriculture classroom and mechanics laboratory. Opportunities for course planning, classroom management, record development, and career development. Must be admitted to the Teacher Education Program. Spring.

EDAR 4523. Methods and Materials for Teaching 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. Must be admitted to the Teacher Education Program. Fall.

EDBU 4533. Methods and Materials in Teaching Business Technology Study of the role and scope of the vocational business education teacher, professional organizations, professional ethics, federal involvement, and professional literature. Emphasis on the assessment of student competencies, competency based programs, resources, facilities, and curriculum development. Selection and practice in teaching techniques and strategies. Must be admitted to the Teacher Education Program. Fall.

EDEN 4553. 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 the secondary schools. Opportunities to develop skills and strategies for teaching language, literature, and composition to culturally diverse students. Must be admitted to the Teacher Education Program. Fall.

EDEN 4653. Methods and Materials for Teaching English in the Middle School Methods and materials for teaching English to the special needs of middle school students. Focus on the application of techniques and strategies for teaching language, literature, and composition to culturally diverse students. Must be admitted to the Teacher Education Program. Spring, even.

EDLA 4633. Methods and Materials for Teaching Second Languages Knowledge and practice of instructional strategies and techniques associated with a proficiency based approach to foreign language teaching. Study of the theoretical bases of language learning and acquisition, innovations in curricula, resources, materials, and technology. Must be admitted to the Teacher Education Program. Fall.

EDMA 4563. Methods and Materials for Teaching Mathematics in the Secondary School Systematic application of a variety of activities to facilitate the development of competent mathematics teachers. Development and implementation of instructional strategies for teaching mathematics, explicating types of knowledge and the ways they can be taught. Must be admitted to the Teacher Education Program. Spring.

EDPE 4583. Methods and Materials for Teaching Physical Education in the Secondary School Assists the student to assimilate new and previously learned material prior to the internship experience. Special emphasis on PRAXIS II, goal development, teaching styles, methods, and problems encountered by beginning physical education teachers. Must be admitted to the Teacher Education Program. Fall, Spring.

- EDSC 4593. Methods and Materials for Teaching Science in the Secondary School** Philosophical bases, teaching techniques, curriculum development, classroom management, facility resources, and equipment are emphasized. Must be admitted to the Teacher Education Program. Fall, Spring.
- EDSS 4603. 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. Must be admitted to the Teacher Education Program. Fall, Spring.

Electrical Engineering (EE)

- EE 2322. Electrical Workshop** Develop understanding and skills related to various workshop processes involved in electrical engineering. Workshop safety, electrical wiring and assembly, winding practice, domestic electrical appliances, soldering and de-soldering techniques, electronic project construction techniques, use of electronic bench equipment, preparation of reports. Prerequisite, PHYS 2034. Fall.
- EE 3313. Electric Circuits II** Transient analysis, average power, RMS values, mutual inductance, resonance, network theorems and principles, polyphase networks, complex power. Prerequisite, C or better in MATH 2214 and ENGR 2423. Spring.
- EE 3331. Digital Electronics I Laboratory** Experimentation and design with digital electronic and computer components and circuits including logic gates, flip flops, counters, and registers. Practical applications in timing and control. Logic families such as TTL, ECL, and CMOS. Corequisite, EE 3333. Spring.
- EE 3333. Digital Electronics I** Introduction to the analysis and design of digital and computer circuits, Boolean algebra, binary arithmetic, combinational logic, sequential logic, registers, counters, adders, comparators, and computer organization. Prerequisite, C or better in either CS 2114 or ENGR 2423. Spring.
- EE 3343. Engineering Fields and Waves** Study of time invariant electric and magnetic fields in free space and in materials, electrical current flow as a function of electric field, magnetic flux, interaction of magnetic fields with electrical current and voltage, electrical and magnetic potentials, time changing electric and magnetic fields, and introduction to Maxwell's Equations. Prerequisites, C or better in MATH 3254 and EE 3313. Fall.
- EE 3353. Signals and Systems** Methods of analysis of continuous and analog systems and associated synthesis, simulation, and design, system response in the time and frequency domains, Laplace transforms, Fourier series and transforms, Z-transforms, transfer functions, and convolution. Prerequisite, C or better in EE 3313. Corequisite, MATH 4403. Fall.
- EE 3363. Semiconductor Materials and Devices** Semiconductor materials and theory of solid state electronic devices. Semiconductor growth and processing techniques. Semiconductor parameters such as bandgap, mobility, carrier densities, diffusion length, carrier lifetime, and energy level distribution. Pn junctions and Schottky barriers. Constraints and limitations on practical devices. Prerequisites, C or better in CHEM 1013 and PHYS 2044. Corequisite, EE 3403. Fall.
- EE 3383. Principles and Practices in Electrical Engineering** Principles of and good practices in electrical engineering, professional organizations, literature, intellectual property, licensure, ethics and regulations, vendors, products, specifications, procurement, communications and human relations, resource management, product certification and manufacturability, and modern tools and issues. Corequisite, EE 3313. Spring.
- EE 3393. Probability and Random Signals** Application of probabilistic models and analysis techniques to engineering signals and systems with inherent randomness. Topics include probability theory, probability density functions, random variables, random vectors, estimation, detection, discrete and continuous processes, and power spectra. Prerequisite, C or better in EE 3353. Spring.

- EE 3401. Electronics I Laboratory** Basic laboratory experiments in electronic circuits and solid state electronic devices. Corequisite, EE 3403. Prerequisite, C or better in ENGR 2421. Fall.
- EE 3403. Electronics I** Theory, analysis, and introductory design of diode, bipolar junction transistor, operational amplifier, and field effect transistor devices and circuits. Prerequisite, C or better in ENGR 2423. Fall.
- EE 4303. Electromagnetic Waves** Study of time harmonic electromagnetic wave interaction with materials including energy and momentum, polarization, reflection, refraction, waveguides, radiation, and scattering. Prerequisites, C or better in EE 3343 or PHYS 2044, and C or better in MATH 4403. Dual listed as EE 5303. Spring, odd.
- EE 4313. Control Systems** Analysis and design of linear feedback systems. Transfer functions, transient and steady state characterization, 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 5313. Fall.
- EE 4323. 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. Dual listed as EE 5323. Spring, even.
- EE 4333. 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 and EE 3403. Dual listed as EE 5333. Spring.
- EE 4343. Digital Signal Processing** 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, C or better in EE 3353, EE 3403, and EE 3333. Spring, odd.
- EE 4344. Embedded Systems** A microcomputer and programmable logic controller course for junior and senior level engineers. A survey of small computers and their engineering functions including control, sensing, and computation. The concept of using control programming languages is introduced. Prerequisites, C or better in EE 3333 and EE 3401, or instructor permission. Dual listed as EE 5344. Spring, odd.
- EE 4353. 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. Corequisite, MATH 4403. Dual listed as EE 5353. Fall.
- EE 4354. 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. Prerequisite for EE majors, C or better in EE 4313; Prerequisite for ME majors, C or better in ME 3613. Dual listed as EE 5354. Spring, even.
- EE 4373. 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, and EE 3403. Dual listed as EE 5373. Spring.
- EE 4383. 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, and microcomputer based system design. Prerequisite, C or better in EE 3333. Dual listed as EE 5383. Spring, even.
- EE 4743. 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. Prerequisites, C or better in EE 3393 and EE 4333. Spring, odd.
- EE 4773. Electronics II Laboratory** Advanced design-oriented experiments in electronics, measurement, interfacing, and other electrical engineering topics. Corequisite, EE 4373. Prerequisites, C or better in EE 3401. Spring.

EE 479V. Special Problems in Electrical Engineering Individually directed problems in electrical engineering for juniors and seniors. A course outline and project summary listing the goals and expected outcomes must be approved by the student advisor and the program director. Prerequisites are dependent on the nature of the special problem. Demand

Curriculum and Instruction (ELCI)

ELCI 4013. Curriculum and Assessment Instructional Theory and Practice Course focuses on current theory and practice for instructional techniques and fundamentals of educational measurement as they apply to classroom situations. This course is a corequisite to the TI 4013 Teaching Internship in the Secondary School. Must be admitted to the Teacher Education Program. Fall, Spring.

ELCI 4513. Teaching Global Perspectives Promotes effective teaching of global perspectives through various subject matter in elementary and secondary schools. Emphasis on the identification, demonstration, and critical evaluation of appropriate instruction strategies and resources. Must be admitted to the Teacher Education Program. Summer.

ELCI 4523. 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. Must be admitted to the Teacher Education Program. Summer..

ELCI 480V. Special Topics Workshop A designed series of learning experiences to address the specific needs of in-service teachers, administrators, or special service personnel. May not be used to satisfy any degree requirements. May be repeated for credit. Must be admitted to the Teacher Education Program. Irregular.

Elementary Education (ELED)

ELED 1001. Introduction to Technology Designed to teach students the prerequisite skills needed for ELED 3063, and for preservice education students new to or uncomfortable with technology. Must be admitted to the Teacher Education Program. Special course fees may apply. Irregular.

ELED 2113. Child Growth and Learning Development of the elementary grade child, including major theories of development and learning, with a focus on how these are influenced by the child's sociocultural environment. Four clock hours of child study projects required.

ELED 3003. Human Growth and Learning Study of the nature and development of the child, including major theories of learning and learning processes. Four clock hours of child study projects required. Special course fees may apply. Fall, Spring, Summer.

ELED 3103. Effective Assessment in Elementary Grades Creation, analysis and evaluation of formative and summative assessments including teacher-made assessments, standardized tests, and performance assessments focused on K6 classrooms. Addresses professional behaviors related to assessment including communication, ethical considerations and educational policy. Must be admitted to the Teacher Education program. Prerequisites, ELED 2113, ELED 3163, ELED 3183, RDNG 3203. Corequisites, ELED 3113, ELED 3143, RDNG 3223. Fall, Spring, Summer.

ELED 3113. Children's Literature in Elementary Grades Introduction to trade books for elementary-age children and the role literature plays in their reading and writing development. Must be admitted to the Teacher Education Program. Prerequisites, ELED 2113, ELED 3163, ELED 3183, RDNG 3013. Corequisites, ELED 3103, ELED 3143, RDNG 3123. Fall, Spring, Summer.

ELED 3143. Integrating the Curriculum and Instructional Strategies for Elementary Students Exploration of research-based instructional models and teaching strategies; rehearsal and integration of effective pedagogical decision-making. Prerequisites, Admission to the Teacher Education Program, ELED 2113; ELED 3163; ELED 3183; RDNG 3203. Corequisites, ELED 3113, ELED 3103, RDNG 3223. Fall, Spring, Summer.

- ELED 3163. Characteristics of and Differentiation of Instruction for Diverse Learners** Examination of characteristics of diverse learners, including English language learners. Focus on application of evidence-based pedagogical methods for diverse learners to increase viability of inclusive classrooms, such as response to intervention (RTI), family involvement, scaffolding, sheltered content instruction, etc. Prerequisites, Must be admitted to the Teacher Education Program, ELED 2113. Corequisites, ELED 3183, RDNG 3203. Fall, Spring, Summer.
- ELED 3183. Technology in the Elementary Classroom** Course designed to teach pre-service teachers in the elementary level program how to integrate educational technology into the classroom curriculum Prerequisites, Must be admitted to the Teacher Education Program, ELED 2113. Corequisites, ELED 3163, RDNG 3203. Fall, Spring, Summer.
- ELED 4053. 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. Must be admitted to the Teacher Education Program. Special course fees may apply. Prerequisite, 12 hours of coursework in interdisciplinary Family Minor or instructor permission. Irregular.
- ELED 4102. Methods of Teaching Language Arts in Elementary Grades** The analysis of writing process, modes of writing, writing workshop, and writing across the curriculum for the development of strategic writers; concepts of writing mentorship through author's craft and mentor texts for fiction and nonfiction within a writing portfolio. Prerequisites, Admission to Teacher Education Program; ELED 3113, ELED 3103, ELED 3143, RDNG 3223, ELSE 3643. Corequisites, ELED 4112, ELED 4122, ELED 4132, ELED 4142, ELED 4104, RDNG 4103. Fall, Spring.
- ELED 4104. Teaching Internship I, Elementary** Performance-based field course designed to build upon prior knowledge and further develop pedagogical knowledge and skills, content, and application of content knowledge, and further pre-service teacher's development. Prerequisites: Admission into Teacher Education Program, ELED 3103, ELED 3113, ELED 3143, RDNG 3223, ELSE 3643. Corequisites, ELED 4012, ELED 4112, ELED 4122, ELED 4132, ELED 4142, RDNG 4103. Fall, Spring.
- ELED 4112. Methods of Teaching Social Studies in Elementary Grades** Students learn to investigate, evaluate, and select content for the organization and teaching of social studies. This includes in-depth conceptual knowledge, critical thinking processes, social skill development and positive self-esteem. Prerequisites, Admission to Teacher Education Program, ELED 3103, ELED 3113, ELED 3143, RDNG 3223. Corequisites, ELED 4102, ELED 4122, ELED 4132, ELED 4142, ELED 4104, RDNG 4103. Fall, Spring.
- ELED 4122. Methods of STEM, Mathematics** Designed to apprise candidates of mathematical processes, diagnosis of learner difficulties, and underlying rationale for teaching mathematics in K-6 grades. Math content includes Common Core State Standards, mathematical pedagogy, math manipulatives, instructional technology and integrated STEM lesson plan development. Prerequisites, Admission to Teacher Education Program, ELED 3103, ELED 3113, ELED 3143, RDNG 3223. Corequisites, ELED 4102, ELED 4112, ELED 4132, ELED 4142, ELED 4104, RDNG 4103. Fall, Spring.
- ELED 4132. Methods of STEM, Science** Emphasizes theories and practices that promote learning science integrated with technology, engineering, and mathematics for elementary level students. Prerequisites, Admission to Teacher Education Program, GSP 3203, ELED 3103, ELED 3113, ELED 3143, RDNG 3223. Corequisites, ELED 4102, ELED 4112, ELED 4122, ELED 4142, ELED 4104, RDNG 4103.
- ELED 4142. Classroom Management for Elementary Grades** Emphasis on research-based methods and observational tools for classroom management. Students will grasp information necessary in observing, planning for, and implementing strategies in classroom management. Prerequisites, Admission to the Teacher Education Program, ELED 3103, ELED 3113, ELED 3143, RDNG 3223. Corequisites, ELED 4102, ELED 4112, ELED 4122, ELED 4132, ELED 4104, RDNG 4103. Fall, Spring.

- ELED 4216. Teaching Internship II** Culmination of the Elementary Education program for primary grades. Provides 8 weeks of directed teaching under the supervision of a qualified clinical supervisor in a K - 3 setting. Required application of knowledge, skills and demonstration of appropriate dispositions for teaching. Special course fees may apply. Prerequisite, Admission to Internship specified by Office of Professional Education Programs, ELED 4102, ELED 4112, ELED 4122, ELED 4132, ELED 4142, ELED 4104, RDNG 4103. Fall, Spring.
- ELED 4226. Teaching Internship III** Fourth through Sixth Grade. Culmination of the Elementary Education program for upper grades. Provides 8 weeks of directed teaching under the supervision of a qualified clinical supervisor in a 4-8 setting. Required application of knowledge, skills and demonstration of appropriate dispositions for teaching. Special course fees may apply. Prerequisites, Admission to Internship specified by Office of Professional Education Programs, ELED 4102, ELED 4112, ELED 4122, ELED 4132, ELED 4142, ELED 4104, RDNG 4103. Fall, Spring.
- ELED 4613. Techniques of Behavior Management** Techniques of systematic behavioral intervention, including all areas of exceptionality in regular classes, special classes, itinerant and resource programs. Students must complete a fifteen clock hour case study and behavior management project. Special course fees may apply. Fall, Spring, Summer.
- ELED 480V. Special Topics** Current subjects of interest to graduate and undergraduate Early Childhood Education or other educational professionals with appropriate subtitles. Course may include intensive study of subjects to meet the need of professional educators. All Special Topics Courses must be approved by the Teacher Education Department Curriculum Committee. May be taken for one, two or three credit hours, in any combination, for up to three hours of credit. Special Topics may be applied as elective credit toward a degree program with the written permission of the academic advisor and department chair prior to enrollment in the course. Must be admitted to the Teacher Education Program. Special course fees may apply. Irregular.

Special Education (ELSE)

- ELSE 3643. The Exceptional Student in the Regular Classroom** Introduction to exceptional students, with the major focus on serving these individuals in regular education classroom environments. Must be admitted to the Teacher Education Program. Must have passed writing portion of PRAXIS 1. Fall, Spring, Summer.
- ELSE 4103. Methods and Materials for Students with Severe or Profound Disabilities** Evidence-based teaching strategies for teaching students with significant cognitive disabilities. Prerequisite, Admission to the Special Education Teacher Program. Fall, Spring.
- ELSE 4113. Methods and Materials for Students with Mild to Moderate Disabilities** Comprehensive survey of methods and materials in major curricular areas relevant to the instruction of K12 special needs students with mild to moderate disabilities. Prerequisite, Admission to the Special Education Teacher Program. Fall, Spring.
- ELSE 4123. Introduction to Autism Spectrum Disorders** An introduction to the basics of autism spectrum disorders, covering historical perspectives, current definitions, characteristics and methodology. Emphasis will be placed on incidence and prevalence of trends, evidence-based practices, and assessment and progress monitoring. Spring.
- ELSE 4133. Behavioral, Academic and Social Interventions in the Exceptional Classroom** Techniques and strategies in identifying, recording, evaluating, and changing social and academic behaviors of students with exceptional learning and behavior needs including theories and approaches for managing the special education classroom. Spring.
- ELSE 4143. Curriculum Programming for Exceptional Learners** Models, theories, philosophies, and research methods for evidence-based practices in special education. Spring.
- ELSE 4153. Assessment and Diagnosis of Exceptional Learners** Collection and use of academic and behavioral data for special education purposes and application of assessment results. Spring.
- ELSE 4163. Introduction to Emotional Behavior Disorders** Survey of the causes, problems, and characteristics of emotional and behavior disorders in children and adolescents, and best practices for teachers. Fall.

- ELSE 4173. Assistive Technology in Special Education** Assistive technology for persons with disabilities at all levels and ages, in a variety of categories. Prerequisite, Admissions to undergraduate special education program. Fall.
- ELSE 4183. Characteristics of Exceptional Learners** History, nature, characteristics, and needs of students with exceptionalities, including neuromotor impairments; orthopedic, musculoskeletal, and sensory disorders; and degenerative and terminal diseases. Fall.
- ELSE 4193. Special Education Law and Procedures** The special education classification process, and laws and cases impacting special education. Fall.
- ELSE 4203. Family and Community Systems** Strategies for developing culturally appropriate family-professional partnerships to benefit children with special needs. Prerequisite, Admission into the Special Education Teacher Program. Fall.
- ELSE 4212. Elementary Practicum in Special Education** Field-based experience designed to provide teacher candidates with the opportunity to apply knowledge gained through coursework in an elementary special education setting (K-6) that entails 30 hours of on-site practicum work. Restricted to Special Education K-12 majors. Prerequisite, admission to the Teacher Education program. Spring.
- ELSE 4216. Special Education Internship Elementary** Directed teaching under the supervision of a qualified teacher at the elementary school level. Must be admitted to the Teacher Education Program. Fall, Spring.
- ELSE 4223. Reading and Language Arts for Exceptional Learners** Identification of skill deficiencies, modification of curriculum, designing and implementation of instructional strategies for learners evidencing disabilities in reading and language arts. Restricted to Special Education K-12 majors. Prerequisite, admission to the Teacher Education program. Spring.
- ELSE 4226. Special Education Internship Secondary** Culmination of the Bachelor of Science special education degree program. Directed teaching under the supervision of a qualified teacher at the secondary school level. Must be admitted to the Teacher Education Program. Fall, Spring.
- ELSE 4233. Mathematics Strategies for Exceptional Learners** Effective K-12 math instructional and assessment strategies for exceptional learners. Restricted to Special Education K-12 majors. Prerequisite, admission to the Teacher Education program. Fall.
- ELSE 4242. Secondary Practicum in Special Education** Field-based experience designed to provide teacher candidates with the opportunity to apply knowledge gained through coursework in a secondary special education setting (7-12) that entails 30 hours of on-site practicum work. Restricted to Special Education K-12 majors. Prerequisite, admission to the Teacher Education program. Fall.

Emergency Medical Services (EMS)

- EMS 1041. Introduction to Emergency Medical Services** Application of fundamental knowledge of emergency medical systems, including workforce safety, public health, medical/legal/ethical issues, EMS communication, documentation, and basic emergency care and transportation based on assessment of an acutely ill patient. Prerequisite: Admission to the Certificate of Proficiency in EMT – Basic or the AAS in DPEM. Fall, Spring, Summer.
- EMS 1057. Basic Emergency Medical Technician** Application of fundamental knowledge of emergency pharmacology, patient assessment, airway management, shock and resuscitation, medical emergencies, trauma, special populations and Emergency Medical Services operations. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisite: Admission to the Certificate of Proficiency in EMT – Basic or the AAS in DPEM. Fall, Spring, Summer.
- EMS 1062. Emergency Medical Technician Clinical** Supervised experience in a hospital to develop proficiency and sound clinical judgment for patient assessment, management of care, and required EMT psychomotor skills. Requires 60 clock hours of patient care. Prerequisite: Admission to the Certificate of Proficiency in EMT – Basic or the AAS in DPEM. Fall, Spring, Summer.

EMS 1072. Emergency Medical Technician Field Experience Supervised experience in an ambulance to develop proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 60 clock hours of patient care. Prerequisite: Admission to the Certificate of Proficiency in EMT – Basic or the AAS in DPEM. Fall, Spring, Summer.

Emergency Medical Services Paramedic (EMSP)

EMSP 2217. Anatomy and Physiology for Paramedics with Lab. Demonstrates the structure and function of molecules, cells, tissues, organ systems and their association with health and disease. Demonstrates an understanding of pathophysiology and disease processes. Prerequisite, Admission to the Paramedic program. Spring

EMSP 2222. Cardiac Dysrhythmias Application of fundamental knowledge of cardiac dysrhythmias and 12 Lead EKG performance and interpretation. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisites: Admission to the AAS in Paramedic or Technical Certificate in Paramedic. Fall, Spring, Summer.

EMSP 2233. Patient Assessment and Airway Management Application of fundamental paramedic knowledge of causes and pathophysiology in patient assessment and airway management. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisite: Admission to the Certificate Program or AAS in DPEM. Fall, Spring, Summer.

EMSP 2244. Medical Emergencies I Application of fundamental knowledge of respiratory, cardiovascular, neurological, abdominal, gastrointestinal, genitourinary, and renal emergencies and diseases of the eyes, ears, nose and throat. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisite: Admission to the AAS in Paramedic or Technical Certificate in Paramedic. Fall, Spring, Summer.

EMSP 2252. Paramedic Clinical I Supervised experience in a hospital to develop proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 90 clock hours of patient care. Prerequisites: Admission to the AAS in Paramedic or Technical Certificate in Paramedic. Fall, Spring, Summer.

EMSP 226V. Paramedic Field Experience I Supervised experience in an ambulance to develop proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 67 clock hours of patient care. Prerequisites: Admission to the AAS in Paramedic or Technical Certificate in Paramedic. Fall, Spring, Summer.

EMSP 2314. Medical Emergencies II Application of fundamental knowledge of endocrine, hematologic, immunologic, infectious, and toxicology and psychiatric emergencies. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisites: Grade of C or better in EMSP 2222, 2233, 2244, 2252 and 226V. Fall, Spring, Summer.

EMSP 2323. Traumatic Injuries Application of fundamental knowledge of traumatic injuries involving soft-tissue, burns, face/neck, head/spine, chest, abdomen, orthopaedic and knowledge of environmental injuries. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisites: Grade of C or better in EMSP 2222, 2233, 2244, 2252 and 226V. Fall, Spring, Summer.

EMSP 2333. Shock and Resuscitation Application of fundamental paramedic knowledge of causes and pathophysiology into the management of cardiac arrest and pre-arrest states and the management of shock. Development of proficiency in the associated psychomotor skills related to these topics. Prerequisites: Grade of C or better in EMSP 2222, 2233, 2244, 2252 and 226V. Fall, Spring, Summer.

EMSP 2352. Paramedic Clinical II Supervised experience in a hospital to develop further proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 90 clock hours of patient care. Prerequisites: Grade of C or better in EMSP 2222, 2233, 2244, 2252 and 226V. Fall, Spring, Summer.

EMSP 236V. Paramedic Field Experience II Supervised experience in an ambulance to further develop proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 67 clock hours of patient care. Prerequisites: Grade of C or better in EMSP 2222, 2233, 2244, 2252 and 226V. Fall, Spring, Summer.

- EMSP 2412. Special Populations** Application of fundamental paramedic knowledge to the special populations of: pregnant women, newborns, toddlers, school-age children, adolescents, geriatric patients and patients with special challenges. Development of proficiency in the associated psychomotor skills related to these populations. Prerequisites: Grade of C or better in EMSP 2314, 2323, 2333, 2352 and 236V. Fall, Spring, Summer.
- EMSP 2424. Emergency Management** Application of incident management principles for disasters and emergencies involving transport of victims, vehicle extrication and special rescue, mass casualties, hazardous materials, terrorism and crime scenes. Development of proficiency in psychomotor skills related to these disaster operations. Prerequisites: Grade of C or better in EMSP 2314, 2323, 2333, 2352 and 236V. Fall, Spring, Summer.
- EMSP 243V. Paramedic Clinical III** Supervised experience in a hospital to develop further proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 67 clock hours of patient care. Prerequisites: Grade of C or better in EMSP 2314, 2323, 2333, 2352 and 226V. Fall, Spring, Summer.
- EMSP 2442. Paramedic Field Experience III** Supervised experience in an ambulance to further develop proficiency and sound clinical judgment for patient assessment, management of care, and required paramedic psychomotor skills. Requires 90 clock hours of patient care. Prerequisites: Grade of C or better in EMSP 2314, 2323, 2333, 2352, 236V. Fall, Spring, Summer.
- EMSP 2457. Paramedic Field Internship** Capstone developing further ability to perform lead paramedic functions in pre-hospital environment. 315 clock hours of patient care and 50 team-lead patient encounters. Develop proficiency in clinical judgment for patient assessment, management of care, and in psychomotor skills. Prerequisites: Grade of C or better in EMSP 2314, 2323, 2333, 2352 and 236V. Fall, Spring, Summer.

English (ENG)

- ENG 1003. Composition I** Study and practice of fundamentals of written communication including principles of grammar, punctuation, spelling, organization, and careful analytical reading. Prerequisite, with grade of C or better, for ENG 1013. Fall, Spring. (ACTS#: ENGL 1013)
- ENG 1013. Composition II** Continues the practice of ENG 1003, to develop further the skills learned in that course. Based on reading and discussion of various types of writing, the students' essays will provide practice in different kinds of rhetorical development including research and documentation. Prerequisite, must complete ENG 1003 with grade of C or better for degree. Fall, Spring. (ACTS#: ENGL 1023)
- ENG 1023. Making Connections English** Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self-management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.
- ENG 1643. Introduction to Religion** Demonstrates why and how religious belief and expression, though different in various cultures, remain vital forces. Required course for minor in Religious Studies. Spring.
- ENG 2003. World Literature to 1660** Introduction to the analysis and interpretation of literary works from several historical periods ranging from early civilizations through the Renaissance. Fall, Spring. (ACTS#: ENGL 2213)
- ENG 2013. World Literature since 1660** Introduction to the analysis and interpretation of literary works from the mid-seventeenth century to the present. Fall, Spring. (ACTS#: ENGL 2223)
- ENG 2103. Introduction to Poetry and Drama** Poetry and drama with emphasis on analytic reading and writing skills. Fall, Spring.
- ENG 2113. Introduction to Fiction** Short fiction and the novel with emphasis on analytic reading and writing skills. Fall, Spring.
- ENG 3003. Advanced Composition** Emphasis on the development of structure and style in the literary essay and on research skills. Fall, Spring.

- ENG 3013. Practical Writing** Emphasis on practical writing skills applicable to students in all disciplines. Will not apply to English degree requirements. Fall.
- ENG 3023. Creative Writing** Instruction and practice in the writing of poetry, fiction, and drama. May be repeated with change of literary category. Fall.
- ENG 3033. Introduction to Writing Studies** Inquiry and practice in the theory, ideology, and ethics of writing in private, public, professional, technological, and academic contexts. Fall.
- ENG 3043. Technical Writing** Forms and techniques of technical writing. Will not apply to English BA major requirements. Fall, Spring.
- ENG 3053. Introduction to Digital Writing** Analysis of how multiple modes work together to create meaning in digital spaces. Production of digital texts with attention to genre, media, purpose, and audience. Prerequisites, ENG 1003 and ENG 1013. Spring, even.
- ENG 3063. Writing For STEM** Development of skills in written communication in STEM-related fields for a variety of purposes and audiences. Will not apply to English BA major requirements. Prerequisites, ENG 1003, ENG 1013, CHEM 1011, CHEM 1013; Co-requisites, BIO 2013, BIO 2011. Fall, Spring.
- ENG 3103. Introduction to Contemporary Literary Theory** Introduction to the major theoretical approaches to literary criticism, ranging from formalism through poststructuralism. Fall, Spring.
- ENG 3223. British Literature to 1800** Survey of British authors, genres, and movements from the Anglo-Saxon period to the dawn of Romanticism. Fall.
- ENG 3233. Shakespeare** Introduction to the works of Shakespeare. Fall.
- ENG 3243. British Drama to 1800** Drama in the Middle Ages, Renaissance, Restoration, and Neoclassical periods, including at least three Shakespeare plays. Spring, odd.
- ENG 3263. British Literature since 1800** Survey of British authors, genres, and movements from the Romantic period to the present. Spring.
- ENG 3293. British Novel** Representative British novels. Spring, even.
- ENG 3323. American Literature to 1865** Survey of American authors, genres, and movements from the early colonial period to the end of the Civil War. Fall.
- ENG 3363. American Literature since 1865** Survey of American authors, genres, and movements from the Civil War to the present. Spring.
- ENG 3373. Regional American Literature** Writings from a selected region of the United States. Fall, odd.
- ENG 3393. American Novel** Representative American novels. Spring, odd.
- ENG 3453. Global Literature** Selected authors, genres, movements, or themes in global literature. Fall, even.
- ENG 3463. Literature and Film** A study of how literature and literary tradition translate into cinema. Fall, even.
- ENG 3473. Contemporary Literature** Global literature mainly from 1945 to the present, including British, American, and world authors. May focus on poetry, prose, or drama, or a combination of those. Spring, odd.
- ENG 3482. Special Projects** Practicum in the teaching of composition for the preprofessional. Prerequisite, instructor permission. Fall.
- ENG 3483. The Bible as Literature** Analytical and critical study of selected books of the Bible with emphasis on its component genres, literary qualities, and influence. May not be repeated for credit. Spring, odd.
- ENG 3493. Popular Literature** One or more selected topics of popular literature, for example, science fiction, westerns, detective fiction, and the best seller. Spring, even.

- ENG 3583. Literature for Adolescents** Fiction, poetry, and drama which meet the needs of upper elementary, middle school, and high school students. Fall.
- ENG 3613. Introduction to Folklore** Collection, classification, and analysis of folklore, with special emphasis on oral literature. Fall.
- ENG 3623. American Folklore** Survey of the unofficial culture which has helped to shape the American experience, with special emphasis on oral literature, conventional belief, and traditional lifeways. Spring, odd.
- ENG 3633. Native American Verbal Art** Examination of oral literature of the indigenous peoples of North America and of contemporary literature written by American Indians. Spring, even.
- ENG 3643. African American Folklore** A study of African American culture through New World black traditions, including oral narratives and folksongs. Spring, even.
- ENG 4023. Advanced Creative Writing** Writing poetry, fiction, or drama. Prerequisite, ENG 3023 or instructor permission. May be repeated with change of literary category. Spring.
- ENG 4043. Theory in the Teaching of Composition** An introduction to teaching composition based on current research and theory with special emphasis on practical applications in the secondary school classroom. Spring.
- ENG 4053. The English Language** Historical, structural, and linguistic development of the English language, emphasizing sound change and analysis of spoken and written English. Fall, even.
- ENG 4063. Comparative Modern Grammars** Major grammatical systems, traditional, structural, and transformational. Spring.
- ENG 4083. Introduction to Linguistics** Phonetics, phonemics, morphology, syntax, and semantics. Fall, odd.
- ENG 4113. 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. Spring, odd.
- ENG 4183. Renaissance Drama Excluding Shakespeare** Familiarizes the student with the contemporaries of Shakespeare in the Elizabethan and Jacobean theatre. Some familiarity with Shakespeare helpful, but not essential. Spring, even.
- ENG 4213. Medieval Literature** English literature during the Middle Ages. Selected continental writings may be included. Spring, odd.
- ENG 4233. Sixteenth-Century Literature** English literature during the sixteenth century. Selected continental writings may be included. Spring, even.
- ENG 4243. Seventeenth-Century Literature** English literature during the seventeenth century. Selected continental writings may be included. Fall, even.
- ENG 4253. Restoration and Neoclassical Literature** English literature during the late seventeenth and eighteenth centuries. Selected continental writings may be included. Spring, even.
- ENG 4263. Romantic Literature** Major currents and figures of the English Romantic movement. Selected background writings may be included. Fall, even.
- ENG 4273. Victorian Literature** Major currents and figures in the Victorian Age. Selected background writings may be included. Spring, odd.
- ENG 4283. Modern British Literature** English literature in the twentieth century. Selected background writings may be included. Fall, odd.
- ENG 4333. American Romanticism** American literature from 1820 to 1865. Spring, odd.
- ENG 4353. American Realism and Naturalism** American literature in the second half of the nineteenth century and the early twentieth century. Spring, even.

- ENG 4363. African American Literature** Survey of African American literature from its beginnings to the present. Spring, odd.
- ENG 4373. Modern American Literature** American literature since World War I. Spring, even.
- ENG 4383. Multi-Ethnic American Literature** African American, Asian American, Latino American, Native American, and/or ethnically specific Euro-American literary works. Fall, even.
- ENG 4443. 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 5443. Fall.
- ENG 4453. Women Writers** A study of literature written by women. Cross listed as WGS 4453. Spring, odd.
- ENG 4463. Special Topics** Intensive study of individual authors, limited periods, movements, or specific theme. Fall.
- ENG 4483. Special Topics in Writing Studies** Intensive study of a topic, issue, or theory in the field of Writing Studies. May be repeated up to six hours when topic changes. Fall, odd.
- ENG 4613. Roots Music: Blues, Ballad and Folksong** Analysis and interpretation of oral poetry, especially that of the English speaking world. Fall, odd.
- ENG 4623. Mythology** Content, structure, and belief systems of various mythologies from the perspectives of selected mythographers. Spring, odd.
- ENG 4633. Material Folk Culture** The analysis and interpretation of traditional skills, services, and art and craft objects provided in folk societies. Fall, even.
- ENG 4643. Independent Fieldwork in Folklore** Development and implementation of a research agenda, using standard field methods in folklore studies such as the tape-recorded interview and participant observation. Prerequisites, ENG 3613 and instructor permission. Fall, Spring.
- ENG 4703. Persuasive Writing** Practice in reading and writing persuasive texts, with study of theories relating to rhetoric and persuasion. Fall.
- ENG 4711. Preceptorship in Writing Studies** Instruction in professional and pedagogical practices in the field of Writing Studies. Prerequisite, ENG 3033. Fall.
- ENG 4722. Internship in Writing Studies** Supervised work in an approved professional setting. Prerequisite, six hours of courses applicable to the Writing Studies minor with grade of C or better and prerequisite or corequisite, ENG 4711. Fall.
- ENG 4733. Advanced Internship in Writing Studies** Supervised work in an approved professional setting. Prerequisite, ENG 4722. Spring.
- ENG 4800. Senior Project.** Capstone project for BA in English degree, requiring presentation of a scholarly paper. Prerequisite, instructor permission. Fall, Spring, Summer.

Engineering (ENGR)

- ENGR 1402. Concepts of Engineering** An introduction to the various engineering disciplines. Topics include conservation principles, elementary measurement techniques, teamwork, and an introduction to technical practices. Prerequisite, 24 Math ACT, or 590 Math SAT, or C or better in MATH 1023 or higher MATH. Fall, Spring.
- ENGR 1412. Software Applications for Engineers** An introduction to software applications used by the various engineering disciplines. Technical word processing and the use of spreadsheets as a mathematics tool are developed. Accepted practices of data presentation and an introduction to presentation graphics are covered. Prerequisite, 24 Math ACT, or 590 Math SAT, or C or better in MATH 1023 or higher MATH. Fall, Spring.
- ENGR 2401. Applied Engineering Statistics** The practical application of statistical principles as they apply to scientific and engineering topics, with focus on solving engineering problems in various disciplines such as civil, electrical, and mechanical engineering. Lecture one hour per week. Corequisite, MATH 2214. Fall, Spring.

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

- ENGR 2403. Statics** Principles of vector analysis, static equilibrium, analysis of structures, friction, internal forces, center of gravity, moment of inertia, and product of inertia. Prerequisite, C or better in MATH 2204 and ENGR 1402. Fall, Spring, Summer.
- ENGR 2411. Mechanics of Materials Laboratory** Material will be tested in the laboratory consistent with topics covered in Mechanics of Materials course, which will include strain measurement testing machines and properties of materials. Laboratory two hours per week. Corequisites, ENGR 2401 and ENGR 2413. Fall, Spring.
- ENGR 2413. Mechanics of Materials** Stress and deformation of members in tension, compression, torsion, and bending. Allowable stress, combination loading, stress and strain transformation, and beam deflection techniques introduced. Prerequisites, C or better in ENGR 1412 and ENGR 2403. Fall, Spring, Summer.
- ENGR 2421. Electric Circuits I Laboratory** Basic experimentation consistent with the theory in ENGR 2423. Prerequisite, C or better in ENGR 1402. Corequisites, ENG 1013 and ENGR 2423. Fall, Spring.
- ENGR 2423. Electric Circuits I** The fundamental laws of circuit theory applied to resistive networks, network topology, mesh currents and node voltages, network theorems, one terminal and two terminal pair resistive networks. Time response functions of RL and RC circuits and introduction to steady state AC analysis. Corequisites, ENGR 1412, MATH 2214 and PHYS 2034. Fall, Spring, Summer.
- ENGR 3423. Dynamics** Kinematics and kinetics of particles and of rigid bodies, work and energy, impulse and momentum, special topics. Prerequisite, C or better in PHYS 2034, MATH 2214, and ENGR 2403. Fall, Spring, Summer.
- ENGR 3433. Engineering Economics** Fundamental concepts of engineering economy, management, and basic business concepts. Prerequisites, junior standing or instructor permission. Fall, Spring, Summer.
- ENGR 3434. Engineering Thermodynamics I** Engineering thermodynamics involves studies in the area of properties of substances, work and heat, the first and second laws of thermodynamics, entropy, ideal gases, availability, irreversibility, and efficiency. Prerequisites, C or better in CHEM 1013, and C or better in PHYS 2034 or ENGR 2403. Fall, Spring, Summer.
- ENGR 3471. Fluid Mechanics Laboratory** Experiments in fluid phenomena which emphasize the topics covered in ENGR 3473. Formal laboratory reports will be required. Laboratory two hours per week. Corequisite, ENGR 3473. Fall, Spring.
- ENGR 3473. Fluid Mechanics** Basic fundamentals of fluid properties, fluid statics, fluid equations, viscous effects, and ideal fluid flow are applied to engineering problems in closed conduits, open channels, and fluid measurements. Prerequisite, C or better in MATH 3254 and ENGR 2403. Fall, Spring, Summer.
- ENGR 349V. Engineering Internship** Students complete a supervised work experience involving practical application of the knowledge and skills acquired in engineering courses. Internships, minimum of 50 hours of work per credit hour awarded, are arranged by the student, an internship sponsor, and a supervising faculty member. Progress and final reports are required. Maximum degree credit for this course is three hours. Consent of Program Director required. Fall, Spring, Summer.
- ENGR 4401. Senior Seminar** Selected speakers discuss topics relevant to seniors and engineering practice including FE exam reviews, program expectations for graduates, contributing to society and local communities, involvement with professional organizations, staying connected with program activities and surveys, preparation for permanent job search, and advice for graduate education. Corequisite, ENGR 4463. Fall, Spring.
- ENGR 4413. Engineering Problem Solving** Application of high-level mathematical tools, along with scientific/engineering principles, towards solving engineering problems in various disciplines such as mechanical, electrical, and civil engineering. Prerequisite, C or better in ENGR 4453. Spring.
- ENGR 4453. Numerical Methods for Engineers** Numerical methods and computational techniques for solving engineering design problems. Prerequisite, C or better in MATH 4403. Fall, Spring.

- ENGR 4463. Senior Design I** Multidisciplinary group work on a design problem from conceptualization through selection of best alternative. A project proposal, progress report, comprehensive final report, and an oral presentation are required. Sitting for the national FE exam is optional. Lectures cover preparation for the national FE exam, the design process, and professional practice topics. Lecture two hours, laboratory one hour per week. Prerequisite, senior standing and instructor permission. Fall, Spring.
- ENGR 4482. Senior Design II** Group work to complete final design, fabrication, and testing aspects of a senior design project. A project proposal, progress reports, comprehensive final report, and a public oral presentation are required. Project meetings and laboratory four hours per week. Prerequisite, C or better in ENGR 4463, senior standing, and instructor permission. Fall, Spring.
- ENGR 449V. Special Problems in Engineering** Individually directed problems in engineering for juniors and seniors. Must be arranged in consultation with an engineering professor in the appropriate concentration area. The course outline and a project summary listing the goals and expectations must be approved by the students adviser and the department chair. A written report is required. A copy must be filed in the Engineering Office. Irregular.
- ENGR 4703. 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: Senior undergraduate status in the College of Agriculture, Engineering and Technology or College of Science and Mathematics, or admission into the ASU Environmental Science graduate program or Engineering Management graduate program. Dual listed as ENGR 5703. Irregular.

Exercise Science (ES)

- ES 3543. Human Anatomy and Anatomic Fundamentals of Motion** Analysis of the parts of the human body and their position, structure, and functions as related to human motion. Fall, Spring, Summer.
- ES 3553. Basic Physiology of Activity** A basic study of the organs and systems of the human body, with particular emphasis on the effects of physical activity of the functioning of the systems. Fall, Spring, Summer.
- ES 3623. Techniques of Physiological Fitness Assessment** Study of graded exercise testing in the evaluation of functional work capacity. Testing modalities will include, treadmill, bicycle ergometer, bench or step testing, and field testing. Prerequisites, grade of "C" or better in ES 3543 and ES 3553. Fall, Spring.
- ES 3633. Nutrition for Health, Sport and Exercise** Provides the student with information about nutrition as it pertains to health, sport, and exercise. Spring, Summer.
- ES 3653. Techniques of Aerobic Conditioning** Principles and methods of exercise leadership. Includes exercise programming and participation, teaching methods, technique evaluation, supervision, and leadership for various types of group aerobic exercise programs including field, gymnasium and aquatic exercise. Corequisite, ES 3543 and 3553. Fall.
- ES 3713. Cardiovascular Physiology** This course is designed to introduce the student to the study of cardiovascular physiology with an emphasis on normal versus abnormal function. It provides an in depth study of the cardiovascular system and its various responses to acute and chronic exercise. Prerequisites grade of "C" or better in BIO 2201, BIO 2203, BIO 2221, BIO 2223, and ES 3553, or instructor permission. Spring.
- ES 3743. Research and Statistical Methods in Exercise Science** Fundamental aspects of the clinical research process involving human subjects. The course will include an overview of the research process, procedures, sampling data collection and analysis. Fall, Spring, Summer.

- ES 4673. Exercise Prescription for Special Populations** Provide the students with principles and practice in developing exercise regimens and programs specifically designed for special populations. Prerequisites, grade of "C" or better in ES 4683, or instructor permission. Spring.
- ES 4683. Exercise Prescription and Fitness Programming** The application of basic physiological principles in the prescription of exercise and the administration of conditioning programs for individuals of differing ages, health status, and occupational status. Prerequisite, grade of "C" or better in ES 3623, or instructor permission. Fall.
- ES 4693. Techniques of Strength Training and Conditioning** The study of current principles and procedures essential to strength training and conditioning practices. Emphasis is placed on the development and practical applications of aerobic conditioning, joint flexibility, and muscular strength, power and endurance programs. Prerequisites, a grade of "C" or better in ES 3543, and ES 3553, or instructor permission. Spring, Summer.
- ES 4763. Kinesiology** Mechanics of human motion and its application to physical activity. Prerequisite, grade of "C" or better ES 3543, or instructor permission. Fall, Spring, Summer.
- ES 4813. Applied Motor Learning** The study and practical applications of relevant motor learning theories and research related to exercise science, physical education, and sport programs. Prerequisites, grade of "C" or better in ES 3543 and ES 3553, or instructor permission. Fall.
- ES 4843. Practicum/Pre-Internship** Introduction to field experience in exercise science in order to become familiar with the operational and procedural aspects of clinically based exercise facilities. Prerequisite, grade of "C" or better in ES 3653, ES 3713, ES 4683, and ES 4693, or instructor permission. Corequisite, ES 4673. Spring.

Finance (FIN)

- FIN 2013. Personal Asset Management** Financial assets as vehicles for saving for the future, investments in combinations of assets to meet financial objectives, and how the financial objectives will change over the life span of the investor. Fall, Spring.
- FIN 3713. Business Finance** Legal forms of American business organization, policies, methods, and institutions involved in financing business. The principles of financial management will be studied with emphasis on the corporation, including cash flows, securities, financial structures, expansion, and acquisitions. Prerequisite, ACCT 2133 or 2023. Fall, Spring, Summer.
- FIN 3723. Financial Analytics and Modeling** Fundamental techniques and best practices for financial analysis and modeling. Prerequisite, FIN 3713. Fall, Spring.
- FIN 3733. Personal Finance** Concerned with management of the personal financial resources of the individual and the family. Provides guidance for consumer purchasing and credit, personal insurance, taxation, investing, estate planning, and social security. Designed for non-business majors, course counts only as a free elective, except where required in major. Irregular.
- FIN 3763. Financial Institutions and Markets** An in depth study of financial institutions such as banks, savings and loans, insurance companies and financial markets. Primary emphasis will be on depository institutions. Prerequisites, ECON 2313 and FIN 3713. Fall, Spring.
- FIN 3773. Financial Risk Management** An in depth study of financial risks facing banks, such risks as those arising from fixed income and foreign exchange investments will be covered. Prerequisites, MATH 2143 or MATH 2194 or MATH 2204; ECON 2113 or STATE 3233; and FIN 3713. Fall.
- FIN 3813. International Financial Management and Banking** Study of financial concepts and issues in banking as they relate to business decisions in a global economy. Prerequisite, FIN 3713. Irregular.

- FIN 4013. Financial Wealth Management** The application of financial planning topics to realistic scenarios and case studies involving personal and small business financial planning. Prerequisite, FIN 4723. Spring.
- FIN 4293. New Venture Financing** Introduction to the dynamic challenges facing new business ventures in securing financial backing to support growth and development. Venture capital, internally generated funding and external sources of funding will be discussed along with debt and equity financing. Irregular.
- FIN 4723. Investments** Security investment, the tools of investment analysis, the formulation of investment policy and the role of the individual investor in the economy. Prerequisites, ECON 2113 or STAT 3233; and FIN 3713. Fall, Spring.
- FIN 4743. Managerial Finance** Emphasis on principles and tools for analysis and decision making in working capital management. Studies include cash flow forecasting, inventory model applications, sources and uses of funds analysis, trade credit policies, and techniques of short and intermediate term sales forecasting. Prerequisites, ECON 2113 or STAT 3233; and FIN 3713. Spring.
- FIN 4753. Capital Management** Analysis of the management aspects relating to the inflows and outflows of permanent capital in business enterprises. Examines the management of long-term assets, long-term credit, equity and internal financing. Corporate expansion including mergers, acquisitions, corporate reorganization, and bankruptcies. Prerequisites, ECON 2113 or STAT 3233, and FIN 3713. Fall, Spring.
- FIN 4763. Bank Management** Principles used in the management of commercial banks, relating to loans, credit analysis, security portfolios, analysis and interpretations of Federal Reserve regulations and publications. Prerequisites, ECON 2313 and FIN 3713. Fall.
- FIN 4773. Advanced Bank Management** Applications of financial management techniques to bank management decisions through experiential learning opportunities. Computer based analysis, simulations, and written and oral presentations. Prerequisite, FIN 4763. Spring.
- FIN 478V. Internship in Bank Management** Supervised work experience with bank management in an appropriate banking environment. Prerequisites, FIN 3713, junior or senior standing, and instructor permission. Fall, Spring, Summer.
- FIN 479V. Finance Internship** Practical experience in a variety of finance settings. Students will be assigned to work with an organization and supervised by an experienced professional to gain real world training. Prerequisite, instructor permission. Fall, Spring, Summer.
- FIN 489V. Special Problems in Finance** Individual problems in finance arranged in consultation with the instructor. Must be approved by department chair. Fall, Spring, Summer.

