

# Undergraduate Catalog 2015-2016



ARKANSAS TECH  
UNIVERSITY

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# ARKANSAS TECH UNIVERSITY 2015-2016 UNDERGRADUATE CATALOG

RUSSELLVILLE, ARKANSAS  
WWW.ATU.EDU

*Arkansas Tech University, a state-supported institution of higher education, is dedicated to nurturing scholastic development, integrity, and professionalism. The University offers a wide range of traditional and innovative programs which provide a solid educational foundation for life-long learning to a diverse community of learners.*

## Accreditation

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Arkansas Tech University is accredited by The Higher Learning Commission and is a member of the North Central Association of Colleges and Schools, 30 N. LaSalle Street, Suite 2400, Chicago, Illinois 60602. (312) 263-0456.

## Program Accreditations

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Accreditation Commission for Education in Nursing (ACEN)  
3343 Peachtree Road NE, Suite 850  
Atlanta, GA 30326  
(404) 975-5000

Accreditation Commission for Programs in Hospitality Administration (ACPHA)  
P.O. Box 400  
Oxford, MD 21654  
(410) 226-5527

American Chemical Society (ACS)  
1155 16th Street NW  
Washington, DC 20036  
(202) 872-4600

Association to Advance Collegiate Schools of Business (AACSB International)  
777 South Harbour Island Boulevard, Suite 750  
Tampa, FL 33602-5730 USA  
(813) 769-6500

Commission on Accreditation for Health Informatics and Information Management Education (CAHIM)  
(Health Information Administrator)  
C/O AHIMA  
233 N. Michigan Avenue  
Suite 2150  
Chicago, IL 60601-5800  
(312) 233-1131

Computing Accreditation Commission of ABET  
111 Market Place, Suite 1050  
Baltimore, MD 21202  
(410) 347-7700

Council for Accreditation of Educator Preparation (CAEP)  
1140 19th Street, N.W.  
Suite 400  
Washington, DC 20036  
(202) 223-0077

This accreditation covers the institution's initial teacher preparation and advanced educator preparations programs.

Council for the Accreditation of Emergency Management Education (CAEME)

(Emergency Administration and Management)  
965 Harrison Circle  
Alexandria, VA 22304  
(703) 284-6050

Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT)  
22377 Belmont Ridge Road  
Ashburn, VA 20148  
(703) 858-2193

Council on Rehabilitation Education (CORE)  
1699 E. Woodfield Road, Suite 300  
Schaumburg, IL, 60173  
(847) 944-1345

Engineering Accreditation Commission of ABET, Inc.  
111 Market Place, Suite 1050  
Baltimore, MD 21202  
(410) 347-7700

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

## **National Institutional Memberships**

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American Association of Colleges for Teacher Education (AACTE)  
American Association of Collegiate Registrars and Admissions Officers (AACRAO)  
American Association of State Colleges and Universities (AASCU)  
American Society for Engineering Education (ASEE)  
Association of International Educators (NAFSA)  
Association to Advance Collegiate Schools of Business (AACSB International)  
Conference of Southern Graduate Schools (CSGS)  
Council for the Advancement and Support of Education (CASE)  
Council on Hotel, Restaurant and Institutional Education (CHRIE)  
Mathematical Association of America (MAA)  
National Association of College Admissions Counseling (NACAC)  
National Association of Schools of Music (NASM)  
National Association of Student Personnel Administrators (NASPA)  
National Collegiate Athletic Association (NCAA)  
National Collegiate Honors Council (NCHC)  
National Council on Rehabilitation Education (NCRE)  
National League for Nursing (NLN)  
National Recreation and Park Association (NRPA)

## **Enrolling In College**

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Students are urged to acquaint themselves with this catalog thoroughly. It sets forth policies and procedures for enrolling and successfully completing the various programs of study.

The basic responsibilities of selecting a major field, enrolling in the prescribed courses of study in the field, and complying with the University's requirements for graduation rest with the student; however, University personnel will assist the student with problems encountered. Further assistance is offered in the form of capable departmental advisors, a full-time guidance and counseling service, and an appropriate graduation check list to serve as a reminder of the various graduation requirements.

## **For More Information**

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General Information	(479) 968-0389
Academic Advising Center	(479) 964-0843
Academic Affairs Office	(479) 968-0319
Admission Office	(479) 968-0343
Alumni Office	(479) 968-0242

Director of Athletics	(479) 968-0345
Business Office	(479) 968-0300
Continuing Education Office	(479) 498-6035
Counseling Office	(479) 968-0329
Disabilities Coordinator	(479) 968-0302
	TDD (479) 964-3290
Financial Aid	(479) 968-0399
	TDD (479) 968-0224
Graduate College	(479) 968-0398
Health and Wellness Center	(479) 968-0329
President's Office	(479) 968-0228
Professional Development Institute	(479) 356-2037
Public Safety	(479) 968-0222
Registrar's Office	(479) 968-0272
Student Accounts	(479) 968-0271
Student Services	(479) 968-0239
University Testing Center	(479) 968-0302
Student Housing	(479) 968-0376
Tucker Coliseum	(479) 968-0337

Arkansas Tech University will provide equal opportunity in employment to all persons. This applies to all phases of the personnel process, including recruitment, hiring, placement, promotion, demotion, separation, transfer, training, compensation, discipline, and all other employment terms, conditions, and benefits. Arkansas Tech University prohibits discrimination based on race, color, religion, national origin, sex, sexual orientation, gender identity, age, disability, genetic information, or veteran status.

Arkansas Tech University will provide a copy of this policy to all applicants for employment. All faculty and staff will be notified annually of the policy. Further, Arkansas Tech University will consider through a designated grievance procedure, the complaints of any person who feels that he or she has been discriminated against on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, age, disability, genetic information, or veteran status.

Arkansas Tech University will have an Affirmative Action Plan that contains a set of specific and result-oriented procedures to apply every good faith effort to achieve prompt and full utilization of minorities, women, those with disabilities or veterans at all levels and all segments of its workforce where deficiencies exist. Additionally, Arkansas Tech University will continually monitor and evaluate its employment practices to ensure that they are free of bias or discrimination based upon race, color, religion, national origin, sex, sexual orientation, gender identity, age, disability, genetic information, or veteran status.

A copy of the Affirmative Action Plan, including specific responsibilities and provisions for implementation and compliance, will be made available upon request.

Responsibility for implementation and compliance with this Affirmative Action policy has been delegated to the Affirmative Action officer, Ms. Jennifer Fleming.

Arkansas Tech University does not discriminate on the basis of color, sex, sexual orientation, gender identity, race, age, national origin, religion, veteran status, genetic information, or disability in any of its practices, policies, or procedures. This includes, but is not limited to, employment, admissions, educational services, programs or activities which it operates, or financial aid.

Arkansas Tech University complies with all applicable state and federal laws including, but not limited to, Title VI and Title VII of the Civil Rights Act of 1964 as amended, Title IX of the Educational Amendments of 1972, Section 503 of the Rehabilitation Act of 1973, Section 504 of the Rehabilitation Act Amendments of 1974, Age Discrimination Act, Vietnam Era Veterans Readjustment Assistance Act, Uniformed Services Employment and Reemployment Act, the Civil Rights Restoration Act of 1987, the Americans with Disabilities Act of 1990, and the Civil Rights Act of 1991. Responsibility for implementation and compliance with this Non-Discrimination Policy has been delegated to Jennifer Fleming, Affirmative Action officer who can be reached by emailing [affirmative.action@atu.edu](mailto:affirmative.action@atu.edu) or calling 479-498-6020.

It is the policy of Arkansas Tech University to maintain the University Community as a place of work and study for staff, faculty, and students free of harassment, to include sexual and gender harassment and all forms of sexual intimidation and exploitation. All students, staff, and faculty should be aware that the University is both concerned and prepared to take action to prevent and correct such behavior. The determination of what constitutes sexual harassment will vary with the



particular circumstances, but it may be described generally as unwanted sexual behavior, such as physical contact and verbal comments or suggestions which adversely affect the working or learning environment of others. Anyone who is subjected to offensive sexual behavior is encouraged to pursue the matter through the established informal or formal grievance procedures. Generally, the informal procedures afford an opportunity to explore a problem and consider alternative means for its resolution.

A copy of the annual budget is available in the Ross Pendergraft Library and Technology Center. A copy of the annual financial report is available from the Office of the Vice President for Administration and Finance in Room 207 of the Administration Building.

The provisions of this catalog are subject to change without notice and do not constitute an irrevocable contract between any student and Arkansas Tech University.

# Academic Calendar 2015-2016

**\* NOTE: The fall and spring dates below pertain to full-term courses. The summer dates pertain to the two five-week sessions. The calendar for condensed courses may differ from what is printed below. Please reference the Registrar's Office website for course and term definitions and pertinent Academic Calendar dates for courses not conforming to the beginning and ending dates outlined below.**

## **\*Summer May 11 to August 7, 2015**

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### **First Session - June 1 to July 2, 2015 (five-week courses)**

Late registration for first session	June 1 - 2
Classes begin	June 1
Last day to officially withdraw/drop courses with full reduction of tuition and fees	June 2
Last day to register and add courses/change sections	June 2
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	June 5
Early registration for freshmen for fall semester	May through August
Last day to drop courses with a "W" or change from credit to audit	June 26
First session ends	July 2
Holiday	(Friday) July 3