French (FR)

- FR 1013. Elementary French I** Practice toward developing basic proficiency in listening comprehension, speaking, reading, writing, and cultural understanding of the French-speaking world. Fall. (ACTS#: FREN 1013)
- FR 1023. Elementary French II** Continuation of FR 1013. Prerequisite, FR 1013 or instructor permission. Spring. (ACTS#: FREN 1023)
- FR 2013. Intermediate French I** Further development of the basic language skills, with increasing emphasis on the written elements of the language. Continuation of FR 1023. Prerequisite, FR 1023 or instructor permission. Fall. (ACTS#: FREN 2013)

- FR 2023. Intermediate French II** Continuation of FR 2013. Prerequisite, FR 2013 or instructor permission. Spring. (ACTS#: FREN 2023)
- FR 3183. French Conversation and Phonetics** Practice toward developing facility in oral expression in various everyday situations, with some attention to the sound system of French to develop skills in pronunciation and listening comprehension. Prerequisite, FR 2023 or instructor permission. Fall, even.
- FR 3413. Introduction to French Literature** An introduction to French literature from the Middle Ages to the present day with selections from literary masterpieces representing the major trends of each period. Prerequisite, FR 2023 or instructor permission. Fall.
- FR 3463. Advanced French Grammar** Grammar and structure of the French language in order to develop students' facility in the written language. Prerequisite, FR 2023 or instructor permission. Fall, odd.
- FR 3473. Reading and Composition in French** Practice in writing in order to develop precision in grammar and vocabulary, sensitivity toward levels and styles of language, and appropriate strategies for various rhetorical contexts. Prerequisite, FR 3463 or instructor permission. Spring, even.
- FR 3613. French Civilization** The historical background, the geographical setting, and the spirit and character of the French, together with some treatment of the literature, arts, sciences, and institutions of France. Prerequisite, FR 2023 or instructor permission. Spring, even.
- FR 3623. Contemporary France** Readings and discussions on post war French political and social history, mentalities, and current problems. Prerequisite, FR 2023 or instructor permission. Spring, odd.
- FR 4203. Advanced Oral Communication in French** Structured practice of advanced French speaking skills with emphasis on communicating information, narrating in major time frames, and developing facility in formal and specialized situations. Prerequisite, FR 3183 or instructor permission. Spring, odd.
- FR 4413. Survey of French Literature I** Study of selected texts from the Middle Ages to the end of the eighteenth century emphasizing critical analysis in the historical context. Prerequisite, FR 2023 or instructor permission. Fall, odd.
- FR 4423. Survey of French Literature II** Study of selected texts from the nineteenth century to the present, emphasizing critical analysis in the historical context. Prerequisite, FR 2023 or instructor permission. Fall, even.
- FR 4503. Special Topics** Advanced study in a particular area of literature, culture, or language. Topic varies. May be repeated when topic changes. Prerequisite, FR 2023 or instructor permission. Spring.
- FR 480V. Independent Study in French** Independent course of study in French for advanced students only. Must have consent of department chair. May be repeated for up to six hours of credit for majors and up to three hours of credit for minors. Prerequisite, FR 2023 or instructor permission. Irregular.

Graphic Communications (GCOM)

- GCOM 1613. Graphic Communication Systems** An exploration of the industrial materials and processes utilized for graphic preparation and reproduction including lithography, gravure, flexography, screen printing, and nonimpact printing processes. Classroom, industrial visitation and laboratory format. Fall, Spring.

- GCOM 1813. Introduction to Digital Publishing** An overview of the preparation of digital graphics, photographs and text for publication, and of their interrelationships. Includes application of current digital publishing software programs. Fall.
- GCOM 2673. Digital Prepress Workflow** Comprehensive overview of the major prepublishing workflow elements and the options or their interrelationships. Spring.
- GCOM 3603. Graphic Production Systems** Exploration of the Press and Post Press processes of graphic reproduction and publishing. Critical aspects unique to each process will be studied including copy preparation, image carriers, image transfer systems, substrates, inks/toners and post press operations. Each process will be studied through classroom experiences, industrial visitations and/or laboratory experiences. Prerequisite, GCOM 1813. Fall.
- GCOM 3673. Desktop Publishing and Publication Design** Electronic publishing and publication design using desktop publishing software programs. Fall, Spring, Summer. Course Fee \$25.00
- GCOM 4643. Graphic Communications Management Seminar** Management issues specific to the graphic communications industry including quality assurance, sales and customer relations, marketing, scheduling production, laws, ethics, and government interface. Lecture based on course with industry visitations. Prerequisites, GCOM 3603. Fall.
- GCOM 4683. Graphic Publication Production** Opportunity for students to plan production, determine related costs, coordinate and perform production, control quality and develop a portfolio of a complete production experience. Lecture, industry visitations and laboratory format. Prerequisites, GCOM 1613 and GCOM 3603. Fall.
- GCOM 4783. Electronic Innovations in Graphic Communications** Course designed to cover the concepts of digital imagery and output, on demand printing, pagination, multimedia production, databases, interactive design, electronic sales and customer relations. Classroom, laboratory and industry visitation experiences. Prerequisites, GCOM 1613 and MDIA 4363. Instructor permission required. Fall, odd.
- GCOM 488V. Special Problems in Graphic Communications** Designed to provide individually directed research in some special area of printing for seniors. Should be arranged in consultation with a professor in the specified field of interest prior to the semester of study and approved by the department chair. A written paper is required. Fall, Spring, Summer.

Geography (GEOG)

- GEOG 2613. Introduction to Geography** Emphasizes the physical and cultural patterns in the world. Fall, Spring, Summer. (ACTS#: GEOG 1103)
- GEOG 3603. World Regional Geography** Surveys geographic regions of the world, emphasizing the different ways of living and thinking by man in these different regions. Fall, even.
- GEOG 3613. Geography of the United States and Canada** Emphasizes the physical and cultural backgrounds of the United States and Canada. Spring, even.
- GEOG 3663. Geography of Africa** Fundamental contemporary issues that challenge Africans within the context of historical genesis. An emphasis will be placed on the social, economic, environmental and political dynamics of various regions of Africa. Fall.
- GEOG 3683. Economic Geography** Spatial distribution and interrelations of economic factors and forces and how they are affected by geographic factors. Spring, even.
- GEOG 3723. Introduction to Physical Geography Weather and Climate** Examines the nature and character of various components of the physical environment including basic weather elements, climate, landforms, soil and natural vegetation. Fall, odd. (ACTS#: GEOG 2223)

- GEOG 4113. Water Resources Planning** A study of the basic concepts of hydrology and the major issues associated with water resources planning and management. Spring, even.
- GEOG 460V. Special Problems** Individually directed problems in Geography. Must be arranged with the professor and approved by department chair. Irregular.
- GEOG 4613. Conservation of Natural Resources** Current problems associated with the conservation of natural resources. Spring, odd.
- GEOG 4623. Environmental Management** 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. Spring, even.
- GEOG 4633. Climatology** Climatic regions of the world; controlling factors of weather. Fall, even.
- GEOG 4643. Geography of Arkansas** Arkansas physical, cultural, and historical landscapes. Summer.
- GEOG 4813. Special Topics in Geography** An intensive study of a region or pertinent topic in geography. May be repeated once when topic changes. Irregular.

Geology (GEOL)

- GEOL 1001. Environmental Geology Laboratory** Two hours per week. Laboratory exercises in environmental aspects of the geosciences. To be taken concurrently with GEOL 1003. Fall, Spring. (ACTS#: GEOL 1124)
- GEOL 1003. Environmental Geology** A survey of fundamental geologic processes and associated hazards earthquakes, volcanic eruptions, floods, etc. and the interactions of humans with the environment. Lecture three hours. Prerequisite, MATH 0013 or ACT mathematics score of 16. Fall, Spring. (ACTS#: GEOL 1124)

German (GER)

- GER 1013. Elementary German I** Practice toward developing basic proficiency in listening comprehension, speaking, reading, writing, and cultural understanding of the German-speaking world. Fall. (ACTS#: GERM 1013)
- GER 1023. Elementary German II** Continuation of GER 1013. Prerequisite, GER 1013 or instructor permission. Spring. (ACTS#: GERM 1023)
- GER 2013. Intermediate German I** Further development of the basic language skills, with increasing emphasis on the written elements of the language. Continuation of GER 1023. Prerequisite, GER 1023 or instructor permission. Fall. (ACTS#: GERM 2013)
- GER 2023. Intermediate German II** Continuation of GER 2013. Prerequisite, GER 2013 or instructor permission. Spring. (ACTS#: GERM 2023)
- GER 3163. Advanced German Grammar and Composition** Grammar and structure of the German language and of various German literary styles in order to develop students' facility in the written language. Prerequisite, GER 2023 or instructor permission. Fall, odd.
- GER 3173. German Civilization** The historical background, the geographical setting, and the spirit and character of the Germans, together with some treatment of the literature, arts, sciences, and institutions of Germany. Prerequisite, GER 2023 or instructor permission. Spring, odd.

- GER 3183. German Conversation** Elements of spoken German with emphasis on the modern idiom. Prerequisite, GER 2023 or instructor permission. Fall, even.
- GER 3413. Introduction to German Literature** Introduction to poetry, drama, and short prose, develops further the students' reading skills and introduces them to analysis and explication of the literary text. Prerequisite, GER 2023 or instructor permission. Spring, even.
- GER 480V. Readings in German** Independent readings for advanced students only. Limited to three hours. Must have consent of department chair. Irregular.

Graphic Design (GRFX)

- GRFX 1111. Design Technology** Basic levels of graphic design utilizing Adobe Illustrator, Adobe Photoshop, and Adobe InDesign software. Prerequisites: Declared Graphic Design Major, Corequisite GRFX 2203 or instructor permission. Spring.
- GRFX 1112. Design Literacy** Introduction to design, color theory, typography and composition. Restricted to BS Digital Innovations students. Spring, Summer.
- GRFX 2103. Ideation** Focuses on the process of lateral thinking and the visualization of design problems and their solutions. Emphasizes effective research, imagination, originality, and execution in various media. This course requires three or more hours per week outside of class. Fall, Spring.
- GRFX 2203. Introduction to Graphic Design** Graphic design application, career paths, and role in media and technology; layout, typography, media, color, photography, illustration and technology. This course requires three or more hours per week outside of class. Prerequisites, Graphic Design Major or instructor permission. Corequisite GRFX 1111. Fall, Spring.
- GRFX 2303. Typography and Layout** Craftsmanship, terminology and application of classical typography in traditional and digital print processes. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in ART 1013 and GRFX 2203; or instructor permission. Corequisite, GRFX 3400. Fall, Spring.
- GRFX 2703. Interaction Design** Key principles and techniques of human-centered interaction design across a range of contexts including web; from touch screens to emerging digital products using voice and gesture interactions. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 2303; or instructor permission. Fall.
- GRFX 2783. Human Centered Design** Conceptualizing, prototyping and testing application interfaces with a respect for the real needs and desires of human users. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 1111, GRFX 1112 and GRFX 2703. Spring.
- GRFX 3303. Intermediate Typography** Principles and practice of typography in complex situations including creating visual narrative, designing typeface, and experimenting with typography. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2303 and a grade of CR in GRFX 3400; or instructor permission. Fall, Spring.
- GRFX 3400. Graphic Design Review** Portfolio review for BFA in Graphic Design admission. Prerequisites, a grade of C or better in ART 1013, ART 1023, ART 1033, ART 1043, ARTH 2583, ARTH 2593; a 2.75 GPA in all ART, ARTH, GRFX courses; and advisor permission required. Corequisite, GRFX 2303. Fall, Spring.
- GRFX 3503. Identity Design** Graphic design strategies using metaphors, iconography, and the creative process. Emphasis on problem solving using type and image and conceptual thinking. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2013, and CR in GRFX 3400. Fall, Spring.

- GRFX 3603. Advertising Design** Fundamentals of graphic design applied to the advertising industry and advertising designer's role. Emphasis on ideation, art direction, and copywriting to communicate strategic marketing objectives to target markets. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2303 and a grade of CR in GRFX 3400, or instructor permission. Fall, Spring.
- GRFX 3703. Front End Web Development** Advanced HTML and CSS techniques; introduction to client-side web interactivity using the jQuery library. Student is required to create a full featured, graphic design portfolio website. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 2703 and GRFX 3303; CR in GRFX 3400. Spring.
- GRFX 3713. 3D Digital and Game Design** Beginning digital 3D content creation for use in animation, fabrication, game design, and interactive digital environments. Includes textual analysis of video games and game mechanisms. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 1023 and GRFX 2103; CR in GRFX 3400; or instructor permission. Fall.
- GRFX 3753. Motion Graphics** Design for screen focusing on effective use of typography, graphical elements, sound, video and motion, including simple animations, logo and shape motion and environmental visual effects. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2703 and GRFX 3303; CR in GRFX 3400. Spring.
- GRFX 3783. Patterns in Application Design** User Experience Design with a focus on established design patterns of iOS and Android applications. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 1111, GRFX 1112, GRFX 2703 and GRFX 3713. Spring.
- GRFX 4103. Photography for the Graphic Designer** Study of photographic equipment, techniques and processes with emphasis on graphic design applications. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3403 and GRFX 3303; a grade of CR in GRFX 3400; or instructor permission. Fall.
- GRFX 4143. Advanced Photography for the Graphic Designer** This course offers advanced studies in photography as it is utilized in graphic design. Advanced studies in studio and site photography and the application of photography to print and digital media. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 4103; or instructor permission. Spring.
- GRFX 4503. Professional Practice for Design** Personal brand development, including visual identity, website, and social media strategy. Job-finding skills, including cover letter and résumé writing, interviewing, networking, legal issues, contracts, and overall professional communication. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 3303, GRFX 3503, GRFX 3603; CR in GRFX 3400; or instructor permission. Corequisite GRFX 4803. Spring.
- GRFX 4603. Graphic Design Internship** Supervised work in a professional graphic design or digital design setting. May be repeated for credit. Prerequisites, a grade of CR in GRFX 3400, a minimum GPA of 2.75 in all work with an ART, ARTH, ARED, or GRFX prefix, and permission of advisor, Graphic Design Internship Coordinator and department chair. Fall, Spring, Summer.
- GRFX 4613. Independent Study in Graphic Design** Faculty-guided study of graphic design topics for the advanced student. May be repeated for credit. Prerequisites, advisor and instructor permission. Fall, Spring.
- GRFX 4623. Special Topics in Graphic Design** Advanced studies on a topic in graphic design. May be repeated for credit. Prerequisite, a grade of CR in GRFX 3400; or instructor permission. Irregular.

- GRFX 4703. Advanced Digital Studio** Continuation of digital design work with an emphasis on development of personal direction. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of C or better in GRFX 3703. Fall.
- GRFX 4713. Design for Physical Computing** Design techniques relevant to physical computing and internet-of-things devices; emphasis on building novel and engaging human/machine interfaces and interactive data visualization programs. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, C or better in GRFX 3713, or instructor permission. Spring.
- GRFX 4773. Design Build I** User Experience Design focusing on the complete workflow of iOS app development. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations majors. Prerequisites, a grade of C or better in GRFX 3733 and GRFX 3783. Fall.
- GRFX 4783. Design Build II** Continuation of GRFX 4773. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 4773. Fall.
- GRFX 4792. Digital Innovations Portfolio** Professional portfolio presentation capstone. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 4783. Spring.
- GRFX 4803. Portfolio Capstone** Capstone course required for all graduating BFA, Graphic Design emphasis students. Preparation of portfolio of graphic design solutions that demonstrate the students overall knowledge and special skills. Prerequisite, advisor, instructor and chair permission, minimum GPA of 2.75 in all course work with an ART, ARTH, ARED, or GRFX prefix. Corequisite, GRFX 4503. Spring.
- GRFX 4813. Digital Design Portfolio Capstone** Development of an online portfolio and additional digital assets as well as job-seeking skills such as interviewing and networking in preparation for professional practice. Restricted to BFA in Graphic Design with an emphasis in Digital Design. Prerequisites, advisor and instructor permission, minimum GPA of 2.75 in all course work with an ART, ARTH, ARED, or GRFX prefix. Spring.

Global Supply Chain Management (GSCM)

- GSCM 3063. Transportation** Introduction to transportation systems with emphasis on the significance of transportation in the business and economic environment. The course is designed to familiarize students with a development of our transportation network, transportation prices, rate theory, and regulatory policies and procedures. Special course fees may apply. Prerequisite, ECON 2323. Fall, Spring.
- GSCM 3163. Supply Chain Management** Aspects of moving raw materials and finished goods through the firms networks of warehousing, inventory control, materials management, and order processing. The student will examine trade off possibilities and management alternatives to minimize cost of production flow and to maximize customer service. Special course fees may apply. Prerequisite, MKTG 3013. Fall, Spring, Irregular.
- GSCM 4103. Concepts of Business Logistics** This course addresses the concepts, principles, and methods used to plan, organize, and manage logistics activities in the supply chain. Prerequisite, GSCM 3163. Fall.
- GSCM 4123. Organizational Purchasing** This course addresses strategic and operational aspects of purchasing functions in private and public organizations. Emphasis is placed on development and evaluation of suppliers. Prerequisite, MKTG 3013. Corequisite for Sales emphasis majors, MKTG 3093. Fall, Spring.

GSCM 4133. International Logistics and Outsourcing Systematic review of concepts involved in supply chain outsourcing, with emphasis on the selection of service suppliers, the organized movement of goods between firms in more than one nation, and the unique aspects of international logistic processes. Prerequisites, GSCM 3163 or MKTG 4113 or MGMT 4123 or instructor permission. Fall.

GSCM 427V. Supply Chain Management Internship Provides practical supply chain management experience in business. Students will be assigned to work with regional firms and be supervised by an experienced professional. Special course fees may apply. Prerequisites, GSCM 3163 and instructor permission. Fall, Spring, Summer.

Methods and Materials Teaching General Science (GSP)

GSP 3203. Science for Teachers Gives early childhood and middle school teachers an overall view of the role of science in the development of modern civilization, and enables teachers to use content knowledge to properly direct the learning activities of pupils in science classes. Special course fees may apply. Fulfillment of the General Education Biological and Physical Science courses requirement. Fall, Spring, Summer.

History (HIST)

HIST 1003. Introduction to History and Social Studies GENERAL HISTORY. First year experience course. Introduction to the disciplines and fields that make up history and social studies, as well as skills to aid in college success. Fall

HIST 1013. World History to 1500 WORLD HISTORY. The pre-modern world, with emphasis on the economic, political, and cultural processes that shaped societies before the rise of global interdependence. Fall, Spring, Summer. (ACTS#: HIST 1113)

HIST 1023. World History since 1500 WORLD HISTORY. The modern world, with emphasis on the economic, political, and cultural processes that have increased global interdependence. Fall, Spring, Summer. (ACTS#: HIST 1123)

HIST 2763. The United States to 1876 UNITED STATES HISTORY. Social, economic, and political developments from Columbus to the end of Reconstruction. Fall, Spring, Summer. (ACTS#: HIST 2113)

HIST 2773. The United States since 1876 UNITED STATES HISTORY. Social, economic, and political developments from Reconstruction to the present. Fall, Spring, Summer. (ACTS#: HIST 2123)

HIST 3013. Civilizations of Africa WORLD HISTORY. African history from its earliest beginnings to modern times. Specific attention given to social, economic, political, and religious factors. Regional focus on West Africa. Spring, even.

HIST 3043. Asian History since 1500 WORLD HISTORY. Survey of Asian history from 1500 to the present, with a focus on interactions and connections within Asia, with the West and with the larger world. Fall, odd.

HIST 3083. History of Arkansas UNITED STATES HISTORY. An advanced survey of Arkansas history from prehistoric times to the present with an emphasis on political, economic, and social/cultural themes. Required of BSE Social Science majors. Fall, Spring, Summer.

HIST 3123. Latin America, The Colonial Period WORLD HISTORY. From the pre-Columbian Indian civilization to the era of independence. Fall, odd.

HIST 3133. Latin America, The National Period WORLD HISTORY. Development of Latin American nation states. Spring, even.

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

- HIST 3173. Classical Mediterranean Civilization** WORLD AND EUROPEAN HISTORY. Major developments of the Greco-Roman civilizations pertaining to our present civilization. Fall, even.
- HIST 3183. Medieval Europe** WORLD AND EUROPEAN HISTORY. Europe from 500 to 1500 with emphasis on social institutions. Spring, odd.
- HIST 3193. The Crusades** WORLD AND EUROPEAN HISTORY. Medieval Crusading and Crusaders, the wars, religions, politics, economics, social effects and lasting legacies of the Crusade movement. Fall, odd.
- HIST 3203. The History of Law** GENERAL HISTORY. Law from primitive beings in early societies through the English Common Law, development of law in America. Recommended for Pre-Law students. Spring, odd.
- HIST 3223. Renaissance and Reformation Europe** WORLD AND EUROPEAN HISTORY. Political, economic, and cultural change in post-medieval Europe, 1350 to 1600. Spring, odd.
- HIST 3273. Modern Europe, 1750 to Present** WORLD AND EUROPEAN HISTORY. Europe since 1750. Emphasis on state formation, social structures, and global connections from the French Revolution to the present. Spring, even.
- HIST 3283. Society and Thought in Europe** WORLD AND EUROPEAN HISTORY. Evolution of leading European cultural values against the background of socioeconomic change, 1500 to the present. Fall, even.
- HIST 3303. The Modern History of the Middle East 1800 to the Present** WORLD HISTORY. Major developments in Middle Eastern history with emphasis on the twentieth century. Fall, odd.
- HIST 3323. United States Environmental History** UNITED STATES HISTORY. Examines the economic, philosophical, ethical and aesthetic issues involved in the history of conservation, preservation, management and exploitation of the American environment. Fall, odd.
- HIST 3333. The Practice of History** GENERAL HISTORY. Experiential study of historical scholarship, research, writing, and criticism. To be taken at the beginning of the major. Required for all history degrees. Fall, Spring.
- HIST 3393. Introduction to the Digital Humanities** GENERAL HISTORY. A theoretical, creative, and experiential introduction to the scholarship, methods, and tools of the digital humanities. Fall.
- HIST 3483. The United States from 1917-1941** UNITED STATES HISTORY. Social, political, and economic developments in the United States from 1917 to 1941. Spring, odd.
- HIST 3493. The United States since 1945** UNITED STATES HISTORY. Social, political, and economic developments in the United States from 1945 to the present. Fall, even.
- HIST 3503. U.S. Foreign Relations since 1900** UNITED STATES HISTORY. History of United States relations with foreign nations from 1900 to the recent past. Fall, even.
- HIST 3563. Constitutional History of the United States** UNITED STATES HISTORY. Origin and development of American legal and constitutional systems. Recommended for pre-law students. Fall, odd.
- HIST 3583. History of Law Enforcement** UNITED STATES HISTORY. Policing, crime, and the criminal justice system in the United States. Recommended for criminology majors. Spring, even.
- HIST 3603. The American South** UNITED STATES HISTORY. The South in American history from Jamestown through the twentieth century. Fall, odd.

- HIST 3623. The American West** UNITED STATES HISTORY. The American West from the Lewis and Clark expedition to the closing of the frontier. Fall, even.
- HIST 3653. The American Indian** UNITED STATES HISTORY. History and culture of the American Indian and the role of government in Indian affairs. Spring, even.
- HIST 3673. African American History I** UNITED STATES HISTORY. Contributions of people of African descent in the creation of the United States from the Colonial period through Reconstruction. Fall, odd.
- HIST 3683. African American History II** UNITED STATES HISTORY. The African American experience from Reconstruction to the present and its impact in U.S. History. Spring, even.
- HIST 3693. United States Women's History** UNITED STATES HISTORY. The role of women in United States history from 1600 to the present. Cross listed as WGS 3693. Spring, odd.
- HIST 3743. The Urban Revolution in America** UNITED STATES HISTORY. Evolution of the American city and its impact on society. Spring, even.
- HIST 3853. U.S. Civil Rights Movement** UNITED STATES HISTORY. The transformation of America through campaigns for African Americans civil rights. Prerequisites, HIST 2773, or HIST 3683, or POSC 3163, or instructors permission. Fall, even.
- HIST 4113. Imperial Russia** WORLD AND EUROPEAN HISTORY. Russian history to the Revolution of 1917. Fall, odd.
- HIST 4123. Soviet Russia** WORLD AND EUROPEAN HISTORY. The U.S.S.R. 1917 to present. Spring, even.
- HIST 4133. History of Ancient China** WORLD HISTORY. Ancient Chinese civilization from the founding of the Shang Dynasty, 1766 B.C., to the end of the Three Kingdoms Period, A.D. 280. Spring, odd.
- HIST 4143. The Rise of Modern China** WORLD HISTORY. Major developments in Chinese history with emphasis on the twentieth century. Fall, odd.
- HIST 4213. History of England, 55 BC to AD 1689** WORLD AND EUROPEAN HISTORY. The social, political, and ecclesiastical history of England from Julius Caesar's reconnaissance to the Glorious Revolution. Fall, even.
- HIST 4223. History of Great Britain. 1688 to 1982** WORLD AND EUROPEAN HISTORY. The social, political, economic, and imperial history of Great Britain from the Glorious Revolution to the Falklands War. Spring, odd.
- HIST 4243. The Vikings** WORLD AND EUROPEAN HISTORY. The impact of the Viking phenomenon on Europe, and of Europe on Norse culture in the 7th-13th centuries. Fall, odd.
- HIST 4263. Early Christianity** WORLD AND EUROPEAN HISTORY. Growth and influence of Christianity in Mediterranean and European lands, to 600 C.E. Dual listed HIST 5263. Fall, even.
- HIST 4273. History of Mexico** WORLD HISTORY. Emphasizes contemporary developments and relations with the United States. Spring, odd.
- HIST 4303. The Idea of History** GENERAL HISTORY. Study of the idea of history in its chronological, practical, and historiographical manifestations. Spring.
- HIST 4312. Computer Technology for the History/Social Sciences Educator** GENERAL HISTORY. Hands on experience in evaluating, creating and using history web sites and software, and developing presentation skills using the computer, for teaching in the secondary classroom. Spring, Summer.

- HIST 4413. Colonial North America** UNITED STATES HISTORY. Colonial development from Jamestown through the American Revolution. Fall, even.
- HIST 4423. Foundations of the American Republic, 1783 to 1850** UNITED STATES HISTORY. Major political and social developments between the Revolution and the Civil War. Summer, odd.
- HIST 4453. United States Civil War and Reconstruction** UNITED STATES HISTORY. The Civil War period and the resulting problems of Reconstruction. Fall, even.
- HIST 4463. U.S. Gilded Age and Progressive Era** UNITED STATES HISTORY. Explores the dramatic economic, social, and political upheavals of 1880 to 1917. Spring, odd.
- HIST 4473. U.S. Southern Women's History** UNITED STATES HISTORY. Examines the history and changing status of women in the U.S. South from the 1400s to the present. Cross listed as WGS 4473. Spring, even.
- HIST 4483. History of Sexuality in America** UNITED STATES HISTORY. Forces which have shaped American beliefs and practices concerning sexuality, and the roles played by gender, race and class. Cross listed as WGS 4483. Dual listed as HIST 5483. Fall, odd.
- HIST 4493. Cultural History of Comic Books in America** UNITED STATES HISTORY. 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 5493. Fall, odd.
- HIST 4513. Museum Collections Management** GENERAL HISTORY. An overview of the management and preservation of material culture in museums. Policy development, documentation and care of collections are broad topic areas. Spring, odd.
- HIST 4553. History of Medicine** WORLD AND EUROPEAN HISTORY. Worldwide survey of medicine, disease, and health from prehistoric times to the present. Fall, odd.
- HIST 4563. Plagues and Pestilence in World History** WORLD HISTORY. Effects of the relationship between humans and infectious disease, from prehistory to AIDS and bioterrorism. Spring, even.
- HIST 4573. Digital History Seminar** GENERAL HISTORY. Advanced study of selected historical topics with focus on creating an original research project in the digital humanities. May be repeated for credit with different subtitle. Spring.
- HIST 4583. Special Topics in American History** UNITED STATES HISTORY. Subtitle varies. Topic varies, but especially emphasizes new developments in American history. May be repeated for credit with different subtitle. Irregular.
- HIST 4593. Special Topics in World History** WORLD AND EUROPEAN HISTORY. Subtitle varies. Topic varies, but especially emphasizes new developments in World History. May be repeated for credit with different subtitle. Irregular.
- HIST 460V. Special Problems in History** GENERAL HISTORY. Individual problems in history for juniors and seniors, arranged in consultation with a professor. Must be approved by the department chair. Irregular.
- HIST 4703. Internship in Public History** GENERAL HISTORY. Supervised practical experience with public agencies or private businesses in history related subjects. Prerequisite, consent of the department chair. Irregular.
- HIST 470V. Capstone Project in Digital Humanities** GENERAL HISTORY. The capstone project combines the knowledge and skills obtained in previous coursework and allows the students to conceive, develop, and produce a digital humanities project individually. Prerequisite, instructor permission. Fall, Spring.

HIST 4803. Senior History Seminar GENERAL HISTORY. Advanced study of selected topics, with focus on historical research, writing and critical thinking. Senior history or social science majors only. Content varies. Irregular.

Health (HLTH)

HLTH 2513. Principles of Personal Health Principles, problems, and practices in the development of positive health behavior. Fall, Spring, Summer.

HLTH 2523. First Aid and Safety Fundamentals, techniques, and practices of Standard First Aid and CPR as prescribed by the National Safety Council. Emphasis on programs of accident prevention in schools, homes, recreational areas, traffic safety. Fall, Spring, Summer.

HLTH 3523. Public and Community Health Examination of public and community health problems, their causes, and possible solutions from a local, state, national, and international perspective. Roles of the individual and the community, and functions of the various agencies involved with health related issues will also be studied. Fall.

HLTH 3533. Strategies for Teaching Health Education Theory and teaching techniques for effective health instruction. Spring, Summer.

HLTH 3563. Human Sexuality Emphasis given to human reproduction, courtship, marriage, parenthood, premarital and extramarital sex, and deviate sexual behavior. Fall, Spring.

HLTH 4513. Consumer Health An analysis of the health services and health products offered in the market place and study of principles involved in making wise consumer health choices. Spring, Summer.

HLTH 4523. Current Issues in Health Current issues and trends in personal, public, and international health with stress on individual research and readings. Fall, Summer.

HLTH 4543. Drug Use and Abuse An exploration of the physical, mental, emotional, and social aspects of drug use and abuse. Special attention will be focused on proper use of drugs within contemporary society. Fall, Spring, Summer.

HLTH 4573. The School Health Program The scope and function of the total school health program including common health problems, recommended program organization, and administrative practices. Irregular.

HLTH 4633. Health Promotion Assessment and Planning Designed to facilitate students understanding of the process of conducting needs assessments with various populations and to help students learn how to plan a well designed program for implementation. Fall.

HLTH 4643. Health Promotion Implementation and Evaluation Designed to facilitate students understanding of the process of program implementation and evaluation. Students will implement and evaluate various health interventions. Prerequisite, HLTH 4633. Spring.

HLTH 480V. 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. Course can be repeated for credit. Irregular.

Honors (HNRS)

HNRS 291V. Honors Special Topics* An interdisciplinary course that focuses on a specific area, has specialized content, or treats interdisciplinary topics. May be repeated for credit with different subtitle. Irregular.

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

HNRS 311V. Honors Special Topics* An interdisciplinary course that focuses on a specific area, has specialized content, or treats interdisciplinary topics. May be repeated for credit with different subtitle. Irregular.

HNRS 400V. Honors Independent Study** A course of study initiated by the student and carried out under the supervision of a member of the faculty with appropriate expertise. Planning for Honors Independent Study should begin no later than eight weeks prior to the beginning of the semester in which the study will begin. An application for this course is available on the Honors website. Irregular.

HNRS 489V. Honors Senior Thesis*** A research or creative project in the major or minor undertaken by advanced students, working under the supervision of a member of the faculty with appropriate expertise, as the capstone to the college career, concludes with an oral defense. Planning for an Honors Senior Thesis should begin no later than eight weeks prior to the beginning of the semester in which the study will begin. Requires senior Honors standing. A maximum of six hours of Honors Senior Thesis credit or combination of Honors Independent Study may be applied toward graduation in University Honors.

*A sampling of 3000/4000 level Honors special topics courses that have been offered in the past semesters include the following:

Horror Fiction and Film	Politics and Culture of the 1920's
Mystery/Detective Fiction and Film	New Directions: 20th Century Music
Law and Dissent in America	Representing the Civil Rights Movement
Science Fiction in Literature and Film	Lower Mississippi Delta History and Culture
Creating Connections Between Science and The Public	The Blues and Literature
American Culture in the 1950's	Sustainable Development in Modern Society
American Culture in the 1940's	

Additional Honors special topics are available based upon Honors student recommendations and interests. Students, through the Honors College Association (HCA), develop course ideas and work with professors to develop courses of immediate interest. After Submission to the Director of The Honors College, they are then presented to the Honors Council for adoption, scheduling, and offering.

**An Independent Study requires Honors standing and written approval by the following: supervising professor for the course, advisor in the major, the Honors advisor in the major, the department chair, the College Honors Council Representative, and the Director of The Honors College. Once the signed independent study approval form and required documentation is submitted to The Honors College, the student will be enrolled in independent study hours. An independent study course may, with approval, be used for senior thesis preparation.

***The Thesis Topic Approval Process requires Honors standing and written approval by the following: supervising faculty member, the thesis committee, the major advisor, the Honors advisor in the major, the department chair, the College Honors Council Representative and the Dean for The Honors College. The Thesis Approval Process includes a proposal in which the student documents his/her thesis topic and process. After the proposal meeting is held and the committee has approved the project, the signed thesis approval form is submitted to The Honors College and the student can then be registered in thesis hours.

Horticulture (HORT)

HORT 3253. Urban Forestry The biology, selection, management, and role of plants and ecosystems used to enhance the aesthetics and function of urban environments. Planning, management and administration of urban forests. Prerequisite, BIOL 1003 or BIO 1503 or PSSC 1303. Fall, even.

HORT 3263. Pomology Fruit production, fruiting habits, establishment and management of deciduous orchards. Lecture two hours, laboratory two hours per week. Prerequisite, PSSC 1303. Spring, even.

- HORT 3273. Turf Management** The turf industry, characteristics, adaptation, and establishment of the grasses. Prerequisites, PSSC 2813, PSSC 2811, and PSSC 1303. Fall, odd.
- HORT 3283. Landscape Management** Principles and practices for the establishment and maintenance of residential and commercial landscapes. Lecture two hours, laboratory two hours per week. Prerequisite, PSSC 1303. Fall, even.
- HORT 3293. Landscape Plant Materials** Trees and shrubs and their uses in landscape. Lecture two hours, laboratory two hours per week. Fall, odd.
- HORT 4233. 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. Prerequisite PSSC 1303. Spring, odd.
- HORT 4283. Landscape Design** Continuation of HORT 3293, the organization of outdoor spaces in relation to architecture and general environment. Lecture two hours, laboratory two hours per week. Prerequisite, HORT 3293. Fall, even.
- HORT 429V. Special Problems in Horticulture** For students of senior standing. Instructor permission and dean necessary. Fall, Spring, Summer.
- HORT 4323. Plant Propagation** Principles, practices, and methods employed in the propagation of plants. Prerequisite, PSSC 1303. Spring, odd.
- HORT 4333. Greenhouse and Nursery Production** Principles and practices involved in greenhouse and nursery operations: production, management, and marketing. Lecture and Lab. Prerequisite, PSSC 1303. Spring, even.

Health Professions (HP)

- HP 2013. Medical Terminology** Basic language related to medical science and the health professions, word analysis, construction, spelling, definitions. Special course fees may apply. Fall, Spring, Summer.
- HP 2112. Introduction to the United States Healthcare System** Fundamental structures and operations of the United States health care system and its differences from other established health care models across the world. Provides an overview of health care services, delivery, financing, trends and consequences. Fall, Spring.
- HP 3003. General Gross Anatomy** The regional topographic study of human gross anatomy using lecture, laboratory, discussion, and prosected cadavers. Emphasis is placed on surface anatomy, musculoskeletal and neuromuscular systems. Clinical correlations are highlighted. Lecture 2 hours per week. Laboratory 2 hours per week. Enrollment will be limited. Enrollment preference will be given to students in the Sports Medicine and Athletic Training Program. Additional enrollment will be at the discretion of the instructor. Special course fees may apply. Prerequisites, BIO 2203 and BIO 2201, or BIO 3223 and BIO 3221. Fall, Spring.
- HP 3123. Introduction to Disease** Basic principles of disease processes, covering essential structural and functional characteristics of common diseases. Attention will be given to individual body systems and the diseases, disturbances, and abnormalities affecting them. Requires admission to the BSHS program or Departmental Approval. Prerequisite, Grade of C or better in HP 2112. Fall.
- HP 3233. Preventive Health** Teaching and "coaching" patients toward managing, mitigating, and/or preventing health dysfunctions encountered by citizens of the Delta region. Examines the impact health promotion and preventive practices have on the quality of life across the life span. Requires admission to the BSHS program or Departmental Approval. Prerequisite, Grade of C or better in HP 2112. Fall.

- HP 3353. Public Health: Principles and Practice** Overview of the unique features of public health in the rapidly changing US and global health care delivery system from a population, global health perspective. Requires admission to the BSHS program or Departmental Approval. Prerequisite, Grade of C or better in HP 2112. Fall.
- HP 3413. Cultural Competence in the Health Professions** Self assessment of awareness, knowledge, sensitivity and acceptance of the importance of cultural issues in a culturally diverse health care environment, definition and components of culture, cultural values, cultural competence, health and healing traditions, transcultural communication, fostering cultural competence in colleagues. Fall, Spring, Summer.
- HP 3453. Healthcare Navigation and Advocacy** Overview of the roles of patient navigators and advocates in the rapidly-changing and complex US healthcare system. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112. Fall.
- HP 3463. Introduction to Pharmaceuticals** An introduction to pharmaceuticals in modern health care. Issues related to regulation, drug development, drug safety (including age related issues, polypharmacy, and abuse) and quality control are included. Requires admission to the BSHS program or Departmental Approval. Prerequisite, Grade of C or better in HP 2112. Spring.
- HP 3673. Critical Issues in Health** Examination of critical health and health care issues from clinical, legislative, and community perspectives. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112 and HP 3353. Spring.
- HP 3783. Issues in Mental Health** Examination of a variety of mental health conditions and behaviors, including many of the help-seeking behaviors seen currently in health care settings, including major public health threats to our society will be discussed. Requires admission to the BSHS program or Departmental Approval. Prerequisite, Grade of C or better in HP 2112. Spring.
- HP 4103. Patient Education in Healthcare** Teaching strategies and methodologies that compare and contrast teacher-centered versus patient-centered approaches within the context of healthcare. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112, HP 3233, and HP 4213. Spring.
- HP 4213. Chronic Illness** An introduction to the scope and nature of living with chronic disease or illness with a focus on identifying chronic illnesses that affect not only the individual, but families and communities. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112, HP 3123 and HP 3463. Fall.
- HP 4323. Patient Safety** An introduction to the scope and nature of most adverse events related to patient safety, with a focus on identification and prevention of patient safety issues. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112 and HP 3673. Fall.
- HP 4443. Healthcare Management** Investigation of management theories, organizational design and behavior, managerial skills and leadership, human resource management, and strategic planning involving various healthcare settings; development of interpersonal skills necessary to manage teams and lead organizational change. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112 and HP 3673. Spring.
- HP 4543. Healthcare Service Delivery** A global focus on value-based healthcare delivery and the World Health Organization. Approaches to principles related to health care delivery in practice that are effective, safe, and quality based. Requires admission to the BSHS program or Departmental Approval. Prerequisites, Grade of C or better in HP 2112 and HP 3673. Spring.
- HP 4803. Introduction to Geriatrics** Provides the learner with an introduction of geriatrics through a multidisciplinary approach. Topics explored will encompass how people age physically and how this aging affects other dimensions of life. Special course fees may apply. Prerequisites, minimum of 60 hours. Summer.

Health, Physical Education and Sport Science (HPES)

HPES 1013. Introduction to Health, Physical Education and Sport Sciences Required course for all first-semester freshmen interested in the area of Health, Physical Education, and Sport Sciences, HPESS. Course content will focus on the historical perspective of physical education, professional and vocational opportunities, and skills/knowledge needed to be a successful student. C or better required. Fall.

HPES 1883. Foundations of Health, Physical Education and Sport Sciences Introductory course for the prospective HPESS major. Provides insight to the history, sociological impact, and objectives of physical education and sport, with emphasis on current professional literature and vocational opportunities. HPESS majors must make a C or better in this course. Spring.

HPES 3001. Student Leadership in Service Learning This course introduces students to academic service-learning as an approach to experiential learning. Students actively participate in meaningful civic service-learning experiences that meet community needs and are coordinated with university and community partner organizations. Spring, Fall.

HPES 4863. Internship in HPESS I Capstone experience for Exercise Science, Health Promotion, Sport Management majors. Enrollment must occur during the last semester of the degree program. Must have completed all departmental requirements, including C or better in all major courses. Prerequisite for Exercise Science majors only and departmental permission, ES 4843. Fall, Spring, Summer.

HPES 4893. Internship in HPESS II Capstone experience for Exercise Science, Health Promotion, Sport Management majors. Enrollment must occur during the last semester of the degree program. Must have all departmental requirements, including C or better in all major courses. Prerequisites for Exercise Science majors only and departmental permission, ES 4843. Fall, Spring, Summer.

HPES 4896. Internship in HPESS Capstone experience for Exercise Science, Health Promotion, and Sport Management majors. Enrollment must occur during the last semester of degree program. Must have completed all departmental requirements, including C or better in all major courses. Prerequisites, ES 4843 for Exercise Science majors only and departmental permission. Fall, Spring, Summer.

International Business (IB)

IB 1013. The Global Challenge Discussion of current world economic and social issues and challenges as they relate to individual beliefs which determine our roles as global citizens. Students are required to participate in a service learning project, internationally or domestically, incurring expenses for travel. Irregular.

IB 3013. Global Experience On-site examination of organizations, agencies, or locales in a region of the world involving the application of methods and techniques of investigation in International Business. Fall, Spring, Summer.

IB 3813. International Financial Management and Banking Study of financial concepts and issues in banking as they relate to business decisions in a global economy. This course is cross listed as FIN 3813. Summer, odd.

IB 4103. International Trade Economic theory and history of international trade. Topics such as comparative advantage, the effect of protectionism and determination of exchange rates will be emphasized. Prerequisites, ECON 2313 and 2323. This course can be counted as an Economics elective. This course is cross listed as ECON 4103. Fall, Spring, Summer.

IB 4133. International Law Law relevant to transactions conducted in international markets. Covered topics include the concept, the sources, the force and effect, and the history and scope of international law. Prerequisite, BUAD 2023. This course can be counted as a BUAD elective. Irregular.

- IB 4143. Export Policies and Procedures** Provides the rationale for exports and provides training on the skills for managing an export business. Coverage includes export promotion and incentives, lines and letters of credit, foreign exchange issues, international trade logistics, export documentation, and security and regulatory issues. Prerequisites, Completion of 60 hours. Cross-listed as ECON 4143. Spring.
- IB 4273. Special Problems** Independent research study dealing with the socioeconomic, political, and cultural environment of an area or foreign country. The study may also deal with the production, marketing, promotion, and pricing of a product abroad and with the management aspects of a multinational business. Fall, Spring, Summer.
- IB 4283. Internship in International Business** Supervised work experience with a firm in a foreign country, the international division of a firm in the United States, an international institution, or a government agency dealing with international business or foreign relations. Provides a practical experience for international business students. Prerequisite, junior or senior classification and instructor permission. Fall, Spring, Summer.
- IB 438V. International Exchange** This class is for students studying abroad for a semester on Exchange. It is only a credit no credit course with grades being transferred from the host institution upon completion of the semester. Irregular.

Intensive English Program (IEP)

- IEP 0306. Intensive English Foundations** Foundations of English is an introductory course that provides students who have limited English language ability with the basics of English. Instruction is geared toward basic conversation, simple grammar, basic writing and reading, and simple sentence structure. Fall, Spring, Summer.
- IEP 1306. Intensive English Level I** Students at this level participate in a variety of courses including pronunciation and oral communication, reading, writing, and grammar. The instruction given in these courses is at the high beginning level. The concepts and ideas presented in them aid students in building a solid foundation upon which their English language can develop, be built up, and expanded. Fall, Spring, Summer.
- IEP 2306. Intensive English Level II** Students at level two progress to a higher level of difficulty and exposure to a broader range of language usage. They are also exposed to skills and tasks common in classrooms in American colleges and universities such as giving oral presentations and reports, writing paragraphs, and self-study. Fall, Spring, Summer.
- IEP 3306. Intensive English Level III** This level begins pre-academic instruction. Students are exposed to content-based instruction. This course teaches practical skills in common classroom discourse, tasks, and activities. Emphasis is placed on developing note taking skills, answering short essay questions, test taking skills, etc. Fall, Spring, Summer.
- IEP 4306. Intensive English Level IV** Continuation of IEP 3306. Further development of pre-academic college skills taught through content-based instruction, practical activities and assignments that reflect current academic demands required at the undergraduate and graduate levels of instruction. Fall, Spring, Summer.
- IEP 5306. Intensive English Level V** This course provides rigorous studies which bring together all course work and provides practical application of learned skills. This course requires demonstration of synthesis and knowledge of the content presented in addition to application of these skills in completing presentations, projects, written reports, research, etc. Fall, Spring, Summer.

Interdisciplinary Studies (IDS)

- IDS 2013. Introduction to Interdisciplinary Studies** Introduction to the concept of interdisciplinary study, exploration of research and career possibilities for IDS majors, and composition of individualized program of study. Fall.
- IDS 2023. Introduction to Service Learning** Introduction to principles of service learning and the Social Change Model of Leadership to promote personal learning, social growth, and civic responsibility. Students participate in a community-based project as determined by the instructor of record. Fall.
- IDS 3013. Critical Thinking in the Profession** Exploration of the role of critical thinking in a range of professional settings through reading, writing and communication using technology, professionally-prepared materials, and statistical charts. Basic overview of the research writing process is included. Prerequisites, ENG 1013, and CIT 1503 or CS 1013. Fall, Spring, Summer.
- IDS 3023. Advanced Service Learning** Course integrates academic objectives with service experiences to foster student learning, personal and social growth, and civic responsibility. Students establish expectations and responsibilities to address a campus or community need in partnership with the community-based service project. Course theme determined by instructor at time of instruction. Prerequisites, IDS 2023. Spring.
- IDS 4013. Seminar in Professional Development** Capstone experience is designed to ensure BSIS students meet their individualized educational goals upon graduation. Students will develop and articulate employment skills for each area of study and enhance workplace skills including professional-level reading, writing and communications. Open to any student with senior-level standing (90 or more earned college credits). Fall, Spring, Summer.
- IDS 4023. Leadership in the Profession** Independent study of a specific problem in a professional setting relevant to one or more of a student's BSIS emphasis areas. Student will present a formal plan of action using solutions grounded in leadership theory. Prerequisites, ENG 1013, IDS 3013, and CIT 1503 or CS 1013. Fall, Spring, Summer.

International Studies (INST)

- INST 4503. Special Topics** Focused treatment of an issue, theme or problem related to international history, politics, culture, or related area. Irregular.
- INST 4603. Capstone Project in Global Studies** Application of skills and knowledge gained in the Global Studies emphasis to the analysis of a specific topic. Fall, Spring.
- INST 4803. Independent Study** Independent readings for advanced students only. Limited to three hours. Must have consent of department chair. Irregular.

International Program (IP)

- IP 1111. International Bridge Program** The Undergraduate International Bridge Program is a course that helps students develop effective academic study skills, such as listening and note taking, as well as life skills. Additionally, this course will provide English language tutoring assistance for any of the other classes in which students are enrolled. This course is taught in conjunction with the University College First Year Experience courses. Fall, Spring.
- IP 4001. International Bridge Program** This course is designed to facilitate the student's transition into American university study and life in the United States and to provide academic, linguistic, and cultural support for international students enrolled in a graduate program of study at ASU.