### **Second Session - July 6 to August 7, 2015 (five-week courses)**

Late registration for second session	July 6 - 7
Classes begin	July 6
Last day to officially withdraw/drop courses with full reduction of tuition and fees	July 7
Last day to register and add courses/change sections	July 7
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	July 10
Last day to drop courses with a "W" or change from credit to audit	July 31
Second session ends	August 7
Graduation	August 8

## **Fall Semester Opens August 17, 2015**

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Selected fall activities	August 17 - 25
Registration	August 17 - 25
Classes begin	August 26
Last day to officially withdraw/drop courses with full reduction of tuition and fees	September 1
Last day to register and add courses/change sections	September 1
Labor Day holiday	September 7
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	September 30
Deadline for degree audit (transcript evaluation), December 2016 graduates	October 9
Mid-term	October 14
Fall break	October 15 - 16
Early registration for spring semester	November 9 - 24
Thanksgiving holidays	7:00 a.m., November 25 - 7:00 a.m., November 30
Last day to drop courses with a "W" or change from credit to audit	November 30
Students follow regular Monday class schedule	Monday, December 7
Students follow regular Wednesday class schedule	Tuesday, December 8

Reading Day	8:00 a.m. - 5:00 p.m., Wednesday, December 9
End of course examinations ( <a href="#">see exam week schedule</a> )	7:00 p.m., December 9 - 5:30 p.m., December 15
Graduation	December 18 - 19

## Spring Semester Opens January 4, 2016

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Registration	January 4 - 8
Classes begin	January 11
Last day to officially withdraw/drop courses with full reduction of tuition and fees	January 15
Last day to register and add courses/change sections	January 15
Martin Luther King Day holiday	January 18
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	February 15
Mid-term	February 29
Deadline for degree audit (transcript evaluation), May 2017 graduates	March 2
Spring holidays	7:00 a.m., March 21 to 7:00 a.m., March 28
Deadline for degree audit (transcript evaluation), summer 2017 graduates	March 28
Early registration for summer and fall semesters	April 4 - 20
Last day to drop courses with a "W" or change from credit to audit	April 15
Students follow regular Monday class schedule	Monday, April 25
Students follow regular Wednesday class schedule	Tuesday, April 26
Reading Day	8:00 a.m. - 5:00 p.m., Wednesday, April 27
End of course examinations ( <a href="#">see exam week schedule</a> )	7:00 p.m., April 27 - 5:30 p.m., May 3
Graduation	May 6 - 7

## \*Summer May 9 to August 5, 2016 (tentative)

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### First Session - May 31 to July 1, 2016 (five-week courses)

Late registration for first session	May 31 - June 1
Classes begin	May 31
Last day to officially withdraw/drop courses with full reduction of tuition and fees	June 1
Last day to register and add courses/change sections	June 1
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	June 6
Early registration for freshmen for fall semester	May through August
Last day to drop courses with a "W" or change from credit to audit	June 27
First session ends	July 1

### Second Session - July 5 to August 5, 2016 (five-week courses)

Holiday	(Monday) July 4
Late registration for second session	July 5 - 6
Classes begin	July 5
Last day to officially withdraw/drop courses with full reduction of tuition and fees	July 6
Last day to register and add courses/change sections	July 6
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	July 11
Last day to drop courses with a "W" or change from credit to audit	August 1
Second session ends	August 5
Graduation	August 6

## Fall Semester Opens August 15, 2016 (tentative)

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Selected fall activities	August 15 - 23
Registration	August 15 - 23
Classes begin	August 24
Last day to officially withdraw/drop courses with full reduction of tuition and fees	August 30
Last day to register and add courses/change sections	August 30
Labor Day holiday	September 5
Last day to officially withdraw/drop courses with 80 percent reduction of tuition	September 28
Deadline for degree audit (transcript evaluation), December 2017 graduates	October 7
Mid-term	October 12
Fall break	October 20 - 21
Early registration for spring semester	November 7 - 22
Thanksgiving holidays	7:00 a.m., November 23 - 7:00 a.m., November 28
Last day to drop courses with a "W" or change from credit to audit	November 28
Students follow regular Monday class schedule	Monday, December 5
Students follow regular Wednesday class schedule	Tuesday, December 6
Reading Day	8:00 a.m. - 5:00 p.m., Wednesday, December 7
End of course examinations ( <a href="#">see exam week schedule</a> )	7:00 p.m., December 7 - 5:30 p.m., December 13
Graduation	December 16 - 17

# Administration and Faculty

## Board of Trustees

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**Charles Blanchard**, Russellville

**Eric Burnett**, Fort Smith

**John Chambers III**, Danville

**Fritz Kronberger**, Russellville

**Leigh Whiteside**, Russellville

## Administrative Officers

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**Robin E. Bowen**, 2014, President  
B.S., University of Kansas, 1982  
M.Ed., University of Arkansas, 1983  
Ed.D., Texas Tech University, 1988

**AJ Anglin**, 2015, Vice President for Academic Affairs  
B.A., John Brown University, 1964  
Ph.D., University of Arkansas, 1970

**David C. Moseley**, 1994, Senior Vice President for Administration and Finance  
B.B.A., University of Arkansas at Monticello, 1964  
M.B.A., University of Central Arkansas, 1984

**Susie Nicholson**, 1998, Vice President for Student Services and University Relations  
B.A., University of Arkansas, 1986  
M.S., Arkansas Tech University, 2010

**Jayne W. Jones**, 1976, Vice President for Development  
B.S., Arkansas Tech University, 1988  
M.A., Arkansas Tech University, 2001

## Administrative Staff

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**Carol Adkison**, Associate Director of Information Systems for Administrative Systems

**Alison Ahlert**, Event Coordinator for Lake Point Conference Center

**Jan Apple**, Academic Outreach Coordinator

**Brett Arrington**, Institutional Research Associate

**Sabrina Billey**, Area Coordinator for Residence Life

**Vicki Bills**, Academic Advisor

**Emily Bradley**, Coordinator of Leadership and Service

**Jessica Brock**, Coordinator of Concurrent Enrollment Programs

**Rachel Bullock**, Coordinator of TLF Phonathon and Activities

**Kyle Bush**, Assessment Specialist

**Jenny Butler**, Assistant Director for Campus Life

**Luke Calcaterra**, Coordinator of Campus Recreation/Head Men's Golf Coach

**Rebecca Callaway**, Instructional Designer - eTech

**Cass Capen-Housley**, Event Coordinator for Hospitality Administration

**Liz Chrisman**, University Photographer

**Nichole Christensen**, Student Support Services Program Advisor

**Pat Chronister**, Assistant to the Vice President for Academic Affairs

**Lisa Clark**, Director of Continuing Education and Professional Development

**Fred W. Clayton**, Director of Administrative Services  
**Brandi Collins**, Licensing Coordinator  
**Pam Cooper**, Coordinator of Donor Relations  
**Will Cooper**, Assistant Dean for Student Conduct  
**Jana Crouch**, Director of Academic Services  
**Kelly Davis**, Director of Alumni Relations and Tech Loyalty Fund  
**Kristy Davis**, Associate Dean of Student Wellness  
**Shawna Davis**, Target School Liaison, Upward Bound Program  
**Melanie Diffey**, Career Advisor  
**Tim Diffey**, Academic Advisor  
**Shauna Donnell**, Assistant Vice President for Enrollment Management  
**Brent Drake**, Director of Development Services  
**Jennifer Duncan**, Coordinator of Greek Life  
**Katherine Ehemann**, Associate Controller  
**Bryan Fisher**, Director of Athletic Relations  
**Tommy Fields**, Assistant Dean for Residence Life  
**Debra Fithen**, Director of Corporate and Foundation Relations  
**Jennifer Fleming**, Affirmative Action Officer  
**Rhonda Fleming**, Assistant Registrar  
**Eli Fuentez**, Admissions Officer  
**Beth Giroir**, Associate Dean for Student Success  
**Shirley M. Goines**, Director of Student Aid  
**Rebecca Gray**, Director of Health Services  
**Brandie Griffin**, Coordinator for Student Engagement  
**Tammy Guarino**, Student Services Operations Manager  
**Jamison Hall**, Associate Registrar  
**MarTeze Hammonds**, Associate Dean for Diversity and Inclusion  
**Jenny Hardin**, Academic Advisor  
**Phillip Harp**, Academic Advisor  
**Jill Hendricks**, Director of Upward Bound Programs  
**Tiffany Henry**, Assistant to the Director of Academic Services  
**Katelin Hinds-White**, BPS Outreach Coordinator/Academic Advisor  
**Aaron Hogan**, Associate Dean for Residence Life  
**Jessica Holloway**, Purchasing Program Director  
**Aubrey Holt**, Director of Student Life  
**Samantha Huggins**, Admission Officer  
**Lindsey Ingmire**, Assistant Director for Programming, International and Multicultural Student Services  
**Linda Johnson**, Budget and Special Programs Director  
**Aaron Jones**, Coordinator of Alumni Communications and Events  
**Cara Knight**, Academic Advisor  
**Brian Lasey**, Director of Facilities Management  
**Bruce Lazarus**, Director of Project Lead the Way/Director of STEM Institute  
**Marika Lederman**, Academic Advisor  
**Areana Lopez**, Admission Officer  
**Brittany Martin**, Associate Registrar  
**Joshua McMillian**, Director of Public Safety  
**Liz Means**, Director of Testing and Disability Services  
**Steve Milligan**, Director of Technology Center/Associate Director of Information Systems for Networked Systems  
**Clay Moore**, Coordinator of Campus Life