Law (LAW)

- LAW 2023. Legal Environment of Business** Introduction to the fundamental elements of the Anglo American legal system and its common law origins. The scope of the course will include the application and operation of the legal system in the remedy of business disputes, the development and operation of the court system, and the regulation of American business and industry by the United States government. Fall, Spring, Summer. (ACTS#: BLAW 2003)
- LAW 4033. Law of Commercial Transactions** Business related legal subject matter reflecting marketplace problems and considerations. Topics include the law of sales, secured transactions, commercial paper, contracts, and bankruptcy. Prerequisite, LAW 2023. Irregular.
- LAW 4043. Law of Business Organizations** Business related legal subject matter reflecting marketplace problems and considerations. Topics include the law of corporations, partnerships, agency, and property. Prerequisite, LAW 2023. Fall, Spring, Summer.
- LAW 4053. Employment Law** Analysis of current employment law practices as applied to human resource management, with emphasis on federal and state civil rights laws. Prerequisites, LAW 2023. Spring.
- LAW 4063. Hospitality Law** A comprehensive study of the legal aspects of the hospitality industry with an emphasis on compliance and prevention of liabilities. Prerequisite, LAW 2023. Fall.
- LAW 4073. Business Law in Popular Culture** A study of the interaction of popular legal culture with business law in a variety of contexts. Prerequisite, LAW 2023 or instructor permission. Fall, odd.
- LAW 459V. Special Problems in Law** Individual problems in law arranged in consultation with the instructor. Must be approved by department chair. Prerequisite, LAW 2023. Fall, Spring, Summer.

Library Resources (LIR)

- LIR 1011. Introduction to Academic Research** Strategies for effective academic research, including: selecting and using appropriate electronic and traditional resources, formulating searches, evaluating the quality and reliability of sources, and using information ethically. Fall, Spring.
- LIR 1021. Introduction to Academic Research Biology** **Strategies for effective academic research**, including: selecting and using appropriate electronic and traditional resources, formulating searches, evaluating the quality and reliability of sources, and using information ethically. Content related to the departmental major is included. Fall, Spring.

Mathematics (MATH)

- MATH 0003. Introductory Algebra** Credit not applicable toward a degree. Real numbers, inequalities, linear equations, exponents, polynomials, and rational expressions. A grade of C or better must be made in this course before enrolling in MATH 0013. Prerequisite, MATH ACT of 16. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.

- MATH 0013. Intermediate Algebra** Credit not applicable toward a degree. Exponents, radicals, polynomials, rational expressions, linear equations, functions, graphs, factoring, introduction to quadratic equations, and related topics. A grade of C or better must be made in this course before enrolling in MATH 1023, or MATH 1054. Prerequisite, High School Algebra I and Math ACT of 17 or 18, or a C or better in MATH 0003. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.
- MATH 1023. College Algebra** Equations and inequalities, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities, and miscellaneous topics. No credit given if taken following MATH 1054. Prerequisite, High School Algebra II and score of 21 or above on ACT Math or 530 or above on SAT Mathematics or 47 or above on COMPASS Algebra or a grade of C or better in MATH 0013 or completion of 9 modules in UC 0173 and UC 022V. Fall, Spring, Summer. (ACTS#: MATH 1103)
- MATH 1033. Plane Trigonometry** Right triangles and similar triangles, trigonometric ratios, degrees, and radians, trigonometric functions, circular functions, trigonometric identities, inverse trigonometric functions, trigonometric equations, Law of Sines, Law of Cosines, vectors, polar coordinates, and complex numbers. No credit given if taken following MATH 1054. Prerequisite, High School Algebra II and score of 21 or above on Math ACT or 530 or above on Math SAT, or a grade of C or better in MATH 0013 or completion of 9 modules in UC 0173 or UC 022V or Corequisite, MATH 1023. Fall, Spring, Summer. (ACTS#: MATH 1203)
- MATH 1043. Quantitative Reasoning** Quantitative reasoning as the approach to understanding relationships using mathematical and algebraic methodologies. Contemporary topics will be used to identify, analyze, generalize, and communicate quantitative relationships. Prerequisite, High School Algebra II and score of 19 or above on ACT Math or 500 or above on SAT Mathematics or 36 or above on COMPASS Algebra or 42 or above on ASSET Algebra or a grade of C or better in MATH 0013 or completion of 12 modules in UC 0173 and UC 022V. Fall, Spring, Summer. (ACTS#: MATH 1003)
- MATH 1054. Precalculus Mathematics** Selected topics from algebra, trigonometry, and analytic geometry. Prerequisite, High School Algebra II and score of 24 or above on Math ACT or 590 or above on Math SAT, or MATH 1023. Fall, Spring, Summer. (ACTS#: MATH 1305)
- MATH 1093. Making Connections Mathematics** Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.
- MATH 2113. Mathematics for School Teachers I** Sets, logic, and numbers with emphasis on the axiomatic development of the real numbers. Prerequisite, with a C or better in MATH 1023 (BSE Middle Level Education specialty areas of Mathematics or Science) or MATH 1043. This course may not be used to satisfy general education mathematics requirement. Fall, Spring, Summer.
- MATH 2123. Mathematics for School Teachers II** Mathematical systems, continued development of real numbers, specifically rational numbers, geometry, and measurement with applications. Prerequisite, C or better in MATH 2113. This course may not be used to satisfy general education mathematics requirement. Fall, Spring, Summer.
- MATH 2143. Business Calculus** Exponential and logarithmic functions, mathematics of finance, limits, derivatives, optimization, and integrals, business calculus applications including marginal analysis, extrema and concavity of functions. Will not satisfy requirements for mathematics degrees. Prerequisite, MATH 1023 or MATH 1054 or a Math ACT score of 26 or a Math SAT score of 650. Fall, Spring, Summer.
- MATH 2183. Discrete Structures** Sets and functions, partially ordered sets, trees and graphs, algorithms, symbolic logic, Boolean algebra, combinatorics, and probability modeling. Prerequisites, High School Algebra II and score of 22 or above on Math ACT or 560 or above on SAT, or MATH 1054. Fall, Spring.

- MATH 2194. Survey of Calculus** Survey of the basic concepts of calculus, including limits, derivatives, exponential and logarithmic functions, and integrals. Credit will not be given for both MATH 2194 and MATH 2204. Prerequisites, MATH 1023 or MATH 1054 or a Math ACT score of 26 or a Math SAT score of 650. Fall, Spring. (ACTS#: MATH 2203)
- MATH 2204. Calculus I** The calculus of functions of one real variable. Limits, derivatives, implicit differentiation, applications of the derivative (including L'Hospital's Rule), definite integrals, indefinite integrals, Fundamental Theorem of Calculus, substitution technique for integrals. Prerequisites, High School Trigonometry and score of 26 or above on math ACT or 650 or above on SAT, or MATH 1023 and MATH 1033 or MATH 1054. Fall, Spring, Summer. (ACTS#: MATH 2405)
- MATH 2214. Calculus II** Additional topics in the calculus of functions of one real variable. Techniques of integration (integration by parts, trigonometric substitution, partial fractions, integral tables), approximating definite integrals, improper integrals, applications of the integral, sequences, series, Taylor's Theorem, parametric curves, polar coordinates. Prerequisite, MATH 2204 with a grade of "C" or better. Fall, Spring, Summer. (ACTS#: MATH 2505)
- MATH 3003. Geometry for Middle School Teachers** Formal geometry in two and three dimensions, measurement, symmetry, congruence and similarity, coordinate geometry, constructions, conics. May not be used to satisfy the general education mathematics requirement. Prerequisites, C or better in both MATH 2113 and MATH 2123. Spring.
- MATH 3051. Try Out the Classroom** Introductory classroom experience led by ASU STEM faculty and area teachers. Topics include Arkansas science/math curriculum, classroom management, laboratory safety, and basic teaching skills. Students will develop and present science/math activities in area classrooms and campus outreach. Prerequisites, MATH 2204 and MATH 2214. Fall.
- MATH 3133. Math for School Teachers III** Mathematical systems of computation, geometry, algebra, probability and statistics with applications. This course may not be used to satisfy general education mathematics requirements. Prerequisites, C or better in both MATH 2113 and MATH 2123. Fall.
- MATH 3243. Linear Algebra** Matrix algebra, vector spaces, subspaces, the Rank-nullity theorem, eigen theory, and inner product spaces. Prerequisite, MATH 2214. Spring, Summer.
- MATH 3254. Calculus III** Vectors, lines, and planes in two and three dimensions, vector valued functions, space curves, curvature and torsion, partial and directional derivatives, extrema of functions of several variables, optimization problems, double and triple integrals with applications, cylindrical and spherical coordinates, vector fields and line integrals, Greens Theorem and the divergence theorem. Prerequisite, MATH 2214. Fall, Spring, Summer.
- MATH 3273. Applied Complex Analysis** Survey of complex analysis with emphasis on developing skills needed for applications and understanding of derivatives and integrals of complex functions. Prerequisite, MATH 3254. Fall, even.
- MATH 3303. Modern Algebra I** Introduction to the theory of groups and rings, with emphasis on modular arithmetic proofs. Prerequisite, MATH 2214. Fall.
- MATH 3323. Mathematical Modeling** Construction of mathematical models for use with problems in the mathematical sciences, operations research, engineering and the management and life sciences. Prerequisite, MATH 2214. Spring.
- MATH 3343. College Geometry** Origin and development of Euclidean and Transformational Geometry, explorations of spherical and hyperbolic geometries. Implementation of geometric software. Prerequisite, MATH 2214. Spring.
- MATH 3353. History of Mathematics** Origin and development of modern mathematical concepts. Topics include systems of numeration, algebra, geometry, calculus, and the foundations of the real number system. Prerequisite, MATH 2214. Fall.

- MATH 4403. Differential Equations** Topics in the elementary theory of differential equations, including existence theorems and applications. Prerequisite or corequisite, MATH 3254. Fall, Spring.
- MATH 4413. 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. Dual listed with MATH 5413. Spring, odd.
- MATH 4423. Modern Algebra II** Continuation of MATH 3303. Prerequisite, MATH 3303. Spring.
- MATH 4513. Applied Mathematics** Topics in the elementary theory of differential equations, including existence theorems and applications. Prerequisite, MATH 3254. Fall, Spring.
- MATH 4533. Numerical Methods** Error analysis, numerical methods to solve nonlinear systems, numerical integration, ordinary and partial differential equations, and finite differences. Prerequisites, MATH 2214 and CS 2114. Spring, even.
- MATH 4553. Advanced Calculus I** The theoretical treatment of calculus of one real variable. Limits, continuity, sequences, differentiation and integration. Prerequisite, MATH 3254. Fall.
- MATH 4563. Advanced Calculus II** Continuation of MATH 4553. Prerequisite, MATH 4553. Spring.
- MATH 4581. Mathematics Seminar** Prerequisite, MATH 3303. Fall, Spring.
- MATH 459V. Special Problems in Mathematics** Prerequisite, MATH 3303. Fall, Spring.

Media (MDIA)

- MDIA 1011. Experiential Media I** Introductory experience in the production of live and recorded video productions such as sports, musical performances, special events, or news. Students will develop an awareness of various working roles in media production. Fall, Spring.
- MDIA 1013. Principles of Journalism** Introduction to journalism and its necessity in a democratic society; news values; news judgment; basic theory; differences between print and broadcast AP style; and new forms of journalism based on the Internet and other digital platforms. Fall, Spring.
- MDIA 2023. Media Aesthetics** Study and basic application of the relationships between the media tools of sight, sound, and motion and the theories that have evolved around them. Fall, Spring.
- MDIA 2033. Writing for Creative Media I** Overview of the principles of scriptwriting for creative media, including commercials, corporate videos, television and film programming. Fall, Spring.
- MDIA 2043. Basic Digital Photography** Fundamental concepts and functional skills associated with basic digital photographic and videographic storytelling, such as camera tech, composition, and basic lighting. Lab fee, \$10.00. Fall, Spring, Summer.
- MDIA 2053. Introduction to Visual Communications** Study of the principles, theories, and language of visual communication to help students analyze, interpret and apply visual content to communicate more effectively. Spring, Summer.
- MDIA 2123. Audio Production I** Introductory course in live and recorded sound production. Theories and technologies used in audio production for radio, television, film/video, and online delivery. Fall, Spring.
- MDIA 2201. News Practicum I** An introductory experience in news production. Students will work for either DDNS, The Herald, ASUTV-News, RWR, or KASU to produce portfolio-worthy materials. Restricted to Multimedia Journalism majors. Prerequisites, MDIA 1013 and 2313, or instructor permission. Fall, Spring, Summer.

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- MDIA 2223. Video Production I** Introductory course that focuses on the basics of creating videos in the field and studio by shooting quality video, recording quality audio, editing raw footage into a coherent story or presentation, and sharing finished videos. Fall, Spring.
- MDIA 2313. Digital Media Production** Introductory course in audio, video, photo and multimedia production for many distribution platforms. Fall, Summer.
- MDIA 2323. Reporting Words** Introduction to writing news for media outlets with precision, accuracy, conciseness, and adherence to AP style and guidelines. Prerequisite, ENG 1003 with a grade of "C" or better, and MDIA 1013. Fall, Spring.
- MDIA 3003. Feature Writing and Freelancing** Methods of gathering material for feature stories through interviews, research, and observation; practice in writing the article; techniques of freelancing. Prerequisite, MDIA 3013. Fall.
- MDIA 3011. Experiential Media II** Advanced experiences in the production of live and recorded media productions such as sports, musical performances, special events, or news. Students will develop an advanced awareness of various working roles in media production. Prerequisite, MDIA 1011. Fall, Spring.
- MDIA 3013. Multimedia Reporting** Techniques for print, online, and broadcast media reporting. Prerequisites, grade of C or better in MDIA 2313 and MDIA 2323 or instructor permission. Fall, Spring.
- MDIA 3053. Sports Reporting** Traditional sports reporting for broadcast, print, and web in historical, theoretical, and practical contexts. Prerequisite, MDIA 2323. Fall.
- MDIA 3063. Editing for Publications and the Web** Editing and rewriting news stories, writing headlines and cutlines, legal and ethical issues for editors, and the basic principles of news design for print and the Web. Prerequisite, MDIA 3013. Fall.
- MDIA 3083. History of the Mass Media** History of the mass media newspapers, magazines, radio, television and new technology from colonial days to the present. Spring.
- MDIA 3093. Photo Storytelling I** Integration of multimedia journalism techniques into photography. Prerequisite, MDIA 2043. Spring.
- MDIA 3123. Audio Production II** Production and post-production of live and recorded audio for radio, television, film/video, and online delivery. Single and multi-track audio editing, sound effects, and sound reinforcement are covered. Prerequisite, MDIA 2123. Spring.
- MDIA 3201. News Practicum II** A mid-level experience in news production. Students will work for either DDNS, The Herald, ASUTV-News, RWR, or KASU to produce portfolio-worthy materials. Restricted to Multimedia Journalism majors. Prerequisites, MDIA 2201 and MDIA 2043, or instructor permission. Fall, Spring, Summer.
- MDIA 3203. Audio Storytelling** An experiential course in the technical skills and creative principles required for radio and audio field production and post-production. Fall, Spring.
- MDIA 3223. Video Production II** Intermediate course exploring non-linear editing techniques and practices, as well as the history and theory of film/video editing. Topics include post-production workflow, video formats and compression, exporting, sound design, color correction, and multicam editing. Prerequisite, MDIA 2223. Fall.
- MDIA 3233. Video Production III** Advanced practical experience in the conceptualization, pre-production preparation, and production of live and recorded video productions such as sports, musical performances, special events, or news. Prerequisite, MDIA 3223. Spring.
- MDIA 3303. History of Moving Images and Narrative Motion Picture** A study of the oral, written, live theatre and still photography storytelling contributions to the origins of narrative motion pictures. Fall, Spring, Summer.

- MDIA 3313. Audio and Video Production** An intermediate course in audio and video technology and production for many distribution platforms. Audio production covers radio, audio recording, audio for video production, and web distribution. Video production covers videography, directing, and multi-camera production. Prerequisite, MDIA 2313. Fall, Spring.
- MDIA 3323. Media Analytics and Data Visualization.** Communicating complex information with visually appealing images (charts, graphs, maps, etc.), including processing and cleaning raw data, and effectively communicating data to a multimedia audience. Fall, Spring.
- MDIA 3363. Modern Media Inquiries** Study and use of research theories and tools for mass media problem solving. Emphasis will be on theoretical approaches in media and applied survey research. Fall, Spring.
- MDIA 3373. Introduction to Internet Communications** Introductory course in the use of the Internet as a communication delivery system. The course addresses Internet history, its development and future applications for communicators. Basic computer competency required. Fall, Spring.
- MDIA 3383. News in Social Media** Study of the social media space, emphasizing its platforms, concepts, and uses as an outlet for news. Fall, Spring.
- MDIA 3403. Screenwriting for Narrative Motion Pictures** Study and application of writing and scripting techniques for narrative motion picture, including synopsis, sequence outline, treatments and screenplay. Characterization and genre conventions are also considered. Fall, Spring.
- MDIA 3413. Writing for Creative Media II** Application of scriptwriting principles for creative media including corporate videos, television and film programming. Prerequisite, MDIA 2033. Fall.
- MDIA 3443. Media Ministry.** Survey of media ministry audience, campaigns and implementation of campaigns. Spring.
- MDIA 3503. Film Cinematography, Lighting and Editing** Introduction to the theory and techniques of cinematography, lighting, and editing for narrative filmmaking. Prerequisite, instructor permission. Fall, Spring, Summer.
- MDIA 3573. Sports Production** Theory and practical application of sports production for radio and television. Fall, Spring.
- MDIA 3603. Television Reporting** Advanced reporting techniques, story development process and tools needed to interview and write, report and edit video news stories. Stories produced will be used to enhance newscast development. Prerequisite, C or better in MDIA 2223 and MDIA 3013, or instructor permission. Fall, Spring.
- MDIA 3673. Seminar in Digital Media and Design** A study of the development and impact of digital media. Spring.
- MDIA 4003. Media Law and Ethics** Legal and ethical limitations and privileges affecting the mass media. Fall.
- MDIA 4013. Photo Storytelling II** Advanced theories and skills associated with digital photojournalism when producing photo stories. May require: transportation, digital SLR camera, audio recording device, and external hard drive. Six hours of laboratory work per week. Prerequisite, MDIA 3093. Fall.
- MDIA 4023. 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. Fall.
- MDIA 4053. Civic Reporting** Reporting on public affairs, emphasizing courts, local government, education, the economy, and politics using data-driven reporting and multimedia support (such as photo slideshows, information graphics, audio and video packages, data journalism, and social media posts). Prerequisite, grade of C or better in MDIA 3013 or instructor permission. Spring.

- MDIA 4103. Data Journalism** Mining, interpretation, and visualization of social problems through research, with emphasis on production of infographics. Fall.
- MDIA 4113. Specialized Reporting** Reporting on specialized topics, including diversity, healthcare, science, medicine, agriculture, religion, and the environment. Prerequisites, MDIA 3013 and MDIA 4053. Fall.
- MDIA 4123. Media Management and Entrepreneurship** Entrepreneurial techniques and skills including business finance, client interaction, and ethics that can be applied across multiple media-based contexts and platforms. Fall, Spring, Summer.
- MDIA 4201. News Practicum III** A capstone experience in news production. Students will work for either DDNS, The Herald, ASUTV-News, RWR, or KASU to produce portfolio-worthy materials. Restricted to Multimedia Journalism majors. Prerequisites, MDIA 3201, MDIA 3013, and MDIA 3063; or instructor permission. Fall, Spring, Summer.
- MDIA 4323. Diversity and Media** Survey of the diversity of American race, gender and the mass media in the United States. Cross listed as WGS 4323; dual listed as MDIA 5323. Fall.
- MDIA 4333. Special Topics Seminar** A seminar that addresses current topics in the area of communication. Fall.
- MDIA 4340. News Production and Performance Laboratory** Laboratory section for News Production and Performance. Must be taken concurrently with MDIA 4343. Fall, Spring.
- MDIA 4343. 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 nonverbal communication relative to on camera delivery. Must be taken concurrently with MDIA 4340. Prerequisites, MDIA 3603 or instructor permission. \$25 special course fee. Fall, Spring.
- MDIA 4353. Corporate Media Production** Study of the field and function of media production for business and nonprofit organizations. The course addresses client contact, budgeting, analysis of production problems, design and writing of scripts for promotion, training and news in corporate and industrial settings. Prerequisites, MDIA 2223 and MDIA 3223. Fall, Spring. Special course fee \$25.
- MDIA 4363. 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. Fall, Spring.
- MDIA 4373. Internet Communications** Internet Communications provides students with a thorough understanding and practice in the use of the Information Superhighway. The course will also look at new opportunities for communications professionals. Prerequisite, Basic computer competency. Fall, Spring, Summer.
- MDIA 4383. Advanced Television Production** Practice in methods and procedures of producing studio and remote program content for ASU TV. This may include, athletic events, campus forums, concerts, newscasts, spelling bees, telethons, etc. Prerequisite, C or better in MDIA 3313. May be repeated for a maximum total of six credit hours. Fall, Spring.
- MDIA 4473. Media Production Practicum** Practical experience relevant to students in Creative Media Production. Prerequisite, instructor permission. Fall, Spring.
- MDIA 4483. Broadcast Graphics** Development and production of graphics for video, television, and internet-based media. Fall.
- MDIA 4552. Photojournalism Practicum and Professional Development** Individualized and supervised placement in specific professional settings. Students will work with professionals in the field under faculty supervision. Prerequisite, MDIA 3093. Spring.

- MDIA 4563. Sports Programming** Theory and practical application of sports programming for radio and television. Spring.
- MDIA 4573. Sportscasting** Theory and practical application of sportscasting for radio and television. Fall.
- MDIA 4603. Internship** Supervised work in an approved communication-related setting. Prerequisite, program director and faculty advisor permission. Fall, Spring, Summer.
- MDIA 4812. Media Portfolio.** Capstone portfolio of revised student work. Prerequisite, instructor permission. Fall, Spring.
- MDIA 488V. Special Problems** Prerequisite, approval of School of Media and Journalism Director and faculty. Fall, Spring, Summer.

Mechanical Engineering (ME)

- ME 2502. Solid Modeling for Mechanical Engineers** An introduction to solid modeling and computer aided drafting, CAD, for mechanical engineers. Three dimensional models of mechanical components are virtually constructed using appropriate software tools. Fall, Spring.
- ME 3504. Process Monitoring and Control** Theory and application of instrumentation, measurement, and control of engineering systems. Prerequisites, C or better in MATH 4403, ENGR 2423 and ENGR 3443. Fall.
- ME 3513. Mechanical Vibrations** Kinematics of harmonic and nonharmonic vibrations, systems of one and several degrees of freedom, free and forced vibrations, self excited vibrations. Prerequisites, C or better in MATH 4403 and ENGR 3423. Spring.
- ME 3523. Introduction to Robotics Laboratory** Design and building of a robot for an engineering application based on standard sensors, controllers, motors and other components, including selection, design, and assembly of various components and programming for successful functioning of the robot. Prerequisites, C or better in MATH 4403 and ENGR 3423. Fall.
- ME 3533. Engineering Thermodynamics II** Application of first and second law concepts to actual and ideal cycles and processes. Prerequisite, C or better in ENGR 3443 and CHEM 1023. Spring.
- ME 3613. Control Systems for Mechanical Engineering** Analytical tools and principles for control design for mechanical systems including time and frequency domain techniques, analysis of response, design parameters, types of control systems, PLCs, relationship between transfer function methods and state-space methods. Prerequisite, "C" or better in MATH 4403. Spring.
- ME 4503. 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. Dual listed as ME 5503. Fall.
- ME 4523. 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 5523. Spring.
- ME 4543. 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 5543. Fall.
- ME 4553. 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 5553. Spring.

- ME 4563. Introduction to Manufacturing Processes** Principles of manufacturing processes, including common material removal processes, the principles of metal casting and forming, and an introduction to polymers, composites, and nontraditional processes. Prerequisites, C or better in ENGR 2413. Fall.
- ME 4573. Mechanical System Design** Capstone design course for mechanical systems. Teams of students will design and assemble a mechanical system which satisfies the specifications of a selected design problem. Progress reports, final reports, and an assembled final product will be required. Prerequisite, C or better in ME 4543. Spring.
- ME 4583. 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 5583. Irregular.
- ME 4593. Design of Heating, Ventilating, and Air-Conditioning Systems** Design of HVAC systems to modify environmental conditions. Prerequisites, C or better in ME 3533 and ME 4553. Dual listed as ME 5593. Spring.
- ME 4613. 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 5613. Fall.
- ME 469V. Special Problems in Mechanical Engineering** Individually directed problems in mechanical engineering for juniors and seniors. A course outline and project summary listing the goals and expected outcomes must be approved by the student advisor and the program director. Prerequisites are dependent on the nature of the special problem. Irregular.

Management (MGMT)

- MGMT 3123. Principles of Management** Overview of foundational management principles, including internal and external assessment and planning, organization structure and design, leadership and motivation, and decision and control processes. Fall, Spring, Irregular.
- MGMT 3143. Human Resource Management** Functions and problems involved in personnel management with emphasis placed upon recruitment, selection, management development, utilization of and accommodation to human resources by organizations. Prerequisite, MGMT 3153. Fall, Spring, Irregular.
- MGMT 3153. Organizational Behavior** An interdisciplinary analysis of the relationships of individuals and groups within the context of the organization, blending concepts drawn from psychology, sociology, philosophy, and communication theory with basic managerial concepts. Fall, Spring, Summer.
- MGMT 3163. Labor Relations and Collective Bargaining** Labor management relations in both the public and private sectors, with emphasis on the process of managing within a union environment that involves contract negotiation, mediation, and arbitration. Prerequisite, MGMT 3143. Fall, Irregular.
- MGMT 3173. Special Topics in Human Resources** Study of selected topics in human resource management with special emphasis on issues of current importance in the field. Topic areas such as employment selection, development, negotiation, and diversity will be covered. Prerequisite, MGMT 3143. Irregular.
- MGMT 3183. Entrepreneurship** Explores the nature of entrepreneurial activity, the basics of business plan development, new venture creation, and small business strategic planning. Spring.

- MGMT 3193. Social Impact Management** Examines the interdependence of business and society. Students will develop skills to manage social impacts and divergent stakeholder perspectives. Prerequisite, MGMT 3123 or MGMT 3153. Spring.
- MGMT 3613. Leadership** Leadership processes and application at the organization, group, and individual levels. Emphasis on team activities. Prerequisite, MGMT 3123 or MGMT 3153. Fall, Summer.
- MGMT 4123. International Management** Systematic review of international environment forces and their influence on all management areas of the international firms, organizational structures, human resources, logistics, laws, and policy. Prerequisite, MGMT 3153 or MGMT 3123. Summer.
- MGMT 4143. Organizational Change and Development** Application of planned organizational change and development with an emphasis on how change occurs in dynamic organizational cultures in contemporary business organizations. Prerequisite, MGMT 3153. Fall.
- MGMT 4163. Small Business Management** The application of management, marketing, and finance to small business. The course addresses practical aspects of planning and organization, marketing, human resources, and financial control. Prerequisites, MKTG 3013, ACCT 2133, and MGMT 3123, or instructor permission. Fall.
- MGMT 4173. Compensation Management** Design and administration of compensation systems. Deals with determinants of general pay level, job evaluation, wage and salary survey, fringe benefit plans and the impact of current government regulations on pay structures. Prerequisite, MGMT 3143. Spring, Irregular.
- MGMT 4183. Family Business Management** Explores the challenges faced by family members directly involved in a family business. Topics discussed include business culture, entrepreneurial influences, family and non-family conflict, and needed survival skills for sons or daughters. Summer.
- MGMT 419V. Management Internship** Practical management experiences in a variety of settings. Senior students will be assigned to work with a regional firm and supervised by an experienced professional to gain real world training. Prerequisites, MGMT 3123 or MGMT 3153 and instructor permission. Fall, Spring, Summer.
- MGMT 429V. Special Problems in Management** Individual problems in management arranged in consultation with the instructor. Must be approved by department chair. Fall, Spring, Summer.
- MGMT 4393. Management of Service Operations** Examines issues essential to the success of a service oriented operation. Topics include, classification of services, service design and process selection, service, delivery system, capacity analysis, location, layout, automation, quality control, and scheduling. Heavy emphasis placed on case studies and analysis of real world scenarios. Irregular.
- MGMT 4813. Strategic Management** Designed to give students the opportunity to study administrative processes under conditions of uncertainty including an integrating analysis applied to all fields of business. Special emphasis is given to policy determination at the overall management level. Prerequisite, Senior standing, last semester, and completion of all other College of Business core requirements. Fall, Spring, Summer.

Marketing (MKTG)

- MKTG 1013. Introduction to Business** Basic concepts and major functions of business, and information to help students become better consumers. Recommended for non-business majors and College of Business freshmen or sophomores. Special course fees may apply. Fall, Spring, Irregular.

- MKTG 3013. Marketing** Business activities performed which direct the flow of goods and services from producer to consumer or user in order to satisfy customers and accomplish company objectives. Special course fees may apply. Fall, Spring, Summer.
- MKTG 3023. Applied Research** Systematic gathering, organizing, and analyzing data to provide managers with information they need to make better decisions. Emphasis is placed on the use of secondary data. Report writing and presentation are stressed. Special course fees may apply. Prerequisites, ECON 2113 and BCOM 2563. Fall, Spring, Irregular.
- MKTG 3033. Advertising and Promotion** The study of advertising and other communication methods including social media designed to create desired outcomes with target audiences. Special course fees may apply. Prerequisite, MKTG 3013. Irregular.
- MKTG 3043. Retailing** Evaluation of the many elements in the dynamic retail field and a discussion of the responses of retailing institutions, including management policies and operating methods. Special course fees may apply. Prerequisite, MKTG 3013. Irregular.
- MKTG 3093. Professional Selling** Introduction to the personal selling process, the functions of sales management, and current issues, legal and ethical issues, and the impact of technology as the topics relate to selling, the sales force, and sales management. Special course fees may apply. Prerequisite, MKTG 3013. Fall, Spring.
- MKTG 3173. Category Management** Category management concepts of the business retail model including identifying target consumers and markets, developing and implementing merchandising plans, interacting with the supply chain, and evaluating financial implications of decisions made at the corporate, distribution and store level. Fall.
- MKTG 3193. Sales Planning and Management** A study of methods and procedures involved in planning, managing and executing sales goals and understanding the procedures involved in selection, training, organization, compensation, supervision, and evaluation of the sales force using case and experiential learning methods. Prerequisite, MKTG 3093. Spring, Summer.
- MKTG 4023. Services Marketing** Application of marketing to service industries, with emphasis on the unique nature of services marketing when developing marketing strategies. Special course fees may apply. Prerequisite MKTG 3013.
- MKTG 4043. Consumer Behavior** Evaluation of the extensive body of research evidence pertaining to the consumer, and an assessment of the marketing implications of the various processes and facets of consumer motivation. Special course fees may apply. Prerequisite, MKTG 3013. Fall, Spring, Irregular.
- MKTG 4073. Social Media Marketing** Examination and application of concepts of brand relationships using social media including consumer-to-consumer-to-brand communication. Current social media tools will be used in experiential learning designed to execute strategic marketing plans for business, government, and nonprofit entities. Prerequisite, MKTG 3013. Spring.
- MKTG 4083. Marketing Research Design and Analysis** Processes involved in gathering, recording, and analyzing all facts about problems relating to the transfer and sale of goods and services from producer to consumer. Special course fees may apply. Prerequisites, MKTG 3013 and MKTG 3023. Fall, Spring.
- MKTG 4113. International Marketing** Exporting and importing products, as well as the management of international operations. These include all phases of business activity related to operating marketing and sales facilities abroad, establishing production or assembly facilities in foreign areas, and creating licensing arrangements. Special course fees may apply. Prerequisite, MKTG 3013. Fall, Irregular.
- MKTG 4143. Advanced Category Management** Students apply the skills and knowledge acquired in Category Management to learn advanced category management processes, use the information systems and data resources available and develop sales presentations that effectively communicate solutions for businesses in different industries. Prerequisite, MKTG 3173. Spring.

- MKTG 419V. Special Problems in Marketing** Individual problems in marketing arranged in consultation with the instructor. Must be approved by the department chair. Special course fees may apply. Fall, Spring, Summer.
- MKTG 4213. Marketing Analytics** Students will harness the power of data in the marketing management decision process in a digital environment using analytics to identify/target profitable customers, expand relationships and share of business through analysis of customer digital behavior, spend data, and preferences. Prerequisite, MKTG 3013. Fall.
- MKTG 4223. Marketing Management** Evaluation and analysis of marketing strategies in competitive situations. Course examines various price, product, distribution, and promotion strategies that are essential to firms. Focus on the integration and assessment of these elements in developing and adapting a successful marketing strategy. Prerequisite, MKTG 3013. Fall, Spring, Irregular.
- MKTG 4253. Data Analytics and Visualization** Examination and application of procedures to extract the right data from the right sources, analyze this data using the right tools/techniques and present the resultant current, relevant, and accurate information in a clear visual format that supports strategic decision making. Prerequisite, MKTG 3013. Spring.
- MKTG 426V. Sales Internship** Internship credit for students with a declared major in Marketing-Sales. Prerequisites, nine upper-level hours in the marketing-sales major, junior standing, and instructor permission. Fall, Spring, Summer.
- MKTG 428V. Marketing Internship** Practical marketing experience a variety of settings. Students will be assigned to work with regional firms and supervised by an experienced professional to gain real world training. Special course fees may apply. Prerequisites, MKTG 3013 and instructor permission. Fall, Spring, Summer.
- MKTG 4313. Prescriptive Analytics** Introduction to the basic optimization methods in solving a variety of business problems, including linear programming, integer programming, network models, stochastic programming, and multicriteria optimization methods. Emphasis on the use of computer software in performing business optimization analysis. Spring.
- MKTG 431V. Health Care Marketing** The course explores a variety of environmental factors which affect the delivery of health services at all levels and discusses marketing approaches and techniques to best meet the needs of the community served. Special course fees may apply. Prerequisite, MKTG 3013. Irregular.
- MKTG 4323. Advanced Sales** Team selling skills, industry standard strategic selling processes, customer relationship management strategies and systems. Prerequisite, MKTG 3093. Corequisite, MKTG 3193. Fall, Summer.
- MKTG 4343. Sports Marketing** The application of marketing principles and activities such as research, segmentation, product development, pricing, event marketing, sponsorship, consumer behavior, licensing, branding, advertising, and sales promotion tactics will be analyzed in the context of effective sports marketing. Special course fees may apply. Prerequisite, MKTG 3013. Summer.
- MKTG 4393. Social and Non Profit Marketing** Application of marketing in organizations addressing social issues related to health, environment, and community, with emphasis in sustainable business practices. Special course fees may apply. Prerequisite, MKTG 3013 or instructor permission. Irregular.

Middle Level Education (MLED)

- MLED 3003. Nature and Needs of the Middle Level Learner** Examines theories and research on the development and needs of the middle level learner. Includes examination of the physical, cognitive, emotional, moral, and social development of 9 to 15 year olds. Three clock hours of fieldwork are required. Prerequisites, Admission to the Teacher Education Program. Fall, Summer.

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- MLED 3013. Literacy Through Literature for the Middle Grades** Designed to assist preservice teachers in becoming widely acquainted with the role literature plays in the continuing literacy development of middle level students. Features current trade books and other literary forms. Four clock hours of fieldwork are required in middle level classroom settings. Prerequisites, Admission to the Teacher Education Program. Spring, Summer.
- MLED 3043. Effective Assessment of Middle School Students** Design of and effective formative and summative assessments; analysis of assessment systems and formative and summative evidence in classroom practice to inform instruction in the middle grades. Prerequisite, Admission to the Teacher Education Program. Spring, Summer.
- MLED 3053. Instructional Models and Strategies in the Middle Grades** Exploration of research-based instructional models and teaching strategies for the middle grades; rehearsal and integration of effective pedagogical decision-making. Prerequisite, Admission to Teacher Education Program. Spring, Summer.
- MLED 3063. Teaching Writing in the Middle School** Examination of effective approaches for teaching writing; rehearsal of writing processes appropriate for writing instruction in the middle grades. Prerequisite, Admission into Teacher Education Program. Fall.
- MLED 3083. Integration of Technology into the Curriculum** Teaches preservice teachers in the early childhood and middle level programs how to integrate educational technology into the classroom curriculum. Prerequisite, Admission to the Teacher Education Program. Fall, Spring, Summer.
- MLED 3093. Teaching Middle Level Science Integrated with Technology, Engineering and Mathematics** Study of theories and practices that promote integrated science, technology, engineering, and mathematics (STEM) teaching by middle level science specialty students. Must be admitted to the Teacher Education Program. Prerequisites, BIOL 1001, BIOL 1003, PHSC 1201, PHSC 1203, GSP 3203, MATH 1023. Spring.
- MLED 4002. Methods and Materials for Teaching English Language Arts** Analysis and rehearsal of teaching grammar in context of the writing process through study of image grammar, syntactic structures, and mentor texts; creation of teacher writing models and writing portfolio in both fiction and nonfiction. Prerequisites, MLED 3043, MLED 3053, Admission to the Teacher Education Program. Corequisites, MLED 4042, MLED 4006, one of the following specialty courses: MLED 4012, MLED 4022, MLED 4032. Fall.
- MLED 4006. Teaching Internship I** Instructional practices conducive to successfully teaching and assessing the middle level learner. Prerequisites, Admission into Teacher Education Program, MLED 3043, MLED 3053, RDNG 4343, TE 3003. Corequisites, MLED 4042, two of the following specialty courses: MLED 4002, MLED 4012, MLED 4022, MLED 4032. Fall.
- MLED 4012. Methods and Materials for Teaching Mathematics** Mathematical processes, diagnosis of learner difficulties, and underlying rationale for teaching mathematics. Focus on Mathematics Common Core Standards, appropriate pedagogy, math manipulatives and use of instructional technology. Prerequisites, Admission to the Teacher Education Program, MLED 3043, MLED 3053, MATH 2113, MATH 2123. Corequisites, MLED 4006, MLED 4042, One of the following specialty courses: MLED 4002, MLED 4022, MLED 4032. Fall.
- MLED 4022. Methods and Materials for Teaching Science** Current trends in teaching science at the middle school level, science process skills, teaching techniques, state and national science standards, curriculum development, use of facility resources and equipment. Prerequisites, Admission to the Teacher Education Program, MLED 3043, MLED 3053, GSP 3203. Corequisites, MLED 4006, MLED 4042, one of the following specialty courses: MLED 4002, MLED 4012, MLED 4032. Fall.
- MLED 4032. Methods and Materials for Teaching Social Studies** Objectives, standards, research techniques, and best practices for the teaching of social studies in the middle grades. Prerequisites, Admission to the Teacher Education Program, MLED 3043, MLED 3053, MATH 2113, MATH 2123. Corequisite, MLED 4006, MLED 4042, One of the following specialty courses: MLED 4002, MLED 4012, MLED 4022. Fall.

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MLED 4042. Theories and Strategies of Middle Grades Classroom Management Classroom management theory and effective classroom management strategies in the middle grades classroom. Corequisites, MLED 4006, two of the following specialty courses: MLED 4002, MLED 4012, MLED 4022, MLED 4032. Fall.

MLED 4073. Key Issues of Teaching and Learning in the Middle Grades Current and emerging trends in middle grade organization, curriculum development and instructional practices. Prerequisites, MLED 4042, MLED 4109, two of the following specialty courses: MLED 4002, MLED 4012, MLED 4022, MLED 4032. Spring.

MLED 4116. Teaching Internship II Directed teaching under the supervision of a qualified teacher in an appropriate area of specialty. Prerequisites, Admission into Teacher Education Program, MLED 4042, MLED 4006, Two of the following specialty courses, MLED 4002, MLED 4012, MLED 4022, MLED 4032. Spring.

Military Science and Leadership (MSL)

MSL 1011. Introduction to the Army and Critical Thinking Examines the unique duties and responsibilities of officers. Discuss organization and role of the Army. Review basic life skills pertaining to fitness and communication. Analyze Army values and expected ethical behavior. Also required, leadership lab and participation in 1 hour physical fitness session. Fall, Spring.

MSL 1021. Introduction to the Profession of Arms Presents fundamental leadership concepts and doctrine. Practice basic skills that underlie effective problem solving. Apply active listening and feedback skills. Examine factors that influence leader and group effectiveness. Examine the officer experience. Also required leadership lab and participation in 1 hour physical fitness session. Fall, Spring.

MSL 2032. Leadership and Decisionmaking Develops knowledge of self, self confidence and individual leadership skills. Develop problem solving and critical thinking skills. Apply communication, feedback and conflict resolution skills. Also requires leadership lab and participation in 2 hours physical fitness session. Prerequisites, both MSL I courses. Fall.

MSL 2042. Army Doctrine and Team Development Focuses on self development guided by knowledge of self and group processes. Challenges current beliefs, knowledge, and skills. Provides equivalent preparation for the ROTC Advanced Course and the Leaders Training Course. Also requires leadership lab and participation in 2 hours physical fitness session. Prerequisites, both MSL I courses. Spring.

MSL 209V. Basic Camp Course A four week summer camp conducted at Fort Knox, Kentucky. The student receives pay. Travel, lodging, and most meals costs are paid by the Army. The environment is rigorous, and in some ways similar to Army Basic Training. Open only to students who have not taken all of the basic course completion requirements, and who pass a physical examination, which is paid by ROTC. Completion of basic camp qualifies a student for entry into the Advanced Course. Multiple cycles are offered during the summer, but spaces are limited by the Army. Candidates can apply for a space any time during the school year prior to the summer. Arkansas State University will grant up to six hours of elective credit for successful completion of the ROTC Basic Camp. Summer.

MSL 2103. U. S. Military History Special topics in military history. Instructor permission required. Fall, Spring.

MSL 3053. Training Management and the Warfighting Functions Examines basic skills that underlie effective problem solving. Analyze the role officers played in the transition of the Army from Vietnam to the 21st Century. Review the features and execution of the Leadership Development Program. Analyze military missions and plan military operations. Execute squad battle drills. Fall.

MSL 3063. Applied Leadership in Small Unit Operations Probes leader responsibilities that foster an ethical command climate. Develop cadet leadership competencies. Prepare for success at Leader Development and Assessment Course -- LDAC. Recognize leader responsibility to accommodate subordinate spiritual needs. Apply principles and techniques of effective written and oral communication. Spring.

MSL 4073. The Army Officer Builds on National Advanced Camp experience to solve organizational and staff problems. Discuss staff organization, functions, and processes. Analyze counseling responsibilities and methods. Examine principles of subordinate motivation and organizational change. Apply leadership and problem solving principles to a complex case study and simulation. Fall.

MSL 4083. Company Grade Leadership Capstone course designed to explore topics relevant to second lieutenants entering the Army. Describe legal aspects of decision making and leadership. Analyze Army organization for operations from the tactical to strategic level. Assess administrative and logistics management functions. Discuss reporting and Permanent Change of Station, PCS, process. Perform platoon leader actions. Examine leader responsibilities that foster an ethical command climate. Spring.

MSL 409V. Special Problems Individually selected material directed towards the field of Military Leadership or Military History. This course must be arranged in consultation with the Professor or Military Science. A course outline and goals will be kept on file with the Training Officer of this department.

Music Education (MUED)

MUED 2231. Vocal Techniques for Instrumentalists Content and skills required to teach and model vocal techniques appropriate to students in the elementary through secondary grades. Prerequisites, successful completion of 15 hours, declared Music Education Major. Fall.

MUED 2241. Instrumental Techniques for Vocalists Content knowledge and skill required to play and teach instruments commonly found in elementary and secondary school music programs. Prerequisites, successful completion of 15 hours, declared Music Education Major. Fall.

MUED 2512. Introduction to K-12 Music Education Historical, philosophical, legal, political, ethical, technological and professional foundations in K-12 music education and the development of music teacher competencies and dispositions. Prerequisites, successful completion of 15 hours, declared Music Education Major. Fall.

MUED 3612. Music and Methods for the Classroom Teacher Development of procedures, skills, and approaches to the music program for the elementary classroom. For non music majors only. Fall, Spring, Summer.

MUED 4002. Methods and Materials for Teaching Concert Bands Instrumental music programs overview, program organization, teaching methods and repertoire, ancillary concerns and job preparation. Prerequisites, Admission to Teacher Education Program, declared Music Education Major. Fall.

MUED 4102. Methods and Materials for Teaching Marching Band Academic and non-academic responsibilities of the marching band director. Topics will include show planning and design, rehearsal and performance philosophies and strategies, and professional development in the area of athletic bands. Prerequisites, Admission to Teacher Education Program, declared Music Education Major. Spring.

MUED 4202. 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 Bachelor of Music Education-Instrumental or Bachelor of Arts in Music Emphasis in Jazz Studies. Dual listed as MUED 5202. Prerequisite, Admission into the Teacher Education Program or instructor permission. Spring.

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- MUED 4302. Methods and Materials for Teaching Orchestra** Academic and non-academic responsibilities of an orchestra director. Topics include curriculum, teaching methods and repertoire, program organization, and administrative duties. Prerequisite, Admission to Teacher Education Program, declared Music Education Major. Spring.
- MUED 4613. Methods and Materials for Teaching Vocal Music in the Middle Grades** Development of procedures, skills, and approaches to teaching general and choral music in grades 4-8. Irregular.
- MUED 4623. Methods and Materials for Teaching Elementary School Music** Current philosophies and practices in curriculum planning for the elementary school music program. Music majors only. Fall.
- MUED 4633. Music Recording Techniques** Music recording techniques designed for the music educator. Special emphasis on essential electronic equipment, its use and maintenance. Irregular.
- MUED 4642. Piano Pedagogy** Methods and materials of teaching piano. Instructor permission required. Dual Listed MUED 5642. Irregular.
- MUED 4651. Instrument Repair** Techniques for maintenance and minor repair of wind instruments. Spring.
- MUED 466V. Special Problems in Music Education** Independent study of approved topics for juniors and seniors arranged in consultation with a professor. Must have Departmental approval. Fall, Spring, Summer.

Music (MUS)

- MUS 1211. Elementary Piano** PERFORMANCE COURSES GROUP INSTRUCTION. Beginning piano class. Two laboratory periods per week. Special course fees may apply. Fall, Spring, Summer.
- MUS 1221. Elementary Piano II** PERFORMANCE COURSES GROUP INSTRUCTION. Continuation of beginning piano class. Two laboratory periods per week. Special course fees may apply. Prerequisite, MUS 1211 or instructor permission. Spring.
- MUS 1231. Guitar Class I** PERFORMANCE COURSES GROUP INSTRUCTION. Open to all ASU students. An introductory course to learning the fundamentals of guitar playing. The course will focus on learning basic chords, conventional strumming techniques and finger picking, and notes in first position as well as the general technique of guitar playing. Special course fees may apply. Fall.
- MUS 1241. Guitar Class II** PERFORMANCE COURSES GROUP INSTRUCTION. Open to all ASU students who have completed Guitar Class I. Prerequisite, MUS 1231. May be repeated for credit. Special course fees may apply. Spring.
- MUS 1251. Elementary Voice Class and Sight-Singing** A class for all music majors designed to teach basic vocal techniques and the skill of sight-singing using solfeggio. Must be taken during the first year of enrollment as a music major. Fall.
- MUS 1310. Wind Ensemble** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Membership is open to all university students by audition on specified prepared materials and sight reading during the first week of the fall semester. The wind ensemble usually performs two scheduled concerts, with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.

- MUS 1311. Wind Ensemble** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Membership is open to all university students by audition on specified prepared materials and sight reading during the first week of the fall semester. The wind ensemble usually performs two scheduled concerts, with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1320. Concert Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Study and performance of wind and percussion music at concerts or other sanctioned events. Open to all university students without audition. May be repeated. Spring.
- MUS 1321. Concert Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Study and performance of wind and percussion music at concerts or other sanctioned events. Open to all university students without audition. May be repeated for credit. Spring.
- MUS 1330. Symphonic Winds** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Open to all university students by audition. This group performs concerts with possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 1331. Symphonic Winds** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all university students by audition. This group performs two scheduled concerts. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1340. Marching Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Membership is open to all interested university students. This group performs at all regular and post season home football games with some travel to away games. Rehearsals are held TWRF from 3:30 to 5:00 p.m. during the football season. Mandatory pre school rehearsals held the week prior to registration. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall.
- MUS 1341. Marching Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Membership is open to all interested university students. This group performs at all regular and post season home football games with some travel to away games. Rehearsals are held TWRF from 3:30 to 5:00 p.m. during the football season. Mandatory pre school rehearsals held the week prior to registration. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall.
- MUS 1350. Concert Choir** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1351. Concert Choir** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1360. Jonesboro Chorale** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 1361. Jonesboro Chorale** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1403. Music Connections** Required course for all first semester freshmen music majors. Course content is centered around the skills and knowledge needed to be a successful ASU music student, including introductory musical concepts, practice habits, academic performance, problem solving, critical thinking, self-management and group-building skills, university policies, and other relevant issues. Special course fees may apply. Fall.