**Dana Moseley**, Director of Gift Planning  
**Theresa Motley**, Associate Director of Information Systems for Support Services  
**Courtney Mullen**, Director of Graduate Support Services  
**Steve Mullins**, Director of Athletics  
**Hanna Norton**, Assistant Vice President for Academic Affairs  
**Marsha Oels**, Coordinator of Veteran Services  
**Yasushi Onodera**, Director of International and Multicultural Student Services  
**Amy Pennington**, Dean of Students  
**Thomas Pennington**, Associate Vice President and Counsel to the President  
**Carrie Phillips**, Director of New Media  
**Karen Pittman**, Coordinator of Testing Services  
**Chip Porter**, Facility Manager, Lake Point Conference Center  
**Courtney Pratt**, Admissions Officer  
**Donna Rankin**, Controller  
**Angela Reynolds**, Special Projects Coordinator, Human Resources  
**Tammy Rhodes-Weaver**, Registrar  
**Karen Riddell**, Coordinator of Academic Support Services  
**Daniel Riedmueller**, Academic Advisor  
**Lindsey Riedmueller**, Student Support Services Program Advisor  
**Mike Rivas**, Assistant Director for Admissions, International and Multicultural Student Services  
**Alexis Scrimshire**, Assistant Registrar  
**Paul Smith**, Sports Information Director  
**Kevin Solomon**, Associate Dean for Campus Life  
**Brooke Southard**, Director of Payroll and Special Services  
**Judith Stewart-Abernathy**, Director of Arkansas Tech Museum  
**Michael Stoker**, Director of Web Strategies and Operations  
**Heather Stout**, Registered Nurse  
**Heather Strasner**, Campus Visit Coordinator  
**Sam Strasner**, Director of University Relations  
**Alison Taylor**, Coordinator of Young Alumni and Student Philanthropy  
**Ryan Taylor**, Coordinator of Information Services  
**Scott Tomlin**, Academic Advisor  
**Bruce Trefney**, Executive Chef, Lake Point Conference Center  
**Brandi Tripp**, Associate Registrar  
**David G. Underwood**, Associate Vice President for Academic Affairs  
**Liz Underwood**, Coordinator of Creative Services  
**Kao Vang**, Target School Liaison, Upward Bound Program  
**Allison Vatzlavick**, Assistant Dean for Residence Life  
**Alisa Waniewski**, Coordinator of Recruitment and Academic Scholarships  
**Wyatt Watson**, Director of Institutional Research and Assessment  
**Felisha Weaver**, Director of Publications and Creative Services  
**Kenneth D. Wester**, Director of Information Systems  
**Dave Wilbers**, Academic Advisor  
**Lori Wineland**, Director of Student Support Services Program  
**Ernest Yang**, Academic Advisor

## **Academic Administration**

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### **College of Arts and Humanities**

**Jeffrey R. Woods**, Dean  
**Dawn M. Ward**, Head of Art Department  
**Jeffrey R. Woods**, Head of Behavioral Sciences Department  
**Anthony Caton**, Head of Communication and Journalism Department  
**Carl W. Brucker**, Head of English and World Languages Department  
**Peter A. Dykema**, Head of History and Political Science Department  
**Cynthia L. Hukill**, Head of Music Department

### **College of Business**

**R. Edward Bashaw**, Dean  
**Stephen Jones**, Associate Dean

### **College of Education**

**Sherry Field**, Dean  
**Chris Giroir**, Head of College Student Personnel Department  
**David Bell**, Head of Curriculum and Instruction Department  
**M. Annette Holeyfield**, Head of Health & Physical Education Department  
**June Lawson**, Director of Teacher Education Student Services

### **College of Engineering and Applied Sciences**

**William C. Hoefler**, Dean  
**Malcolm Rainey**, Head of Agriculture Department  
**David Hoelzeman**, Head of Computer & Information Science Department  
**Sandra Smith**, Head of Emergency Management Department  
**Pat Buford**, Associate Dean of Engineering, Director of Electrical Engineering  
**Cathi McMahan**, Head of Parks, Recreation and Hospitality Administration Department

### **College of Natural and Health Sciences**

**Jeff W. Robertson**, Dean  
**Charles Gagen**, Head of Biological Sciences Department  
**Thomas Limperis**, Head of Mathematics Department  
**Rebecca Burris**, Head of Nursing Department  
**James Musser**, Head of Physical Sciences Department

### **College of Professional Studies and Community Outreach**

**Jeff Aulgur**, Head of Professional Studies Department

### **Graduate College**

**Mary Gunter**, Dean  
**Christopher Trombly**, Head of Center for Leadership and Learning

## **Faculty**

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[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

The date after each name indicates the first year of appointment to this institution.

[Top](#)

**GABRIEL L. ADKINS, 2009**  
Associate Professor of Communication  
B.A., Ottawa University, 1996;  
M.S., Pittsburg State University, 2002;  
M.A., Wichita State University, 2005;  
Ph.D., University of Oklahoma, 2011.

**SHERMAN Q. ALEXANDER, 1993**  
Associate Professor of Accounting  
B.S., Eastern Illinois University, 1984;  
M.B.A., Eastern Illinois University, 1985;  
Ph.D., University of Kentucky, 1995,  
C.P.A.

**VREGE AMIRKHANIAN, 1989**  
Associate Professor of Mathematics  
B.S., Tehran University, 1969;  
M.S., Oklahoma State University, 1973;  
Ph.D., Oklahoma State University, 1978.

**STANTON C. APPLE, 1989**  
Instructor of Mechanical Engineering  
B.S.M.E., University of Arkansas, 1989.

**JEFFREY AULGUR, 2011**  
Assistant Professor of Professional Studies  
Head, Department of Professional Studies  
B.A., Hendrix College, 1986;  
M.A., University of Arkansas, 1991;  
M.S., Arkansas Tech University, 2008;  
Ed.D., University of Arkansas, 2013.

**CHRISTINE E. AUSTIN, 2007**  
Associate Professor of College Student Personnel  
B.A., University of Denver, 1984;  
M.Ed., University of Maine, 1990;  
Ph.D., University of Denver, 2007.

[Top](#)

**ABDEL BADAWY, 2013**  
Assistant Professor of Electrical Engineering  
B.Sc., Mansoura University, 1996;  
M.S., University of Maryland, 2002;  
Ph.D., University of Maryland, 2013.

**CATHY BAKER, 1998**  
Professor of Geology  
B.S., Arkansas Tech University, 1976;  
M.A., University of Arkansas, 1978;  
Ph.D., University of Iowa, 1986.

**DEBORAH L. BARBER, 2002**  
Associate Professor of Music  
B.S., Auburn University, 1975;  
M.Ed., Auburn University, 1989;  
Ph.D., Auburn University, 2003.

**GARY W. BARROW, 1981**  
Professor of Music  
B.M.E., University of North Texas, 1969;  
M.M., Catholic University of America, 1973;  
Ph.D., University of North Texas, 1982.

**R. EDWARD BASHAW, 2010**  
Professor of Marketing  
Dean, College of Business  
B.S.E., Baylor University, 1980;  
M.S.E., Baylor University, 1982;  
M.B.A., Baylor University, 1991;  
Ph.D., University of Memphis, 1995.

**ALICE BATCH, 2003**  
Assistant Professor of Business  
B.A., California State University, 1978;  
M.B.A., California State University, 1984.

**KRISTY BAYER, 2004**  
Instructor of College Student Personnel  
Head Coach  
B.A., Grand Valley State University, 2001;  
M.Ed., Grand Valley State University, 2003.

**LINDA C. BEAN, 2000**  
Associate Professor of Business  
B.S., Arkansas Tech University, 1973;  
M.S.E., University of Central Arkansas, 1986;  
Ed.D., Oklahoma State University, 1996.

**C. DAVID BELL, 1988**  
Professor of Curriculum and Instruction  
Head, Department of Curriculum and Instruction  
B.S., Arkansas Tech University, 1969;  
M.Ed., University of Arkansas, 1972;  
Ed.D., University of Arkansas, 1978.

**MICHAEL E. BENEFIELD, 1995**  
Associate Professor of Finance  
B.S., United States Military Academy, 1968;  
M.Ed., University of North Carolina, 1976;  
M.B.A., Arkansas State University, 1980;  
M.S.I.S., Arkansas State University, 1984;  
Ph.D., Purdue University, 1989.

**ANWAR A. BHUIYAN, 2001**  
Professor of Chemistry  
B.S., Dhaka University, 1983;  
M.Sc., Dhaka University, 1986;  
M.S., Northeast Louisiana University, 1994;  
Ph.D., Marquette University, 1999.

**GLEN R. BISHOP, 2001**  
Associate Professor of Recreation and Park  
Administration  
B.S., University of Michigan, 1979;  
M.S., Texas A & M, 1985;  
Ph.D., Michigan State University, 1994.

**ANGELA BLACK, 2012**  
Assistant Librarian  
B.A., University of Colorado, 2002;  
M.S., Florida State, 2011.

**CAREY A. BOSOLD, 2004**  
Associate Professor of Nursing  
B.S.N., Arkansas Tech University, 1996;  
M.S.N., University of Central Arkansas, 2002;  
Ph.D., Union University, 2012.