- MUS 1503. Music Fundamentals** Basic skills in reading and realizing musical notation. No previous musical experience necessary. Open to all university students. Fall.
- MUS 1511. Aural Theory I** BASIC MUSIC THEORY. Training in oral perception and the basic skills of sight singing. Two class periods per week. Spring.
- MUS 1513. Theory I** BASIC MUSIC THEORY. Basic fundamentals of music with emphasis on notation of pitch and rhythm. Studies in the construction of scales, intervals, key signature and simple diatonic melodies. Prerequisites, passing grade on skills examination; or C or better in MUS 1503. Spring.
- MUS 1521. Aural Theory II** BASIC MUSIC THEORY. Continued training in aural and sight singing skills with emphasis on diatonic melody and harmony. Two class periods per week. Prerequisite, C or better in MUS 1511. Fall.
- MUS 1523. Theory II** BASIC MUSIC THEORY. BASIC MUSIC THEORY. Diatonic harmony with emphasis on music practices of the 16th and 17th centuries. Prerequisite, C or better in MUS 1513. Fall.
- MUS 1611. Keyboard Skills 1** PERFORMANCE COURSES GROUP INSTRUCTION. For non pianist Music Majors. To develop piano sight reading and repertoire, and to enhance corresponding courses, Music Theory I and Aural Theory I. Non music majors admitted with instructor permission. Special course fees may apply. Fall, Spring, Summer.
- MUS 1621. Keyboard Skills 2** PERFORMANCE COURSES GROUP INSTRUCTION. For non pianist Music Majors. To develop piano sight reading and repertoire, and to enhance corresponding courses, Music Theory II and Aural Theory II. Prerequisites, MUS 1611 or instructor permission. Special course fees may apply. Fall, Spring, Summer.
- MUS 1630. Scarlet Voices** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all treble-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 1631. Scarlet Voices** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all treble-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1640. Singing Statesmen** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all lower-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 1641. Singing Statesmen** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all lower-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 1701. Improvisation I** Beginning techniques of improvisation utilizing theory and performance. Restricted to Music majors. Spring.
- MUS 2211. Intermediate Piano I** PERFORMANCE COURSES GROUP INSTRUCTION. A continuation of MUS 1221. Two laboratory periods per week. Prerequisite, MUS 1221 or instructor permission. Special course fees may apply. Fall.
- MUS 2221. Intermediate Piano II** PERFORMANCE COURSES GROUP INSTRUCTION. Continuation of MUS 2211. Prerequisite, MUS 2211 or instructor permission. Special course fees may apply. Spring.
- MUS 2503. Fine Arts-Music** FINE ARTS. An introduction to music for the listener who has had no formal musical training or experience. A study of musical styles and composers and their cultural and historical contexts. Fall, Spring, Summer. (ACTS#: MUSC 1003)

- MUS 2511. Aural Theory III** BASIC MUSIC THEORY. Continued training in aural and sight singing skills with emphasis on extended tonal and atonal practices. Two class periods per week. Prerequisite, C or better in MUS 1521. Fall.
- MUS 2513. Theory III** BASIC MUSIC THEORY. Chromatic harmony, basic music forms and analysis with emphasis on music of the 18th and 19th centuries. Prerequisite: Grade of C or better in MUS 1523. Fall.
- MUS 2521. Aural Theory IV** BASIC MUSIC THEORY. Continued training in aural and sight singing skills with emphasis on extended tonal and atonal practices. Two class periods per week. Prerequisite, C or better in MUS 2511. Spring.
- MUS 2523. Theory IV** BASIC MUSIC THEORY. Advanced tonal and atonal practices of music from the late 19th and 20th centuries through analysis. Prerequisite, C or better in MUS 2513. Spring.
- MUS 2611. Keyboard Skills 3** PERFORMANCE COURSES GROUP INSTRUCTION. For non pianist Music Majors. To develop piano sight reading and repertoire, and to enhance corresponding courses, Music Theory III and Aural Theory III. Prerequisites, MUS 1611 and MUS 1621 or instructor permission. Non music majors admitted with instructor permission. Special course fees may apply. Fall, Spring, Summer.
- MUS 2621. Keyboard Skills 4** PERFORMANCE COURSES GROUP INSTRUCTION. For non pianist Music Majors. To develop piano sight reading and repertoire, and to enhance corresponding courses, Music Theory IV and Aural Theory IV. Prerequisites, MUS 1611 and MUS 1621 or instructor permission. Non music majors admitted with instructor permission. Special course fees may apply. Fall, Spring, Summer.
- MUS 2701. Improvisation II** Intermediate techniques of improvisation utilizing theory and performance. Restricted to Music majors. Prerequisites, MUS 1701 or instructor permission. Fall.
- MUS 2721. Jazz Piano I** Introduction to jazz piano and keyboard harmony. Restricted to Music majors. Prerequisite, MUS 2611. Spring.
- MUS 2731. Jazz Piano II** Advanced jazz piano and keyboard harmony. Restricted to Music majors. Prerequisite, MUS 2721. Fall.
- MUS 3211. Diction for Singers I** PERFORMANCE COURSES GROUP INSTRUCTION. Fundamentals of proper pronunciation of English and German using the International Phonetic Alphabet. Two laboratory periods per week. Instructor permission required. Special course fees may apply. Fall, Spring.
- MUS 3221. Diction for Singers II** PERFORMANCE COURSES GROUP INSTRUCTION. Continuation of Diction I. Fundamentals of proper pronunciation of Italian and French, using the International Phonetic Alphabet. Two laboratory periods per week. Prerequisite, MUS 3211 or instructor permission. Special course fees may apply. Fall, Spring.
- MUS 3231. Flute and Saxophone Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in performance and pedagogy. Two laboratory periods per week. Special course fees may apply. Fall, odd.
- MUS 3241. Double Reed Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in performance and pedagogy. Two laboratory periods per week. Special course fees may apply. Fall, even.
- MUS 3251. Clarinet Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in performance and pedagogy. Two laboratory periods per week. Special course fees may apply. Fall.
- MUS 3281. Percussion Instrument Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in performance and pedagogy. Two laboratory periods per week. Special course fees may apply. Spring.

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- MUS 3310. Wind Ensemble** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Membership is open to all university students by audition on specified prepared materials and sight reading during the first week of the fall semester. The wind ensemble usually performs two scheduled concerts, with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3311. Wind Ensemble** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Membership is open to all university students by audition on specified prepared materials and sight reading during the first week of the fall semester. The wind ensemble usually performs two scheduled concerts, with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3320. Concert Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Provides a musical and educational forum for musicians to study and perform wind and percussion music at concerts or other sanctioned events. Open to all university students without audition. May be repeated. Spring.
- MUS 3321. Concert Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Provides a musical and educational forum for musicians to study and perform wind and percussion literature at concerts or other sanctioned events. Open to all university students without audition. May be repeated for credit. Spring.
- MUS 3330. Symphonic Winds** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Open to all university students by audition. This group performs concerts with possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 3331. Symphonic Winds** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all university students by audition. This group performs concerts with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3340. Marching Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Membership is open to all interested university students. This group performs at all regular and post season home football games with some travel to away games. Rehearsals are held TWRF from 3:30 to 5:00 p.m. during the football season. Mandatory pre school rehearsals held the week prior to registration. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall.
- MUS 3341. Marching Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Membership is open to all interested university students. This group performs at all regular and post season home football games with some travel to away games. Rehearsals are held TWRF from 3:30 to 5:00 p.m. during the football season. Mandatory pre school rehearsals held the week prior to registration. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall.
- MUS 3350. Concert Choir** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3351. Concert Choir** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3360. Jonesboro Chorale** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 3361. Jonesboro Chorale** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.

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- MUS 3370. Small Ensemble** SMALL ENSEMBLES. Non credit course. Performance ensembles of any instrumentation and/or vocal combination. Periodic tours. Prerequisite: instructor permission. Special course fees may apply. May be repeated. Fall, Spring.
- MUS 3371. Small Ensemble** SMALL ENSEMBLES. Performance ensembles of any instrumentation and/or vocal combination. Periodic tours. Prerequisite: instructor permission. May be repeated for credit. Special course fees may apply. Fall, Spring.
- MUS 3372. History of Western Music I** BASIC MUSIC HISTORY AND LITERATURE. Evolution of musical style from the early Christian Church through the Pre-Classical era. Prerequisites, MUS 1513 and MUS 1523. Score and listening analysis are required. Spring.
- MUS 3380. Jazz Ensemble** SMALL ENSEMBLES. Non credit course. 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. May be repeated for credit. Special course fees may apply. Fall, Spring.
- MUS 3381. 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. May be repeated for credit. Special course fees may apply. Fall, Spring.
- MUS 3382. History of Western Music II** BASIC MUSIC HISTORY AND LITERATURE II. Evolution of musical style in works from the mid-18th century to the present. Score and listening analysis is required. Prerequisites, MUS 3372. Fall.
- MUS 3391. Laboratory Band** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. A large ensemble which allows participation by music majors on secondary instruments. Emphasis on easy to medium grade band literature as it applies to high school performance. Provides conducting experience for students enrolled in conducting classes. Special course fees may apply. May be repeated for credit. Fall, Spring.
- MUS 3411. Guitar Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in guitar performance and pedagogy. Fall.
- MUS 3421. Upper String Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in violin and viola performance and pedagogy. Fall.
- MUS 3431. Lower String Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in cello and bass performance and pedagogy. Fall.
- MUS 3422. Elementary Orchestration and Choral Arranging** BASIC MUSIC THEORY. Acoustical and expressive uses of orchestral instruments and voices. Prerequisites, C or better in MUS 2513 and MUS 2511. Fall, Spring.
- MUS 3432. Counterpoint** MUSIC THEORY. Studies in the characteristics and functionality of musical counterpoint. Technical exercises in theoretical analysis and emulation will be paired with critical writing and creative application. Prerequisites, earned C or better in MUS 2521 and MUS 2523, or instructor permission. Spring.
- MUS 3441. Elementary Conducting** PERFORMANCE COURSES GROUP INSTRUCTION. Fundamental baton technique development and interpretation of the musical score. Two class meetings per week. Prerequisites, MUS 1513 and MUS 1523. Spring.
- MUS 3451. Choral Conducting** PERFORMANCE COURSES GROUP INSTRUCTION. Intensive study of conducting techniques and the problems in rehearsal and performance of choral literature of all styles, historical periods and special voicings. Prerequisite, MUS 3441. Fall.
- MUS 3461. Instrumental Conducting** PERFORMANCE COURSES GROUP INSTRUCTION. Intensive study of instrumental scores, baton techniques, and rehearsal procedures involved in conducting instrumental ensembles. Prerequisite, MUS 3441. Fall.

- MUS 3471. Opera Production** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. A course in the study and performance of selected opera literature. Instructor permission required. Special course fees may apply. May be repeated for credit. Spring.
- MUS 3480. Orchestra** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Non credit course. A large ensemble providing experience in the performing of selected string orchestra music including Baroque, Classical, Romantic, and 20th century style. Enrollment by instructor permission. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3481. Orchestra** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. A large ensemble providing experience in the performing of selected string orchestra music including Baroque, Classical, Romantic, and 20th century style. Enrollment by instructor permission. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3523. Song Literature** BASIC MUSIC HISTORY AND LITERATURE. Baroque, Classical, Romantic, and Twentieth-century song literature with special emphasis on style and level of difficulty. Prerequisite, Two semesters of theory or instructor permission. Irregular.
- MUS 3551. High Brass Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in performance and pedagogy. Two laboratory periods per week. Special course fees may apply. Fall.
- MUS 3561. Low Brass Techniques** PERFORMANCE COURSES GROUP INSTRUCTION. Class instruction in performance and pedagogy. Two laboratory periods per week. Special course fees may apply. Spring.
- MUS 3630. Scarlet Voices** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all treble-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 3631. Scarlet Voices** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all treble-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3640. Singing Statesmen** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all lower-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated. Fall, Spring.
- MUS 3641. Singing Statesmen** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all lower-voiced university students by audition. Consists of scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit. Fall, Spring.
- MUS 3702. Jazz Theory I** Thorough overview of harmony, melody, rhythm, and form as they relate specifically to jazz and related popular idioms. Restricted to Music majors. Prerequisite, MUS 1523 or instructor permission. Spring.
- MUS 3712. Jazz Theory II** Advanced overview of harmony, melody, rhythm, and form as they relate specifically to jazz and related popular idioms. Restricted to Music majors. Prerequisite, MUS 3702 or instructor permission. Fall.
- MUS 416V. Special Problems** BASIC MUSIC. Independent study of approved topics for juniors and senior arranged in consultation with a professor. Department approval required. Prerequisite, Two semesters of theory or instructor permission. Fall, Spring, Summer.
- MUS 4221. Introduction to Music Technology** BASIC USES OF TECHNOLOGY IN MUSIC. An introduction to using desktop and handheld computers in music teaching, music notation, and music recording. Students must be able to read music notation in treble and bass clefs. Spring.
- MUS 4223. Piano Literature** BASIC MUSIC HISTORY AND LITERATURE. Baroque, Classical, Romantic, and twentieth century piano music with special attention to style and level of difficulty. Prerequisite, Two semesters of theory or instructor permission. Irregular.

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- MUS 4322. History of Jazz** BASIC JAZZ HISTORY AND LITERATURE. Evolution of jazz musical style in works from the early 20th century to the present. Spring.
- MUS 4323. World Music** This course will examine the music of a variety of non-western societies and cultures within which the music is produced. Prerequisites, HIST 1013, HIST 1023 or instructor permission. Irregular.
- MUS 4412. Form and Analysis** BASIC MUSIC THEORY. Analysis of basic and larger forms of music. Irregular.
- MUS 4512. Church Music** BASIC MUSIC HISTORY AND LITERATURE. A study of the music of the Christian Church with an emphasis on the historical and philosophical aspects. May be substituted for History I and II by BME and BM performance candidates. Prerequisite, Two semesters of theory or instructor permission. Irregular.
- MUS 4642. Piano Pedagogy** PERFORMANCE COURSES GROUP INSTRUCTION. Methods and materials of teaching piano. Prerequisite, instructor permission. Irregular.
- MUS 4701. Improvisation III** Advanced techniques of improvisation utilizing theory and performance. Restricted to Music majors. Dual listed as MUS 5701. Prerequisite, MUS 2701 or instructor permission. Fall.
- MUS 4712. Jazz Arranging I** Introduction to the basic techniques of small group jazz arranging, with emphasis on applications of jazz harmony, harmonic motion, chord voicings, instrumental techniques, and colors. Restricted to Music majors. Prerequisite, MUS 3702 or instructor permission. Fall.
- MUS 4722. Jazz Arranging II** Techniques of large group (big band) jazz arranging with emphasis on applications of jazz harmony, chord voicings, instrumental techniques, colors, and jazz arrangers through history. Restricted to Music majors. Prerequisite, MUS 4712. Spring.
- MUS 4732. Jazz Styles and Analysis** In-depth survey and analysis of jazz styles and artists from 1917 to present. Restricted to Music majors. Dual listed as MUS 5732. Prerequisite, MUS 3702. Spring.

Music Performance (MUSP)

- MUSP 1100. Recital Attendance** All music majors are required to attend a specified number of campus concerts and recitals. Fall, Spring.
- MUSP 1111. 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.
- MUSP 1112. 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 1113. Performance Applied Music** Three hours of credit. Two half hour lessons, or one 1 hour lesson per week. Fifteen hours practice required. May be repeated for credit. Available only to Bachelor of Music degree candidates. Special course fees may apply. Fall, Spring.
- MUSP 3111. 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.
- MUSP 3112. 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 3113. Performance Applied Music** Three hours of credit. Two half hour lessons, or one 1 hour lesson per week. Fifteen hours practice required. May be repeated for credit. Available only to Bachelor of Music degree candidates. Special course fees may apply. Fall, Spring.
- MUSP 3130. Half Recital** Student will perform a program equivalent to at least one half of a full solo recital. Special course fees may apply. Fall, Spring.
- MUSP 4131. Full Recital** Student will perform a full length solo performance. Special course fees may apply. Fall, Spring.
- MUSP 4141. Piano Chamber Music** For advanced pianists. Experience with two-piano literature. One hour credit. One half hour lesson per week. Five hours practice required. Special course fees may apply. Irregular.
- MUSP 4151. Collaborative Piano** For advanced pianists. Instructor permission required. May be repeated for credit. One hour credit. One half hour lesson per week. Five hours practice required. Special course fees may apply. Irregular.
- MUSP 4161. Pedagogy and Performance** The study of the literature and pedagogical techniques as related to performance. One hour credit. One half hour lesson per week. Five hours practice required. Special course fees may apply. Prerequisite, MUS 3123 or permission of the instructor. May be repeated for credit. Fall, Spring.

Nursing (NRS)

- NRS 1123. Making Connections Nursing** Open to incoming freshmen only, this course will provide both an introduction to the nature of university education and a general orientation to the functions and resources of the University as a whole. This section of First Year Seminar is a special health professions section and will include a focus on understanding and appreciating nursing as a career choice. Fall, Spring.
- NRS 1214. Introduction to Nursing** Introduction to the health care system. Focus on theories and concepts in assisting the individuals in maintaining activities of daily living. Prerequisites, C or better in MATH 1023, BIO 2203, BIO 2201, and ENG 1003. Corequisites, NRS 2392, NRSP 1222, and NRSP 2391. Spring.
- NRS 1235. Nursing I** Theories and concepts necessary for effective assessment of individual and family ability to meet activities of daily living and developmental needs. Child and adult health problems that are usual, expected and have predictable outcomes are studied. Emphasis is placed upon student use of the nursing process in identifying these problems and their resolutions through relevant nursing interventions. Corequisites, NRS 1252 and NRSP 1243. Fall.
- NRS 1252. Role Development I** An introduction to the roles of the associate degree nurse as a provider of care, manager of care, and member of the profession. These roles will be explored as they relate to the profession of nursing, legal and ethical issues, principles of teaching and learning, theory of nursing, professional accountability, and current health issues. Corequisites, NRS 1235 and NRSP 1243. Fall.
- NRS 1312. Role Development I** Introduction to the role of the registered nurse as a member of the profession. Discussion focus relates to the nursing profession, legal and ethical issues, theory of nursing, professional accountability, and current issues in health care. Prerequisite, Admission to the Online LPN to AASN program. Fall.
- NRS 1313. Nursing I Medical Surgical** Introduction to theories and concepts necessary to assess individuals' and families' ability to meet client needs. Focus on common child and adult health problems with predictable outcomes. Emphasis on use of nursing process to identify problems and appropriate nursing interventions. Prerequisite, Admission to the Online LPN to AASN program. Fall.

- NRS 1321. Role Development II** Continued exploration of the role of the registered nurse. Discussion focus relates to the principles of teaching and learning, concepts of care, and introduction of leadership and management concepts. Corequisites, NRS 1323 and NRSP 1341. Fall.
- NRS 1323. Nursing II Medical Surgical** Continued discussion of the nursing process emphasizing the bio-psycho-social-cultural-spiritual aspects for individuals and families. Focus on child and adult health problems that are usual, expected and have predictable outcomes. Emphasis on identifying problems and appropriate nursing interventions. Corequisites, NRS 1321 and NRSP 1341. Fall.
- NRS 1411. Clinical Calculations** Provides additional experiences in calculation systems, conversions, and medications given in the clinical setting. Will not count as a nursing elective. Open to all AASN and BSN students, LPNs, RNs or by instructor permission. This course may be repeated for a maximum of three hours. Fall, Spring.
- NRS 2002. Medical Surgical Nursing I** Focus is on medical surgical and perioperative nursing as well as an introduction to acute care nursing.
- NRS 2012. Professional Role Development** Concepts of professional socialization, accountability, advocacy, issues and trends which affect the role of the nurse are analyzed and discussed.
- NRS 2212. Nursing II Mental Health** Continued use of the nursing process, with an emphasis on the bio-psycho-social-cultural aspects of individuals and families. Mental health and adult health problems that are usual, expected and have predictable outcomes are studied. Registration restricted to AASN Program. Corequisites, NRS 2213, NRS 2251, and NRSP 2223. Spring.
- NRS 2213. Nursing II Medical Surgical** A focus on clients experiencing conditions that are usual, expected, and have predictable outcomes in a Medical-Surgical setting. Emphasis is on the nursing process with modification and redesign of the plan of care. Spring.
- NRS 2221. Nursing Process Application** Focuses on application of the nursing process and the use of critical thinking and problem solving skills to meet the needs of clients. Registration restricted to Nursing Majors. Prerequisites, C or better in NRS 1214 and NRS 2314. Irregular.
- NRS 2232. Nursing III Maternal Child** A continuation of focus on clients experiencing conditions that are usual, expected, and have predictable outcomes in a Maternal Child setting. Emphasis is on the nursing process with modification and redesign of the plan of care. Corequisites, NRS 2233, NRSP 2244, and NRSP 2272. Fall.
- NRS 2233. Nursing III Medical Surgical** A continuation of focus on clients experiencing conditions that are usual, expected, and have predictable outcomes in a Medical Surgical setting. Emphasis is on the nursing process with modification and redesign of the plan of care. Corequisites, NRS 2232, NRSP 2244, and NRSP 2272. Fall.
- NRS 2251. Role Development II** An analysis of the role of the Registered Nurse and the legal and ethical issues in the health care system. Managerial and leadership aspects as related to the profession are discussed. Corequisites, NRS 2212, NRS 2213, and NRSP 2223. Spring.
- NRS 2311. NCLEX Preparation** An introduction to the essential skills of problem solving and test taking that are critical to professional nursing. Fall.
- NRS 2312. Nursing IV Mental Health** Mental wellness and mental health problems that are usual, expected and have predictable outcomes. Continued application of the nursing process, with an emphasis on the bio-psycho-social-cultural-spiritual aspects of care for individuals and families. Corequisites, NRS 2331 and NRSP 2351. Spring.
- NRS 2313. Concepts of Nursing Practice** Introduction to the concepts and theories basic to nursing assessment and intervention, including general concepts of health, illness, and professionalism. Emphasis on meeting basic human needs throughout the life span. Prerequisite, Admission to the BSN Program. Corequisites, NRS 2322, NRS 2392, NRSP 2321, NRSP 2391. Fall.

- NRS 2321. Role Development III** Focus on legal and ethical issues in the health care system, leadership and management concepts, current issues and trends influencing nursing practice, and preparation to assume the role of the registered nurse. Corequisites, NRS 2323 and NRSP 2341. Spring.
- NRS 2322. Foundations of Nursing** Foundational concepts of physiologic health processes, mobility, comfort, infection control, protection, oxygenation, medication administration, nutrition and elimination. Integrates the nursing process, informatics, interpersonal communication, patient teaching, delegation, critical thinking, and safety. Prerequisite, Admission to the BSN Program. Corequisites, NRS 2313, NRS 2392, NRSP 2321, NRSP 2391. Fall.
- NRS 2323. Nursing III Medical Surgical** Focus on hematologic concepts and clients experiencing conditions that are usual, expected, and have predictable outcomes in a medical-surgical setting. Emphasis is on the nursing process with modification and redesign of the plan of care. Corequisites, NRS 2321 and NRSP 2341. Spring.
- NRS 2331. Role Development IV** Analysis of the role of the registered nurse and legal and ethical issues in the health care system. Focus on end of life issues, selected ethical considerations, continued exploration of leadership and management content in relation to the profession. Corequisites, NRS 2312 and NRSP 2351. Spring.
- NRS 2332. Nursing V Maternal Child** Focus on clients experiencing conditions that are usual, expected, and have predictable outcomes in a maternal child setting. Emphasis is on the nursing process, modification and redesign of the plan of care. Corequisites, NRS 2341 and NRSP 2361. Summer.
- NRS 2333. Nursing VI Medical Surgical** Focus on clients experiencing conditions that are usual, expected, and have predictable outcomes in a medical surgical setting including high acuity care settings. Emphasis on the nursing process, modification and redesign of the plan of care. Corequisites, NRS 2371 and NRSP 2382. Summer.
- NRS 2341. Role Development V** Integration of the roles and competencies of the registered nurse emphasizing professional leadership. Selected topics include current issues and trends that influence nursing practice, health care organizations, and legal and ethical issues. Nursing management processes and skills are developed. Corequisites, NRS 2332, and NRSP 2361. Summer.
- NRS 2392. Health Assessment** Focus on obtaining a health history and physical assessment of the adult. An overview of the pediatric, obstetrical, and geriatric client is included. Prerequisite, BIO 2203 and BIO 2201. Pre/Corequisites, C or better in BIO 2223, BIO 2221, and NRSP 2391, NRS 2313, NRS 2322 and NRSP 2321 for BSN Students, or NRS 1214 and NRSP 1222 for AASN students. Fall, Spring, Summer.
- NRS 2423. Introduction to Essentials of Nursing Care** This course introduces the scope of the nursing profession with emphasis on basic human needs, growth and development across the lifespan, communication, legal and ethical parameters of practice, and teaching and learning theories. Prerequisite, Admission to the Accelerated BSN track. Summer.
- NRS 2433. Essentials of Medical Surgical Nursing I** Health focus on individuals and families experiencing acute and chronic illness across the lifespan. Integrated foci include medical surgical, geriatrics, pediatrics, and nutrition. Registration restricted to students who are accepted to the accelerated BSN option. Corequisites, NRS 2392, NRS 2443, NRSP 2391, and NRSP 2432. Fall.
- NRS 2443. Essentials of Nursing Care of the Childbearing Family** Theoretical basis for professional nursing care of the childbearing family. Emphasis is on nursing care of the woman, the fetus, and the infant within the family environment. Registration restricted to students who are accepted to the accelerated BSN option. Corequisites, NRS 2433, and NRSP 2432. Fall.
- NRS 2601. Nursing Process Application** Focuses on the application of the nursing process and the use of critical thinking and problem solving skills to meet the needs of clients. Fall.

- NRS 2793. Health Assessment and Exam** Health history and physical examination skills are taught. The focus is on the adult while including an overview of special client populations. Students submit written H & Ps and self-recordings of skill performance. Prerequisites, Admission to the RN-BSN program, C or better in BIO 2203/2201 and BIO 2223/2221. Fall, Spring, Summer.
- NRS 3103. Medical Surgical Nursing II** Health focus is on acute illness. Integrated foci include adult medical surgical, geriatrics, and nutrition. Registration restricted to the BSN program. Prerequisites NRS 2002, NRSP 2003, NRS 2012, NRS 3463. Corequisites, NRS 3473, NRSP 3105, and NRS 3422. Fall.
- NRS 3105. Nursing Practicum II** Practicum in which NRS 3103 is implemented. The student designs and implements care for adults in a secondary care setting. A clinical laboratory fee will be assessed. Registration is restricted to the BSN program. Prerequisites NRS 2002, NRSP 2003, NRS 2363, NRS 2012. Corequisites, NRS 3103, NRS 3422, and NRS 3473. Fall.
- NRS 3205. Medical Surgical Nursing III** Continuation of concepts introduced in NRS 3103. Registration restricted to the BSN program. Prerequisites NRS 3473, NRS 3103, NRSP 3105, NRS 3422. Corequisites, NRS 3312 and NRSP 3205. Spring.
- NRS 330V. Special Problems in Nursing** Specific areas with the topic and mode of study agreed upon by the student and the instructor. Course may be repeated with various topics. Registration must be approved by the department chair. Irregular.
- NRS 3312. Introduction to Nursing Research** Explores the role of the nurse in the research process and provides the skills needed to evaluate and use research findings. Prerequisite, Admission to BSN Program, and three credit hour statistics course; or instructor permission. Spring.
- NRS 3333. Women's Health. Past, Present and Future** Health problems of women studies with both a traditional and contemporary focus. Emphasis on current information needed by health professionals to help women achieve optimum wellness. Prerequisites, Junior level nursing status or instructor permission. Cross listed as WGS 3333. Fall, Summer.
- NRS 3353. Aging and the Older Adult** Analysis of the aging process, including theories of aging, ethical issues, biopsychosocial aging changes, impact of changing needs on support systems. Designed for Nursing, Health Care, and Health Promotions majors. Other majors allowed by instructor permission. Prerequisites, C or better in PSY 2013. Fall, Spring, Summer.
- NRS 3381. Nursing Leadership Development** Experiential learning and active involvement in the local, state and national levels of the National Student Nursing Association.
- NRS 3383. Gerontological Nursing** Emphasis is placed on the normal biophysical and psychological changes which occur as part of the normal aging process. Strengths, capabilities, problems, and limitations imposed by the pathological changes of aging are identified. Values, beliefs, and attitudes as well as resources are explored. Prerequisite, Junior with ten hours of nursing credit, Registered Nurse status, or instructor permission. Irregular.
- NRS 3422. Essentials of Mental Health Nursing** Explores and applies the basic concepts of professional nursing for clients with mental health problems. Registration restricted to students who are accepted to the BSN options. Corequisites, NRS 3422, and NRSP 3422 (Accelerated BSN option), Corequisites, NRS 3103, NRSP 3105, and NRS 3473 (Traditional/LPN-to-BSN). Fall.
- NRS 3423. Essentials of Community Health** Concepts of professional nursing expanded to the care of individuals, families, and groups of patients in community and rehabilitation settings. Focus is on needs assessment, strategies, high risk families, professional roles and health care issues. Registration restricted to students who have been accepted to accelerated BSN option. Corequisites, NRS 3422, and NRSP 3433. Fall.
- NRS 3445. Essentials of Medical Surgical Nursing II** Health focus on individuals and families experiencing acute and chronic illness across the lifespan. Integrated foci include adult medical surgical, geriatrics, pediatrics, and nutrition. Registration restricted to students who have been accepted to accelerated BSN option. Corequisites, NRS 3463, and NRSP 3453. Spring.

- NRS 3463. Pathophysiology Based Pharmacology I** Disruptions of normal human functioning and disease processes. Pharmacologic principles and treatment of select disease process are discussed. Link between the basic biological sciences and the application of pharmacological theory into nursing practice. Registration restricted to admission to the BSN. Fall.
- NRS 3473. Pathophysiology Based Pharmacology II** Disorders of normal human functioning and disease processes. Pharmacologic principles and treatment of select disease process are discussed. Ties basic biological sciences theory and the application of pharmacological theory into nursing practice. Registration restricted to students admitted to the BSN program. Spring.
- NRS 3713. Evidence Based Practice** Explores the nurse's role in the research process and provides the skills needed to evaluate the evidence and use research findings. Introduces professional writing styles and requires the application of a selected style in the preparation of various projects. Prerequisite, Admission to the RN-BSN Program. Pre/Corequisite, Statistics. Fall, Spring, Summer.
- NRS 3723. Clinical Pathophysiology** An overview of the specific disruptions of normal physiology, mechanisms involved, disease manifestations and the therapeutic principles underlying treatment. Provides a link between the basic biological sciences and their clinical application. Prerequisites, Admission to the RN-BSN program, BIO 2103/2101 and BIO 2203/2201. Fall, Spring, Summer.
- NRS 4005. Medical Surgical Nursing IV** The focus of this course is on the patient in a medical-surgical or high-acuity setting who requires ongoing assessment, immediate intervention and/or intensive nursing care. Corequisites, NRSP 4012 and NRSP 4006. Fall, Spring.
- NRS 4012. Essentials of Obstetric Nursing** Theoretical basis for professional nursing care of the childbearing family. Emphasis is on nursing care of the woman, the fetus, and the infant within the family environment. Fall. Spring.
- NRS 4022. Essentials of Pediatric Nursing** Nursing assessment and management of selected health care needs of pediatric patients and their families. Emphasis is on the nursing care of the pediatric patient and family within the acute and community setting. Registration restricted to BSN students. Fall, Spring.
- NRS 4053. Today's Families Interdisciplinary Approaches** An interdisciplinary course designed to promote a critical approach to examine the family and its role in society. Prerequisite, twelve hours of coursework in Interdisciplinary Family Minor or Instructors permission. Spring.
- NRS 4223. Forensic Nursing** This course will introduce the beginning nurse to the field of forensic nursing. Content includes the recognition and management of forensic patients, both living and dead, and includes information on detection, collection, and preservation of evidence. Restricted to students who have completed 1 year of nursing coursework in either the AASN or BSN program, RN licensure, or instructor permission. Summer, odd.
- NRS 4312. Chronic Illness and Rehabilitation Nursing** Focus on clients with chronic illness throughout the lifespan. Concepts of gerontology and rehabilitation are integrated. Corequisites, NRS 4343, NRS 4362, and NRSP 4336. Fall, Spring.
- NRS 4343. Professional Nursing Community** Concepts of professional nursing practice expanded to the care of families and groups of clients in the community setting. Focuses also on change theory, group process strategies and professional and health care issues. Fall, Spring.
- NRS 4393. Advanced Nutritional Concepts and Therapeutic Interventions** Principles of nutritional support utilized in healthcare, including nutritional assessment, nutrient delivery and implications of disease. Prerequisites, completion of one year of nursing coursework, BSN junior level status, RN licensure, or instructor permission. Spring.
- NRS 4425. Essentials of Medical Surgical Nursing III** Continuation of concepts introduced in NRS 3345 Essentials of Medical Surgical Nursing II. Registration restricted to students who have been accepted to accelerated BSN option. Corequisites, NRS 4443, and NRSP 4433. Spring.

- NRS 4443. Essentials of High Acuity Nursing** Focuses on patients with acute episodic health deviations which require ongoing diagnosis, immediate intervention or intensive nursing observation and care. Registration restricted to Students who are accepted to accelerated BSN option. Corequisites, NRS 4425, and NRSP 4433. Spring.
- NRS 4481. Critical Decision Making and Testing Competencies in Nursing** Further assists nursing students to identify areas for improving critical thinking skills and test taking skills. Will enhance the students ability to problem solve in providing complex care to individuals, groups, communities and populations. Prerequisites, senior nursing student status or instructor permission. Spring.
- NRS 4542. Health Care Administration** Introduction to the organization, operations and administration of a modern health care environment. Includes an introduction to health care delivery systems, decision making, and the management functions. Prerequisite, Admission to BSN program or graduate student enrolled in a CNHP program or any health related major. Fall, Spring.
- NRS 4713. Chronic Illness Nursing** Focus on clients with chronic illness throughout the lifespan. Concepts of gerontology, rehabilitation and spirituality are integrated. Prerequisites, Admission to the RN-BSN program, C or better in NRS 3723 and NRS 3713. Fall, Spring, Summer.
- NRS 4723. High Acuity Nursing** Focuses on patients with high acuity episodic or traumatic health deviations which require immediate intensive ongoing nursing diagnosis and interventions. Prerequisites, Admission to the RN-BSN program, C or better in NRS 3713 and NRS 3723. Fall, Spring, Summer.
- NRS 4733. Nursing Management** Managerial and leadership aspects of the nurse manager in various healthcare environments are discussed. Prerequisite, Admission to the RN-BSN Program, C or better in Statistics, NRS 3713. Fall, Spring, Summer.
- NRS 4743. Community Nursing** Concepts of professional nursing practice expanded to the care of families and groups of clients in the community setting. Focuses also on change theory, group process strategies and professional and health care issues. Prerequisites, Admission to the RN-BSN program, NRS 3723 and NRS 3713. Fall, Spring, Summer.
- NRS 4763. Professional Nursing Role** Concepts of professional RN-BSN socialization, accountability, advocacy, issues and trends which affect the role of the nurse are analyzed and discussed. Prerequisite, Admission to the RN-BSN program. Fall, Spring, Summer.

Nursing Practicum (NRSP)

- NRSP 1222. Fundamentals of Nursing Practicum** NRSP 1222. Fundamentals of Nursing Practicum Practicum emphasizes the fundamental skills of nursing as utilized in maintaining activities of daily living. A clinical laboratory fee will be assessed. Prerequisites, "C" or better in MATH 1023, BIO 2203, BIO 2201, and ENG 1003. Corequisites, NRS 1214, NRS 2392, and NRSP 2391. Spring.
- NRSP 1243. Clinical Practicum I** Initial medical, surgical, maternal, and child health clinical experience for the student making the transition to the RN role. Nursing concepts from Nursing Agency I and Role Development I are applied to clinical practice. A clinical laboratory fee will be assessed. Corequisites, NRS 1235 and NRS 1252. Fall.
- NRSP 1331. Clinical Practicum I** Initial medical-surgical clinical experience for the student making the transition to the registered nurse role. Concepts from Nursing I and Role Development I are applied. Prerequisite, Admission to the Online LPN to AASN program. Fall.
- NRSP 1341. Clinical Practicum II** Medical-surgical clinical experience for the student making the transition to the registered nurse role. Concepts from Nursing II and Role Development II are applied. Corequisites, NRS 1321, and NRS 1323. Fall.

- NRSP 1422. Foundations of Nursing Practice** Practicum emphasizes the fundamental skills of nursing as utilized in maintaining activities of daily living. A clinical laboratory fee will be assessed. Prerequisite, Admission to the BSN Program. Summer.
- NRSP 2003. Nursing Practicum I** Practicum in which the clinical skills associated with medical surgical and perioperative nursing care are developed. A clinical laboratory fee will be assessed. Registration is restricted to the BSN program. Prerequisites, NRS 2313, NRS 2322, NRSP 2321, NRS 2393, and NRSP 2391.
- NRSP 220V. Clinical Practicum Independent Study** Practicum experience in specific clinical areas determined by student and instructor. Review of clinical nursing care with emphasis on the performance of specific nursing procedures. A clinical laboratory fee will be assessed. Irregular.
- NRSP 2223. Clinical Practicum II** Application of the nursing process in the care of individuals and families in all Stages of the life cycle. A clinical laboratory fee will be assessed. An additional fee is assessed for this course for the comprehensive assessment test. Corequisites, NRS 2212, NRS 2213, and NRS 2251. Spring.
- NRSP 2244. Clinical Practicum III** Refinement of the nursing process in providing care for selected clients. A clinical laboratory fee will be assessed. An additional fee is assessed for this course for the comprehensive assessment examination given to all graduating nursing students. Corequisites, NRS 2232, NRS 2233, and NRSP 2272. Fall.
- NRSP 2272. Role Development Practicum** Course assists the graduating student to integrate the Associate Degree Nurse roles, including provider of care, manager of care and member of the profession. A clinical laboratory fee will be assessed. Fall.
- NRSP 2321. Foundations of Nursing Practicum** Application of nursing skills related to physiologic health processes, mobility, comfort, infection control, protection, oxygenation, medication administration, nutrition and elimination. Prerequisite, Admission to the BSN Program. Corequisites, NRS 2313, NRS 2392, NRS 2322, NRSP 2391. Fall.
- NRSP 2341. Clinical Practicum III** Medical-Surgical focus. Application of the nursing process in all stages of the life cycle. Concepts from Nursing III and Role III are applied. Corequisites, NRS 2323, and NRS 2321. Spring.
- NRSP 2351. Clinical Practicum IV** Focus on mental health care in acute and community based settings. Application of the nursing process in caring for individuals and families in all stages of the life cycle. Concepts from Nursing IV and Role Development IV are applied. Corequisites, NRS 2312, and NRS 2331. Spring.
- NRSP 2361. Clinical Practicum V** Refinement of the nursing process in providing care to selected maternal and newborn clients in an acute care setting. Concepts from Nursing V and Role V are applied. Corequisites, NRS 2332, and NRS 2341. Summer.
- NRSP 2371. Clinical Practicum VI** Focus on medical-surgical with emphasis on high acuity care needs. Refinement of the nursing process in providing care for selected clients. Nursing concepts from Nursing VI are applied. Corequisites, NRS 2333, and NRSP 2382. Summer.
- NRSP 2382. Capstone: Online LPN to AASN** Focus on synthesis of patient care. The graduating student will integrate the knowledge and skills of the registered nurse, validate leadership skills, and transition toward becoming a member of the profession. Corequisites, NRS 2333, and NRSP 2371. Summer.
- NRSP 2391. Health Assessment Practicum** Practicum in which the clinical skills associated with NRS 2392 are developed and implemented. The student obtains health histories and performs physical examinations. A clinical laboratory fee will be assessed. Corequisite, NRS 2392. Fall, Spring, Summer.

- NRSP 2432. Clinical Experience I** Practicum in which NRS 2433 and NRS 2443 are implemented. The student designs and implements care for individuals and families, and the childbearing family. Registration restricted to students who are accepted to accelerated BSN option. Prerequisites, C or better in NRS 2423, NRSP 1422. Corequisites, NRS 2392, NRSP 2391, NRS 2433, NRS 2443. Fall.
- NRSP 3205. Nursing Practicum III** Practicum in which NRS 3205 is implemented. The student designs, implements, and evaluates care of clients and families in secondary care settings. A clinical laboratory fee is assessed. Registration is restricted to BSN programs. Prerequisites NRS 3103, NRSP 3105, NRS 3422, and NRS 3473. Corequisite, NRS 3205 and NRS 3312. Spring.
- NRSP 3325. Nursing Care III** Practicum in which NURS 3315 is implemented. The student designs and implements care for adults and children in a secondary care setting. A clinical laboratory fee will be assessed. Registration is restricted to the BSN program. Pre/Corequisite, NRS 3315, and NRS 3473. Fall.
- NRSP 3433. Clinical Experience II** Practicum in which theory from NRS 3422 and NRS 3423 is implemented. The student designs, implements and evaluates care for individuals and families with acute and chronic illness across the lifespan in a variety of clinical settings. Registration restricted to students who are accepted to accelerated BSN option. Corequisites, NRS 3343, NRS 3422, and NRS 3423. Fall.
- NRSP 3453. Clinical Experience III** Practicum in which theory from NRS 3422 and NRS 3423 is implemented. The student designs, implements and evaluates care for individuals and families with acute and chronic illness across the lifespan in a variety of clinical settings. Registration restricted to students who are accepted to accelerated BSN option. Corequisites, NRS 3343, NRS 3422, and NRS 3423. Fall.
- NRSP 4006. Nursing Practicum IV** Practicum in which theory from NRS 4005 and 4012 is implemented. Care of clients and families in the medical-surgical or high acuity setting. Clinical laboratory and comprehensive assessment examination fees will be assessed of all graduating nursing students. Pre/Corequisite, NRS 4005 and NRS 4012. Fall, Spring.
- NRSP 4016. Nursing Practicum V** Practicum in which theory from NRS 4022, 4343, and 4542 is implemented. Assessment and management of selected healthcare needs of the pediatric patient and family within the acute and community setting. A fee is assessed for the comprehensive examination. Corequisites NRS 4022, 4343, and 4542. Fall, Spring.
- NRSP 4393. Nursing Care Elective** Practicum in which the student selects a clinical experience in an area of interest within a primary, secondary, or tertiary care setting. A clinical laboratory fee will be assessed. Prerequisites, Must have completed all Junior level BSN nursing courses and C or better in BIO 3203. Fall, Spring.
- NRSP 4433. Clinical Experience IV** Practicum in which theory from NRS 4425 and NRS 4443 is implemented. The student designs, implements and evaluates care for individuals and families with acute and chronic illness across the lifespan in a variety of clinical settings. Registration restricted to students who are accepted to accelerated BSN option. Corequisites, NRS 4425, and NRS 4443. Spring.
- NRSP 4456. Clinical Experience V** This practicum builds on the concepts learned in previous courses. The student designs, implements, and evaluates care for individuals and families, groups, and populations across the lifespan in a variety of clinical settings. Registration restricted to students who are accepted to accelerated BSN option. Summer.
- NRSP 4466. Clinical Experience VI** This practicum builds on the concepts learned in previous courses. The student designs, implements, and evaluates care for individuals and families, groups, and populations across the lifespan in a variety of clinical settings. Registration restricted to students who are accepted to accelerated BSN option. Summer.
- NRSP 4793. RN-BSN Capstone Course** Application of baccalaureate level nursing knowledge and skills in problem identification, analysis, synthesis, plan implementation, and evaluation in a specific area of clinical interest as a transition to the graduate level advanced practice role. Restricted to RN to BSN students only. Prerequisites, C or better in NRS 3713, NRS 3723, NRS 4713, NRS 4723, NRS 4743, NRS 4763 and NRS 4733. Fall, Spring, Summer, Irregular.

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

Dietetics (NS)

- NS 2203. Basic Human Nutrition** Basic concepts of nutrition including factors that have an impact upon nutritional practices. Special attention to age related nutritional needs. Fall, Spring, Summer.
- NS 3113. Life Cycle Nutrition** Nutrition needs and interventions throughout stages of the life cycle, from preconception through aging. Prerequisites, Admission to the Dietetics Program. Fall.
- NS 3123. Nutritional Biochemistry** The role of human cellular nutrition, both macro and micro nutrients, and metabolism in relation to health and disease. Prerequisites, Admission to the Dietetics Program. Fall.
- NS 3133. Food Service Management** Basic administrative skill acquisition, leadership and management principles, human resource issues, food safety and fiscal responsibility in food service operations. Prerequisites, Admission to the Dietetics Program. Fall.
- NS 3143. Food Science and Lab** Investigates the basic principles of various food preparation methods, meal planning, and food safety. Prerequisites, Admission to the Dietetics Program, NS 3113, NS 3123, NS 3133, NS 3153 and NS 3163. Spring.
- NS 3153. Food and Society** Examines the relationship people have with food. The meaning and significance of food in different cultures and the influence of societal factors on food choices. Prerequisites, Admission to the Dietetics Program. Fall.
- NS 3163. Nutrition Education** Principles of nutrition education with emphasis on how to design, deliver and evaluate effective interventions and programs in various settings. Prerequisites, Admission to the Dietetics Program. Fall.
- NS 3243. Quantity Foods** Explores large scale food production including equipment, food purchasing, facility design, and vendor relations. Prerequisites, Admission to the Dietetics Program, NS 3253, NS 4553, NS 3263, NS 3143 and NSP 3213. Summer.
- NS 3253. Nutrition Assessment** Methods and tools used in screening and assessing nutritional status of individuals. Assessment methodology and techniques include food/nutrient intake, anthropometrics, laboratory and clinical examination. Prerequisites, Admission to the Dietetics Program, NS 3113, NS 3123, NS 3133, NS 3153, and NS 3163. Spring.
- NS 3263. The Nutrition Care Process** Study and application of the four-step standardized process to identify, plan for and meet nutritional needs of patients/clients in various settings. Prerequisites, Admission to the Dietetics Program, NS 3113, NS 3123, NS 3133, NS 3153 and NS 3163. Spring.
- NS 351V. Special Problems in Dietetics** Specific topics of study to vary depending on student need. Registration must be approved by the program director. Prerequisites, Admission to the Dietetics Program. Fall, spring.
- NS 4413. Medical Nutrition Therapy I** Exploration of medical nutrition therapy for various disease states, including nutrition assessment, food-drug interactions and appropriate interventions. Prerequisites, Admission to the Dietetics Program, NS 4453 and NSP 4433. Fall.
- NS 4442. Professional Development** Exploration of career options in dietetics, leadership and professional development, and professional issues related to dietetic practice. Prerequisites, Admission to the Dietetics Program, NS 4453 and NSP 4433. Fall.
- NS 4443. Food Chemistry and Lab** Investigation of sensory and physical properties of foods through an experimental environment; includes lecture and lab experiences. Prerequisites, Admission to the Dietetics Program, NS 4453, and NSP 4433. Fall.
- NS 4453. Community Nutrition** The role of nutritionists in needs assessment, evaluation and planning, and program design for a community nutrition education program. Prerequisites, Admission to the Dietetics Program, NS 3243 and NSP 3323. Summer.

- NS 4463. Sports Nutrition** The study of nutrition as it relates to optimal performance for sports and exercise. Emphasis on accurate guidelines and interventions for nutrition professionals. Prerequisites, Admission to the Dietetics Program, NS 4453 and NSP 4433. Fall.
- NS 4523. Medical Nutrition Therapy II** Continued exploration and development of skills in providing medical nutrition therapy with emphasis on more advanced disease states. Prerequisites, Admission to the Dietetics Program, NS 4413, NS 4442, NS 4443, NS 4463, and NSP 4544. Spring.
- NS 4533. Infant and Child Nutrition** Examination of the dietary and nutritional factors that support normal growth and development with focus on the early stages of the life cycle as in gestation, lactation, infancy, preschool, school age and adolescence. Prerequisites, Admission to the Dietetics Program, NS 4413, NS 4442, NS 4443, NS 4463 and NSP 4544. Spring.
- NS 4553. Nutrition Counseling** Development of communication and counseling skills to assist individuals with nutrition related conditions and diseases make appropriate diet/lifestyle changes which improve health and nutritional status. Prerequisites, Admission to the Dietetics Program, NS 3113, NS 3123, NS 3133, NS 3153 and NS 3163. Spring.
- NS 4573. Introduction to Nutrition Research** The research process and skills needed to evaluate and use research findings in the classroom and supervised practice. Prerequisites, Admission to the Dietetics Program, NS 4413, NS 4442, NS 4443, NS 4463, and NSP 4544

National Student Exchange (NSE)

- NSE 301V. National Student Exchange** Non-credit placeholder course for students participating in the National Student Exchange.

Dietetics Practicum (NSP)

- NSP 3213. Practicum I** Supervised practice in foodservice settings. These rotations provide a foundation for beginning skills necessary in the practice of dietetics. Prerequisites, Admission to the Dietetics Program, NS 3113, NS 3123, NS 3133, NS 3153 and NS 3163. Spring.
- NSP 3323. Practicum II** Supervised practice in food service settings. with students applying principles of management and systems in providing services to individuals in healthcare facilities. Prerequisites, Admission to the Dietetics Program, NS 3253, NS 4553, NS 3263, NS 3143 and NSP 3213. Summer.
- NSP 4433. Practicum III** Supervised practice in various community agencies and organizations involving application of health and wellness principles for culturally diverse groups. Prerequisites, Admission to the Dietetics Program, NS 3243 and NSP 3323. Summer.
- NSP 4544. Practicum IV** Supervised practice in acute care, long-term care, and outpatient healthcare facilities providing experiences in the application of medical nutrition therapy and the nutrition care process. Prerequisites, Admission to the Dietetics Program, NS 4453 and NSP 4433. Fall.
- NSP 4654. Practicum V** Supervised rotations in acute care and outpatient clinical settings. Patient care management and application of the nutrition care process and medical nutrition therapy principles; includes staff relief experience near the end of the practicum. Prerequisites, Admission to the Dietetics Program, NS 4413, NS 4442, NS 4443, NS 4463, and NSP 4544. Spring.