**ROBIN E. BOWEN, 2014**  
Professor of Rehabilitation Science  
President  
B.S., University of Kansas, 1982;  
M.Ed., University of Arkansas, 1983;  
Ed.D., Texas Tech University, 1988.

**JACQUELINE K. BOWMAN, 2001**

Associate Professor of Biology  
 B.S., Purdue University, 1982;  
 B.S., Illinois State University, 1984;  
 M.S., Illinois State University, 1986;  
 Ph.D., Indiana University, 1994.

**LYN BRANDS, 2003**

Associate Professor of Art  
 B.A., Fort Hays State University, 1984;  
 M.F.A., Fort Hays State University, 1990.

**MOLLY BRANT, 2005**

Associate Professor of Agriculture  
 B.S., Oklahoma State University, 2000;  
 M.S., Oklahoma State University, 2002;  
 Ph.D., Kansas State University, 2005.

**HERBERT MATT BROWN, 2008**

Associate Professor of Computer and  
 Information Science  
 B.A., University of Arkansas, 1998;  
 M.S., University of Arkansas, 2000;  
 Ph.D., Nova Southeastern University, 2007.

**KRISTI M. BROWN, 2008**

Instructor of Mathematics  
 B.S., University of Arkansas, 1997;  
 M.S., University of Arkansas, 1999.

**CARL W. BRUCKER, 1984**

Professor of English  
 Head, Department of English and World  
 Languages  
 B.A., Rutgers University 1968;  
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 Ph.D., Rutgers University, 1980.

**B. TY BRUNSON, 1999**

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 B.F.A., Louisiana Tech University, 1979;  
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 Associate Dean of Engineering  
 B.S., Christian Brothers University, 1974;  
 M.S., University of Arkansas, 1985;  
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 B.S., Arkansas Tech University, 1997;  
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 Ph.D., University of Arkansas, 2001.

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**REBECCA K. BURRIS, 1991**

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 B.S.N., Northwestern State University of  
 Louisiana, 1978;  
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 Ph.D., University of Arkansas for Medical  
 Sciences, 2000.

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 Instructional Designer - eTech  
 B.S., Northwestern State University, 1973;  
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 Ed.D., Louisiana Tech University, 2004.

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 B.S., Arkansas Tech University, 2000;  
 M.S., Arkansas Tech University, 2002.

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 B.A., University of Rio Cuarto, Argentina, 1995;  
 M.A., University of Pennsylvania, 2000;  
 Ph.D., Florida State University, 2006.

**LAURIE CARMAN, 2000**

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**PAMELA S. CARR, 1991**

Professor of Accounting  
 B.S., Arkansas Tech University, 1977;  
 M.A., Missouri State University 1984;  
 Ph.D., Oklahoma State University, 2001;  
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**TIM L. CARTER, 1998**

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 B.S., Arkansas Tech University, 1989;  
 M.Ed., Arkansas Tech University, 1994;  
 Ph.D., University of Georgia, 1998.

**ANTHONY A. CATON, 2004**

Associate Professor of Journalism  
 Head, Department of Communication and  
 Journalism  
 Director of Broadcasting  
 A.A., University of Arkansas at Fort Smith, 1988;

**E. URSULA CHANDLER, 1981**

Professor of German  
 B.S., Illinois State University, 1965;  
 Ph.D., Northwestern University, 1981.

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 B.S., Missouri Western State College, 1990;  
 M.S., Tennessee Technological University, 1997.

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B.A., Beijing Normal University, 2007;  
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B.E., Wuhan University, 2009;  
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Assistant Professor of English  
B.A., Case Western Reserve University, 1999;  
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B.A., Luther College, 1993;  
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D.M., Florida State University, 2005.

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M.M., University of Missouri-Columbia, 1996;  
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**TRACY L. COLE, 2007**

Associate Professor of Legal Studies  
B.S.Ed., University of Arkansas, 1990;  
M.Ed., University of Arkansas, 1991;  
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**JAMES H. COLLINS, 1983**

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**THOMAS A. DEBLACK, 1995**

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**ROBERT FITHEN, 1998**  
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B.S., University of Texas at El Paso, 1987;  
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Director of Ed.D. in School Leadership  
B.A., Louisiana State University, 1976;  
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**JIMMY R. FULMER, 2008**  
Instructor of Chemistry  
B.S., Henderson State University, 1976;  
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Associate Professor of Economics  
B.S., University of Scranton, 1996;  
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**KAREN L. FUTTERER, 1980**  
Associate Professor of Music  
B.M., State University of New York at Fredonia,  
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M.M., University of North Texas, 1980.

**KENNETH T. FUTTERER, 1980**  
Associate Professor of Music  
B.M., University of North Texas, 1975;  
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Assistant Professor of Chemistry  
B.S., Adam Mickiewicz University, 1998;  
M.S., Adam Mickiewicz University, 1998;  
Ph.D., University of Idaho, 2003.