Occupational Therapy Assistant (OTA)

- OTA 2013. Fundamentals of Treatment** Basic skills in the practice of occupational therapy assistant. Prerequisite, Admission to OTA Program. Summer.

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- OTA 2023. Emergence of OT Science** History, theories, and practice of occupational therapy, with focus on occupational science. Prerequisite, Admission to OTA Program. Summer.
- OTA 2033. Technology Skills Training I** Technology related to occupational therapy practice and basic OTA topics such as safety, ADL, and IADL across life span. Prerequisite, Admission to OTA Program. Fall.
- OTA 2043. From Disease to Practice** Human diseases common in occupational therapy intervention, occupational intervention methods and techniques, and applied activity analysis. Prerequisite, Admission to OTA Program. Fall.
- OTA 2053. Adult Practice for the OTA** Emphasis will be placed on understanding normal lifespan development through old age, conditions and diseases in adulthood, treatment methods and techniques involving adaptive equipment, assistive devices, activities of daily living and specialized assessment with adult populations. Prerequisite, Admission to OTA Program. Fall.
- OTA 2063. Pediatrics for the OTA** Explores the influence of environment, culture, and community on the developing infant and child. Provides skills necessary to identify commonly seen diseases and treatment techniques in pediatrics. Identifies occupational therapy assessment techniques and methods of treatment. Prerequisite, Admission to OTA Program. Fall.
- OTA 2071. Fieldwork Education I-A** Provides the student with practice experience to identify common disabilities, evaluation techniques and methods of treatment for the pediatric population. This can be in collaboration with Occupational Therapists and other professionals. Student will demonstrate universal precautions. Prerequisite, Admission to OTA Program. Fall.
- OTA 2081. Fieldwork Education I-B** Provides the student with practice experience to identify common disabilities, evaluation techniques and methods of treatment for a population. This can be in collaboration with Occupational Therapists and other professionals. Students will demonstrate universal precautions. Prerequisite, Admission to OTA Program. Fall.
- OTA 2093. Technology Skills Training II** Patient documentation through a variety of devices and software for cognitive, behavioral, driver assessment, and selected interventions. Prerequisite, Admission to OTA Program. Spring.
- OTA 2103. OTA in Behavioral Health** This course addresses the most commonly seen psychiatric symptoms, behavioral health correlates, screening and psychiatric occupational therapy techniques for use within a multicultural setting. Prerequisite, Admission to OTA Program. Spring.
- OTA 2115. Fieldwork Education II-A** Provides eight weeks of supervised clinical internship to demonstrate professional behaviors consistent with OTA professional standards and ethics. Prerequisite, Admission to OTA Program. Spring.
- OTA 2125. Fieldwork Education II-B** Provides eight weeks of supervised clinical internship to demonstrate professional behaviors consistent with OTA professional standards and ethics. Prerequisite, Admission to OTA Program. Spring.

Physical Education (PE)

- PE 1002. Concepts of Fitness** Provides knowledge and appreciation of the importance of physical fitness for lifelong health, wellness, and a quality life, and opportunities for psychomotor development. Fall, Spring, Summer.
- PE 1011 Pilates and Fitness Yoga** The principles and concepts of Pilates and Fitness Yoga in developing overall body flexibility, strength and endurance as well as enhancing good body posture. Fall, Spring, Summer.
- PE 1021. Self Defense** Gain an understanding of the terminology and the physical techniques associated with self defense against kicks, strikes, grabs, and ground fighting. Fall, Spring.

- PE 1111. Physical Conditioning** Basic conditioning. The course includes weight training, circuit training, cardiovascular and respiratory activity. Fall, Spring, Summer.
- PE 1121. Figure Control** The principles and concepts of exercise as related to enhancement of personal appearance. Fall, Spring.
- PE 1131. Aerobic Exercise** Basic conditioning involving continuous rhythmical movement. Individualized fitness programs are developed for each student. Fall, Spring.
- PE 1141. Beginning Rugby** Introduction to the basic skills, rules, and strategy of rugby. Fall.
- PE 1151. Ultimate Frisbee** This course is designed to introduce students to the basic knowledge of the rules, nature, techniques and strategies of ultimate Frisbee as well as provide the opportunity to develop personal skills essential for the game. Spring.
- PE 1211. Hiking and Backpacking** Introduction to basic skills and knowledge of first aid, land navigation, outdoor skills, and equipment necessary to participate in hiking and backpacking. One weekend field trip required. Irregular.
- PE 1241. Fitness Walking** Fundamental techniques of and benefits derived from a regimented aerobic walking program. Fall, Spring.
- PE 1311. Beginning Swimming** Non-proficiency course designed to teach basic swimming skills for non-swimmers or beginning swimmers. Fall, Spring.
- PE 1321. Water Aerobics** Basic conditioning involving aquatic exercise, opportunity to develop and maintain fitness while enjoying water activities. Irregular.
- PE 1411. Track and Field** Introduction to the fundamentals of track and field activities. Fall, Spring.
- PE 1421. Racquetball** Introduction to the basic skills, rules, and strategy in racquetball. Irregular.
- PE 1461. Archery** Introduction to fundamentals of recreational archery. Fall, Spring, Summer.
- PE 1471. Bowling** Introduction to the basic techniques of bowling. Special course fee, \$25.00. Fall, Spring.
- PE 1481. Tennis** Introduction to the basic skills, rules, and strategy in tennis. Fall, Spring.
- PE 1491. Badminton** Introduction to the basic skills, rules, and strategy in badminton. Fall, Spring.
- PE 1501. Golf** Introduction to the basic skills, rules, and strategy in golf. Fall, Spring.
- PE 1511. Gymnastics** Introduction to the basic skills in tumbling. Designed for BSE physical education majors. Fall, Spring.
- PE 1601. Soccer** Introduction to the basic skills, rules, and strategy in soccer. Fall, Spring.
- PE 1611. Basketball** Introduction to the basic skills, rules, and strategy of basketball. Fall, Spring.
- PE 1621. Volleyball** Introduction to the basic skills, rules, and strategy of volleyball. Fall, Spring.
- PE 1641. Flag and Touch Football** Introduction to the basic skills, rules, and strategy of flag and touch football. Fall, Spring.
- PE 1651. Softball** Introduction to the basic skills, rules, and strategy of softball. Fall, Spring.

- PE 2141. Intermediate Rugby** Instruction in skill, strategy, and techniques in rugby. For students who have already acquired the basic skills of rugby. Spring.
- PE 2311. Intermediate Swimming** Instruction and practice in five basic swimming strokes. Fall, Spring.
- PE 2461. Intermediate Archery** Archery experience with the option for earning a N.A.A. Level I Archery Instructor Certification. Instruction includes arrow repair, bow maintenance, and shooting indoors and outdoors. Prerequisite, PE 1461 or Instructor permission. Spring.
- PE 2833. Introduction to Professional Golf Management** An introductory course that studies professional golf course management and operations. Topic areas include strategic planning for golf businesses, risk management for golf equipment and facilities, turf management, concessions, and marketing strategies and services. Fall, Irregular.
- PE 3113. Business of E-Sports** The course explores the historical background of video gaming and how it leads to the emergence of the esports industry. Students will apply their knowledge to assess esports from a sport, business, and event management perspective. Fall, Spring.
- PE 3723. Sports in Cinema** This course is to provide students opportunities to explore literature and deconstruct films by analyzing the message elements attached to cinematic sports. Spring, Summer.
- PE 3752. Advanced Swimming and Lifeguarding** Development of swimming and opportunity for certification in lifeguarding. Prerequisite, Intermediate swimming skill. Irregular.
- PE 3782. Skin and Scuba Diving** Opportunity for Y.M.C.A. certification pending completion of specified requirements. Prerequisite, Instructor permission. Special course fee, \$30.00. Fall, Spring.
- PE 3802. Physical Education for Teachers of Young Children** The philosophy, aims, and objectives of physical education in the grades P through 6, includes laboratory experiences. Fall, Spring.
- PE 3813. Concepts of Athletic Training** A course designed for physical educators, coaches and students interested in the care of sports related injuries. Spring, Summer.
- PE 3822. Theory and Practice of Teaching Rhythmical Activities** The values, scope, and analysis of rhythmical activities and basic movement experiences. Emphasis is given to instructional techniques and program progression. Fall, Spring.
- PE 3832. Theory and Practice of Teaching Fitness Concepts** Instructional strategies designed to teach, develop and assess health related fitness components for grades P through 12. Prerequisite, PE 1002. Fall, Spring.
- PE 3842. Theory and Practice of Teaching Leisure Sports** Instructional strategies for teaching skill techniques, progression, and planning in selected leisure sport activities, archery, bowling, golf, table tennis, for students in grades P through 12. Fall, Spring.
- PE 3853. Sports Promotion and Sales Management** Theories, concepts, and research associated with sport consumer behaviors. Prerequisite, Junior level standing. Spring.
- PE 3862. Theory and Practice of Teaching Racquet Sports** Instructional strategies for teaching skill techniques, progression, and planning in selected racket sports, badminton, racquetball, pickleball, and tennis, for students in grades P through 12. Fall, Spring.
- PE 3863. Economic and Financial Management for Sport Organizations** Financial concepts and theories and their application in the professional, intercollegiate, and commercial sport industries. Fall.
- PE 3872. Rules and Officiating** A study of rules and techniques in officiating the following sports, baseball and softball, basketball, football and touch football, soccer, track and field, and volleyball. Fall, Spring.

- PE 3873. Facility and Event Management** Principles and practices for operating athletic centers and recreational facilities. Spring.
- PE 3892. Theory and Practice of Teaching Team Sports** Skill techniques, progression, and planning for instruction in basketball, flag and touch football, soccer, softball, and volleyball for students in grades P through 12. Fall, Spring.
- PE 3893. Sports in Society** An overview of the impact and significance of play and sports as a social institution. Fall, Summer.
- PE 4663. Motor Skills Development for Children** Appropriate content and skill performance levels in basic game skills and gymnastics for grades K through 6. Spring.
- PE 4703. Adaptive Physical Education** Enables the prospective teacher to, A. understand the value of physical education for students with disabilities, B. plan programs designed to assist students with physical, mental, and emotional disabilities in developing their maximum potential through physical activity. Fall.
- PE 471V. Independent Study** Student may engage in supervised study of physical education issues. Irregular.
- PE 4743. Legal Issues in Sport** Legal issues as it relates to the law, liability, legal systems and the rights of those involved in the sport, exercise, and the fitness industry. Fall.
- PE 4753. Physical Education Curriculum** The course is designed to prepare prospective teachers to develop, implement, and assess the curricula within physical education. Prerequisites, SCED 2514 and PE 3802. Fall.
- PE 4763. Sport Analytics** The measurement, management, and analysis of sport marketing data to guide strategic decision making, maximize effectiveness, and optimize return on investment. Prerequisite, junior level standing. Spring.
- PE 4773. Organization and Management of Sports Programs** Planning, organizing, leading, and evaluating of institutional and community sports programs. Fall.
- PE 4783. Organization and Administration of Physical Education** Problems relating to the planning and management of physical education programs in the public school. Fall, Spring.
- PE 4793. Evaluation in Physical Education** Tests and evaluation procedures in the areas of physical fitness, motor ability, skill, and knowledge. Emphasis is placed on the administration of tests and use of results. Spring.
- PE 480V. Special Topics Workshop** A specifically designed series of learning experiences to enhance the professional capabilities of teachers. Participants engage in meaningful learning activities and interact with recognized professionals in the field. May not be used to satisfy any degree requirements. May be repeated for credit. Irregular.
- PE 4822. Theory and Practice of Coaching Football** Team offenses and defenses, playing strategy, rules, scouting, and conditioning of players are discussed. Practice in basic fundamentals. Fall.
- PE 4823. International Sports Venues** Provides a critical perspective of managing international sports venues including planning, design, operations, maintenance, marketing, finance, and event management. Students are exposed to sport venues and management practices in the international sport environment through study abroad. Summer. Instructor permission required.
- PE 4832. Theory and Practice of Coaching Basketball** Team offenses and defenses, playing strategy, rules, scouting, and conditioning of players are discussed. Practice in basic fundamentals. Spring.
- PE 4842. Theory and Practice of Coaching Track** Instruction and practice in performing track events with emphasis on teaching techniques, also practicum in conducting competitive meets. Spring.

- PE 4843. Philosophy and Ethics in Sport** An exploration of major issues, ethical theories, moral reasoning and their impact on the operation of programs in sport, physical education, fitness, athletics, and recreation. Spring.
- PE 4852. Theory and Practice of Coaching Baseball** Team offenses and defenses, playing strategy, rules, scouting, and conditioning of players are discussed. Practice in basic fundamentals. Fall.
- PE 4853. Applied Psychology of Sport and Exercise** The study and practical applications of relevant psychological theories and research related to physical education, exercise, and sport programs. Fall.
- PE 4863. Diversity in Sport and Athletics** Concepts of diversity in analyzing sport practices and practical implications for promoting diversity in sport and athletics. Focus will be given to implementing sport programs in socially diverse settings and for underrepresented groups. Fall, Summer.
- PE 4872. Theory and Practice of Coaching Volleyball** Team offenses and defenses, playing strategy, rules, scouting, and conditioning of players are discussed. Practice in basic fundamentals. Fall.
- PE 4873. Organization and Administration of Interscholastic Athletics** A detailed study of problems encountered by coaches in planning and managing athletic contests, includes coaching psychology. Summer.
- PE 4882. Theory and Practice of Coaching Soccer** This course is designed to provide prospective athletic coaches with knowledge and skill introduction regarding the game of soccer. Spring.
- PE 4883. Practicum in Elementary Physical Education** Experience in working with elementary children, including planning and implementing the program. Requires 90 hours of direct contact with elementary age children. Prerequisites, Admission to Teacher Education Program and completion of 75 hours including PE 3822 and 4663. Special course fee, \$17.50. Summer.

Philosophy (PHIL)

- PHIL 1103. Introduction to Philosophy** Basic problems of philosophy based upon readings in the works of selected leading philosophers. A prerequisite for upper level philosophy. Fall, Spring. (ACTS#: PHIL 1103)
- PHIL 1503. Logic and Practical Reasoning** Topics include identification, evaluation, and construction of logical arguments, recognition of deductive and inductive thought, and detection of fallacies in everyday reasoning. Fall, Spring. (ACTS#: PHIL 1003)
- PHIL 2403. Introduction to Cognitive Science** Cognitive Science is a wide ranging area of study focusing on cognition from a variety of perspectives. Spring.
- PHIL 3213. History of Ancient and Medieval Philosophy** Development of Western philosophy from the time of the Pre-Socratics to the end of the Middle Ages. Fall, even.
- PHIL 3223. History of Modern Philosophy** Major trends and figures in the development of Western philosophy from the Renaissance into the nineteenth century. Spring, odd.
- PHIL 3313. Philosophy of Religion** Consideration of philosophical issues involved in the practice of religion. Sample topics include the nature and existence of God, the problem of evil, the foreknowledge problem, the relationship between science and religion, and mysticism and its claims. Fall, odd.
- PHIL 3403. Theory of Knowledge** Critical examination of some of the major problems concerning the nature and extent of knowledge, belief and evidence, epistemic justification, rationality, memory, perception, and induction. Fall, even.

- PHIL 3423. Philosophy of Science** Examination of the methods and presuppositions of science. Topics may include the nature of the scientific method, the demarcation problem, the structure and evaluation of theories, inductive reasoning, scientific explanation, scientific realism, and the relationship between philosophy and science. Fall, odd.
- PHIL 3553. Symbolic Logic** Rigorous treatment of sentential logic and predicate logic, proof techniques, and translation into symbolic notation. Additional topics may include basic issues in metatheory: the concepts of validity and truth, formal systems of deduction and their soundness and completeness. Prerequisite, PHIL 1503 or MATH 1023 or instructor permission. Spring, odd.
- PHIL 3623. Eastern Philosophy** Major non-western philosophical traditions including Hinduism, Taoism, Buddhism, and Confucianism. Spring, even.
- PHIL 3703. Philosophy of Law** Conceptual and ethical questions relating to law and philosophy, including analytical jurisprudence, the justification of punishment, etc. Spring, odd.
- PHIL 3713. Ethics in the Health Professions** Examination of some of the moral issues involved in the practice of medicine and attendant medical technology. Sample topics include the right to privacy, the moral permissibility of euthanasia, and appropriate distribution of scarce and expensive medical resources. Fall, Spring.
- PHIL 3723. Computers, Ethics, and Society** Introduction to moral, professional, and legal issues involving computer hardware and software. Prerequisite, PHIL 1103 or instructor permission. Spring, even.
- PHIL 3733. Philosophy of Punishment** Explores conceptual and ethical questions relating to punishment, such as: What is legal punishment? What, if anything, justifies the institution of punishment? Who can justifiably be punished and how do we determine what punishment is appropriate in a given case? Fall, even.
- PHIL 3773. Topics in Feminist Philosophy** Topics include, but are not limited to: Feminist Epistemology, Feminist Ethics, and Feminist Philosophy of Science. Prerequisite, PHIL 1103 or instructor permission. Cross listed as WGS 3773. Spring, even.
- PHIL 4213. Contemporary Philosophy** Major trends and developments in philosophy since the late nineteenth century and selected issues and works of major figures in this period. Fall, odd.
- PHIL 4403. Metaphysics** Advanced study of the fundamental nature of reality, including but not limited to: ontology, modality, causation, space and time, mereology, and personal identity. Prerequisite, PHIL 1103 or instructor permission. Fall, odd.
- PHIL 4443. Philosophy of Mind** Foundational issues in the study of mind, includes the nature of mind, the relation of psychology to physical science, and theories of mental content. Prerequisite, PHIL 1103 or instructor permission. Spring, even.
- PHIL 4703. Contemporary Ethical Issues** Exploration of issues in normative ethical theory and metaethics. Sample topics include consequentialism, deontology, constructivism, moral skepticism, moral relativism, and the moral realism/anti-realism debate. Fall, odd.
- PHIL 4723. Aesthetics** The nature of art, designed to help students respond intelligently to works of art. Fall, even.
- PHIL 4733. Environmental Ethics** Investigation of the moral dimensions of environmental issues, including the moral standing of animals, the ethics of population control measures, questions of justice relating to pollution generation and restriction, and ethical problems involved in the production and consumption of food. Prerequisite, PHIL 1103. Spring, odd.
- PHIL 4743. Social and Political Philosophy** Explores the justification, or lack thereof, of social and political institutions. Prerequisite, PHIL 1103, Introduction to Philosophy, equivalent, or instructor permission. Cross listed as WGS 4743. Fall, even.
- PHIL 4763. Philosophy of Sex** Explores the concept of sexual activity and the implications of various theories of sexual activity to our understanding of rape, sexual harassment, pornography, sexual fidelity, parenthood, and various other important contemporary sexual issues. Cross listed as WGS 4763. Spring, even.

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- PHIL 4773. Defining Race** Biological, constructivist, and denial theories of race and their moral and political ramifications for racism, affirmative action, and hate crime legislation. Prerequisite, PHIL 1103. Spring, odd.
- PHIL 480V. Readings in Philosophy** Independent readings for advanced students only. Must have consent of department chair. May be repeated for a maximum of 6 hours credit. Fall, Spring.
- PHIL 4883. Special Topics in Philosophy** Advanced study of selected topics in philosophy. Content will vary. May be repeated for a maximum of 9 hours credit. Prerequisite, 9 hours of philosophy. Fall.
- PHIL 4883. Special Topics in Philosophy** Advanced study of selected topics in philosophy. Content will vary. May be repeated for a maximum of 9 hours credit. Prerequisite, 9 hours of philosophy. Fall.

Physical Science (PHSC)

- PHSC 1003. Making Connections Chemistry and Physics** Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.
- PHSC 1014. Energy and the Environment** A hybrid lecture and lab course that studies energy. What it is, how it is produced and used, and its effect on the environment. Special attention will be paid to individual energy usage and economical methods by which to reduce usage. Prerequisite, MATH 0013 or ACT Mathematics core of 16. Fall, Spring.
- PHSC 1201. Physical Science Laboratory** Two hours per week. Special course fees may apply. Corequisite, PHSC 1203. Fall, Spring, Summer. (ACTS#: PHSC 1004)
- PHSC 1203. Physical Science** The relationship of man to his physical world, content of the course is centered on the development of our modern concepts about matter and energy and how this development is related to the social order of which man is a part. Lecture three hours. This course does not satisfy science certification for secondary school teachers. It is not accepted as a major requirement in any natural science field. Special course fees may apply. Corequisite, PHSC 1201. Prerequisite, MATH 0013 or ACT Mathematics score of 16. Fall, Spring, Summer. (ACTS#: PHSC 1004)

Physics (PHYS)

- PHYS 1101. Introduction to Space Science Laboratory** Two hours per week. Special course fees may apply. Corequisite, PHYS 1103. Fall, Spring. (ACTS#: PHSC 1204)
- PHYS 1103. Introduction to Space Science** A survey of the basic principles of science with emphasis on physics through their application to study about our place in the cosmos. Lecture three hours. Corequisite, PHYS 1101. Special course fees may apply. Prerequisite, MATH 0013 or ACT Math score of 16. Fall, Spring. (ACTS#: PHSC 1204)
- PHYS 2034. University Physics I** Basic principles of mechanics, thermodynamics, materials and wave motion utilizing calculus with multimedia computers, at each station, in a unified lecture and lab format. 6 hours per week. Special course fees may apply. This course may be substituted for PHYS 2054. This course will meet the General Education Requirements for Physical Science. Corequisite, MATH 2204. Fall, Spring. (ACTS#: PHYS 2034)
- PHYS 2044. University Physics II** Continuation of PHYS 2034 covering the basic principles of electricity, magnetism, waves, optics and topics from modern physics utilizing calculus with multimedia computers, at each station, in a unified lecture and lab format. 6 hours per week. Special course fees may apply. Special course fees may apply. Prerequisite, Physics 2034 or 2054. This course may be substituted for PHYS 2064 or for PHYS 2083 and 2081. Corequisite, MATH 2214. Fall, Spring. (ACTS#: PHYS 2044)

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- PHYS 2054. General Physics I** The essential of mechanics, heat, materials and simple harmonic motion in a unified lecture and laboratory format utilizing multimedia computers at each student station. Six hours per week. This course will meet the General Education Program requirements for physical science. PHYS 2034 may be substituted. Special course fees may apply. Special course fees may apply. Prerequisite, MATH 1033 or higher. Fall, Spring, Summer. (ACTS#: PHYS 2014)
- PHYS 2064. General Physics II** Continuation of PHYS 2054, the essentials of electricity, magnetism, wave motion, light and modern physics in a unified lecture and laboratory format utilizing multimedia computers at each student station. Six hours per week. PHYS 2044 may be substituted for this course. Special course fees may apply. Prerequisite, PHYS 2054 or 2034. Fall, Spring, Summer. (ACTS#: PHYS 2024)
- PHYS 2071. Fundamental Physics I Laboratory** Two hours per week. Special course fees may apply. Credit for this course is contingent upon earlier or simultaneous completion of PHYS 2073. Irregular.
- PHYS 2073. Fundamental Physics I** Basic principles of mechanics, special relativity, thermodynamics, and wave motion utilizing calculus. Lecture three hours per week. Special course fees may apply. Students enrolling in this course should enroll in Laboratory for Fundamental Physics I. Corequisite, MATH 2204. Irregular.
- PHYS 2081. Fundamental Physics II Laboratory** Two hours per week. Special course fees may apply. Prerequisites, PHYS 2071 and 2073. Credit for this course is contingent upon earlier or simultaneous completion of PHYS 2083. Irregular.
- PHYS 2083. Fundamental Physics II** Continuation of PHYS 2073. Covering electricity, magnetism, optics, and modern physics. Lecture three hours per week. Special course fees may apply. Students enrolling in this course should enroll in Laboratory for Fundamental Physics II. Corequisite, MATH 2214. Prerequisites, PHYS 2071 and 2073. Irregular.
- PHYS 2133. Survey of Physics for the Health Professions** A survey for introductory mechanics, waves, electricity, magnetism, optics and modern physics with applications for students of the health professions. Special course fees may apply. Fall.
- PHYS 2393. Special Topics** Selected special or current topics of interest to faculty and students that require no prerequisite courses. This course is appropriate for a general student audience. See individual semester schedules for more information about each offering. Irregular.
- PHYS 3043. Atmospheric Dynamics** A study of the physical dynamics of the atmosphere and the oceans and the interactions between the two. Topics to be discussed include basic atmospheric and geophysical fluid dynamics. An integrated laboratory component will have students build analyze the local atmosphere. Prerequisite, PHYS 2034 or 2054. Spring.
- PHYS 3052. Relativity** Quantitative introduction to the special theory of relativity with a brief qualitative introduction to general relativity. Special course fees may apply. Prerequisites, PHYS 2044 or 2064 or PHYS 2081 and 2083. Irregular.
- PHYS 3103. Thermal Physics** The first and second laws of thermodynamics, the kinetic theory of gases, and an introduction to statistical mechanics. Lecture three hours per week. Special course fees may apply. Corequisite, MATH 3254. Prerequisites, PHYS 2044 or 2064. Spring, even.
- PHYS 3133. Astronomy** Theories of the origin, development, present state, and future of the universe, with special emphasis on the place of astronomy in mans cultural and scientific development. Special course fees may apply. Irregular.
- PHYS 3153. Mechanics** Particle dynamics in inertial and accelerated reference frames. Newtons law of gravitation, orbit theory, and elementary rigid body dynamics. Lecture three hours per week. Special course fees may apply. Prerequisites, MATH 2214 and PHYS 2044. Fall.
- PHYS 3203. Electromagnetic Theory** Electrostatics, electric and magnetic properties of materials. Amperes and Faradays laws, and Maxwells equations. Lecture three hours per week. Special course fees may apply. Prerequisites, MATH 3254 and PHYS 2044. Spring.

- PHYS 3253. Optics** Geometrical optics and physical optics, including interference, diffraction, dispersion, absorption, and polarization of light. Lecture three hours per week. Special course fees may apply. Prerequisites, MATH 2214 and PHYS 2044. Spring, odd.
- PHYS 3303. Modern Physics** An elementary study of the atomic nature of matter and nuclear structure of the atom. Lecture three hours per week. Special course fees may apply. Prerequisites, MATH 2214, and PHYS 2044. Fall.
- PHYS 4353. Mathematical Physics** The mathematical aspects of classical physics including Newtons laws, Lagrangian and Hamiltonian dynamics, Electrodynamics and Relativity. Lecture three hours per week. Special course fees may apply. Prerequisites, PHYS 3303 and MATH 3254. Fall, even.
- PHYS 4393. Special Topics** Selected special or current topics of interest to faculty and students that require prerequisite coursework. See individual semester schedules for more information about each offering. Registration restricted by instructor permission. Irregular.
- PHYS 4403. Nuclear and Particle Physics** Introduction to the structure of the nucleus, nuclear scattering and decay processes, mesons, nucleons, and quarks. Lecture three hours per week. Special course fees may apply. Prerequisite, PHYS 3303. Spring, odd.
- PHYS 4463. Advanced Mechanics** The Lagrangian and Hamiltonian formulations, rigid body mechanics, and special relativity. Special course fees may apply. Prerequisite, PHYS 3153. Irregular.
- PHYS 4513. Advanced Electromagnetic Theory** Maxwells equations as applied to wave-guides, radiation, and wave propagation in various media. Lecture three hours per week. Special course fees may apply. Prerequisite, PHYS 3203. Irregular.
- PHYS 4533. Solid State Physics** 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. Special course fees may apply. Prerequisite, 20 hours of physics. Irregular.
- PHYS 4553. Principles of Quantum Mechanics** Solutions of the Schrodinger wave equation, including the harmonic oscillator, the hydrogen atom, and perturbation theory, and associated topics. Lecture three hours per week. Special course fees may apply. Prerequisite, 20 hours of physics. Spring, even.
- PHYS 4571. Physics Seminar** Prerequisite, Fourteen hours of physics. Special course fees may apply. Irregular.
- PHYS 459V. Research in Physics** Prerequisite, Fourteen hours of physics. Special course fees may apply. Irregular.
- PHYS 4693. Research in Physics-Capstone** Students will conduct research with a physics faculty member, write a paper and present a talk on their research, and take an exit exam. Physics majors are required to take this course in their senior year. Special course fees may apply. Prerequisite, Twenty hours of Physics. Fall, Spring.

Political Science (POSC)

- POSC 1003. Introduction to Politics** GENERAL POLITICS. An introduction to the use of politics for the resolution of conflict in communities, nations, and the international system through the study of political concepts and relationships, with applications to current problems. Fall, Spring.
- POSC 1103. Making Connections in Politics and Law** An introduction to the study of law and politics for first year students making the transition to college life; satisfies credits requirement for a First Year Experience. Fall.
- POSC 1303. Introduction to Model United Nations** COMPARATIVE POLITICS. Preparation for and participation in model United Nations. Fall, Spring.

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- POSC 2103. Introduction to United States Government** AMERICAN POLITICS. The constitution, government, and politics of the United States. Fall, Spring, Summer. (ACTS#: PLSC 2003)
- POSC 3003. Introduction to Political Analysis** POLITICAL METHODOLOGY. Introduction to the discipline of political science, its subfields, and to the use of the social scientific method and logical inquiry. Fall.
- POSC 3033. Legal Research, Writing and Advocacy** PUBLIC LAW. Legal research and terminology, including research methodology. Development of research skills through use of legal research tools (law digests, encyclopedias, reporters, statutes, and other library materials), legal brief and memo writing and oral argumentation. Spring, even.
- POSC 3043. Judicial Process and Legal Reasoning** PUBLIC LAW. Introduction to administration of justice, including the effects of process on justice goals, due process, and fundamental fairness. Includes sources and foundations of U.S. law, common law 20th century legal movements, criminal, civil, administrative, and mediation/arbitration and statutory interpretation. Fall, odd.
- POSC 3113. American Municipal Government** AMERICAN POLITICS. Types of governments in municipalities of the United States. Fall, Spring.
- POSC 3123. American Constitutional Law** PUBLIC LAW. Constitutional theories as expounded in decisions of the Supreme Court since 1789. Questions such as the nature of law and political theories underlying Supreme Court decisions will be investigated. Fall.
- POSC 3133. Political Parties and Interest Groups** AMERICAN POLITICS. American political parties and interest groups. Spring.
- POSC 3143. State and Local Government** AMERICAN POLITICS. An examination of the powers and institutions and policies of state and local governments. Fall, Spring.
- POSC 3153. American Presidency** AMERICAN POLITICS. U.S. presidency and national executive processes in the American political system. Spring, even.
- POSC 3163. Black Politics** AMERICAN POLITICS. Exposes students to the variety of literature on Black people in American politics, political strategies and actions are the major themes. Spring, even.
- POSC 3173. Civil Liberties** PUBLIC LAW. Judicial and statutory interpretations of the fundamental liberties contained in the U.S. Constitution. Spring.
- POSC 3183. Criminal Law and the Constitution** PUBLIC LAW. An examination of state and federal police powers and how they are regulated by the Constitution and statutes. Fall, Spring, Summer.
- POSC 3193. Arkansas Government and Politics** AMERICAN POLITICS. Introduction to Arkansas government and politics, focusing on the institutions of state government, Governor, General Assembly, Courts, and state politics, campaigns and elections, political parties, interest group activity, and selected policy issues facing state government in Arkansas. Spring.
- POSC 3203. Introduction to Comparative Politics** COMPARATIVE POLITICS. Surveys the field of comparative politics, with case studies of selected countries. Fall, odd.
- POSC 3213. African Political Systems** COMPARATIVE POLITICS. The government and politics of primarily sub-Saharan Africa, involves study of the people as well as their political institutions. Fall, even.
- POSC 3223. European Political Systems** COMPARATIVE POLITICS. A comparative analysis of major European political systems in terms of their pressure groups, political parties, and policy formation processes. Fall, even.
- POSC 3243. Religion and Politics** COMPARATIVE POLITICS. A comparative study of religion and politics. Fall, odd.
- POSC 3303. Introduction to International Politics** INTERNATIONAL POLITICS. Various approaches to the study of international politics. Fall, even.

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- POSC 3413. Classical and Medieval Political Theory** POLITICAL THEORY. Classical Greek and Christian forms of political theory. Fall, odd.
- POSC 3423. American Political Theory** POLITICAL THEORY. An analytical study of American political theories from the precolonial era to the present and their impact upon our political institutions. Spring, odd.
- POSC 3433. Political Ideologies** POLITICAL THEORY. Contemporary political ideas and movements, including liberalism, conservatism, anarchism, fascism, communism, and nationalism. Fall, even.
- POSC 3453. Modern Political Theory** POLITICAL THEORY. Writings of modern political philosophers such as Machiavelli, Hobbes, and Rousseau. Spring.
- POSC 3503. Principles of Public Administration** PUBLIC ADMINISTRATION. Survey of the field of public administration and its problems. Spring.
- POSC 3513. Public Budgeting Process** PUBLIC ADMINISTRATION. The public budgeting processes of the United States and of Arkansas, administrative and political problems connected with raising and expending public revenues. Spring, odd.
- POSC 3523. Administrative Ethics** PUBLIC ADMINISTRATION. An exploration of ethics in the context of administration, utilizing a range of materials to illustrate ethical issues and thinking in administrative practice. Fall.
- POSC 4003. Special Topics Political Science** Current subjects of interest in Political Science with appropriate subtitles. All special topics must be approved by the Department Chair. Irregular.
- POSC 4113. American Legislative Process** AMERICAN POLITICS. Structure and organization of legislative bodies, with a detailed study of legislative processes. Spring, odd.
- POSC 4123. Women and Politics** AMERICAN POLITICS. An examination of the interrelationship of gender, politics, and popular culture. Cross listed as WGS 4123. Spring, even.
- POSC 4143. Public Opinion and Public Policy** AMERICAN POLITICS. The function of public opinion in political systems, and methods for revealing public preferences; with principal focus on the US case. Dual listed as POSC 5143. Spring, odd.
- POSC 4153. Politics and Popular Culture by the Decade** AMERICAN POLITICS. An analysis of the intersection of politics and popular culture for a particular decade, to be chosen by instructor. May be repeated for credit when topic changes. Fall, even.
- POSC 4223. Middle Eastern Political Systems** COMPARATIVE POLITICS. Major Middle Eastern political systems, with concentration on their common characteristics and major differences. Spring, odd.
- POSC 4233. Life Sex Death or Body Politics in Comparative Perspective.** COMPARATIVE POLITICS. A cross-national study of policy and policy change with respect to state regulation of the body. Prerequisite: Completion of POSC 3003 or permission of the instructor. Spring, even.
- POSC 4313. International Organization** INTERNATIONAL POLITICS. Development, structure, and politics of international organizations such as the United Nations. Fall, odd.
- POSC 4323. Foreign Policy Analysis** INTERNATIONAL POLITICS. 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. Prerequisite, POSC 1003 or POSC 2103. Dual-listed with POSC 5323. Spring, odd.
- POSC 4453. Analysis of Contemporary Political Theory** 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. Spring.

- POSC 4503. Public Policy, Politics and Power** PUBLIC ADMINISTRATION Provides a framework for understanding the fundamentals of the American public policy making process, the political context in which it operates and the theories of power that affect it. Spring, even.
- POSC 4513. Disaster Response Operation Management** PUBLICADMINISTRATION. Roles and responsibilities of public managers and others within the National Incident Management System. May be credited toward Minor in Homeland Security and Disaster Preparedness. Fall-odd.
- POSC 4523. Public Personnel Administration** PUBLICADMINISTRATION. Policies, methods, and techniques utilized in public personnel. Fall, odd.
- POSC 4533. Environmental Law and Administration** PUBLICADMINISTRATION. Overview of current environmental law, its administration and enforcement. Spring, even.
- POSC 4553. HSDP Capstone** PUBLIC ADMINISTRATION. Application of skills and knowledge gained in the minor to the analysis of a specific need or problem and the design of solutions. Teamwork among various specialties with the field. Instructor permission required. Cross listed as DPEM 4553. Spring.
- POSC 480V. Readings in Political Science** READINGS IN POLITICAL SCIENCE. Independent readings for all advanced students regardless of major. Limited to three hours. Students must have instructor permission and department chair. Fall, Spring, Summer.
- POSC 481V. Internships** GENERAL POLITICS. Placement of students in community based and government agencies to provide a practical framework for applying the theoretical instruction of the classroom. Irregular.

Plant and Soil Science (PSSC)

- PSSC 1301. Plant Science Laboratory** Introduction to agronomic and horticultural concepts related to crop anatomy, growth and development, physiology, and pest identification and management. Spring.
- PSSC 1303. Introduction to Plant Science** Agronomic and horticultural cropping systems including crop growth and development, crop physiology, crop ecology, environmental considerations, and production and protection practices. Fall, Spring.
- PSSC 2811. Soils Laboratory** Introduction to soil properties and processes through hands-on laboratory experience. Corequisite or prerequisite, PSSC 2813. Fall.
- PSSC 2813. Soils** Origin, classification, physical and chemical properties of soil and environmental considerations. Prerequisite, CHEM 1013 or CHEM 1043. Fall, Spring.
- PSSC 3313. Plant Disease Management** Introduction to management of plant diseases. Major concepts include genetic, cultural, and biological controls as related to management of plant systems. Self study course utilizing computer technology, seminars, and laboratory exercises. Prerequisites, PSSC 1303. Spring.
- PSSC 3323. Weeds and Weed Control** Identification and pest management of weeds in agronomic, horticultural, and urban systems. Survey of herbicides, their chemistry, toxicology, modes of action, uses, and environmental impact. Lecture two hours and laboratory two hours per week. Prerequisites, CHEM 1013 or CHEM 1043; and PSSC 1303. Spring.
- PSSC 3333. Plant Breeding** History of plant improvement, methods of plant breeding, and the basic application of these methods to various agronomic and horticultural crops. Prerequisite, AGRI 2213. Fall, odd.
- PSSC 3802. Pasture and Forage Crops** Introduction to important forage and pasture crops in the mid south region. Discussions will include cropping systems, plant growth and development, physiology, and environmental considerations. Prerequisite, PSSC 1303. Fall, even.

- PSSC 4313. Plant Growth and Development** Auxins, gibberellins, and various other regulators of plant growth, also phenomena such as flowering and dormancy. Prerequisites, CHEM 1052 and PSSC 1303. Fall.
- PSSC 4343. Seed Production, Processing and Analysis** Methods of producing quality seeds and seed stocks, processing methods, and techniques of seed analysis and grading. Prerequisite, PSSC 1303. Spring, odd. Dual-listed with PSSC 5343.
- PSSC 4513. Plant Biotechnology** Course materials will address the why and how of plant gene transfer plus the issues involved in making those plants part of the agricultural landscape. Dual listed as PSSC 5513. Prerequisite: AGRI 2213 or BIOL 3013 or instructor permission. Spring.
- PSSC 4713. 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 of soil quality, and the role of conservation planning in improving soil quality. Prerequisite, PSSC 2813. Fall, even.
- PSSC 4723. Agroecological Systems** Field-based course to develop a deeper conceptual and analytical framework for understanding agricultural ecosystems of the region. Students will work in teams and visit numerous working farms and agricultural enterprises in their quest to understand agricultural system sustainability. Prerequisites, AGEC 1003, AGST 2003, ANSC 1613, PSSC 1303, PSSC 2813. Summer.
- PSSC 4804. Principles of Crop Production** Introduction to agronomic cropping systems which includes production systems, concepts related to crop selection and genetics, establishment and management of the crop, and harvest management. Environmental issues related to crop production and sustainability are also evaluated. Prerequisites, PSSC 1303 and PSSC 2813. Fall.
- PSSC 4813. Soil Fertility** Principles involved in maintaining and increasing fertility of soil. Prerequisite, PSSC 2813, and CHEM 1013 and CHEM 1011 or CHEM 1043 and CHEM 1041. Spring.
- PSSC 4822. Environmental Factors Affecting Plant Growth** Affect of environmental factors on growth of important crop species. Primary emphasis will be on water utilization, solar irradiance, and temperature on plant development. Methods of measurement of environmental factors will be included. Prerequisites, PSSC 1303. Fall, odd.
- PSSC 4853. Soil and Water Conservation** Properties of soil which affect erosion and water infiltration, with practical methods of holding water and soil. Dual listed as PSSC 5853. Prerequisite, PSSC 2813. Spring, odd.
- PSSC 489V. Special Problems in Plant and Soil Science** For students of senior standing to work on special problems. Instructor permission and dean necessary. Fall, Spring, Summer.

Psychology (PSY)

- PSY 1013. Making Connections Psychological Wellness** Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.
- PSY 2013. Introduction to Psychology** Study of the important scientific, principles of individual human behavior from biological, cognitive, social, and behavioral perspectives. Fall, Spring. (ACTS#: PSYC 1103)
- PSY 2023. Psychology as a Science and a Profession** An overview of psychology as a science and as a profession encompassing psychological research methods, an exploration of the major and skills required for successful completion, areas of specialization, careers in psychology, and post-graduate opportunities. Prerequisite, PSY 2013 or instructor permission. Restricted to psychology majors and minors. Fall, Spring.

- PSY 3003. Research Design and Analysis in Psychology** Introduction to the design, implementation, and analysis of psychological research, including descriptive, correlational, and experimental methods. Restricted to BA in Psychology students. Fall.
- PSY 3101. Quantitative Methods Laboratory** Further development of skills related to the use of statistical analysis software. Prerequisite, PSY 3103. Irregular.
- PSY 3103. Quantitative Methods for Behavioral Sciences** Introduction to basic statistical techniques and methodology applicable to research problems in the behavioral sciences. Prerequisite, MATH 1023 or MATH course that requires MATH 1023 as a prerequisite. Fall, Spring, Summer.
- PSY 3113. Research Design in Psychology** An introduction to psychological research with emphasis on the critical functions and limitations of both experimental and non-experimental designs, ethics, measurement, and statistical analyses of relevance. Prerequisites, PSY 2023 and PSY 3103. Fall, Spring.
- PSY 3123. Experimental Methods in Psychology** An in-depth consideration of the ethical application of experimental design and methods toward a causal analysis of behavior. Emphasis is on ethical issues directly relevant to control procedures and researcher conduct and bias and developing skills necessary to recognize and utilize the components of experimental design and to interpret and evaluate results. Prerequisite, PSY 3113. Fall, Spring.
- PSY 3214. Introduction to Neuroscience** Introduction to the normal structure and function of the nervous system in relation to behaviors and experiences in humans and nonhumans with an integrated laboratory component. Topics include brain structure, physiology, development, drugs of abuse, bodily senses, and behavior. Prerequisites, MATH 1023, PSY 2013, BIOL 1003 and BIOL 1001, or instructor permission. Special course fees may apply. Fall.
- PSY 3303. Motivation** Survey of animal and human research in motivation, including biological drives, intrinsic and extrinsic sources of motivation, emotion, and associated behaviors. Fall.
- PSY 3403. Child Psychology** Principles and patterns of mental, social, emotional, and physical development. No more than 6 credit hours from the following courses may be used to satisfy the requirements for a major or minor in psychology, PSY 3403, PSY 3413, and PSY 3453. Fall.
- PSY 3413. Adolescent Psychology** The influence of factors including cognition, motivation, perception, learning, emotion, and personality on development during adolescence. No more than 6 credit hours from the following courses may be used to satisfy the requirements for a major or minor in psychology, PSY 3403, PSY 3413, and PSY 3453. Spring.
- PSY 3453. Developmental Psychology** Study of the life cycle from prebirth through death including an examination of the major methods, theories, and empirical findings. No more than 6 credit hours from the following courses may be used to satisfy the requirements for a major or minor in psychology, PSY 3403, PSY 3413, and PSY 3453. Fall, Spring.
- PSY 3523. Social Psychology** Overview of the major areas of social psychology, including social cognition, attitude theory, and intergroup relations, with emphasis on dual process models and implicit processes. Prerequisites, PSY 2013; or instructor permission. Fall, Summer.
- PSY 3613. Cultural Psychology** This course focuses on issues of how human culture impacts the individuals behavior, attitudes, and mental health. Fall.
- PSY 3703. Educational Psychology** Overview of the principles of learning and their application to instruction, classroom management, and individual differences in learners. Fall, Spring.
- PSY 380V. Special Problems in Psychology** Individual problems in psychology arranged in consultation with the instructor and the department chairperson. May be repeated for credit but no more than 6 credit hours may be applied toward psychology major requirements. Fall, Spring.
- PSY 3823. History of Psychology** Overview of the history of psychology and recent systematic developments. Prerequisites, PSY 2013; or instructor permission. Spring.

- PSY 4053. Today's Families: Interdisciplinary Approaches** An interdisciplinary course designed to promote a critical approach to examining the family and its role in society. Prerequisite, 12 hours of coursework in Interdisciplinary Family Minor OR Instructors Permission. Spring.
- PSY 4173. Psychometrics** Principles underlying psychological measurement, including reliability, validity, item analysis, test dimensionality, and threats to psychometric quality. Prerequisites, PSY 3113; or instructor permission. Spring, even.
- PSY 4323. Physiological Psychology** Physiological bases of psychological constructs such as memory, reinforcement, attention, sleep, and motivation as each applies to humans and infrahuman species. Spring.
- PSY 4343. Learning Processes** The study of behavioral adaptation at the level of the individual. Includes empirical and theoretical issues related to classical and instrumental conditioning, complex learning, memory, and the neural bases of learning and memory. Human and infrahuman data are considered. Prerequisites, PSY 2013; or instructor permission. Fall.
- PSY 4363. Cognitive Psychology** The study of human thinking, emphasizing empirical knowledge on processes involved in information processing, memory, knowledge representation, language, and problem solving. Prerequisites, PSY 2013; or instructor permission. Spring.
- PSY 4383. Introduction to Behavior Analysis** An introduction to the basic philosophy, methodology, and methods and principles that underlie the science of behavior analysis in both the experimental and applied domains. Spring.
- PSY 4533. Abnormal Psychology** An introduction to various psychological disorders, including their diagnostic criteria, risk factors, and characteristics according to the current Diagnostic and Statistical Manual of Mental Disorders. Prerequisites, PSY 2013; or instructor permission. Fall, Spring.
- PSY 4553. Personality Theory** Overview of the major theoretical models of personality formation and expression, including psychodynamic, humanistic, and trait perspectives. Prerequisites, PSY 2013; or instructor permission. Spring.
- PSY 480V. Special Topics Workshop** Study of selected professional topics. May not be used to satisfy any degree requirements. May be repeated for credit. Irregular.
- PSY 4853. Psychological Seminar** Provides intensive coverage of contemporary psychological topics. Prerequisite, 12 hours of psychology and instructor permission. May be repeated for credit. Spring, odd.
- PSY 4883. Professional Preparation Capstone** A culminating experience that allows students to crystallize their interests and goals in preparation for their next professional challenge and to showcase the skills and knowledge they have gained throughout their undergraduate curriculum in psychology. Prerequisite, PSY 3003. Restricted to BA Psychology students. Spring.

Physical Therapy (PT)

- PT 400V. Independent Study in Physical Therapy** Guided investigation of a topic related to physical therapy selected in consultation with a member of the Physical Therapy faculty. May be repeated for different topics for a total of 6 semester credits. Prerequisite, Approval of the Program Director. Irregular.
- PT 4103. Research Methods in Physical Therapy** An introduction to the processes involved in research related to the field of physical therapy. Special emphasis is placed on the application of concepts of measurement, the design of research techniques and methods, for the preparation of the research proposal. Methods of data analysis will also be discussed. Prerequisite, STAT 3233. Fall, Spring.

Physical Therapist Assistant (PTA)

- PTA 1013. Making Connections in Rehab Services** Introduction to the nature of university education and orientation to the functions and resources of the university. This section is designed for students preparing for physical therapist assistant or occupational therapist assistant professional education with a focus on the professions of physical and occupational therapy. Fall, Spring.
- PTA 2113. Patient Handling** Introduction to fundamentals of physical therapy patient care. Topics include the US healthcare system as it relates to physical therapy, physical therapy scope of practice, professionalism, and basic patient handling skills. Open only to students admitted to the professional program. Summer.
- PTA 2123. Clinical Kinesiology** Principles of musculoskeletal examination of the human body. Components of patient history, systems review, observation and physical examination, goniometry, muscle testing, special tests, palpation, posture and gait analysis are covered. Open only to students admitted to the professional program. Summer.
- PTA 2132. Basic Anatomical Systems** Introduction to the basic systems of the human body and the medical and surgical conditions across the lifespan commonly seen by physical therapist assistants. Open only to students admitted to the professional program. Summer.
- PTA 2213. Musculoskeletal Physical Therapy** Students review passive, active and active assistive range of motion skills. Resistance exercise and the use of exercise equipment are practiced. Stretching and joint mobilization for specific diagnoses that are appropriate for the PTA to perform are practiced. PTA courses are only open to students admitted to the professional program. Fall.
- PTA 2223. Physical Agents and Massage** Basic principles and techniques of massage and application of modalities are presented. An investigation into the risk factors and pathophysiological considerations associated with integumentary diseases and conditions as well as aseptic technique and universal precautions is provided. PTA courses are only open to students admitted to the professional program. Fall.
- PTA 2233. Neuromuscular Physical Therapy I** Covers foundational science and theory behind the physical therapy management of patients with neuromuscular conditions. PTA courses are only open to students admitted to the professional program. Fall.
- PTA 2252. Clinical Education I** Five weeks of full time affiliation at one facility working under the supervision of an on site clinical instructor. Students integrate knowledge of basic sciences and interventions to practice treatment techniques in the clinical setting. Forty hours per week. PTA courses are only open to students admitted to the professional program. Fall.
- PTA 2263. Pathophysiological Conditions** Review of cardiopulmonary anatomy and physiology and other physiological conditions such as gastrointestinal, metabolic/endocrine, and multi-system pathologies. Includes physical therapy assessment and rehabilitation of patients with pathophysiological disorders frequently seen by physical therapy in the clinical setting. Fall.
- PTA 2271. Physical Therapy Documentation** Introduction to medical documentation guidelines and specific formats, including electronic medical records, required by State practice acts, the practice setting, and other regulatory agencies. Open only to students admitted to the professional program. Fall.
- PTA 2303. Neuromuscular Physical Therapy II** Covers common interventions used in the physical therapy management of patients with neuromuscular conditions. PTA courses are only open to students admitted to the professional program. Spring.
- PTA 2323. Seminar** Introduction to principles of administration, teaching and learning, and evidence based practice as they apply to physical therapy practice. Social responsibility, career development and lifelong learning are also discussed. PTA courses are only open to students admitted to the professional program. Spring.

- PTA 2333. Clinical Education II** Five weeks of full time affiliation at one facility working under the supervision of an on site clinical instructor. Students integrate knowledge of basic sciences and interventions to practice treatment techniques in the clinical setting. Forty hours per week. PTA courses are only open to students admitted to the professional program. Spring.
- PTA 2343. Clinical Education III** Six weeks of full time affiliation at one facility working under the supervision of an on site clinical instructor. Students integrate knowledge of basic sciences and interventions to practice treatment techniques in the clinical setting. Forty hours per week. PTA courses are only open to students admitted to the professional program. Spring.
- PTA 2353. Musculoskeletal PT II** Students practice range of motion skills, resistance exercise and the use of exercise equipment. Stretching and joint mobilization for specific diagnoses that are appropriate for the PTA to perform are practiced. Open only to students admitted to the professional program. Prerequisite, PTA 2213. Spring.
- PTA 2413. Directed Study** Guided investigation of a topic related to physical therapy selected in consultation with a member of the Physical Therapist Assistant faculty. PTA courses are only open to students admitted to the professional program. Prerequisite, Approval of the Program Coordinator. Irregular.

Radiography (RAD)

- RAD 2001. Introduction to Medical Imaging and Radiation Sciences** Overview of medical imaging modalities and radiation therapy, as well as the practitioner's role in the health care delivery system. Fall, Spring.
- RAD 3103. Introduction to Radiography** Introduction to the clinical environment, the latest imaging technologies, general patient care, venipuncture lab practice, and legal and ethical issues. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RAD 3111. Radiographic Procedures I Lab** Simulation and practice of radiographic procedures, of the chest, abdomen, and upper extremity. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RAD 3113. Radiographic Procedures I** Radiographic terminology, preliminary steps of a radiographic examination including radiographic anatomy, positioning of the chest, abdomen, and upper extremity. Positioning nomenclature, pathology and image evaluation will be covered. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RAD 3122. Radiation Physics and Imaging** Introduction to the basic x-ray equipment and the production and use of ionizing radiation, basic radiation physics and its application, and components for radiologic imaging. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RAD 3201. Radiographic Procedures II Lab** Simulation and practice of radiographic procedures of the shoulder girdle and lower extremity. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RAD 3202. Imaging Equipment** Components, operation and purpose of imaging equipment, including image-intensified and digital fluoroscopy, automatic exposure control, image recording options, laser readers, and mobile imaging. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RAD 3203. Radiographic Procedures II** Radiographic terminology, anatomy, and positioning of the shoulder girdle and lower extremity. Includes positioning nomenclature, pathology and image evaluation. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RAD 3211. Image Acquisition and Evaluation I Lab** Manipulation of exposure factors and evaluation of the effects on image quality in the laboratory setting. Focus on skills to achieve safe and optimal image acquisition. Prerequisite, Admission to the Radiologic Science Program. Fall.

- RAD 3213. Image Acquisition and Evaluation I** Image acquisition for digital and screen-film image receptors, the Image quality evaluation process, image quality factors, and image quality analysis. Emphasis on application of skills and suggested corrective actions. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RAD 3223. Sectional Anatomy** Introduction to sectional images of human anatomy using CT and MRI. Provides the foundation knowledge required for successful practice by the radiologic professional. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RAD 3232. Radiography Clinical I** Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation system. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RAD 4101. Radiographic Procedures III Lab** Simulation and practice of radiographic procedures of the pelvis, hips, spine, bony thorax, skull and sinuses. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RAD 4103. Radiographic Procedures III** Radiographic terminology, anatomy and positioning of the pelvis, hips, spine, bony thorax, skull and sinuses. Includes positioning nomenclature, pathology and image evaluation. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RAD 4113. Image Acquisition and Evaluation II** Continues the study of image acquisition and evaluation begun in RAD 3213 with specific emphasis on digital image acquisition errors, image artifacts, pathology effects on image quality and technique chart development and use. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RAD 4123. Imaging Pathology** Imaging presentation of traumatic injuries and diseases including manifestations of disease on images and the modalities best suited to distinguish the various pathologies. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RAD 4132. Radiobiology** Introduction to the biological effects of ionizing radiation and radiation safety standards required for professional practice. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RAD 4141. Radiographic Procedures IV Lab** Simulation and practice of radiographic procedures of the facial bones, orbits, TMJs, arches, mandible, GI and GU tracts, arthrography and myelography. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RAD 4142. Radiographic Procedures IV** Radiographic terminology, anatomy and positioning of the facial bones, orbits, TMJs, arches, mandible, and contrast procedures of the joints, spinal column, GI and GU tracts. Contrast media administration, pathology and image evaluation is included. Prerequisite, Admission to the Radiologic Sciences Program. Spring.
- RAD 4143. Radiography Clinical II** Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RAD 4203. Radiography Clinical III** Supervised clinical experience in routine radiographic procedures. Students are evaluated with a competency based evaluation system. Prerequisite, Admission to the Radiologic Sciences Program. Spring.
- RAD 4213. Radiography Clinical IV** Supervised clinical experience in routine radiographic procedures. Prerequisite, Admission to the Radiologic Science Program. Summer.

Reading (RDNG)

- RDNG 3203. Foundations of Reading Instruction** Introductory course focusing on the theories of reading and the reading process, with an introduction to the history of reading instruction and approaches and materials for teaching reading. Must be admitted to the Teacher Education Program. Fall, Spring, Summer.

RDNG 3223. Content Area Reading and Writing in Elementary School Focuses on instructional approaches to address the literacy demands in elementary content areas including supporting students' learning, teaching reading and writing strategies, and serving the diverse needs of students in curricular areas. Prerequisites, Admission to Teacher Education Program, ELED 3053, ELED 3163, ELED 3183, RDNG 3203. Corequisites, ELED 3113, ELED 3103, ELED 3143. Fall, Spring, Summer.

RDNG 4103. Literacy Assessment, Diagnosis and Development Purposes and utilization of reading assessment tools to identify students' literacy development patterns while implementing and modifying appropriate literacy instructions to support students at various reading levels. Prerequisites, Admission to the Teacher Education Program; ELED 3113, ELED 3103, ELED 3143, RDNG 3223. Corequisites, ELED 4102, ELED 4112, ELED 4122, ELED 4132, ELED 4142, ELED 4104 Fall, Spring.

RDNG 4313. Methods and Materials in Reading Study of current evidence-based strategies necessary for addressing key elements of reading instruction to develop knowledge related to teaching literacy to diverse populations in Pre K-6 classrooms. Fall.

RDNG 4323. Clinical Problems in Reading Examination of developmentally appropriate and evidenced-based classroom literacy assessments, and subsequent diagnosis and implementation for literacy instruction. Spring.

RDNG 4343. Reading in the Content Areas Middle and Secondary Schools Emphasis on the relationship between learning strategies, writing, and reading content materials in the disciplines normally taught in grades 4 through 12, including diagnosis of reading difficulties and intervention strategies for struggling readers. Prerequisite, Admission to the Teacher Education Program. Fall, Spring.

RDNG 4403. Early Literacy: Theory and Practice Students develop, implement, and assess the effectiveness of literacy lessons in K through 4 classrooms. Forty five clock hours of field experience. Must be admitted to the Teacher Education Program. Prerequisites, TE 2013, ECH 2013, ECH 2033, ECH 2023, ECH 3013, ECH 3043, ECH 3053, ECH 3063, ECH 3073, ECH 3083, ECH 3004, ELSE 3643, RDNG 3203. Corequisite, ECH 4012, ECH 4013, ECH 4023, ECH 4043. Irregular.

RDNG 480V. Special Topics Current subjects of interest to undergraduate and graduate reading education students. All special topics must be approved by the teacher education curriculum committee. One, two, or three credit hours. Special topics may be applied as elective credit to a degree program with written permission of advisor and department chair prior to enrollment in the course. Must be admitted to the Teacher Education Program. Irregular.

Real Estate and Insurance (REI)

REI 3413. Real Estate Practice Introductory study of real estate business, basic principles of real property ownership, utilization, and transfer, mortgage financing, brokerage, management, valuation, and subdividing. Fall, Spring.

REI 3423. Real Estate Brokerage and Management Organization and conduct of real estate brokerage and managerial business and professional activities. Social, economic, legal, and ethical responsibilities of the real estate broker and real property manager. Irregular.

REI 3513. Risk and Insurance Introductory study of the insurance business, risk theory, the insurance mechanism, fundamental legal principles and insurance contract analysis. Emphasis on the insurance needs of a typical American family. Fall, Spring.

REI 4413. Real Estate Law Study of the law of real estate, including the nature of real property, the real estate transaction, land use and regulation, and other legal issues in ownership, financing, leasing, development and sale of real property. Spring.

- REI 4423. Real Estate Finance** Instruments, techniques, and institutions of real estate finance, sources of funds, mortgage risk analysis, emphasis on typical policies and procedures used in financing of residential, industrial, and commercial properties. Spring.
- REI 4433. Real Estate Appraising** Factors influencing real property values, application of three approaches in determining the value of residential, commercial, and industrial properties. Fall.
- REI 4443. Appraising and Investment** Application of techniques used in analyzing potential return from income properties to arrive at investment decisions and estimates of real estate values. Prerequisite, REI 4433 or instructor permission. Irregular.
- REI 4513. Property and Liability Insurance** Analysis of risk theory, property and liability risks, and the economic functions of property insurance. The course treats traditional and modern theories of risk, property and liability coverages, and functional insurance areas. Spring.
- REI 4543. Life Insurance** Analysis of the economic functions of life insurance. Attention is centered on the human life value concept and the basic forms of life insurance and annuities. Legal aspects, contractual provisions and health and other specialized forms of human life value insurance are studied. Fall.
- REI 459V. Special Problems in Real Estate and Insurance** Individual problems in real estate and insurance arranged in consultation with the instructor. Must be approved by department chair. Fall, Spring, Summer.
- REI 460V. Internship in Real Estate and Insurance** Practical training in real estate or insurance within appropriate companies or agencies. To earn intern credit, each student will be expected to spend two hours with the firm per week per credit hour awarded. Prerequisites, REI 3413, for real estate, or REI 3513, for insurance, and instructor permission. These prerequisite courses permit an individual to hold a valid license to practice in each respective field after passing the proper licensing examination. Internship requires a Junior classification or above. Irregular.

Renewable Energy Technology (RET)

- RET 3113. Fundamentals and Applications of Renewable Energy** Fundamental principles and applications related to biofuels, wind, solar, hydrogen and other emerging alternative energy technologies along with their applications. Prerequisites, MATH 1023, CHEM 1013 and CHEM 1011 or PHSC 1203 and PHSC 1201, or PHSC 1014. Fall.
- RET 4013. Process Technology for Agricultural Products** Study of processing principles and applications in bio-energy industry: process parameters, properties of materials, transport processes, fluid flow, pumps, material handling, drying, extraction, fermentation, bioreactor, sanitation and process economics. Prerequisites, MATH 1023, CHEM 1013, and CHEM 1011. Process instrumentation or equivalent course as approved by instructor also required. Spring.
- RET 4023. Advanced Bioenergy** A study of processes and developments in the biofuels and other emerging technology for biobased energy products. Prerequisites, MATH 1023, CHEM 1013, CHEM 1011 and RET 3113, or instructor permission. Fall.
- RET 4113. Advanced Renewable Energy Systems** A study of renewable energy systems including technologies for solar, hydrogen, fuel cell, biomass and wind. Prerequisites MATH 1023, CHEM 1013, CHEM 1011 and RET 3113, or instructor permission. Spring.
- RET 4123. Energy Conservation and Efficiency** A study of energy and power measurement techniques to analyze energy use, and methods to conserve energy in residential and industrial sectors. Prerequisites, PHYS 2054 and CS 1013, or RET 3113; or instructor permission. Fall.
- RET 4313. Wind Energy Technology** A study of wind energy fundamentals and processes for converting wind power with emphasis on turbines and the wind power systems. Prerequisites, PHYS 2054 or RET 3113; or instructor permission. Spring.

Radiologic Sciences (RS)

- RS 3122. Legal and Regulatory Environment of Radiology** Introduction to the growing legal and regulatory requirements being placed on radiology departments and professionals. Content includes American College of Radiology. Joint Commission on Accreditation of Healthcare Organizations, Food and Drug Administration, and state regulatory regulations as well as other legal considerations regarding personnel, operations and staffing. Prerequisite, formal acceptance in to the professional program. Fall, Summer.
- RS 3142. Advanced Imaging and Therapy I** Foundation information on the physics, instrumentation, and clinical procedures for digital imaging, computed tomography, magnetic resonance imaging, diagnostic medical sonography equipment as well as an overview of quality management concepts. Fall.
- RS 3152. Advanced Imaging and Therapy II** Foundation information on the physics, instrumentation, and clinical procedures for cardiovascular interventional technology, mammography, bone densitometry, nuclear medicine, and radiation therapy. Spring.
- RS 3633. Pediatric Considerations in Radiology** Practice standards utilized in pediatric radiology including accepted methods of immobilization, patient care and techniques. Prerequisite, formal acceptance in to the professional program. Summer.
- RS 3733. Geriatric Considerations in Radiology** Psychosocial, emotional, mental and psychiatric issues encountered in the aging process with attention to normal processes of aging, common interventions, and treatments. Spring, Summer.
- RS 3843. Advance Clinical Practice** Focus is on current healthcare delivery environment including patient assessment, monitoring, infection control, and management. It includes working with multicultural patients, managing problem patients, and patient education. Prerequisite, Admission to the Imaging Specialist program. Spring.
- RS 4101. Overview of Magnetic Resonance Imaging** Overview of MRI including the four content areas required by the ARRT for post-primary certification. Prerequisite, Instructor permission. Fall, Spring, Summer.
- RS 4183. Leadership Practicum** Experiential learning practicum with three radiologic facilities that allows students to participate with department management the skills, concepts and theories studied in RS 4343. Prerequisite, formal acceptance in to the professional program. Fall, Spring, Summer.
- RS 4343. Radiologic Administrative Concepts** Introduction to the organization, operations, and management of a radiology department. Includes an introduction to health care delivery systems, decision making, and the management functions. Prerequisite, formal acceptance in to the professional program. Spring.
- RS 436V. Independent Study in Radiologic Sciences** Guided investigation of an advanced radiologic topic selected in consultation with a member of the radiologic sciences faculty. May be repeated with different topics for a total of 6 semester credits. Prerequisite, formal acceptance in to the professional program. Summer.
- RS 4413. Cardiovascular Equipment and Intervention** Overview of cardiovascular intervention equipment and disease intervention. Prerequisite, formal acceptance into the professional program. Fall.
- RS 4423. Cardiovascular-Interventional Procedures and Instrumentation** The course will discuss angiography and interventional procedures. The student will be introduced to the specialized equipment required to produce and acquire the images and for monitoring the patient. Patient care procedures, medical and legal implications, and pharmaceutical and contrast agents specific to each examination will be defined. Prerequisite, formal acceptance in to the professional program. Fall.
- RS 4433. Cardiac Equipment and Intervention** Overview of cardiac catheterization main and ancillary equipment and disease intervention. Prerequisite, formal acceptance into the professional program. Spring

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- RS 4443. Cardiac Physiology and Procedures** Emphasis on cardiac anatomy and physiology, electrocardiography, ECG, instrumentation, procedural performance, and elementary interpretation. Diagnostic imaging procedures and interventional therapies related to coronary disease and dysfunction are also presented. Hands on experience with ECG equipment will be introduced. Prerequisite, formal acceptance in to the professional program. Spring.
- RS 4444. Cardiac Clinic** Clinical practice experiences designed for development, application, and evaluation of concepts and theories in cardiac catheterization procedures to prepare CIT students for entry-level practice. Prerequisites, formal admission to the professional program. Spring.
- RS 4454. Cardiovascular Interventional Clinical Education** Clinical practice experiences designed for development, application, and evaluation of concepts and theories in cardiovascular-interventional radiology to prepare CIT students for entry-level practice. Prerequisites, formal admission to the professional program. Fall.
- RS 4463. Statistics for Medical Imaging** Methods used for data collection and statistical analysis in medical imaging procedures and education with a focus on the applications of data and statistics in reporting of clinical efficiency, image repeat rates, and educational outcomes. Fall.
- RS 4483. Cardiovascular Interventional Internship** Guided clinical practice to develop, apply, analyze, integrate, synthesize and evaluate concepts and theories in cardiovascular-interventional radiology. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RS 4503. Mammography Procedures** Breast anatomy, physiology and positioning for routine and invasive mammographic procedures. Includes positioning nomenclature, specialized patient care techniques, and image evaluation for quality and error identification. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RS 4513. Mammography Instrumentation** Components, operation and purpose of specialized mammographic equipment, including mammographic x-ray tube, digital imaging, automatic exposure control, and image recording options. MQSA and federal QC requirements are included. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RS 4553. Breast Imaging Clinical Education I** Guided clinical practice experiences to develop, apply, analyze, integrate, synthesize and evaluate concepts and theories in mammography and breast sonography. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RS 4563. Breast Imaging Clinical Education II** Guided clinical practice experience designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in mammography and breast sonography. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RS 4573. Imaging in Women's Health Clinical Education** Guided clinical practice experiences to develop, apply, analyze, integrate, synthesize and evaluate concepts and theories related to imaging in women's health clinics. Areas of focus include mammography, breast sonography, and bone densitometry. Prerequisite, Admission to the Radiologic Sciences Program. Summer.
- RS 4601. Overview of Computed Tomography** Four content areas required by the ARRT for post-primary CT certification. Prerequisite, Instructor permission and admission to the Radiologic Science Program. Fall, Spring, Summer.
- RS 4623. Computed Tomography Instrumentation** Components, operation and purpose of specialized Computed Tomography equipment, including computer mechanisms, imaging theory and equipment operation. Prerequisite, Admission to the Radiologic Science Program. Summer.
- RS 4633. Computed Tomography Procedures** Anatomy, pathology, scanning protocols, contrast administration, and contraindications for all CT procedures. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RS 4643. Computed Tomography Clinical Education** Guided content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in computed tomography. Prerequisite, Admission to the Radiologic Science Program. Summer.

- RS 4703. Bone Density Image Production** Emphasis on imaging with dual-energy x-ray absorptiometry (DXA). Various x-ray production and detection techniques, fan beam geometry, data analysis, and quality control processes are described. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RS 4723. Bone Density Procedures** Patient care and preparation, patient safety, and patient positioning for dual-energy x-ray absorptiometry (DXA) scanning. Discussion of Z scores, T scores, fracture risk assessment (FRAX), and body composition is included. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RS 4822. Psychosocial Factors in Health Care Delivery** Focus on psychosocial issues which impact the delivery of healthcare in a medical imaging environment. Prerequisite, formal acceptance in to the professional program. Spring
- RS 4834. Imaging Specialist Clinical Education I** Supervised clinical experience in routine and trauma radiographic procedures. Prerequisite, Admission to the Radiologic Science Program. Fall.
- RS 4844. Imaging Specialist Clinical Education II** Supervised clinical experience in routine and trauma radiographic procedures. Prerequisite, Admission to the Radiologic Science Program. Spring.
- RS 4852. Advanced Radiologic Pathophysiology I** This course is an intensive study of the radiographic manifestations of diseases that affect the musculoskeletal and respiratory systems, excluding neoplasms. Emphasis is on physiologic changes evident in images and differentiating which imaging modalities are most sensitive in detecting these changes. Prerequisite, formal acceptance in to the professional program. Fall.
- RS 4862. Advanced Radiologic Pathophysiology II** This course is an intensive study of the radiographic manifestations of neoplasms and diseases that affect vascular systems. Emphasis is on physiologic effects of neoplasma and vascular system diseases and image manifestations of these effects. Prerequisite, formal acceptance in to the professional program. Spring, Summer.

Magnetic Resonance Imaging (RSMR)

- RSMR 3853. Advanced MR Pathophysiology I** Provides knowledge of patient care and assessment, imaging contraindications, contrast agents, introduction to MRI and MRI safety, cultural diversity, infection control, interpersonal communication, and body mechanics. Prerequisite, formal acceptance in to the professional program. Fall.
- RSMR 3863. Advanced MR Pathophysiology II** Common pathologies found in magnetic resonance imaging (MRI) of the thorax, abdomen, pelvis, and cardiovascular systems. Prerequisite, formal acceptance in to the professional program. Spring.
- RSMR 4702. Introduction to MR Imaging** Provides knowledge of patient care and assessment, imaging contraindications, contrast agents, introduction to MRI and MRI safety, cultural diversity, infection control, interpersonal communication, and body mechanics. Prerequisite, formal acceptance in to the professional program. Fall.
- RSMR 4703. MRI Safety and Instrumentation** A study of the equipment used in production of the MR signal and image, specific coil designs, quality assurance measures, and equipment safety. Prerequisite, formal acceptance in to the professional program. Fall.
- RSMR 4712. Imaging Information Management** Explains the functioning of computers and computer concepts in medical imaging. Topics covered are HIPAA, PACS, and RIS in MRI and the imaging department. Prerequisite, formal acceptance in to the professional program. Fall.
- RSMR 4713. Imaging Standards of Communication and Interoperability** Communication and interoperability standards associated with medical imaging devices and health and radiology information systems. Students will demonstrate an understanding of interoperability terminology and the setup of HL7 and DICOM devices. Restricted to BSRS emphasis in Medical Imaging Informatics. Summer.

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- RSMR 4723. MRI Procedures I** Provides knowledge of anatomy, pathology, scanning protocols, contrast administration, and contraindications for magnetic resonance imaging of the head, spinal column, and musculoskeletal system. Prerequisite, formal acceptance in to the professional program. Spring.
- RSMR 4733. MRI Procedures II** Provides knowledge of anatomy, pathology, scanning protocols, contrast administration, and contraindications for magnetic resonance imaging of the abdomen, pelvis, and musculoskeletal system. Prerequisite, formal acceptance in to the professional program. Summer.
- RSMR 4753. MRI Clinical Education I** The course will provide beginning level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in magnetic resonance imaging. Prerequisite, formal acceptance in to the professional program. Fall.
- RSMR 4763. MRI Clinical Education II** The course will provide intermediate level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in magnetic resonance imaging. Prerequisite, formal acceptance in to the professional program. Spring.
- RSMR 4773. MRI Clinical Education III** The course will provide advanced level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in magnetic resonance imaging. Prerequisite, formal acceptance in to the professional program. Summer.
- RSMR 4783. MRI Clinical Education IV** The course will provide advanced level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in magnetic resonance imaging. Prerequisite, formal acceptance in to the professional program.. Summer.
- RSMR 4803. MRI Physical Principles I** Introduction of the concepts of basic physics and instrumentation for magnetic resonance imaging. Topics include nuclear magnetism, the Larmor equation, tissue characteristics, and imaging parameters. Prerequisite, formal acceptance in to the professional program. Spring.
- RSMR 4812. MRI Pharmacology** Provides knowledge of types of contrast media, contraindications, dose calculation, administration routes, affects on the MRI image, patient care and assessment. Prerequisite, formal acceptance in to the professional program. Summer.
- RSMR 4813. MRI Physical Principles II** Exploration of imagining options, spin echo, fast spin echo, STIR, FLAIR, gradient imagining, and echo planar imaging. Includes a comprehensive analysis of image artifacts. Prerequisite, formal acceptance in to the professional program. Summer.
- RSMR 4823. Data Acquisition and Processing** A study of the patient coordinate system and spatial localization, magnetic resonance imaging gradient system, data manipulation, and quality control practices in MRI. Prerequisite, formal acceptance in to the professional program. Spring.
- RSMR 4833. Advanced MRI Imaging** Anatomy, pathology, scanning protocols, contrast administration, and contraindications for magnetic resonance angiography, venography, functional imaging, dynamic imaging, and cardiac imaging. Prerequisite, formal acceptance in to the professional program. Summer.

Nuclear Medicine (RSN)

- RSN 300V. Nuclear Medicine Program Exchange** Clinical Preceptorship to be taken concurrently while enrolled in the nuclear medicine program. Prerequisite, formal acceptance in to the professional program. Fall, Spring, Summer.
- RSN 4113. Nuclear Medicine Pharmacy** This course focuses on the study of the chemical and biological aspects of radiopharmaceuticals, radionuclides, radioactive decay, and the preparation and quality control of radiopharmaceuticals. Clinical procedure information for magnetic resonance imaging studies. Prerequisite, formal acceptance in to the professional program. Spring.

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- RSN 4213. Nuclear Medicine Physics and Instrumentation** This course focuses on the study of nuclear medicine physics, especially radionuclide production and detection, counting statistics, energy spectrum analysis, and scintillation imaging systems. Prerequisite, formal acceptance in to the professional program. Fall.
- RSN 4313. Nuclear Medicine Procedures I** This course focuses on the study of nuclear medicine clinical procedures for in vivo and in vitro studies, related anatomic studies, and associated physiologic pathologic conditions. Prerequisite, formal acceptance in to the professional program. Fall.
- RSN 4323. Nuclear Medicine Procedures II** This course focuses on the continued study of nuclear medicine clinical procedures for in vivo and in vitro studies, related anatomic studies, and associated physiologic pathologic conditions. Prerequisite, formal acceptance in to the professional program. Spring.
- RSN 4513. Nuclear Medicine Clinical Education I** The course will provide beginning level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in nuclear medicine procedures. Prerequisite, formal acceptance in to the professional program. Fall.
- RSN 4523. Nuclear Medicine Clinical Education II** The course will provide intermediate level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in nuclear medicine procedures. Prerequisite, formal acceptance in to the professional program. Spring.
- RSN 4535. Nuclear Medicine Clinical Education III** The course will provide advanced level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in nuclear medicine procedures. Prerequisite, formal acceptance in to the professional program. Summer.

Radiation Therapy (RST)

- RST 4203. Introduction to Radiation Therapy and Patient Care** This course will provide an overview of the foundations of radiation therapy and the practitioners role in the health care delivery system. Prerequisite, formal acceptance in to the professional program. Fall.
- RST 4214. Radiation Therapy Principles and Practice I** The course will provide a knowledge base for assessing, comparing, contrasting and recommending the type of radiation therapy equipment, procedure and technique, patient positioning and immobilization for appropriate tumor localization and treatment delivery. Prerequisite, formal acceptance in to the professional program. Fall.
- RST 4224. Radiation Therapy Principles and Practice II** The course will examine and evaluate the management of specific neoplastic disease. Prerequisite, formal acceptance in to the professional program. Spring.
- RST 4234. Radiation Therapy Principles and Practice III** The course will build on the foundations of the principles of radiation therapy practice from the two previous courses. Prerequisite, formal acceptance in to the professional program. Summer.
- RST 4242. Radiation Therapy Clinical Treatment Planning** The course will build on the foundations of the principles of radiation therapy practice from the two previous courses. Prerequisite, formal acceptance in to the professional program. Summer.
- RST 4313. Radiation Therapy Physics I** This course will establish a knowledge of physics pertinent to developing an understanding of radiations used in the radiation therapy clinical setting. Prerequisite, formal acceptance in to the professional program. Fall.
- RST 4323. Radiation Therapy Physics II** The course will review and expand concepts and theories in the Radiation Physics I course. Prerequisite, formal acceptance in to the professional program. Spring.

- RST 4333. Applied Radiation Biology** This course will present basic concepts and principles of radiation biology. Prerequisite, formal acceptance in to the professional program. Spring.
- RST 4413. Radiation Protection, Safety, and Quality Management** This course will present principles of radiation protection and safety for the radiation therapist. Prerequisite, formal acceptance in to the professional program. Summer.
- RST 4513. Radiation Therapy Clinical Education I** The course will provide beginning level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in radiation therapy. Prerequisite, formal acceptance in to the professional program. Fall.
- RST 4523. Radiation Therapy Clinical Education II** The course will have immediate content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in radiation therapy. Prerequisite, formal acceptance in to the professional program. Spring.
- RST 4533. Radiation Therapy Clinical Education III** The course will have advanced content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in radiation therapy. Prerequisite, formal acceptance in to the professional program. Summer.

Diagnostic Medical Sonography (RSU)

- RSU 4101. Introduction to Ultrasound** This course will provide an overview of the foundations of diagnostic medical sonography and the practitioners role in the health care delivery system. Spring.
- RSU 4112. Sectional Anatomy Sonography** Knowledge of anatomical layering and review body systems. Sonographic terminology, organ and organ system relationships, and directional terminology will also be focused upon in this course. Prerequisite, formal acceptance in to the professional program. Summer.
- RSU 4122. Small Parts Sonography** Knowledge of anatomy pathology of small parts including male pelvis, breast, thyroid, and musculoskeletal sonography. Prerequisite, formal acceptance into the professional program. Summer.
- RSU 4132. Introduction to Sonography Laboratory** Clinical application knowledge of sonography equipment, sonographic terminology, and anatomy pathology of small parts. Students will participate in directed scanning exercises and simulator scanning to develop the critical thinking skills needed in practice of sonography. Prerequisite, formal acceptance into the professional program. Summer.
- RSU 4213. Ultrasound Physics and Instrumentation I** This course will provide theoretical foundations and clinical applications of ultrasound physics and instrumentation, including Doppler principles, performance testing, and bioeffects. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4223. Abdominal Sonography I** Specific anatomic and pathologic information necessary for the clinical practice of abdominal diagnostic medical sonography, including abdominal organs and organ systems, normal, abnormal appearances, and pertinent laboratory tests are discussed. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4232. Abdominal Sonography I Laboratory** This course will provide clinical application knowledge of abdominal organs and organ systems. Students will participate in directed scanning exercises and simulator scanning to develop the critical thinking skills needed in practice of abdominal sonography. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4322. OBGYN Sonography Laboratory** Laboratory scanning of specific anatomy and pathology necessary for the clinical practice of obstetric and gynecologic diagnostic medical sonography. Corequisites, RSU 4613 and 4323. Prerequisite, formal acceptance into the professional program. Spring.

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- RSU 4323. Physics and Instrumentation II** This course is a continuation of RSU 4213. Advanced theoretical foundations and clinical applications of ultrasound physics and instrumentation, including Doppler principles, performance testing, and bioeffects. Prerequisite, formal acceptance into the professional program. Spring.
- RSU 4413. Vascular Sonography** Knowledge of venous and arterial anatomy, physiology and clinical considerations necessary for practice in the vascular clinical setting. Anatomy of the upper and lower extremities, abdomen, special circulations, cerebrovascular circulation. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4422. Vascular Sonography Laboratory** Ultrasound scanning of anatomy of the upper and lower extremities, abdomen, and special circulations, as well as cerebrovascular intra and extracranial circulation will be the focus of this course. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4511. Ultrasound Clinic I** Entry level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in small parts and abdominal sonography. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4523. Ultrasound Clinical Education II** Advanced level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in small parts, abdominal, and ob-gyn sonography. Prerequisite, formal acceptance into the professional program. Spring.
- RSU 4534. Ultrasound Clinical Education III** Advanced level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in small parts, abdominal, and obstetrics and gynecology sonography. Prerequisite, formal acceptance into the professional program. Summer.
- RSU 4544. Ultrasound Clinical Education IV** Advanced level content and clinical practice experiences designed for sequential development application, analysis, integration, synthesis and evaluation of concepts. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4551. Sonography Clinical Relevancy** Advanced application of anatomy and pathology as seen with sonographic examination and case studies will be the focus of this course. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4552. Ultrasound Clinical Education V** Advanced level content and clinical practice experiences designed for sequential development, application, analysis, integration, synthesis and evaluation of concepts and theories in small parts, abdominal, obgyn, and vascular sonography. Prerequisite, formal acceptance into the professional program. Spring.
- RSU 4562. Ultrasound Clinical Education VI** Provides students with supplemental clinical experience in the event students should miss an excessive amount of clinical days, the student feels that additional clinical experience is needed, or DMS faculty and clinical instructors feel that the student would benefit from additional clinical experience. Prerequisite, formal acceptance into the professional program. Summer.
- RSU 4613. Obstetric and Gynecologic Sonography** Specific anatomic and pathologic information necessary for the clinical practice of obstetric and gynecologic diagnostic medical sonography. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4622. Obstetric Sonography II** Continuation of specific anatomic and pathologic information necessary for the clinical practice of obstetric diagnostic medical sonography. Prerequisite, formal acceptance into the professional program. Spring.
- RSU 4642. Introduction to Cardiovascular Sonography** Cardiovascular anatomy, physiology and clinical considerations necessary for practice in the cardiovascular clinical setting. Indications for cardiovascular testing and disease processes are discussed. Prerequisite, formal acceptance into the professional program. Summer.

- RSU 4652. Special Procedures in Sonography** Specific anatomic and pathologic information necessary for the clinical practice of special procedures in abdominal, pediatric, and neonatal diagnostic medical sonography. Fall.
- RSU 4712. Introduction to Cardiac Sonography** Cardiac anatomy, physiology and clinical considerations necessary for practice in the cardiovascular clinical setting. Indications for cardiac testing and disease processes are discussed. Prerequisite, formal acceptance into the professional program. Spring.
- RSU 4723. Cardiac Sonography** Continued discussion of cardiac disease processes. Corequisite RSU 4732. Good standing in DMS program required. Summer.
- RSU 4732. Competency Sonography Lab I** Clinical application knowledge of small parts, abdominal organs and organ systems. Students will participate in directed scanning exercises and simulator scanning to develop the critical thinking skills needed. Corequisite, 4223. Prerequisite, formal acceptance into the professional program. Fall.
- RSU 4742. Cardiac Sonography Lab** Provide clinical application knowledge of gynecologic and obstetrical, vascular, or cardiac sonography. Directed scanning exercises and simulator scanning to develop the critical thinking skills. Registration restricted to students who have successfully completed the fall semester of appropriate DMS program. Spring.
- RSU 4762. Advanced Vascular Sonography Procedures** Clinical application knowledge of advanced vascular sonography procedures, directed scanning exercises and simulator scanning to develop the critical thinking skills needed in practice of vascular sonography. Prerequisite, formal acceptance into the professional program. Spring.
- RSU 4812. Cardiac Conduction and Arrhythmia** Provides an understanding of normal and abnormal conduction of electrical impulses in the cardiac system. Prepares students to recognize cardiac rhythms in the clinical setting. Registration restricted by admittance to the DMS program. Spring.
- RSU 4833. Breast Sonography** Sonographic knowledge, skills and abilities in the areas of normal breast as well as breast abnormalities and how to coordinate images with screening or diagnostic mammography. Restricted to BSRS majors. Spring.

Radiologic Technology (RT)

- RT 1003. Making Connections Radiologic Sciences** Open to incoming Freshmen only. This course will provide both an introduction to the nature of university education and a general orientation to the functions and resources of the university as a whole. This section of First Year Seminar is a special health professions section and will include a focus on understanding and appreciating radiologic science majors. Prerequisite, formal acceptance into the professional program. Fall.

Study Abroad (SA)

- SA 301V. Study Abroad Full Exchange** Holding course for students enrolled in full exchange study abroad programs. Students must apply in the Office of International Programs. Fall, Spring, Summer.
- SA 311V. Study Abroad Partial Exchange** Holding courses for students enrolled in partial exchange study abroad programs. Students must apply in the Office of International Programs. Fall, Spring, Summer.
- SA 320V. Study Abroad, Direct** Holding course for students enrolled in direct and third-party study abroad programs not affiliated with A-State. Students must apply in the Office of International Programs. Fall, Spring, Summer.

SA 321V. Study Abroad, Independent Holding course for students enrolled in independent study abroad programs not affiliated with A-State. Students must apply in the Office of International Programs. Fall, Spring, Summer.

Secondary Education (SCED)

SCED 2513. Introduction to Secondary Teaching Providing prospective educators with an introduction to teaching and education in a pluralistic society, and an understanding of the historical, multicultural, sociological, philosophical, legal, political, curricular, and technological dimensions of American education. Fall, Spring.

SCED 3515. Performance-Based Instructional Design Performance based instructional procedures and techniques for secondary education majors. Application of various teaching models and appropriate classroom management techniques will be emphasized. Reflective journals, application of technology, micro teaching and field experiences will be required. Must be admitted to the Teacher Education Program. Prerequisite, SCED 2513 or TE 2003. Fall, Spring.

SCED 4713. Educational Measurement with Computer Applications Students will learn to, 1. construct, administer, and interpret tests and rating scales to measure student achievement and performance, and 2. use the computer to assess, record, and report student achievement and performance. Must be admitted to the Teacher Education Program. Fall, Spring.

SCED 4813. On-The-Job Teacher Training Practicum A year long on the job teacher training practicum, jointly supervised by designated public school and university personnel. Prerequisite, For teachers entering by the probationary route. Must be admitted to the Teacher Education Program. Irregular.

General Science (SCI)

SCI 3003. Science in the Cinema A study of the portrayal of science and scientists in the cinema throughout the last century. Students will study films and research scientific literature to investigate the accuracy of these portrayals and their effect on society. Prerequisite, ENG 1013. Fall, Spring.

Sociology (SOC)

SOC 1013. Making Connections Sociology Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self management, group building skills, and university policies. Content related to the departmental majors is also included. Fall.

SOC 2213. Introduction to Sociology The scientific study of society: Social institutions, social interactions, social inequality, social organizations, and social change. Fall, Spring, Summer. (ACTS#: SOCI 1013)

SOC 2223. Social Problems Application of sociological theories and concepts in the analysis of contemporary social problems in the United States, including poverty, unemployment, racial and gender inequality, immigration, education, family, health, delinquency and crime. Cross listed as SW 2223. Fall, Spring, Summer. (ACTS#: SOCI 2013)

SOC 2323. Community Sociology The influence of place and community on individual and group behavior in both rural and urban settings. Spring.

SOC 3003. Sociology of Gender The social construction of gender and the moral and political controversies that surround it. Topics include gender and identity, gender and institutions, and gender and inequality. Cross listed as WGS 3003. Fall, Spring, Summer.

SOC 3223. Sociology of Families Emphasizes the sociocultural factors influencing the structure and development of marriage and the family. Fall, Spring, Summer.

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- SOC 3273. Social Stratification** Examination of causes and consequences of social inequality with a focus on class, status, power and privilege, particularly in American society. Spring, Summer.
- SOC 3293. Self and Society** Basic concepts and theories of social psychology from a sociological perspective, including group processes and individual-level behavior in social situations. Spring.
- SOC 3313. Sociology of Sexuality** The social construction of sexuality and the moral and political controversies that surround it. Topics include the history of sexuality in society, reproduction, sexual orientation, sexual violence, sexuality and institutions and the intersection of sexuality with other social statuses. Cross listed as WGS 3313. Fall.
- SOC 3333. Sociology of Health and Illness** Social causation of diseases, social definition of health and illness, social aspects of healing and rehabilitation, the nature of health professions, and the delivery of health care services. Fall, even.
- SOC 3353. Minority Groups** Examines race, ethnicity and other bases for minority status in society, focusing on social inequality and the social construction of minority and majority group statuses and relations. Fall, Spring, Summer.
- SOC 3363. Sociology of Religion** Examines the relationship of religion to society, focusing on the functions and dysfunctions of religious systems on other social institutions. Fall, odd.
- SOC 3383. Social Statistics** Central concepts and techniques of conducting descriptive and inferential analysis employed in quantitative investigation to understand social processes and phenomena. Prerequisites, MATH 1023 or MATH course that requires MATH 1023 as a prerequisite. Fall, Spring.
- SOC 3463. Collective Behavior** Various types of unusual group behavior, such as panics, riots, protests, fads, urban myths and legends, and millenarian groups. Fall, Spring, Summer.
- SOC 4003. Perspective on Death and Dying** A multidisciplinary overview 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. Beyond death. Prerequisite, minimum of 60 hours. Summer.
- SOC 4053. Today's Families Interdisciplinary Approaches** An interdisciplinary course designed to promote a critical approach to examining the family and its role in society. Prerequisite, 12 hours of coursework in Interdisciplinary Family Minor or instructors permission. Cross listed as ECH 4053, NRS 4053, PSY 4053. Spring.
- SOC 4063. Sociology of Disasters** Discusses socio-cultural aspects of natural and human made disasters, with an emphasis on social causes and consequences. Spring, even.
- SOC 4073. Sociology of Family Violence** An overview of the causes, prevalence and consequences of child abuse, intimate partner violence, and elder abuse. Fall, odd.
- SOC 4203. Social Deviance** Describes and explains the violation of social norms. Spring.
- SOC 4213. The Sociology of Childhood and Adolescence** Examination of childhood and adolescence, not only in the contemporary U.S., but also historically and cross culturally, with an emphasis on children as actively involved in the creation and reproduction of childhood and adolescence and social change within their societies. Fall.
- SOC 4233. Social Organization** Concepts and principles of social organization and dis-organization and the disruptive effects of social and cultural dynamics upon the individual, family, community, nations, and world. Summer.
- SOC 4243. Social Theory** The content, context, and relevance of sociological thinkers up to the early 20th century. Emphasis on Karl Marx, Emile Durkheim, Max Weber, Georg Simmel, and W.E.B. DuBois. Fall, Spring.

- SOC 4253. Rural Sociology** Multidimensional examination of the range of rural places, people, institutions, cultures, economies and change, with a focus on the United States and Arkansas. Spring.
- SOC 4263. Terrorism as a Social Movement** Examines domestic and international terrorism, including history of terrorism, philosophical and religious ideologies justifying terrorism, social, political, economic, psychological, and legal impacts of terrorism, terrorist groups, motives and tactics, and methods of counter-terrorism. Prerequisite, minimum of 60 hours. Dual Listed SOC 6263. Fall, Spring, and Summer.
- SOC 4273. World Population and Society** Overview of the global trends in population growth rates and of the intersections between economic development and population growth across countries. Fall.
- SOC 4283. Qualitative Data Analysis** Designing, gathering, and analyzing qualitative research. Emphasis on interviewing research subjects, observing groups, and conducting content analyses. Spring.
- SOC 4293. Methods of Social Research** Overview of quantitative and qualitative tools used in the social sciences to analyze relationships among social variables. Fall, Spring.
- SOC 4323. Applied Research** Capstone course for Sociology that focuses on the integration and application of sociological theory and methodology. Prerequisites, SOC 3383 and 4293, or equivalents. Fall, Spring.
- SOC 4333. Sociology of Youth Subcultures** Sociological study of youth subcultures from American, British and new subcultural perspectives, plus a range of historical and contemporary youth subcultures. Also covers various analytic topics such as identity, resistance, style, music, response, and consumption. Prerequisite, SOC 2213. Spring, even.
- SOC 4353. Sociology of Aging** Theories, methodologies, concepts, and major research findings regarding aging in the United States. Trends in aging; stages of aging; aging and families; death. Fall.
- SOC 4423. Sociology of Medicine** The social production of health, wellness, illness, and mortality, including how social inequalities impact health care utilization in the US. Fall, Spring.
- SOC 460V. Special Problems** Individually directed problems in sociology and criminology for juniors and seniors. Must be arranged in consultation with a professor, and approved by the department chair. Fall, Spring, Summer.
- SOC 4703. Internship** Combines supervised work experience with study of selected agencies and organizations. Must be arranged with the professor and approved by the department chair. Fall, Spring, Summer.

Spanish (SPAN)

- SPAN 1013. Elementary Spanish I** Practice toward developing basic proficiency in listening comprehension, speaking, reading, writing, and cultural understanding of the Spanish-speaking world. Fall, Spring, Summer. (ACTS#: SPAN 1013)
- SPAN 1023. Elementary Spanish II** Continuation of SPAN 1013. Prerequisite, SPAN 1013 or instructor permission. Fall, Spring, Summer. (ACTS#: SPAN 1023)
- SPAN 2013. Intermediate Spanish I** Further development of basic language skills, with increasing emphasis on the written elements of the language. Continuation of SPAN 1023. Prerequisite, SPAN 1023 or instructor permission. Fall, Spring, Summer. (ACTS#: SPAN 2013)
- SPAN 2023. Intermediate Spanish II** Continuation of SPAN 2013. Prerequisite, SPAN 2013 or instructor permission. Fall, Spring, Summer. (ACTS#: SPAN 2023)

- SPAN 3013. Spanish Phonetics** Provides a developmental study of sound production in Spanish through study and various modes of direct application and interaction. Prerequisite, SPAN 2023 or instructor permission. Spring, even.
- SPAN 3183. Spanish Conversation** Practice toward developing facility in oral expression in various everyday situations. Prerequisite, SPAN 2023 or instructor permission. Fall.
- SPAN 3413. Introduction to Hispanic Literature** An introduction to poetry, drama, novel, and short story with emphasis on analytical reading. Prerequisite, SPAN 2023 or instructor permission. Fall, Spring.
- SPAN 3463. Advanced Spanish Grammar** Grammatical components and structures that will allow the student to move toward complex sentences in Spanish. Prerequisite, SPAN 2023 or instructor permission. Fall, Spring.
- SPAN 3473. Reading and Composition in Spanish** Development of expository writing skills through the examination of texts. Prerequisite, SPAN 2023 or instructor permission. Fall, Spring.
- SPAN 3483. Introduction to Translation and Interpretation** Basic principles of written translation and oral interpretation from Spanish to English and vice versa, including theory, methods, and stylistics. Prerequisite, SPAN 2023; or instructor permission. Fall.
- SPAN 3503. Advanced Spanish Seminar** Focused study in a particular area of literature, culture or language. Topic varies. May be repeated when topic changes. Prerequisites, SPAN 2023 or instructor permission. Spring.
- SPAN 3623. Culture and Civilization, The Americas** A panoramic approach to the histories, geographies, social constructs, and political scenarios of the Spanish speaking Americas. Prerequisite, SPAN 3183 or instructor permission. Spring, odd.
- SPAN 3633. Culture and Civilization, Spain** A broad approach to the history, geography, social constructs, and political scenarios of Spain. Prerequisite, SPAN 3183 or instructor permission. Spring, even.
- SPAN 3703. Spanish for International Business** Oral and written training in vocabulary and idiomatic expressions used in international trade transactions. Listening, speaking, reading, and writing are targeted, with the objective of preparing students to handle diverse international business transactions in Spanish. Prerequisite, SPAN 2023 or instructor permission. Spring, odd.
- SPAN 3723. Spanish for Professional Use** Development of specific skills and vocabulary for using the language in a professional setting. Productive skills of writing and speaking are targeted. Prerequisite, SPAN 2023; or instructor permission. Spring.
- SPAN 4203. Advanced Oral Communication in Spanish** Structured practice of advanced Spanish speaking skills with emphasis on communicating information about practical and factual matters, narrating and describing in major time frames, and using discourse of paragraph length and substance. Prerequisite, SPAN 3183 and SPAN 3463 or instructor permission. Spring.
- SPAN 4413. Survey of Peninsular Spanish Literature** An intensive study of the principle literary movements and genres in Spain from the Middle Ages to the Generation of 98. Prerequisite, SPAN 3413 or instructor permission. Fall, odd.
- SPAN 4423. Contemporary Peninsular Spanish Literature** An intensive survey of the principal literary movements and authors in Spain from the Generation of 98 to the present. Prerequisite, SPAN 3413 or instructor permission. Spring, even.
- SPAN 4443. Survey of Latin American Literature** An intensive survey of the principal literary movements and authors in Latin America from the Colonial Period to the present. Prerequisite, SPAN 3413 or instructor permission. Fall, even.
- SPAN 4503. Special Topics** Advanced study in a particular area of literature, culture, or language. Topic varies. May be repeated when topic changes. Prerequisite, SPAN 3413 or instructor permission. Fall, odd.

SPAN 4703. Internship in Spanish Provides practical experience in the Spanish language and Hispanic cultures at a site offering interaction with the Hispanic community. Prerequisite, 12 hours of Spanish above the intermediate level and approval of department chair. May be repeated for credit, but only 3 hours may be applied to the major or minor requirements. Fall, Spring

SPAN 480V. Independent Study For advanced students only. Must have consent of department chair. May be repeated for up to six hours of credit for majors and up to three hours of credit for minors. Prerequisite, SPAN 2023 or instructor permission. Irregular.

Statistics (STAT)

STAT 2003. Introduction to Statistics Survey course designed for students to become familiar with the usefulness of statistics in solving real world problems. Includes sampling, observational studies and designed experiments, regression, graphical descriptive methods, measures of central tendency and variation, confidence intervals and hypothesis testing. Prerequisite, minimum of ACT 19 Math. Summer, Spring.

STAT 3033. Statistics for the Health Professions Introduction to data manipulation, analysis, and interpretation for health care professionals. Topics include Evidenced Based Practice, variables, scales of measurement, descriptive statistics, regression, statistical and clinical significance, confidence intervals, hypothesis testing, and inferential statistics including ANOVA. Restricted to College of Nursing and Health Professions majors. Prerequisite, MATH 1023 or equivalent. Fall, Spring, Summer.

STAT 3133. Applied Categorical Data Analysis Descriptive statistics for quantitative and qualitative data, normal distribution, correlation, linear regression, contingency tables and association, Chi-Square test, observational studies and designed experiments, confidence interval and hypothesis testing, McNemar's, Mann-Whitney, Spearman's Correlation. Prerequisite, MATH 1023 or MATH 1043. Fall, Spring.

STAT 3233. Applied Statistics I For students in a variety of disciplines including the sciences, allied health fields, and education. Descriptive statistics for quantitative and qualitative data, normal distributions, correlation, linear regression, sample surveys, randomized comparative experiments, sampling distributions, estimation and hypothesis testing for means and proportions. Prerequisite, MATH 1023 or equivalent. Fall, Spring, Summer.

STAT 3243. Regression Analysis and Analysis of Variance (ANOVA) Theory and practice of regression analysis and ANOVA. Introduction of simple and multiple linear regression, inferences about model parameters, regression diagnostics, variable selection, and model adequacy checking and regression approaches to ANOVA. Prerequisite, STAT 3233. Spring.

STAT 4453. Probability and Statistics I Set theory, random variables, probability laws and distributions, independence, conditioning, moment generating functions and the Central Limit Theorem. Prerequisite, MATH 3254. Fall.

STAT 4463. Probability and Statistics II Point and interval estimation, hypothesis testing, ANOVA, correlation, regression, and nonparametric methods. Prerequisite, STAT 4453. Spring.

STAT 4473. Applied Statistics II A second course in applied statistics covering topics in statistical inference for comparing population means and proportions, power, and sample size analyses, analysis of variance, ANOVA, and multiple comparisons procedures, nonparametric statistical procedures, chi square analyses, and inference for regression. Prerequisite, STAT 3233 or equivalent. Spring.

STAT 4483. Statistical Methods Using R Introduction to 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 or STAT 4473. Fall, odd.

Strategic Communication (STCM)

- STCM 2143. Strategic Writing I** Fundamentals of the distinct writing requirements, styles, and formats of social, online, broadcast, print and other platforms used in strategic communication; emphasis on context, storytelling, and audience understanding. Fall, Spring.
- STCM 3003. Principles of Public Relations** Nature and theoretical foundation of public relations, its role in society, practitioners and dynamics of the process. Fall, Spring, Summer.
- STCM 3013. Public Relations Tools and Techniques** Analysis and application of public relations tools and techniques with an emphasis on public relations writing, specialized publications, and strategy for working with corporate and noncorporate organizations. Prerequisite, STCM 2143, and STCM 3003 or STCM 3043. Fall, Spring.
- STCM 3023. Principles of Advertising** Advertising history, theory and practice, including traditional and nontraditional media. Fall, Spring.
- STCM 3033. Advertising Elements and Execution** Principles and practices in creating and critiquing advertising messages across media platforms. Prerequisites, CMAC 2003 and AD 3023. Fall.
- STCM 3043. Principles of Strategic Communication** Broad survey of strategic communication practice, emphasizing advertising and public relations in the context of integrated brand promotion. Fall, Spring, Summer.
- STCM 3133. Interactive Advertising** Online interactive advertising, including integration social media into the marketing communications plan, use of online display ads, and development of an effective search engine strategy. Fall.
- STCM 3143. Strategic Writing II** Advanced strategic writing forms and styles. Practice in preparation of strategic messages for various platforms of communication, including paid, earned, shared, and owned. Students will develop skills in information gathering, writing styles, editing, critical thinking, storytelling, and audience analysis. Prerequisites, STCM 2143; and STCM 3003, STCM 3023, or STCM 3043. Fall, Spring.
- STCM 3193. Advanced Photography** An in-depth examination of the uses of natural and artificial lighting, lenses, cameras, studios, and other elements needed for professional photography in advertising, promotion, portraits, sports and other environments. Emphasis placed on the business of photography. Fall.
- STCM 3333. Advertising Strategy and Sales** Study of the structure of the advertising industry, with emphasis on strategic legacy, digital, and social media selection and planning, as well as the basic methods of advertising sales. Spring, Summer.
- STCM 3553. Strategic Visual Communication** Theoretical, contextual and practical natures of persuasive images in the context of strategic communication. Prerequisite, STCM 3003, STCM 3023, or STCM 3043. Fall, Spring.
- STCM 4003. Account Planning** Study of consumer insights that are strategically applied by account planners and creative teams in the advertising planning process. Fall, Spring.
- STCM 4013. Public Relations Practicum and Professional Development** Advanced PR course requiring application of skills in supervised work with various businesses, institutions, organizations and social agencies. Student will work a minimum of 10 hours per week outside the classroom with assigned workplace mentor. Instructor permission required. Fall, Spring.
- STCM 4073. Strategic Communication Law and Ethics** Analysis of laws, regulations, and ethical considerations affecting the strategic communication industry. Prerequisite: ENG 1013. Fall, Spring, Summer.
- STCM 4113. Integrated Marketing Communications** Focuses on the strategic integration of various channels and methods of communications for the purpose of delivering key messages to diverse target audiences in order to elicit specific responses, create a dialogue and engender relationship building. Prerequisite, STCM 3023, or STCM 3003, or MKTG 3013. Fall, Spring.

- STCM 4213. Social Media in Strategic Communications** 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. Spring.
- STCM 4333. Social Media Measurement** Measurement and improvement of investment outcomes from use of social media in advertising, public relations, and marketing communications. Spring.
- STCM 4503. Seminar in Nonprofit Communication** Study and practice of nonprofit communication strategies and tactics, including fundraising, nonprofit branding, grant writing, and cross-platform content creation. Fall.
- STCM 4603. 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. Fall, Spring.
- STCM 4633. Trending Topics** Exploration of current topics and issues in public relations and advertising.
- STCM 4753. Strategic Communication Case Studies** Study of recent strategic communication cases involving business, industry, institutions, and government. Students conduct a comprehensive strategic communication case study for a given client. Prerequisites, COMS 3363 or STCM 4003, and STCM 3143, or instructor permission. Fall.
- STCM 4763. Strategic Communication Campaigns** Study and practice in planning strategic communication campaigns for business, industry, institutions, and government. Students create a comprehensive strategic communication campaign for a given client. Prerequisites, COMS 3363 or STCM 4003, and STCM 3143 or instructor permission. Spring.
- STCM 4773. Internship in Strategic Communication** Field-based experience in a supervised setting that will enhance strategic communication knowledge and skills. Prerequisites, STCM 3143, STCM 3553, or STCM 4213, and approval of department chair. Fall, Spring, Summer.

Surveying (SUR)

- SUR 3003. Route and Construction Surveying** Horizontal and vertical curve construction, construction survey parameters for buildings and roads, subdivision design and layout, and location guidelines for cuts and fills along with volume determination. Lecture two hours, laboratory 3 hours per week. Prerequisite, C or better in CE 2202. Fall.
- SUR 3013. Survey Plats and Deeds** Study of plats of survey to include survey research and records interpretation, deeds, descriptions, plats and principles of the presentation of survey data. Lecture three hours per week. Prerequisite, C or better in CE 2202. Spring.
- SUR 3023. Photogrammetry** Principles, procedures, and technology in photogrammetry. Lecture three hours per week. Prerequisite, C or better in MATH (1033 or 2204). Fall.
- SUR 4003. Boundary Control and Legal Principles** Laws, practices, and legal elements required to understand boundary location in land surveying. Lecture three hours per week. Prerequisite, C or better in MATH (1033 or 2204). Spring.
- SUR 4013. Law and Professionalism in Surveying** Arkansas and other state-specific laws, practices, and legal elements required to understand boundary location and other practices in land surveying. Lecture three hours per week. Prerequisite, C or better in CE 2202. Spring.
- SUR 4023. Advanced Surveying** Principles and practices of advanced surveying techniques. Lecture two hours per week, lab three hours per week. Prerequisite, C or better in SUR 3003. Fall.

SUR 4033. Surveying Practicum Multi-faceted surveying problem and/or project which incorporates needs analysis, surveying research and field work, and final document creation. Application of modern surveying tools and techniques is required. Corequisites, SUR 4013 and SUR 4023. Spring.

Social Work (SW)

SW 1203. Making Connections Social Work Open to incoming Freshmen only. This course will provide both an introduction to the nature of university education and a general orientation to the functions and resources of the university as a whole. This section of First Year Seminar is a special health professions section and will include a focus on understanding and appreciating social work majors. Fall.

SW 2203. Introduction to Social Work Explores the values, knowledge and skill base of empowerment oriented generalist social work practice. Includes historical development and organization of the social welfare system in the United States. Fall, Spring.

SW 2223. Social Problems Application of sociological theories and concepts in the analysis of contemporary social problems in the United States, including poverty, unemployment, racial and gender inequality, immigration, education, family, health, delinquency and crime. Cross listed as SOC 2223. Fall, Spring, Summer.

SW 3253. Social Work Practice I Micro Practice This is the first course in the practice foundation sequence. The focus is empowerment oriented generalist practice with micro systems, individuals. Prerequisites, SW 2203, BIOL 1003, and BIOL 1001, SW 3303, or taken concurrently. Spring.

SW 3303. Human Behavior and Social Environment I Physical, psychological, social growth and development, across the life span. For social workers. Prerequisites, SW 2203 and admission into BSW Program. Fall.

SW 3313. Introduction to Child Welfare Policies and practices in the field of child welfare with emphasis on the needs of children and their families, the major programs designed for them, and issues for future planning. Fall.

SW 3323. Substance Abuse. Intervention and Treatment Historical review of drug and alcohol problems, with an analysis of treatment modalities, theories of substance abuse, prevention and education strategies, and social policy implications. Summer, Irregular.

SW 3333. Human Behavior in the Social Environment II This course is continuation of the HBSE I course. It focuses on the macro aspect of the human behavior in the areas of groups, institutions and organizations. Its purpose is to explore the behavior, influence, and interactions of these entities and their impact on social work practice. Prerequisite, SW 3303 and admission into BSW program. Spring.

SW 3343. Child Abuse and Neglect Survey of theory and research of child abuse and neglect with emphasis on assessment and treatment of these problems. Spring.

SW 3353. Social Work with the Aging Study of the problems of older Americans together with a description of social programs serving the aged, learning social work skills in dealing with individual clients. Prerequisite, SW 2203 or permission of the instructor. Fall.

SW 3363. Cultural Diversity Application of social diversity concepts from the Human Behavior and the Social Environment sequence to practice situations will be incorporated into the study of ethical practice of social work with minority populations. Prerequisites, SW 3303 and SW 3333. Fall.

SW 3373. Social Work Research Methods Overview of the concepts of research and the evaluation of generalist social work and health care practice. Prerequisites, SOC 3383. Restricted to Social Work majors only. Fall, Spring.

SW 4203. Crisis Intervention The process of crisis is examined and basic knowledge, interviewing and counseling skills are taught to work with those in crisis. Irregular.

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- SW 4213. Introduction to Domestic Violence** Explores the psychological, social, and legal causes/ramifications of domestic violence from micro, mezzo and macro perspectives, focusing on educating the social work student about the theories and principles guiding DV service delivery and crisis response techniques. Registration restricted to junior and senior level undergraduates. Irregular.
- SW 4263. Social Work Practice II Mezzo Systems** This is the second course in the practice foundation sequence. The focus is generalist practice with mezzo systems, families and small groups. Prerequisite, SW 3253. Open only to seniors. To be taken concurrently with SW 4263. Fall.
- SW 4273. Field Experience I** Directed study and practice with clients in social welfare agencies. Supervision provided by faculty and host agency. Admission only upon acceptance into the Social Work Program. Prerequisites, Must have completed all general education requirements with an overall GPA of 2.5 and 2.5 in major courses. Must have completed SW 3253. Must be taken concurrently with SW 4263. Fall.
- SW 4283. Field Experience Seminar** Discussion and sharing of problems encountered in agency settings. A combination of lectures by social work practitioners and class discussion to help students integrate theory and practice. Admission only upon instructor permission. Prerequisite, SW 4263 and SW 4273. To be taken concurrently with SW 4303 and SW 4296. Spring.
- SW 4296. Field Experience II** Application and integration of academic content in an actual working experience. Supervision provided by faculty and host agency. Admission only upon continued acceptance into the Social Work Program. Prerequisite, Completion of all major requirements except SW 4303 and SW 4283, with an overall GPA of 2.5 and 2.5 in major courses. Spring.
- SW 4303. Social Work Practice III: Macro Systems** This is the third course in the practice foundation sequence. The focus is generalist practice with macro systems, organizations and communities, as well as policy practice. Open only to seniors. Prerequisite, SW 4263. To be taken concurrently with SW 4283 and SW 4296. Spring.
- SW 4313. Social Welfare Policy** Analytical evaluation of how social welfare policies are formulated and implemented. Prerequisite, SW 3333. Fall.
- SW 4323. Case Management in Social Work Settings** This course is designed to give the student a broad understanding of how social workers provide service delivery in professional case management settings from a generalist social work practice perspective. Irregular.
- SW 4363. Religion and Spirituality in Social Work Practice** An examination of religious and spiritual beliefs in psychosocial development, the family, social policy, community and society. Irregular.
- SW 4373. Social Work and Health Care Services** This course is designed to provide knowledge and understanding of direct social work practice in varied health care settings. Illness, disease, trauma and disability, death and dying are examined from an ecological systems perspective. Issues of diversity and bioethics are emphasized. Irregular.
- SW 4383. Child Welfare and the Law** Capstone course for the interdisciplinary minor in Children's Advocacy Studies: the juvenile justice system as it applies to children as victims, and proper skills for investigating and prosecuting suspected cases of child abuse and neglect. Cross listed with SOC 4383 and CRIM 4383. Restricted to Juniors, Seniors and Post-Degrees with a minor in Children's Advocacy Studies. Prerequisites, SW 3313, SW 3343 and SW 4323, and 6 additional elective credit hours in the minor, all with a C or better. Spring.
- SW 460V. Special Problems** Individually directed problems in Social Work. Must be arranged with the professor and approved by department chair. Irregular.

Teacher Education (TE)

- TE 2003. Introduction to Education** Introduction to teaching in a pluralistic society and an understanding of the historical, multicultural, sociological, philosophical, legal, political, and curricular dimensions of American education. Students will be assigned a field placement that matches their licensure area. Fall, Spring.
- TE 2013. Introduction to Educational Technology** Introduction to the use of technology in an educational setting, including system operations. Summer.
- TE 3003. Differentiation for Culturally and Linguistically Diverse Learners** Examination and application of research-based pedagogical methods for diverse learners, including English language learners. Focus on scaffolding success in inclusive classrooms using response to intervention (RTI) and sheltered content instruction. Prerequisites, ELSE 3643, Admission to Teacher Education Program. Fall, Summer.
- TE 4063. Social Foundations of Education** Develops a basic understanding of the foundations of the educational function in American society. Emphasis on the history, philosophy, and professional aspects of teaching. Spring.

Engineering Technology (TECH)

- TECH 2703. Technical Graphics and AutoCAD** Create and read technical drawings using basic graphics techniques. Topics covers include technical graphics, transition from traditional drawings to computer graphics, fundamentals of AutoCAD. Prerequisite, MATH 1023, Fall.
- TECH 2863. Principles of Technology** The role and function of technology development in human resources. Course provides an introduction to the concepts and philosophies of the technical work place and the use of technologies. Fall.
- TECH 3413. AutoCAD Inventor** This is a beginning level 1 course in CAD. This course is designed to demonstrate how AutoCAD is used in model parametric space. This course will only deal with 2d mechanical, electrical and civil aspects of CAD. Fall.
- TECH 3433. AutoCAD 3D Modeling** This is an Advance level II course in CAD. This course is designed to demonstrate how to manage 3D space, how to make 3D wire frame, surface, and solid models, how to modify them, and how to display them. Prerequisite, TECH 3413. Spring.
- TECH 3453. Advanced Technology Design Solid Works** Advanced concepts of parametric modeling using SolidWorks software, approaches for designing mechanical parts, assemblies, and drawings. Fall.
- TECH 3713. Fiscal Aspects** An introduction to fiscal structures and problems encountered in the technically oriented enterprise. Fall.
- TECH 372V. Technical Career Subjects** Through this course students having work experience and company sponsored training will undergo portfolio assessment to determine credit hour award. Course may be repeated. No more than 25% of the degree may be satisfied with this course and TECH 189V. 1 to 9 hours. Fall, Spring.
- TECH 3753. Legal Aspects** An introduction to the types of legal problems encountered in the technically oriented enterprise. Fall, even.
- TECH 3773. Statistics** Basic concepts and methods of statistics in a technical environment, including descriptive statistics, significant tests, estimation, sampling, and correlation. Fall.
- TECH 3803. Electrical Systems** Fundamentals and utilization of electric power through appropriate units of equipment and systems for heating, cooling, working, and controls, energy transmission and measurements, equipment selection, operation, maintenance, and evaluation for given tasks. Prerequisite, MATH 1023. Spring.

- TECH 3843. Manufacturing Materials and Processes** Structure and properties of metals and other materials used in manufacturing. Formation, treatment, and modification of materials through manufacturing processes. Advantages and disadvantages of alternative materials and processes for specific applications. Important emerging technologies. Prerequisite, CHEM 1003 or high school chemistry and MATH 1033. Spring.
- TECH 3853. Computer Aided Manufacturing CAM** A study of 3D CAM software package that prepares NC programs for complex shapes and surfaces, basic contouring, drilling pocketing and geometric creations, including splines, ellipses, and lettering. Prerequisite, Keycreator experience. Spring, even.
- TECH 3863. Industrial Safety** An introduction of the basic concepts of safety and health. Topics include the role of the safety professional, social, legislative, and regulatory requirements as well as the concepts of hazard recognition, evaluation, and control. Fall.
- TECH 3873. Tool Design** Application of the theory developed in the fundamental technology courses to the design and fabrication of jigs, fixtures, and dies. Prerequisite or corequisite, TECH 3413. Spring.
- TECH 389V. Occupational Internship** This course provides the student with an opportunity to obtain additional experience in their emphasis area. Course may be repeated. Maximum degree credit for this course is three hours. Advisors approval is required. 1 to 3 hours. Fall, Spring, Summer.
- TECH 4703. Experiential Learning Practicum** This capstone course provides students with experiential learning related to their emphasis area, as an on the job position within a company or other approved location. Each Practicum will involve 10 to 12 specific learning experience objectives. Prerequisites, Approval of faculty supervisor. Restricted to majors in the Engineering Technology majors. Fall, Spring, Summer.
- TECH 4743. Computer Numeric Control** Basic terminology for computer aided manufacturing, interpretation of mechanical drawings in manufacturing, and learn manual G Code programming. Prerequisite, MATH 1033. Spring.
- TECH 4783. Manufacturing** Concepts and philosophies of manufacturing technology and their roles in factories. Prerequisite, Senior Standing in Engineering Technology. Fall, even.
- TECH 480V. Current Topics in Technology** This course is designed to address specific needs of technology or industry. May be repeated for credit. 1 to 3 hours. Summer.
- TECH 4813. Operations Systems Research** Quantitative techniques for decision making, break even analysis, economic models, gaussian distributions, inventory control, production models, and mathematical programming. Prerequisite, MATH 1023. Fall.
- TECH 4823. Quality Assurance** The principles and practices of quality in manufactured products. Familiarization with industrial methods and equipment used in quality assessment. Basic topics include histograms, Pareto diagrams, control charts, acceptance sampling, process capability, cause and effect diagrams, reliability, visual inspection, and the relationship between quality and cost. Prerequisite, TECH 3773 or STAT 3233. Spring.
- TECH 4853. Lean 6 Sigma for Manufacturing** Principles of Lean Manufacturing including strategies to eliminate waste and reduce costs, and continuous quality improvement using the principle of Six Sigma; advanced quality assurance terminology and application of statistical practices in manufacturing management. Prerequisite, TECH 3773 or STAT 3233. Corequisite, TECH 4823. Spring.
- TECH 4873. Motion and Time Study** Principles and practices of motion and time study including process charts, operation charts, motion summary, and time standards. Spring.
- TECH 4883. Work Center Management** A survey course that addresses the problems of managing a small working unit, such as a department, within a larger unit, such as a company. Topics to be addressed include, goal identification, staffing needs, monitoring of work process reporting, work center communications, and interpersonal relations within the work center. Spring.

TECH 489V. Special Problems in Technology Individually directed problems in technology for juniors and seniors. Must be arranged in consultation with an Engineering Technology faculty member and approved by the department chair. Fall, Spring, Summer.

Theater (THEA)

THEA 1011. Stage Makeup I Basic principles of stage makeup application. Special course fees may apply. Fall.

THEA 1013. Making Connections in Theatre Required course for first semester freshmen. Core content includes transition to college, academic performance skills, problem solving, critical thinking, self-management, group building skills, and university policies. Content related to the Theatre major is also included. Fall.

THEA 1203. Introduction to Theatre Basic principles of theatrical traditions and terminology. Fall.

THEA 1213. Acting I Basic theories and techniques of the art of acting. Fall, Spring.

THEA 1223. Principles of Stage Design Introduction to the design process, elements of design, visual communication, and interpreting a play script. Spring.

THEA 1393. Summer Children Theatre Performance The research, preparation and presentation of children theatre plays for a live audience. Summer.

THEA 1403. Summer Children Theatre Technical The research, preparation and presentation of children theatre plays for a live audience. Summer.

THEA 2010. Performance Practicum Practical application of performance techniques in a rehearsed Department of Theatre production. Fall, Spring.

THEA 2020. Production Practicum Practical application of design, technical, or other techniques for a Department of Theatre production. Fall, Spring.

THEA 2202. Voice and Movement I Incorporation of vocal techniques in acting styles, emphasis on vocal flexibility. Irregular.

THEA 2213. Creative Improvisation Development of the actor's physical, vocal, and psychological potential to create a clear and simple characterization without a written script. Spring.

THEA 2223. Fundamentals of Stagecraft Techniques of constructing, painting, and rigging scenic units. Spring.

THEA 2233. Stage Makeup II Development of stage makeup application techniques with emphasis on communication of makeup application goals through imagery, research, and schematics. Prerequisite, THEA 1011. Spring, odd.

THEA 2242. Social Dance Introduction to the skills and steps needed in order to perform social dances, including waltz, swing, and salsa. Fall, Spring.

THEA 2243. Costume Construction Basic principles of stage costume construction including hand sewing, machine sewing, closures, and use of standard patterns. Fall.

THEA 2252. Musical Theatre Dance Exploration of musical theatre dance styles. Fall, even.

THEA 2253. Stage Management Principles and practices of stage management. Fall, even.

THEA 2262. Tap Dance Exploration of fundamental tap dance techniques. Spring.

THEA 2263. Fashion History Study of fashion from the 5th century BCE to the present. Spring, odd

- THEA 2272. Ballet Dance** Exploration of fundamental ballet techniques. Irregular.
- THEA 2273. Play Script Analysis** Introduction to play script analysis techniques used by theatre practitioners. Irregular.
- THEA 2282. Jazz Dance** Exploration of fundamental jazz dance techniques. Fall, odd.
- THEA 2393. Summer Children Theatre Performance** The research, preparation and presentation of children theatre plays for a live audience. May be repeated for credit. Summer.
- THEA 2403. Summer Children Theatre Technical** The research, preparation and presentation of children theatre plays for a live audience. May be repeated for credit. Summer.
- THEA 2503. Fine Arts-Theatre** Introduction to aesthetic and critical appreciation of the art of theatre through lecture, live and video performance, and discussion. Special course fees may apply. Fall, Spring, Summer. (ACTS#: DRAM 1003)
- THEA 3213. Audition Techniques** Preparation and execution of audition material. Prerequisite, THEA 1213. Irregular.
- THEA 3223. Studies in Dramatic Literature** A reading introduction to plays and playwrights spanning from Greek to contemporary works. Fall, even.
- THEA 3243. Stage Combat** Movement and combat techniques for the stage. Prerequisite, THEA 1213. Fall, even.
- THEA 3251. Theatre Laboratory** Application of costume and scenic technology skills in the realization of a theatre production. Prerequisites, THEA 2223 and THEA 2243, or instructor permission. May be repeated for credit. Fall, Spring.
- THEA 3253. Scenic Painting** Materials, equipment, techniques used in work of a Scenic Artist. Prerequisite, THEA 1223. Fall, odd.
- THEA 3273. Voice and Movement II** Further development of vocal and movement techniques in acting styles, emphasis on vocal flexibility. Prerequisite, THEA 2202. Irregular.
- THEA 3283. Computer Aided Design** Introduction to computer-aided design for theatre, including computer-aided drafting. Prerequisites, THEA 1223, THEA 2223. Fall, odd.
- THEA 3333. Acting II** Further studies in style, technique, and characterization. Prerequisite, THEA 1213. Fall, odd.
- THEA 3393. Summer Children Theatre Performance** The research, preparation and presentation of children theatre plays for a live audience. Summer.
- THEA 3403. Summer Children Theatre Technical** The research, preparation and presentation of children theatre plays for a live audience. Summer.
- THEA 3603. Directing** Directing techniques for theatrical productions. Prerequisites, THEA 1213 or instructor permission. Fall.
- THEA 4001. Professional Practice Seminar** Overview of the professional theatre landscape and advanced training opportunities. Students create and present materials commonly used in the field to earn employment and/or admission to graduate school. Prerequisite, instructor permission. Fall.
- THEA 4213. Acting on Camera** Developing skills for performance in front of and for the television and film camera. Irregular.
- THEA 4223. Scenic Design** Principles of theatrical scenic design. Prerequisite, THEA 1223; or instructor permission. Spring, odd.
- THEA 4233. Stage Makeup III** Further study of advanced makeup techniques. Prerequisite, THEA 2233; or instructor permission. Fall, even.

- THEA 4243. Costume Design** Advanced application of costume design principles during project execution both individually and in collaboration with a director. Prerequisite, THEA 1223 or instructor permission. Spring, even.
- THEA 4253. Theatre Management** Study of the fundamentals of financial, promotional and regulatory procedures governing theatre management. Irregular.
- THEA 4283. Period Styles in Acting** Study of form, structure, and techniques for period acting styles. May be repeated. Fall, odd.
- THEA 4293. Theatre History** Study of theatre practice and dramatic literature from ancient Greece to today. Spring, even.
- THEA 4303. Lighting Design** Principles of theatrical lighting design. Prerequisite, THEA 1223; or instructor permission. Spring, odd.
- THEA 4313. Fundamentals of Playwriting** Writing plays, including readings, exercises, and adaptation. Prerequisite, THEA 1203 or instructor permission. Fall, even.
- THEA 4343. Acting in Song** Exploration and practice of musical theatre songs in performance. Special course fees may apply. Prerequisite, THEA 1213. Spring, even.
- THEA 4363. Acting Shakespeare** A thorough investigation of the acting techniques specific to performing Shakespeare through scene and monologue work. Prerequisite, THEA 1213. Spring, odd.
- THEA 436V. Internship in Theatre** Combines relevant work experience with classroom theory. Irregular.
- THEA 437V. Special Problems** Prerequisite, permission of the instructor. May be repeated twice with different topics. Irregular.
- THEA 4383. Senior Project** A capstone course designed to showcase the graduating seniors achievements and accomplishments. Irregular.
- THEA 4393. Summer Children Theatre Performance** The research, preparation and presentation of children theatre plays for a live audience. May be repeated for credit. Summer.
- THEA 4403. Summer Children Theatre Technical** The research, preparation and presentation of children theatre plays for a live audience. May be repeated for credit. Summer.
- THEA 4413. Sound Design and Production** Principles and practices of stage sound design and production. Prerequisite, THEA 1223; or instructor permission. Fall, odd.

Teaching Internship (TI__ __)

- TIAG 4825. Agricultural Teaching Internship in the Secondary School** Ten semester hours. Full semester teaching internship. Fall, Spring.
- TIAG 4826. Agricultural Teaching Internship in the Secondary School** Twelve semester hours. Full semester teaching internship. Fall, Spring.
- TIAR 4825. Art Teaching Internship in the Secondary School** Ten semester hours. Full semester teaching internship. Fall, Spring.
- TIAR 4826. Art Teaching Internship in the Secondary School** Twelve semester hours. Full semester teaching internship. Fall, Spring.
- TIBI 4825. Biology Teaching Internship in the Secondary School** Ten semester hours. Full semester teaching internship. Fall, Spring.

TIBI 4826.	Biology Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIBU 4825.	Business Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIBU 4826.	Business Teaching Internship in the Secondary School	Twelve semester hours. Full semester teaching internship. Fall, Spring.
TICH 4825.	Chemistry Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TICH 4826.	Chemistry Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIEN 4825.	ENGLISH TEACHING INTERNSHIP IN THE SECONDARY SCHOOL	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIEN 4826.	ENGLISH TEACHING INTERNSHIP IN THE SECONDARY SCHOOL	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIHI 4825.	History Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIHI 4826.	History Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TILA 4825.	Language Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TILA 4826.	Language Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIMA 4825.	Math Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIMA 4826.	Math Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIMU 4825.	Music Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIMU 4826.	Music Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIPE 4825.	Physical Education Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIPE 4826.	Physical Education Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.
TIPH 4825.	Physics Teaching Internship in the Secondary School	Ten semester hours. Full semester teaching internship. Fall, Spring.
TIPH 4826.	Physics Teaching Internship in the Secondary School	Twelve semester hours. Full semester of teaching internship. Fall, Spring.

University College (UC)

UC 0143.	Writing Fundamentals	Developmental writing course designed to prepare students for ENG 1003. Focus is on grammar, sentence structure, paragraphs and essays. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.
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The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins/>

- UC 0153. Enhanced College Reading** Non-credit course designed to provide students with reading instruction that is applicable to all types of reading including strategies specific to the content areas. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.
- UC 0164. Academic Literacy** Developmental course to prepare students for college level reading and writing, to be taken concurrently with ENG 1003. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.
- UC 0173. Developmental Mathematics I** Prepares students for college level mathematics courses using individualized computer-based curriculum. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.
- UC 022V. Developmental Mathematics II** Prepares students for college level mathematics courses using individualized computer-based curriculum. Continuation of UC 0173. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Fall, Spring, Summer.
- UC 0232. Reading and Writing for College Success** Preparation for reading and writing across academic disciplines. The grade in this course will not be used to compute semester and cumulative grade point averages. The course does not count toward any degree. Corequisites, ENG 1003 and UC 1013. Fall, Spring.
- UC 1001. Restart Seminar** Designed to provide students in academic distress a means to examine their transcript, study habits, and long term academic goals through necessary intrusive academic advising and effective decision making. Case studies, class discussion, and journal assignments provide an opportunity to apply new skills for consistent and long term success. Enrollment limited to students on a first academic suspension or by referral from the Admissions and Credits Committee. Fall, Spring, Summer.
- UC 1011. College Choices Seminar** This seminar is designed to offer supplemental academic advising and to teach college success skills for first-year students on academic probation. Fall, Spring.
- UC 1013. Making Connections** Required course for all first semester freshmen. Course content is centered around the skills and knowledge needed to be a successful ASU student, including academic performance, problem solving, critical thinking, self management and group building skills, university policies and other relevant issues. Fall, Spring.
- UC 1021. Advanced Reading Strategies.** Follow up course to UC 0153 Enhanced College Reading for those students whose standardized test scores indicate need for additional instruction and practice. Fall, Spring, Summer.
- UC 1032. FYS Success Strategies** A required sequential course to Making Connections for students admitted through Transition Studies that allows more in-depth coverage of topics related to college success. Prerequisite, UC 1013. Fall, Spring, Summer.
- UC 1103. Introduction to Leadership Development** Leadership theories and the role of self-understanding in effective leadership. Fall, Spring.
- UC 1131. Career Planning 101** Course designed to assist students with the career decision process. Assessment of student interests, exploration of majors and careers and the job search process will be covered. Spring.
- UC 1141. Academic Survival** Academic Survival is a one hour course designed to provide students in academic distress the opportunity to take positive action toward reclaiming academic success. The course will include intensive academic advising, study skills instruction, and extensive personal motivation consultations. Spring
- UC 1151. Stress Management 101** This course is a one credit elective to introduce students to basic theoretical and practical concepts of stress management with a focus on personal application to help prevent or reduce cognitive, emotional, and physical symptoms resulting from distress. Spring.

- UC 1161. Worry Management 101** Basic concepts of worry management with a focus on personal application to help prevent or reduce the effects of cognitive, emotional, physical symptoms and behaviors resulting from unmanaged worry. Fall, Spring.
- UC 1202. Academic Proficiency for Standardized Testing** Provides instruction and strategies in building proficiency on standardized tests and meeting admission standards for various academic programs. Fall, Spring, Summer.
- UC 120V. Foundations in Professionalism** Provides instruction and strategies for building professional skills and personal responsibility competencies necessary for successful entry into a professional career. Variable title dependent on discipline. Fall, Spring.
- UC 1231. Career Planning and Decision Making** Assists students with the career planning and decision making process using Focus2 Career and Education Planning System for College Student. Assessment of interests, exploration of majors and career goals. Fall.
- UC 1251. Health Rhythms 101** Empowers students to learn ways to experience emotional, physical and social stress management benefits through group drumming. Build communication and personal expression skills.
- UC 200V. Special Topics** Individual study arranged in consultation with the instructor. Course may be used by any college but must be approved by the Dean of Undergraduate Studies, department chair, and College Dean prior to enrollment. One - four credit hours; may be repeated but may not exceed four hours total. Irregular.
- UC 2013. Advanced Reading and Writing** Addresses the needs of international transfer students with demonstrated deficiencies in reading and writing English.
- UC 2033. University College Internship** First-hand field experience that will vary based on student goals and internship placement. Experience supplemented by weekly online curriculum. Prerequisites, 30 credit hours and 2.00 GPA. Irregular.
- UC 3011. Professional and Career Development for Juniors and Seniors** This is an elective, one credit class for seniors and juniors in all disciplines. Weekly workshops will be presented by area employers and professionals to enhance students' professional development skills necessary to be successful in today's workplace. Irregular.
- UC 3023. Seminar in Leadership Development** Integrates leadership theories, styles, and experiences. Students will study leadership issues in current events and refine their personal leadership philosophy based on experiences gained throughout the Leadership Studies Minor. Prerequisite, UC 1103. Fall, Spring.
- UC 3331. McNair Research Seminar**
- UC 4003. Washington Center Civic Engagement and Leadership** Provides understanding of the attributes of civic engagement, professional achievement and leadership development. Participation in the Washington Center Internship program required. Irregular.
- UC 401V. Washington Center Internship** Washington Center for Internships and Academic Seminars Program Internship. Irregular.
- UC 480V. Special Problems in Leadership Development** Individual problems in Leadership Development arranged in conjunction with the instructor. Must be approved by dean. No prerequisites. Can be taken for 1, 2 or 3 hours of credit. Course offered each semester. Irregular.

Vocational Education (VOED)

- VOED 4503. Foundations of Adult Education in Vocational Education** Covers historical and philosophical development, comparison of vocational and nonvocational adult education, program development and evaluation, teaching methods, and issues and trends in adult vocational education programming. Spring.

VOED 4513. Activities For Teaching Career Readiness Opportunities for teachers to study and demonstrate essential knowledge and skills appropriate in teaching career development and college readiness courses. Activity-based learning, using appropriate technologies, will be incorporated. Summer.

VOED 4522. Competency Based Curriculum in Vocational Education Study of the design features of a competency based approach to education with emphasis on practical application to the design of instruction using a competency based format. Fall.

VOED 4533. Methods of Organizing and Teaching Career Development Curricula, methods, and techniques involved in teaching career development as related to the fifteen occupational clusters in the world of work. Summer.

VOED 4553. 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. Spring, odd.

VOED 4583. Methods and Materials for Teaching the Adult Emphasis on the methodologies, techniques, and materials applicable to the adult learner based upon his personal needs. Summer, odd.

Women and Gender Studies (WGS)

WGS 3003. Sociology of Gender The social construction of gender and the moral and political controversies that surround it. Topics include gender and identity, gender and institutions, and gender and inequality. Cross listed as SOC 3003. Fall, Spring, Summer.

WGS 3313. Sociology of Sexuality The social construction of sexuality and the moral and political controversies that surround it. Topics include the history of sexuality in society, reproduction, sexual orientation, sexual violence, sexuality and institutions and the intersection of sexuality with other social statuses. Cross listed as SOC 3313. Fall.

WGS 3333. Women's Health: Past, Present and Future Health problems of women studied with both a traditional and contemporary focus. Emphasis on current information needed by health professionals to help women achieve optimum wellness. Prerequisites, Junior level nursing status or instructor permission. Cross listed as NRS 3333. Fall, Summer.

WGS 3373. Gender Communication Study of the interrelationship between communication and gender in various contexts. Cross listed as COMS 3373. Spring, odd.

WGS 3693. United States Women's History The role of women in United States history from 1600 to the present. Cross listed as HIST 3693. Spring, odd.

WGS 3773. Topics in Feminist Philosophy Topics include, but are not limited to: Feminist Epistemology, Feminist Ethics, and Feminist Philosophy of Science. Prerequisite, PHIL 1103 or instructor permission. Cross listed as PHIL 3773. Spring, even.

WGS 4123. Women and Politics AMERICAN POLITICS. An examination of the interrelationship of gender, politics, and popular culture. Cross listed as POSC 4123. Spring, even.

WGS 4233. Gender and the Body in Modern and Contemporary Art Athematic look at the many ways the human body has been represented in visual culture from the early 19th century to the present day with a focus on both high art and popular culture. Prerequisites, junior level standing; or instructor permission. Cross listed as ARTH 4233. Fall, odd.

WGS 4323. Diversity and Media Survey of the diversity of American race, gender and the mass media in the United States. Cross listed as MDIA 4323. Fall.

WGS 4453. Women Writers A study of literature written by women. Cross listed as ENG 4453. Spring, odd.

WGS 4473. 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. Cross listed as HIST 4473. Spring, even.

- WGS 4483. History of Sexuality in America** Forces which have shaped American beliefs and practices concerning sexuality, and the roles played by gender, race and class. Cross listed as HIST 4483. Fall, odd.
- WGS 4743. Social and Political Philosophy** Explores the justification, or lack thereof, of social and political institutions. Prerequisite, PHIL 1103, Introduction to Philosophy, equivalent, or instructor permission. Cross listed as PHIL 4743. Fall, even.
- WGS 4763. Philosophy of Sex** Explores the concept of sexual activity and the implications of various theories of sexual activity to our understanding of rape, sexual harassment, pornography, sexual fidelity, parenthood, and various other important contemporary sexual issues. Cross listed as PHIL 4763. Spring, even.

World Languages (WLAN)

- WLAN 4010. Learning Outcome Assessment** World Languages and Cultures program learning outcome assessment for seniors. Fall, Spring, Summer.

The Faculty, 2020-2021

- CLAIRE ABERNATHY, 2010** Associate Professor of Theatre—Costume & Makeup
B.A., Samford University
M.F.A., The University of North Carolina-Greensboro
- MOHAMMAD ABUTAYEH, 2017** Assistant Professor of Mechanical Engineering
A.A., St. Petersburg Junior College
B.S., University of South Florida
M.S., University of South Florida
Ph.D., University of South Florida
- REJOICE ADDAE, 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
- JEONGHO AHN, 2008** Associate Professor of Mathematics
B.S., Kyung Hee University—South Korea
M.S., Kyung Hee University—South Korea
Ph.D., University of Iowa
- CHRISTINA C. AKBARI, 2015** Assistant Professor of Speech-Language Pathology
B.A., Lamar University
M.A., University of Houston
Ph.D., Texas Tech University Health Sciences Center
- MOHAMMAD AKHTER, 2015** Nurse Anesthesia Clinical Coordinator
Bachelor of Medicine, Quid-e-Azam Medical College, Bahawalpur, Pakistan
Bachelor of Surgery, Quid-e-Azam Medical College, Bahawalpur, Pakistan
- AL AMOODY, FATMA, 2018** Instructor
B.S. Chemistry, United Arab Emirates (UAE) University
M.S. Chemistry, Arkansas State University, State University, Arkansas
- MOHAMMAD ABRAR ALAM, 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
- HASHIM ALI, 2009** Associate Professor of Chemistry
B.S., United Arab Emirates University
Ph.D., University of Iowa
- MARTI LU ALLEN, 2006** Director of ASU Museum
B.A., University of Missouri—Columbia
M.A., Michigan—Ann Arbor
Ph.D., University of Michigan—Ann Arbor
- PATRICIA GALE ALLEN, 2018** Assistant Professor in Nursing
A.D.N., East Arkansas Community College
B.S.N., Memphis State University
M.S.N., Arkansas State University
Ed.D., Arkansas State University
- KACIE ALTOM, 2015** Assistant Professor in Nursing
B.S., Arkansas State University
M.S.N., Arkansas State University
- OSABUOHEN P. AMIENYI, 1989** Professor of Radio-Television
—Chair, Department of Media
B.S., Tennessee State University
M.A., Northern Illinois University
Ph.D., Bowling Green State University
- SCOTT ANDERSON, 2016** Assistant Professor in Communication
B.S., Oregon State University
M.A., Oregon State University
Ph.D., University of Memphis

NICHOL ANDREWS, 2020 B.S., Arkansas State University M.S., Benedictine University	Assistant Professor of Nursing
SUSAN ANSELM, 2005 B.S.E., Southeast Missouri Sate University M.S., University of Central Arkansas	Instructor in Early Childhood Education —Mtn. Home
DAWN ARCHIBOLD, 2016 B.S., Southern Illinois University M.B.A., Keller Graduate School of Management M.S., Southern Illinois University	Instructional Designer, A-State Online Faculty Support
TERRANCE ARMSTARD, 2019 B.A., University of Louisiana Monroe M.A., University of Louisiana Monroe	Instructor Media/Multimedia
NICOLE ARNELL, 2010 B.A., Indiana University M.F.A., Colorado State University	Associate Professor of Graphic Design
KHEM ARYAL, 2017 B.A., Tribhuvan University, Kathmandu M.A., Tribhuvan University, Kathmandu Ph.D., University of Missouri	Assistant Professor of English & Philosophy
CATHERINE BAHN, 2017 B.S., Arkansas State University M.A., Arkansas State University	Instructor, A-State Online-Communication
JEFFREY R. BAILEY, 1992 B.A., Morehead State University M.L.S., Clarion University of Pennsylvania	Director, Library
KATHERINE BAKER, 2016 B.A., University of Wisconsin-Madison M.A., University of Virginia Ph.D., University of Virginia	Assistant Professor of Art History
TIMBERLY BAKER, 2019 B.S.E., University of Arkansas at Pine Bluff M.S.E., Arkansas State University Ph.D., Indiana University	Associate Professor of Educational Leadership
TEMMA BALDUCCI, 2004 B.S., Mississippi State University M.A., University of Alabama at Birmingham Ph.D., University of Kansas	Professor of Art History —Chair, Department of Art + Design
JERRY BALL, 1990 B.A., Arkansas State University M.A., Arkansas State University Ph.D., University of Tennessee	Professor of English
TARA BANKS, 2015 A.S., Arkansas State University B.S., Arkansas State University B.S., Arkansas State University M.S., Arkansas State University	Instructor in Transition Studies
DEBRA L. BARNETT, 2012 B.S., Arkansas State University M.A., Arkansas State University	Instructor in Mathematics
REBECCA BARRETT-FOX, 2013 B.A., Juniata College M.A., University of Kansas Ph.D., University of Kansas	Assistant Professor of Sociology

DEANNA BARYMON, 2007 B.S., Arkansas State University M.S., Arkansas State University	Associate Professor of Diagnostic Medical Sonography
SHAWN BAYOUTH, 2018 A.A., Johnson County Community College B.A., Western Illinois University M.S., Indiana State University Ph.D., Iowa State University of Science & Technology	Chair of Disaster Preparedness/Emergency Management
AIREK BEAUCHAMP, 2015 B.A., Southeast Missouri State University M.A., Southeast Missouri State University Ph.D., Binghamton University	Assistant Professor of Writing Studies
ANNETTE BEDNAR, 2010 B.S., Arkansas State University M.S., Arkansas State University	Assistant Professor of Clinical Lab Sciences
CLAUDIA BENAVIDES-ESPINOZA, 2010 B.A., Universidad Autonome de Nuevo Leon-Monterrey, Mexico M.Ed., Texas A&M University Ph.D., Texas A&M University	Associate Professor of Physical Education
KERRI BENNETT, 2012 B.A., Arkansas State University M.A., Arkansas State University M.A., University of Arkansas at Monticello	Instructor in English
SANDRA K. BEVILL, 1991 B.S.E., Arkansas State University M.S.E., Arkansas State University Ph.D., University of Mississippi	Professor of Business Communication
MANU BHANDARI, 2015 M.A., Pokhara University, Nepal M.A., University of Missouri-Columbia Ph.D., University of Missouri	Assistant Professor in Strategic Communication
ABHIJIT BHATTACHARYYA, 2019 B.Tech., Indian Institute of Technology- India M.S., Rutgers University Ph.D., Rutgers University	Dean of Engineering & Computer Science
KRISTIN BIONDOLILLO, 1991 B.A., West Virginia University M.S., Southern Illinois University—Carbondale Ph.D., Southern Illinois University—Carbondale	Professor of Psychology —Chair, Department of Psychology and Counseling
KOUSHIK BISWAS, 2012 B.S., Vidyasagar University M.S., Texas Tech University M.Sc., Jadavpur University Ph.D., Texas Tech University	Associate Professor of Physics
CHRISTIE BLACK, 2013 B.S., University of Central Arkansas M.S., Arkansas State University D.N.P., Arkansas State University	Nurse Anesthesia Associate Program Coordinator
KAREN BLUE, 1998 B.S.N., University of Central Arkansas M.S.N., Arkansas State University	Assistant Professor of Nursing
CLIFFORD BLUMBERG, 2017 B.A., University of Texas at Arlington M.A., University of Texas at Arlington M.P.A., University of Texas at Arlington Ph.D., University of Texas at Arlington	Assistant Professor of Political Science

- JENNIFER BOULDIN, 2008** Professor of Environmental Biology
B.S., University of Arkansas for Medical Sciences
Ph.D., Arkansas State University
- THAN BOVES, 2013** Associate Professor of Avian Ecology
B.S., University of Illinois
M.S., Boise State University
Ph.D., University of Tennessee
- MICHAEL BOWMAN, 2012** Associate Professor of Communications
B.S., Arkansas State University
M.S., Arkansas State University
Ph.D., Arkansas State University
- AUDREY DENISE BOWSER, 1998** Assistant Professor of Secondary Education and Technology
—Director of Professional Education
—Teacher Certification Officer
B.S.E., Arkansas State University
M.S.E., Arkansas State University
Ph.D., Iowa State University
- DONNA BOYD, 2019** Dean of College of Sciences & Mathematics
B.A., Wake Forest University
Ph.D., University of Utah
- COURTNEY BRACY, 2016** Instructor, A-State Online Integrative Studies
B.S., Arkansas State University
M.B.A., Arkansas State University
- MARY JANE BRADLEY, 1987** Associate Professor of Education
—Dean of Education and Behavioral Science
B.S.E., Arkansas State University
M.S.E., Arkansas State University
Ed.S., Arkansas State University
Ed.D., Memphis State University
- ROBERT BRADLEY, 2017** Assistant Professor of Athletic Training
B.S., Southeast Missouri State University
M.S., Georgia Southern University
Ed.D., United States Sports Academy
- KIMBERLY BRADY, 2016** Instructor of English as a Second Language and Coordinator
B.S., University of Mississippi for Women
M.A., University of Mississippi
- LINDA BRADY, 2012** Instructor of Sociology and Criminology
B.S., Arkansas State University
M.A., Arkansas State University
- SHANON BRANTLEY, 2012** Assistant Professor of Communication Disorders
M.S., Arkansas State University
B.S., Arkansas State University
- ANDREA BROWN, 2016** Assistant Professor of Occupational Therapy
B.S., University of Central Arkansas
M.S., University of Central Arkansas
- CHRISTOPHER R. BROWN, 1990** Professor of Economics
B.A., University of Tennessee—Knoxville
M.A., University of Tennessee—Knoxville
Ph.D., University of Tennessee—Knoxville
- SCOTT L. BRUCE, 2018** Associate Professor for Athletic Training
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 M.S.N., Arkansas State University
- JAMES SCOTT, 2017** Temporary Instructor in Accounting
 B.A., Arkansas State University
 B.S., Arkansas State University
 M.B.A., Syracuse University
 M.S.S., US Army War College
- SARAH SCOTT, 2008** Instructor in Communication Studies
 B.A., University of North Carolina
 M.A., Arkansas State University
- GIDGET R. SCRIVNER, 1994** Instructor in Computer Science
 B.S., Arkansas State University
 M.S., Arkansas State University
- ERIC SCUDAMORE, 2017** Assistant Professor in Exercise Science
 B.S., The University of Alabama
 M.S., University of North Alabama
- SANDRA B. SEAY, 1967** Assistant Professor of Music
 B.S.E., University of Missouri
 M.A., University of Missouri
- RICHARD SEGALL, 1998** Professor of Computer & Information Technology
 B.S., Rensselaer Polytechnic Institute
 M.S./M.S., Rensselaer Polytechnic Institute
 Ph.D., University of Massachusetts at Amherst

ILWOO SEOK, 2010 B.S., Hanyang University M.S., Hanyang University Ph.D., University of California	Associate Professor of Mechanical Engineering
JOHN SEYDEL, 1995 B.S., University of Colorado M.B.A., Boise State University Ph.D., Texas A&M University	Professor of Computer & Information Technology
RAJESH SHARMA, 2009 B.S., St. Johns' College-India M.S., St. Johns' College-India M.S., University of Florida-Gainesville Ph.D., University of Illinois	Associate Professor of Renewable Energy Technology
ALICIA SHAW, 2016 B.S.E., Arkansas State University M.S.E., Arkansas State University Ed.D., Arkansas State University	Assistant Professor in Teacher Education and Leadership
APRIL SHEPPARD, 2005 B.A., Arkansas State University B.F.A., Arkansas State University M.L.S., Texas Women's University	Assistant Library Director
CHEYENNE SHEPPARD, 2019 B.S., Arkansas State University B.S., Arkansas State University M.S., Arkansas State University	Temporary Instructor in Electrical Engineering
AARON SHEW, 2019 B.A., Tennessee State University B.S., Tennessee State University M.A., University of Arkansas M.S., University of Arkansas Ph.D., University of Arkansas	R.E.L. Wilson Chair of Agriculture Economics
DORIS SHEWMAKER, 2010 A.B., San Diego State University M.A., Biola University	Instructor in English as a Second Language
AMY JO SHOLLENBARGER, 2011 B.A., Harding University M.C.D., Arkansas State University	Assistant Professor of Communication Disorders —Interim Chair, Communication Disorders
ABU NAYEM MD ASRAF SIDDIQUEE, 2018 B.S., Khulna University of Engineering & Technology M.S., Arkansas State University	Temporary Instructor in Mechanical Engineering
PAUL SIKKEL, 2009 B.A., University of California-San Diego M.S., Oregon State University Ph.D., Oregon State University	Associate Professor of Biology
TABATHA SIMPSON-FARROW, 2019 A.A., Northeastern College B.A., Arkansas State University M.S., Arkansas State University	Writing Center Director
JOLLEAN SINCLAIRE, 2007 B.B.A., University of Memphis M.B.A., University of Memphis Ph.D., University of Memphis	Associate Professor of Computer and Information Technology
JACQUES SINGLETON, 2008 B.S. University of Southern Mississippi M.S.W., University of Southern Mississippi Ed.D., University of Memphis	Associate Professor of Special Education

RONALD W. SITTON, 2015 B.A., University of Arkansas at Little Rock M.A., University of Arkansas at Little Rock Ph.D., University of Tennessee	Instructor in Media
THILLAINATARAJAN SIVAKUMARAN, 2012 B.S., University of Washington M.S., University of Tennessee-Knoxville Ph.D., University of Tennessee-Knoxville	Associate Professor of Educational Leadership —Executive Director of Global Initiatives
STACEY SLOAS, 2005 B.S.E., Arkansas State University B.S., Arkansas State University	Associate Professor of Physical Therapy
KRISTA SNELLGROVE, 2004 B.S.N., Arkansas State University M.S.N., Arkansas State University	Professor of Nursing
CHI YOUNG SONG, 2016 B.M., The Boston Conservatory M.M., The Boston Conservatory D.M.A., University of Kentucky	Assistant Professor of Music
MICHAEL P. SPIKES, 1987 B.A., Mississippi State University M.A., Indiana University Ph.D., Indiana University	Professor of English
NATHAN STEPHENS, 2013 B.S., Black Hills State University M.S., Arkansas State University	Temporary Instructor in Biology
JASON STEWART, 1998 B.S., Arkansas State University M.S., Texas A&M University	Instructor in Agricultural Engineering
WILLIAM R. (RICK) STRIPLING, 2011 B.A., University of Florida-Tampa M.S., Arkansas State University Ed.S., Arkansas State University Ph.D., Southern Illinois University-Carbondale	Associate Professor of Educational Leadership —Director, College Student Personnel Program —Director, Special Projects for the A-State/Mexico Partnership
HUBERT B. STROUD, 1968 B.S., Austin Peay State University M.A., Memphis State University Ph.D., University of Tennessee	Professor of Geography
HUNG-CHI SU, 2003 B.S., National Cheng-Kung University M.S., Oklahoma State University Ph.D., Oklahoma State University	Associate Professor of Computer Science
RYAN SULLIVAN, 2019 B.M./B.M.E., University of Missouri M.M., Texas Tech University D.M., University of North Texas	Assistant Professor of Music
CATHERINE M. SULLIVAN, 2015 B.F.A., Arkansas State University M.F.A., Rutgers University	Instructor in Art
KRISTEN SUMLER, 2016 B.A., University of Central Arkansas M.A., Arkansas Tech University	Instructor in English Learning Academy
ANDREW T. SUSTICH, 1991 B.S., University of Illinois—Urbana-Champaign M.S., University of Illinois—Urbana-Champaign Ph.D., University of Illinois—Urbana-Champaign	Professor of Physics

- ALEXANDER SYDORENKO, 1972** Professor of History
 B.S., University of Illinois—Chicago
 M.A., University of Illinois—Chicago
 Ph.D., University of Illinois—Urbana
- EVELYN TAYLOR, 2015** Assistant Professor of Social Work
 B.A., Baylor University
 M.S.W., University of Texas
 Ph.D., Northcentral University
- RICHARD W. TAYLOR, 1984** Professor of Finance
 B.S., Arkansas State University
 M.B.A., University of Arkansas—Fayetteville
 Ph.D., Louisiana Tech University
- TINA TEAGUE, 1988** Professor of Plant Science/Entomology
 B.S., University of Arkansas—Fayetteville
 M.S., University of Arkansas—Fayetteville
 Ph.D., Texas A&M University
- EMILY KATHLEEN TERRY, 2018** Temporary Instructor in Communication Disorders
 B.S., University of Arkansas for Medical Sciences
 M.S., Arkansas State University
- DINAH TETTEH, 2016** Assistant Professor of Communication Studies
 B.Ed, University of Cape Coast, Cape Coast, Ghana
 M.A., East Tennessee State University
 Ph.D., Bowling Green State University
- PHILIP TEW, 2009** Associate Professor of Finance
 B.B.A., University of Mississippi
 M.B.A., University of Mississippi
 M.T., University of Mississippi
 J.D., University of Mississippi
 Ph.D., University of Mississippi
- KERRY TEW, 2014** Associate Professor of Finance
 B.S., University of Mississippi —Neil Griffin College of Business First Year Student Success Coordinator
 B.A., University of Mississippi
 M.A., University of Mississippi
- MATTHEW THATCHER, 2008** Assistant Professor of Communication Studies
 B.A., University of California—Berkeley —Communication Studies Online Degree Program Coordinator
 M.A., University of Iowa
 Ph.D., University of Iowa
- MARCELINE THOMPSON-HAYES, 2004** Professor of Communication Studies
 B.A., University of Arkansas at Little Rock —Chair, Department of Communication
 M.A., University of Arkansas at Little Rock
 Ph.D., The University of Memphis
- KATE TITSWORTH, 2016** Instructor of Health, Physical Education and Sport Sciences
 B.A., University of Arkansas at Monticello
 M.S., Arkansas State University
- HENRY TORRES, 2002** Instructor in Information Technology
 B.S., Texas Tech University —Chief Information Officer
 M.B.A., Henderson State University
- PAM TOWERY, 2011** Assistant Professor of Dietetics
 B.S., Mississippi University for Women —Program Director
 M.S., Mississippi University for Women
 Ed.S., Mississippi University for Women
- RONALD W. TOWERY, 1988** Professor of Teacher Education
 B.S., Mississippi State University —Dean, Department of Teacher Education
 M.Ed., Mississippi State University and Leadership
 Ed.D., Mississippi State University —Program Coordinator for Off-Campus Programs

- KAYLA TRAVIS, 2016** Assistant Professor of Nursing
B.S., Arkansas State University
M.N.S., University of Arkansas for Medical Sciences
- MARCUS TRIBBETT, 2005** Assistant Professor in English
B.A., Harvard University
M.A., Northern Arizona University
Ph.D., Washington State University
- FEREBEE TUNNO, 2009** Associate Professor of Statistics
B.S., Rhodes College
M.S., University of Memphis
Ph.D., Clemson University
- ROLLIN TUSALEM, 2008** Associate Professor of Political Science
B.S., Grand Canyon University
M.A., Ball State University
Ph.D., University of Missouri—Columbia
- LAURI UMANSKY, 2012** Professor of History
—Director, Heritage Studies Program
B.A., University of Massachusetts-Boston
M.A., Brown University
Ph.D., Brown University
- ALAN C. UTTER, 2019** Provost & Executive Vice Chancellor for Academic Affairs
B.S., University of Pittsburgh
M.S., University of Pittsburgh
M.P.H., University of Pittsburgh
Ph.D., University of Pittsburgh
- KIMBERLY VICKREY, 1999** Professor of Graphic Design
B.F.A., Delta State University
M.F.A., University of Memphis
- CLINTON E. VOGUS, 2012** Temporary Instructor in Management
B.S., Marquette University
M.S., Case Western Reserve University
M.B.A., Marquette University
- LEAH WALKER, 2001** Instructor in Engineering
B.S., Arkansas State University
M.S., Arkansas State University
- SARA WALKER, 2016** Assistant Professor of Disaster Preparedness/Emergency Management
—Program Director of EMS
B.A., Arkansas State University
M.S., Arkansas State University
- PATRICIA GUY-WALLS, 2001** Associate Professor of Social Work
—Co-Chair, Department of Social Work
B.A., Arkansas State University
M.S.W., University of Arkansas—Little Rock
Ph.D., Jackson State University
- STACY WALZ, 2011** Associate Professor of Clinical Lab Sciences
—Chair, Department of Clinical Lab Sciences
—Assistant Dean, Special Projects
B.S., UW-Madison
M.S., UW-Madison
Ph.D., UW-Madison
- HUIQIANG WANG, 2018** Instructor in Economics
Ph.D. University of Rhode Island
- RICHARD PIERCE WANG, 1988** Associate Professor of Political Science
B.A., State University of New York—Fredonia
M.P.A., Wayne State University
Ph.D., Wayne State University
- JIM WASHAM, 1991** Associate Professor of Finance
—Associate Dean, Neil Griffin College of Business
B.S., Arkansas State University
M.B.A., Arkansas State University
Ph.D., University of Mississippi

NATASHA WASHINGTON, 2017 B.A., Ouachita Baptist University M.A., Arkansas State University	Instructor in Political Science
STEVEN WEIMER, 2009 B.S., Frostburg State University M.A., Bowling Green State University Ph.D., Bowling Green State University	Assistant Professor of Philosophy
ERIC WEST, 2019 A.A.S., Black River Technical College B.S., Arkansas State University M.B.A., John F. Kennedy University	Assistant Professor of Dietetics
THOMAS WHARTON, 2012 B.S., Arkansas State University M.S., Arkansas State University	Instructor in Math
AMANDA WHEELER, 2010 B.S., Arkansas State University M.S., Marshall University Ph.D., Oklahoma State University	Associate Professor of Physical Education
RICK WHITE, 2008 B.S., Arkansas State University M.S., University of Missouri—Rolla	Instructor in Industrial Technology
TRACY WHITE, 1999 B.S., University of Central Arkansas M.S., Arkansas State University	Associate Professor of Radiologic Sciences
SUSAN R. WHITELAND, 2012 B.A., North Texas State University M.A., University of North Texas Ph.D., University of North Texas	Associate Professor of Art Education
ASELA WIJERATNE, 2017 B.S., University of Peradeniya, Sri Lanka Ph.D., Pennsylvania State University	Instructor of Biological Sciences
SARAH WILKERSON-FREEMAN, 1996 B.A., University of Iowa M.A., University of North Carolina Ph.D., University of North Carolina	Professor of History
MELISSA K. WILKINSON, 2010 B.A., Western Illinois University M.F.A., Southern Illinois University-Carbondale	Associate Professor of Art
WAYNE WILKINSON, 2013 B.A., Mount Vernon Nazarene College M.A., Ball State University M.A., Northern Illinois University Ph.D., Northern Illinois University	Assistant Professor of Psychology
CARMEN WILLIAMS, 2003 B.S.E., Arkansas State University M.A., Arkansas State University	Instructor in English
DIANA WILLIAMS, 1999 B.A., Southern Methodist University M.A., University of North Texas—Denton Ed.D., University of Nevada—Las Vegas	Associate Professor of Teacher Education
GAYLE WILLIAMS, 1991 B.A., Arkansas State University M.A., Arkansas State University Ph.D., University of Mississippi	Instructor in English

- ROBERT WILLIAMS, 2016** Assistant Professor in Teacher Education and Leadership
 B.A., Auburn University
 M.Ed., Walden University
 Ed.S., Liberty University
 Ph.D., Liberty University
- CAMERON WIMPY, 2019** Assistant Professor of Political Science
 B.A., Arkansas State University
 M.A., Arkansas State University
 Ph.D., Texas A&M University
- LaTOSHIA WOODS, 2005** Assistant Professor of Teacher Education
 B.S.E., Arkansas State University
 M.S.E., Arkansas State University
 Ph.D., University of Arkansas
- AMBER WOOTEN, 2010** Assistant Professor of Medical Imaging and Radiation Services
 B.S., Arkansas State University
 M.S., Arkansas State University
- CHRISTINE WRIGHT, 2017** Chair, Department of Occupational Therapy
 B.S., Texas Christian University
 M.S., Washington University School of Medicine
 Ph.D., Texas Woman's University
- MATTHEW WRIGHT, 2017** Assistant Professor of Sociology
 B.S., Ball State University
 M.A., Ball State University
- PEGGY WRIGHT, 1998** Instructor in Geography
 —Coordinator, Delta Studies Center
 B.A., Arkansas State University
 M.P.A., Arkansas State University
- J. LESLIE WYATT 1995** Professor of Higher Education
 —Emeritus President of the University
 B.A., Abilene Christian University
 B.F.A., University of Texas—Austin
 M.F.A., University of Texas—Austin
 Ph.D., University of Texas—Austin
- JIANFENG XU, 2008** Associate Professor of Biochemical Engineering—ABI/Agriculture
 B.S., Dalian University of Technology—China
 Ph.D., Dalian University of Technology—China
- KAREN L. YANOWITZ, 1996** Professor of Psychology
 B.A.S., Brandeis University
 M.S., University of Massachusetts
 Ph.D., University of Massachusetts
- DAVID RUSTY YOUNG, 2017** Instructor of Math Science Institute North
 B.S.E., Arkansas State University
 M.S.E., Arkansas State University
- KENDALL YOUNGMAN, 2018** Computed Tomography Program Coordinator
 A.A.S., Arkansas State University
 B.S.R.S., Arkansas State University
- SINA ZARE, 2019** Assistant Professor of Supply Chain & Operations Management
 B.S., Azad University
 M.S., Royal Institute of Technology
 Ph.D., University of Texas
- LILY ZENG, 2004** Professor of Radio-Television
 B.A., Hunan Normal University—China
 M.A., Zhongshan University—China
 Ph.D., Southern Illinois University

BIN ZHANG, 2000

B.S., Peking University
M.S., Columbia University
M.Ph., Columbia University
Ph.D., Columbia University

Associate Professor of Physics

JUNLIN ZHANG, 2015

M.D., Three Georges University, Yichang, Hubei, China
M.S., Jinan University, Guangzhou, Guangdong, China
Ph.D., University of Mississippi Medical Center

Assistant Professor of Physical Therapy

GUOLEI ZHOU, 2010

B.S., China Agricultural University
M.S., China Agricultural University
M.S., Shimane University
Ph.D., Tottori University

Associate Professor of Molecular Biology

HONG ZHOU, 2006

B.S., Hua Zhong University of Science and Technology of China
M.S., Hua Zhong University of Science and Technology of China
M.S., University of Memphis
Ph.D., University of Memphis

Associate Professor of Statistics

Emeriti, 2020-2021

Robert F. Abbott, 1967-1991	Emeritus Professor of Counselor Education and Psychology
Harriette Adams, 1996-2016	Emeritus Instructor in Physical Education
Thomas Myers Adams, II, 1981-2016	Emeritus Professor of Exercise Science
Cindy Albright, 1976-2007	Emeritus Assistant Professor of Physical Education
Gary Albright, 1977-2004	Emeritus Director of Intramurals
Ed Alexander, 1994-2006	Emeritus Assistant Professor of Music
William J. Allen, 1979-2015	Emeritus Professor of Art
Robin Anderson, 1976-2012	Emeritus Professor of History
Paul Armah, 1997-2018	Emeritus Professor of Agricultural Economics
Nancy Bacot, 1972-2013, deceased	Emeritus Instructor in Teacher Education
Thomas Baglan, 1980-2011	Emeritus Professor of Communication Studies
Darlene Baker, 1990-2015	Emeritus Associate Professor of Nursing
T.R. Baker, 1966-1992	Emeritus Associate Professor of Art Education
Larry Ball, 1970-2001	Emeritus Professor of History
Eugene A. Ballard, 1964-1990, deceased	Emeritus Assistant Professor of Printing
Rosalie Barber, 1969-2000	Emeritus Instructor in Physical Education
Edmund L. Barnette, 1967-1993	Emeritus Professor of Counselor Education and Psychology
Neale Barteel, 1973-2014	Emeritus Professor of Music
Beverly Bartels, 1970-1998	Emeritus Associate Professor of Nursing
Harvey Barton, 1967-1991, deceased	Emeritus Professor of Zoology
Robert Baum, 1993-2012	Emeritus Associate Professor of Spanish
Ovid Bayless, 1974-1998	Emeritus Professor of Speech Communication and Chair, Department of Speech Communication and Theatre Arts
John K. Beadles, 1968-1993, deceased	Emeritus Professor of Biology and Dean, Graduate School
John Beineke, 1999-2017	Emeritus Distinguished Professor of Educational Leadership
Bobby D. Bennett, 1991-2018	Emeritus Associate Professor of Environmental Biology
J. Edward Bennett, 1963-1997	Emeritus Professor of Chemistry
John B. Bennett, 1968-1990, deceased	Emeritus Associate Professor of Mathematics
Thomas D. Bishop, 1970-2002	Emeritus Professor of Mathematics and Computer Science
Loretta Bookout, 1987-1997	Emeritus Instructor in Elementary Education
Steve M. Bounds, 2007-2018	Emeritus Associate Professor in Teacher Education
Carolyn Bowers, 1975-1997	Emeritus Associate Professor of Early Childhood Education
Robert Bowman, 1970-1999	Emeritus Professor of Mathematics
Willis Brenner, 1985-1998	Emeritus Documents Librarian
Loretta Brewer, 2001-2015	Emeritus Professor of Social Work
Gloria Bridges, 2001-2011	Emeritus Instructor in Freshman Studies
Lew Brinkley, 1969-2005	Emeritus Professor of Agricultural Economics
Alexander Brown, 2005-2016	Emeritus Instructor in Radio-Television

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David Burgess, 1973-1998	Emeritus Associate Professor of Health Education
Julia Burkart, 1984-1996	Emeritus Associate Professor of Social Work
James Burleson, 1963-2000, deceased	Emeritus Professor of English
Alta Burns, 1961-1996	Emeritus Assistant Professor of Physical Education
John L. Burns, 1969-1994	Emeritus Professor of Counselor Education
Sandra Burns, 1984-1996	Emeritus Assistant Professor of Business Law
William Byrd, 1955-1993, deceased	Emeritus Associate Professor of Biology
Nellie T. Caffery, 1968-1989 , deceased	Emeritus Instructor in Nursing
Martha Caldwell, 1985-1993	Emeritus Assistant Professor of Nursing
Roger Carlisle, 1974-2014	Emeritus Professor of Art
Charles Carr, 1975-2012, deceased	Emeritus Professor of Philosophy
Rebecca Carr, 1988-2014	Emeritus Instructor in Real Estate and Accounting
Richard Carvell, 1971-2008	Emeritus Assistant Professor of Radio-Television
James Cathey, 1986-2003	Emeritus Instructor in Radio-Television
Tom Chaffee, 1968-2010	Emeritus Professor of Art
William G. Chance, 1965-1990, deceased	Emeritus Professor of Education
David Chittenden, 1967-2000, deceased	Emeritus Professor of Chemistry
Ruby Chittenden, 1968-2000	Emeritus Director of the COB Advising Cente
Nola Christenberry, 1988-2012	Emeritus Associate Professor of Counseling
Linda Davis Clark, 1970-2018	Emeritus Assistant Professor of Communication Studies
William Clements, 1971-2011	Emeritus Professor of English
Ricky C. Clift, 1980-2014	Emeritus Professor of Civil and Environmental Engineering
Daniel Cline, 1992-2010, deceased	Emeritus Professor of Education
Larry Clowers, 1969-2000	Emeritus Assistant Professor of Sociology
Marguerite Coe, 1972-1993, deceased	Emeritus Professor of Speech Communication
Charles Coleman, 1991-2011	Emeritus Instructor in Mechanical Engineering and Director, Technology Program
Baron Conaway, 1965-1995, deceased	Emeritus Professor of Reading
Harold L. Copenhaver, 1970-1988	Emeritus Professor of Music and Dean, College of Fine Arts
Glenda Lee Coppedge, 1995-2007	Emeritus Temporary Instructor in English
David Cox, 1992-2014	Emeritus Professor of Education
Carole Cramer, 2004-2018	Emeritus Professor of Biological Sciences and Plant Pathology
John E. Cramer, 1978-1986, deceased	Emeritus Assistant Professor of Radio-Television
Linda Creibaum, 2002-2018	Emeritus Librarian
Albert B. Crosswait, 1968-1990, deceased	Emeritus Associate Professor of Education
William Crumpton , 1980-2006	Emeritus Associate Professor of Agricultural Engineering
Larry Dale, 1986-2009, deceased	Emeritus Professor of Economics
Roberta Daniels, 1985-1999	Emeritus Professor of Gifted & Talented Education
Perry Jake Darby, 1971-1998, deceased	Emeritus Assistant Professor in Health and Physical Education

Scott Darwin, 1969-2008	Emeritus Professor of German
Robin L. Dauer, 1987-2018	Emeritus Professor of Music
James L. Davenport, 1954-1985, deceased	Emeritus Associate Professor of Agricultural Economics
Emma Sue Davidson, 1972-1988, deceased	Emeritus Assistant Professor of Education
Don Denny, 1958-1993	Emeritus Associate Dean of Students
Bonnie Deuter, 1981-2003	Emeritus Assistant Professor of Nursing
James A. DeVazier, 1967-1991	Professor of Physical Education
Beverly DeWater, 1972-2001	Emeritus Assistant Professor of Psychology
Gerald Dickinson, 1990-2005, deceased	Emeritus Profess of Education
Jack Dison, 1976-2000	Emeritus Associate Professor of Sociology
Michael Dougan, 1970-2006	Emeritus Professor of History
Michael B. Doyle, 1986-2018	Emeritus Instructor in Radio-Television KASU Station Manager
Ervin Dunham, 1967-1983	Emeritus Professor of Music
Nathan B. Edgar, 1995-2015	Emeritus Associate Professor of Mechanical Engineering
Robert Engelken, 1982-2015	Emeritus Professor of Electrical Engineering
John Enger, 1976-1999	Emeritus Professor of Education
David England, 1984-2006, deceased	Emeritus Associate Professor of Political Science
Daniel O. Felts, 1967-1996, deceased	Emeritus Instructor in Mathematics
Robert L. Ferralasco, 1952-1989	Emeritus Professor of Administrative Services and Chair, Department of CIS and Administrative Services
Thomas Fiala, 1998-2013	Emeritus Associate Professor of Teacher Education
George Foldesy, 1992-2014	Emeritus Professor of Education
Charles Ford, 1969-2006	Emeritus Professor of Marketing
Richard Freer, 1994-2014	Emeritus Associate Professor of Social Work
Diana Fuller, 2007-2018	Emeritus Assistant Professor of Nursing --ASU Mountain Home
Wilbert Gaines, 1972-2005	Emeritus Associate Professor of Physical Education
Joel T. Gambill, 1966-2010	Emeritus Associate Professor of Journalism
Raymond Gazik, 1967-1998, deceased	Emeritus Professor of Mathematics
Roy Gehring, 1968-2000	Emeritus Associate Professor of Environmental Botany
Sammy Gennuso, 1963-2014, deceased	Emeritus Assistant Professor of English
Deborah Gilbert-Palmer, 2000-2011	Emeritus Associate Professor of Nursing
Martha Jane Gill, 1970-2002	Emeritus Instructor in French
David Gillanders, 1984-2006	Emeritus Professor of Electrical Engineering
Betty B. Goldsby, 1969-1985, deceased	Emeritus Instructor in Elementary Education
Sarah Gore, 1984-2018	Emeritus Instructor in Mathematics
Fay Beth Gray, 1966-1969; 1972-2000	Emeritus Professor of Business Systems
Polly Green Wood, 1998-2014	Emeritus Instructor in Developmental Studies
William Greenwald, 1972-2007	Emeritus Associate Professor of History
Paul D. Gwinup, 1965-1994, deceased	Emeritus Professor of Chemistry
Lyman Hagen, 1969-1993, deceased	Emeritus Professor of English

Earl Hanebrink, 1958-1993, deceased	Emeritus Professor of Biology
James W. Hansard, 1964-1996	Emeritus Director of Dean B. Ellis Library
George Harp, 1967-1999	Emeritus Professor of Environmental Biology
Jeane Harris, 1986-2014	Emeritus Professor of English
James H. Harrison, 1973-1990	Emeritus Assistant Professor of Sociology
Charles Hartwig, 1973-2011	Emeritus Professor of Political Science
Thomas M. Harwell, 1968-1979, deceased	Emeritus Professor of English
Afak Haydar, 1970-1997, deceased	Emeritus Professor of Political Science and Public Administration, Associate Dean of University College and Executive Director of International Programs and Services
Jasper A. Hayles, Jr., 1967-1988	Emeritus Professor of Agricultural Education
George Y. Herndon, 1968-1985, deceased	Emeritus Professor of Speech Pathology
Paul Hickman, 1989-2016	Emeritus Assistant Professor of Art & Visual Resources Librarian
Lawrence Hinck, 1969-2001	Emeritus Professor of Microbiology
Jeffrey Hoeper, 1980-2004	Emeritus Professor of English
Mitchell Holifield, 1990-2016	Emeritus Professor of Education
William Holmes, 1977-2000	Emeritus Professor of Music
George Horneker, 1966-2018	Emeritus Assistant Professor of English
Joe Horsey, 1983-2006	Emeritus Assistant Professor of Marketing
John Hosinski, 1965-1994, deceased	Emeritus Professor of Physical Education
D. Lynn Howerton, 1974-2014	Emeritus Professor of Psychology
Dan Hoyt, 1976-2000, deceased	Emeritus Professor of Management and Coordinator of COB Internships
Terry L. Huckabee, 1969-1998	Emeritus Assistant Professor of Theatre Arts
Gladys M. Hudgins, 1953-1985, deceased	Emeritus Associate Professor of Physical Education
William D. Humphrey, 1988-2014	Emeritus Professor of Animal Science
James A. Hutchison, 1965-1992, deceased	Emeritus Professor of Biology
Julie Juer Isaacson, 1987-2016	Emeritus Associate Professor of Nursing
Perry Isbell, 1983-2005	Emeritus Assistant Professor of Technology
James W. Jackson, 1959-1986, deceased	Emeritus Instructor in Physical Education
O. Philip James, 1967-1978, deceased	Emeritus Professor of English and Dean of Liberal Arts
Paula James, 1981-2010	Emeritus Director of Admissions and Academic Advisor
G. David Jimerson, 1970-2002, deceased	Emeritus Associate Professor of Chemistry
Bob D. Johnson, 1967-1998	Emeritus Professor of Zoology
Robert E. Johnson, 1967-2007, deceased	Emeritus Professor of Mathematics
Robert Johnson, 1975-2012	Emeritus Professor of Psychology
Charles Joiner, 1987-2006	Emeritus Associate Professor of Social Work
Charlott Jones, 1972-1999	Emeritus Associate Professor of Art Education and Director, Museum
Jo Jones, 2005-2018	Emeritus Instructor in Middle Level Education—ASU Beebe
Russell Jones, 1989-2020	Emeritus Professor of Computer Information and Technology
Richard Jorgensen, 1975-2009	Emeritus Professor of Music

Ellis Julien, 1968-2008	Emeritus Professor of Music
Joseph Justen, 1981-2004	Emeritus Professor of Special Education
John Kaminarides, 1968-2001	Professor of Economics
Donald P. Kedzie, 1984-1996, deceased	Emeritus Professor of Mechanical Engineering
John Keech, 1968-2008	Emeritus Professor of Art
Howard Keene, 1964-1993	Emeritus Professor of Animal Science
John D. Kelly, 1975-1998	Emeritus Professor of Music
Charles Kenner, 1966-1995, deceased	Emeritus Professor of History
Robert Kern, 1956-1993, deceased	Emeritus Director of the Printing Plant
Randall G. Kesselring, 1984-2018	Emeritus Professor of Economics
Jerry King, 1972-2000, deceased	Emeritus Associate Professor of Sociology
Robert B. Kluge, 1956-1978, deceased	Emeritus Professor of Education
Barbara Knuckles, 1988-2011	Emeritus Instructor in Freshman Studies
Donald E. Konold, 1954-1989, deceased	Emeritus Professor of History
C. Roger Lambert, 1966-1997, deceased	Emeritus Professor of History
Albin J. Langlois, 1964-1997	Emeritus Professor of Agriculture
Julia Lansford, 1964-2008	Emeritus Associate Professor of Music
Gary Latanich, 1981-2014	Emeritus Professor of Economics
Norman Lavers, 1976-2000	Emeritus Professor of English
Dianne Lawler, 1989-2015	Emeritus Professor of Early Childhood Education
Jane H. LeBlanc, 1971-1981	Emeritus Instructor in Audiology
Nadean Lee, 1968-1992	Emeritus Head Circulation Librarian
Gary Leibrock, 1976-2003	Emeritus Instructor in Physical Education
F. David Levenbach, 1982-2018	Emeritus Assistant Professor of Political Science
Evan Lindquist, 1963-2003	Emeritus Professor of Art
Jerry Linnstaedter, 1968-2007	Emeritus Professor of Mathematics and Chair, Department of Mathematics and Statistics
Laddie Logan, 1979-2000, deceased	Emeritus Associate Professor of Marketing
Coy London, 1970-1996	Emeritus Associate Professor of Accounting
Robbie Lyle, 1976-1992	Emeritus Instructor in Developmental Programs
Frances Malpezzi, 1975-2011	Emeritus Professor of English
Dr. Don Maness, 2001-2015	Emeritus Professor of Teacher Education
Julia M. Hite Manley, 1966-1976, deceased	Emeritus Associate Professor of Biology
Daniel R. Marburger, 1989-2014	Emeritus Professor of Economics
Ross Marlay, 1975-2008	Emeritus Professor of Political Science
Katherine Masters, 1977-2002	Emeritus Instructor in Developmental Studies and Director, Freshman Studies
Mitchell M. Masters, 1976-2002, deceased	Emeritus Professor of Education and Coordinator, Community College Teaching Program
Steven L. Mayes, 1988-2002	Emeritus Professor of Art
Charles B. McClelland, 1968-1976, deceased	Emeritus Associate Professor of English
Hal McCloud, 1966-1998	Emeritus Professor of Physics

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Leonard McDaniel, 1967-1996	Emeritus Registrar
Mary Lou McDaniel, 1967-1993	Emeritus Assistant Dean of Students
V. Rick McDaniel, 1972-2007, deceased	Emeritus Professor of Zoology and Senior Associate Vice Chancellor for Academic Affairs
C. K. McFarland, 1971-1997	Emeritus Professor of History and Management
Richard McGhee, 1991-2003	Emeritus Professor of English
B.C. McGough, 1965-1987, deceased	Emeritus Professor of Real Estate
Sue McLarry, 1993-2013	Emeritus Associate Professor of Nursing
Alvin J. McRaven, 1965-1991	Emeritus Professor of Education
Renee Miller, 2001-2018	Emeritus Assistant Professor of Nursing
Robert Dale Miller, 1997-2018	Emeritus Professor of Music
Clyde Milner, 2002-2014	Emeritus Professor of History
Lawrence Mink, 1966-2000, deceased	Emeritus Professor of Physics
Richard S. Mitchell, 1964-1998	Emeritus Professor of Chemistry
Logan Moon, 1968-1995, deceased	Emeritus Assistant Professor of English
Louella Moore, 1991-2012	Emeritus Professor of Accounting
Owen Moseley, 1986-2001	Emeritus Professor of Accounting
John Muir, 1985-2005	Emeritus Professor of Agronomy
Roland Mullins, 1965-1986	Emeritus Professor of Economics and Finance
Paul Nave, 1969-2003	Emeritus Professor of Chemistry and Chair, Department of Chemistry and Physics
Elizabeth Neeley, 1960-1980, deceased	Emeritus Assistant Professor of English
Richard A. Neeley, 1987-2018	Emeritus Professor of Communication Disorders
David W. Niederbrach, 1959-1997	Emeritus Associate Professor of Music
Warren A. North, 1966-1988, deceased	Emeritus Professor of Animal Science
Lisa Ochs, 1999-2016	Emeritus Associate Professor of Counseling
Carol O'Connor, 2002-2012	Emeritus Professor of History Associate Dean, College of Humanities and Social Sciences
Thomas O'Connor, 1978-2013	Emeritus Professor of Music
Larry Olson, 1970-2001	Emeritus Associate Professor of Entomology
William Olson, 1984-1999, deceased	Emeritus Associate Professor of Management
Harriet O'Neal, 1975-2000	Emeritus Instructor in Music
Lina Leatherwood Owens, 1999-2015	Emeritus Associate Professor of Education
Deborah Gilbert Palmer, 2000-2011	Emeritus Associate Professor of Nursing
Linda Parchman, 1976-1996	Emeritus Professor of Physical Education
Thomas Parsons, 1984-2014	Emeritus Professor of Civil Engineering
Marie Patton, 1998-2018	Emeritus Instructor in English
James L. Patty, 1965-1989, deceased	Emeritus Professor of Music
Robin Payne, 1986-2015	Emeritus Librarian
Gayle Pendergrass, 1991-2010	Emeritus Professor of Art
Emilio Perez, 1975-1995, deceased	Emeritus Professor of Communicative Disorders

Deborah Persell, 2001-2018	Emeritus Professor of Nursing
Susan Power, 1968-2000	Emeritus Professor of Political Science
Robert Potts, 2006-2011	Chancellor Emeritus
Carol Pratt, 1976-1998	Emeritus Assistant Professor of Theatre Arts
Evelyn D. Prescott, 1953-1983, deceased	Emeritus Professor of Physical Education
Emmett A. Presley, 1975-1993	Emeritus Assistant Professor of Social Work
Paul Raines, 1972-1990, deceased	Emeritus Associate Professor of Botany
Charles L. Rasberry, 1961-1987	Emeritus Professor of Radio-Television and Chair, Department of Radio-Television
Daniel J. Reeves, 1999-2011	Emeritus Professor of Art Dean, College of Fine Arts
Edward C. Reilly, 1966-1996, deceased	Emeritus Professor of English
Stephen Replogle, 1970-2008	Emeritus Professor of Computer and Information Technology
Lyle G. Rhea, 1983-1994	Emeritus Professor of Mechanical Engineering
Edward L. Richards, 1963-1994, deceased	Emeritus Professor of Botany
Verlene Ringgenberg, 1994-2010	Emeritus Dean of Regional Programs
Terry Roach, 1990-2013	Emeritus Professor of Business Communication
Donald Roberts, 1968-1999	Emeritus Professor of Management Information Systems
Ellen Robinson, 1965-1994, deceased	Emeritus Assistant Professor of English
Luis Rodriguez, 1980-1994	Emeritus Associate Professor of Business Law
Jennifer Rogers, 1986-2005	Emeritus Instructor in Radio-Television
Keith Rogers, 1986-2000	Emeritus Professor of Agricultural Economics and Dean, College of Agriculture
Carol Ann Ross, 1994-2014	Emeritus Associate Professor of Teacher Education
Daniel F. Ross, 1972-2018	Emeritus Professor of Music
Timothy Ross, 1965-2000, deceased	Emeritus Professor of History
Robert Rossa, 1969-2004, deceased	Emeritus Professor of Mathematics & Computer Science
Amos B. Rougeau, 1957-1992, deceased	Emeritus Professor of Agricultural Education
Dennis Charles Rousey, 1978-2016, deceased	Emeritus Professor of History
Mary Beth Rutherford, 1986-2005	Emeritus Associate Professor of Clinical Lab Sciences
Vance Sales, 1960-1991	Emeritus Professor of Education and Dean, College of Education
Lawrence Salinger, 1990-2013, deceased	Emeritus Professor of Political Science
Laquita Saunders, 2001-2018	Emeritus Assistant Professor of History
Robert O. Saunders, 1965-1976, deceased	Emeritus Associate Professor of Physical Science
Angela Schmidt, 2006-2016	Emeritus Associate Professor of Nursing
Louis Semrau, 1977-2001	Emeritus Professor of Special Education
Pat Shackelford, 1976-1997, deceased	Emeritus Associate Professor of Agricultural Engineering
Russell Shain, 1990-2010	Emeritus Professor of Journalism and Dean, College of Communications
J.B. Sheofee, 1964-1987	Emeritus Assistant Professor of Mathematics
J. Marlin Shipman, 1981-2007	Emeritus Professor of Journalism
Calvin R. Shumway, 1991-2018	Emeritus Associate Professor of Agronomy

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Dewey H. Sifford, 1961-1997	Emeritus Professor of Chemistry
Molly Simpson, 1988-2016	Emeritus Professor of Theatre
Phyllis Skorga, 1998-2015	Emeritus Professor of Nursing
Frances Smallwood, 1964-1987, deceased	Emeritus Assistant Professor of Physical Education
C. Calvin Smith, 1970-2002, deceased	Emeritus Professor of History
Eugene Wilson Smith, 1958-1992	Emeritus Professor of Education and President of the University
Robert P. Smith, 1969-2008	Emeritus Associate Professor of Mathematics and Computer Science
Susan Smith, 1994-2012	Emeritus Assistant Professor of Nursing
Lois M. Snider, 1970-1990	Emeritus Instructor in Nursing
Victoria Spaniol, 1989-2014	Emeritus Assistant Professor of English
Jared Spears, 1967-1999	Emeritus Professor of Music
Annette S. Stacy, 1982-2016	Emeritus Associate Professor of Nursing
Norman Stafford, 1977-2008	Emeritus Professor of English
Helen S. Steger, 1981-1992	Emeritus Assistant Professor of Counselor Education
James H. Stevenson, 1965-1980, deceased	Emeritus Professor of Biology and Dean of Science
Paula Stewart, 2002-2018	Emeritus Assistant Professor of Teacher Education—ASU Mountain Home
Jim L. Stillwell, 1994-2016	Emeritus Professor of Physical Education
Elizabeth Stokes, 1991-2005	Emeritus Professor of Nursing
Shirl D. Strauser, 1966-1994	Emeritus Professor of Accounting
Herman Strickland, 1972-2008	Emeritus Associate Professor of Teacher Education and Dean, University College
Vicki Stripling, 2005-2018	Emeritus Instructor in Developmental Reading
Peggy Stroud, 1954-1984	Emeritus Associate Dean of Students
Jack Sugg, 1968-1999	Emeritus Assistant Professor of Physical Education
Ann Swaty, 1975-2004	Emeritus Assistant Professor of Music
Joseph P. Sweat, 1964-1990, deceased	Emeritus Professor of Education and Chair of Educational Administration and Secondary Education
Lois Ann Swisher, 1969-1990, deceased	Emeritus Assistant Professor of Spanish
Lonnie Talbert, 1966-1998	Emeritus Professor of Economics
Fuad Talib, 1982-2001	Emeritus Associate Professor of Insurance
Richard L. Tangeman, 1970-2002, deceased	Emeritus Professor of Mathematics and Computer Science
Patricia Teddlie, 1978-2006	Emeritus Professor of Sociology
Aubrey W. Tennille, 1962-1987, deceased	Emeritus Professor of Agronomy
John B. Thomas, 1984-1993, deceased	Emeritus Instructor in Journalism
Bonnie L. Thrasher, 1993-2015, deceased	Emeritus Instructor in Journalism
Dan Timmermann, 1967-1993	Emeritus Professor of Botany
John H. Tipton, Jr., 1983-1993, deceased	Emeritus Assistant Professor of Management
Jannie Trautwein, 1984-2011	Emeritus Instructor in Physical Science and Director, Rural Institute for Math/Science Education
Norman Trautwein, 1967-2003	Emeritus Professor of Chemistry
Stephen Tricarico, 1968-2001	Emeritus Assistant Professor of Geography

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Stanley Vanagunas, 1983-2000	Emeritus Professor of Public Administration
Mildred Vance, 1948-2002, deceased	Emeritus Professor of Education
Carl Vaupel, 1971-2002, deceased	Emeritus Professor of Education
David Vosburg, 1966-1996	Emeritus Associate Professor of Geology
Theron Waddle, 1980-2002	Emeritus Associate Professor of Music
Debra Walden, 1988-2014	Emeritus Associate Professor of Nursing
W.F. Wei, 1966-1985	Emeritus Associate Professor of Physics
Patricia Lawson Welch, 1978-2003, deceased	Emeritus Instructor in Health Education
Dennis White, 1974-2007, deceased	Emeritus Associate Professor of Communication Studies Chair, Department of Communication Studies
Jess R. White, 1968-1989	Emeritus Professor of Physical Education
Grace Whitis, 1985-1999	Emeritus Professor of Nursing
Robert Whitis, 1985-1999	Emeritus Professor of Accounting
Dalton Whitt, 1968-1997	Emeritus Assistant Professor of Accounting
Wynona Wiggins, 1993-2015	Emeritus Associate Professor of Nursing
Barbara Wilke, 1999-2014	Emeritus Assistant Professor of Nursing
Emelda Williams, 1978-2000	Emeritus Professor of Marketing and Chair, Department of Management, Marketing & Business Systems
Herman F. Williams, 1953-1980, deceased	Emeritus Associate Professor of Agricultural Engineering
J. Larry Williams, 1974-1997, deceased	Emeritus Professor of Sociology
Stanley H. Williams, 1972-1997	Emeritus Professor of Education
Whitney Williams, 1986-2009	Emeritus Associate Professor of Clinical Laboratory Sciences and Chair, Department of Clinical Laboratory Sciences
William Williams, 1978-1996	Emeritus Associate Professor of Finance
Raymond Winters, 1995-2018	Emeritus Associate Professor of Radiologic Sciences
Paige Wimberley, 1996-2019	Emeritus Associate Professor of Nursing
Mary Lou Wood, 1965-1995	Emeritus Assistant Professor of Administrative Services
Stan Woolridge, 2000-2014	Emeritus Instructor in Mathematics
Donald E. Wright, 1970-1997, deceased	Emeritus Professor of Education
J. Leslie Wyatt, 1995-2010	Emeritus President
William Wyatt, 1967-2009, deceased	Emeritus Professor of Chemistry
Charles Yauger, 1964-2000	Emeritus Associate Professor of Management

Administrative Support Staff, 2020-2021

FINANCE AND ADMINISTRATION

Administrative Services	Kimberly Scutero, Associate for Administration
Auxiliary Services	Craig Johnson, Assistant Vice Chancellor
Budget Planning and Development	Donna McMillin, Assistant Vice Chancellor for Business
Controller's Office	Russ Hannah, Associate Vice Chancellor for Finance
Controller's Office	Myra Goodwin, Controller
Delta Cetner for Economic Development	Andrea Allen, Executive Director
Dining Services	Dan McLain, General Manager
First National Bank Arena	Jim Brown, Director
Facilities Management	David Handwork, Assistant Vice Chancellor
Human Resources	Lori Winn, Assistant Vice Chancellor for Human Resources
Information & Technology Services	Henry Torres, Chief Information Officer
Parking Services	David McKinney, Director
Procurement Services	Lisa Glasco, Director
Sponsored Programs Accounting	Whitney Lumpkin, Director
Treasurer's Office	Brandy Hampton, Treasurer
University Police	Randy Martin, Chief

CHANCELLOR

Administrative Services	Julie Wyatt, Assistant to the Chancellor
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ACADEMIC AFFAIRS AND RESEARCH

Academic Affairs	Alan Utter, Provost and Executive Vice Chancellor for Academic Affairs
Academic Affairs	Karen Wheeler, Senior Associate Vice Chancellor for Academic Affairs
Academic Affairs	Jill Simons, Associate Vice Chancellor for Undergraduate Studies
Academic Affairs	Kathy Hicks, Director of Budget and Planning
Administrative Services	Jeannie Cossey, Associate for Administration
Assessment Services	Summer DeProw, Assistant Vice Chancellor
Delta Heritage Initiatives	Adam Long, Director
Fowler Center	Marika Kyriakos, Director
Institutional Effectiveness	Vacant, Assistant Vice Chancellor for Institutional Effectiveness
Honors College	Rebecca Oliver, Director
Museum	Marti Lu Allen, Director
Registrar	Tracy Finch, Registrar, Director
Testing	Summer DeProw, Assistant Vice Chancellor

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Office of Diversity	Sharon Lee, Director of Community Engagement & Outreach
Office of Diversity	Lillie Fears, A-State A.D.V.A.N.C.E Faculty Liaison
BECK Pride Center for Americas Wounded Veterans	Lynda Nash, Director
Disability Services	Jenifer Rice-Mason, Director
Multicultural Center	Evette Allen, Director

GLOBAL INITIATIVES

Global Initiatives	Thilla Sivakumaran, Director
International Student Services	Mallory Yarbrough, Coordinator

ENROLLMENT MANAGEMENT

Enrollment Management	Bryan Terry, Vice Chancellor
Financial Aid and Scholarships	Terry Finney, Assistant Vice Chancellor
Recruitment	Pamela Bowie, Director

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Dean of Students	Martha Spack, Dean
Residence Life	Travis Pierce, Director
Student Health & Wellness	Matt Huckaby, Director
Student Union Leadership Center	Alexis Hurdle, Director

SPECIAL ASSISTANT TO THE CHANCELLOR

Chancellor Office	Lonnie Williams, Special Assistant to the Chancellor
Counseling Center	Phillip Hestand, Director

UNIVERSITY ADVANCEMENT

Advancement
Advancement
Advancement Services
Alumni Relations
Career Services
Development
Marketing and Communications
Media Relations
Publications and Creative Services
Digital Creative Media

Eirka Chudy, Interim Vice Chancellor
Mendy Hendrix, Assistant to the Vice Chancellor
Christy Harvey, Executive Director
Lindsay Burnett, Director
Tiffany Johnson, Director
David McClain, Executive Director
Bill Smith, Associate Vice Chancellor for Marketing and Communications
Tom Moore, Director of University Communications
Mark Reeves, Director
Todd Clark, Director

Addendum

July 9, 2020

- BA in Music and BM changed to "concentrations" per accrediting agency requirements

July 17, 2020

- MATH 2113 description updated

July 21, 2020

- Post-baccalaureate Radiology degree plans added as approved in 2019U_NHP11

July 29, 2020

- Certificate list updated

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