**HOLLY R. GALE, 1997**  
Associate Professor of Music  
B.A., Arkansas Tech University, 1986;  
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B.A., Blue Mountain College, 1976;  
M.A., Murray State University, 1998;  
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**PAOLA GEMME, 2001**  
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B.A., University of Genoa, 1989;  
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**CHRISTOPHER GIROIR, 2008**  
Associate Professor of College Student Personnel  
Head, Department of College Student Personnel  
B.A., McNeese State University, 1997;  
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**DIANE GLEASON, 2009**  
Associate Professor of History  
B.A., Arkansas Tech University, 1970;  
M.A., University of Arkansas, 1975;  
Ph.D., University of Arkansas, 1997.

**NINA M. GOZA, 2004**  
Associate Professor of Accounting  
B.S., Arkansas State University, 1982;  
M.B.A., University of Central Arkansas, 1992;  
Ph.D., University of Mississippi, 2005;  
C.P.A.

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Associate Professor of Emergency Management  
B.A., Vanderbilt University, 1993;  
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M.B.A., University of Arkansas at Little Rock,  
1999;  
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**CARL E. GRECO, 2001**  
Professor of Electrical Engineering  
B.S., Louisiana Tech University, 1967;  
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**VERONICA JILL GREENWOOD, 2014**  
Instructor of English Language Institute  
B.A., Arkansas Tech University, 2009;  
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**JASMINE GREER, 2013**  
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B.F.A., University of Central Arkansas, 2006;  
M.F.A., Columbia College Chicago, 2009.

**LAURA GRIFFIN, 2008**  
Instructor of Accounting  
B.S.B.A., University of Arkansas, 1990;  
M.S., University of Arizona, 1993;  
C.P.A., C.F.E.

**MARY B. GUNTER, 1998**  
Professor of Educational Leadership  
Dean of Graduate College  
B.S.E., University of Arkansas, 1972;  
M.Ed., University of Arkansas, 1976;  
Ed.S., University of Arkansas, 1986;  
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**FRANCES A. HAGER, 1990**  
Instructor of Curriculum and Instruction  
Librarian  
B.S.E., John Brown University, 1972;  
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Assistant Professor of Geography  
B.S.B.A., University of Arkansas, 2004;  
B.A., University of Arkansas, 2005;  
M.S., Pennsylvania State University, 2009;  
Ph.D., Pennsylvania State University, 2013.

**CAROL HANAN, 2012**  
Assistant Librarian  
B.A., Arkansas Tech University, 1994;  
M.Ed., Arkansas Tech University, 2001;  
M.L.S., Texas Woman's University, 2005.

**SHELLIE HANNA, 2006**  
Associate Professor of Curriculum and Instruction  
B.A., Arkansas Tech University, 1992;  
M.Ed., Arkansas Tech University, 2002;  
Ed.D., Oral Roberts University, 2009.

**FRANKLIN D. HARDCASTLE, 1998**  
Professor of Chemistry  
B.S., Montana State University, 1983;  
M.S., University of Utah, 1985;  
Ph.D., Lehigh University, 1990.

**LISA HARLESS, 2005**  
Assistant Professor of Nursing  
B.S.N., Arkansas Tech University, 2000;  
M.S.N., University of Central Arkansas, 2004.

**NEAL HARRINGTON, 2005**  
Associate Professor of Art  
B.F.A., University of South Dakota, 1998;  
M.F.A., Wichita State University, 2001.

**STEWART HART, 2011**  
Assistant Professor of Chemistry  
B.S., Centre College, 2003;  
Ph.D., Michigan State University, 2009.

**WAYNE A. HELMER, 1998**  
Professor of Mechanical Engineering  
B.S., University of Dayton, 1966;  
M.S., University of Arizona, 1968;  
Ph.D., Purdue University, 1974.

**JENNIFER E. HELMS, 1993**  
Professor of Nursing  
B.S.N., Harding University, 1986;  
M.S.N., University of Missouri at Kansas City,  
1992;  
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Sciences, 2006.

**MOSTAFA HEMMATI, 1983**  
Professor of Physics  
Director of Undergraduate Research  
B.S., University of Meshad (Iran), 1973;  
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**THERESA A. HERRICK, 1985**  
Professor of Recreation and Park Administration  
B.S., Missouri State University, 1976;  
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Ph.D., Clemson University, 1993.

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M.S., University of Arkansas, 2006.

**NEWTON P. HILLIARD, 2014**  
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B.S., Wayland Baptist University, 1984;  
Ph.D., Texas Tech University, 1995.

**WILLIAM C. HOEFLER, 2004**  
Professor of Agriculture  
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B.S., New Mexico State University, 1979;  
M.S., New Mexico State University, 1984;  
Ph.D., New Mexico State University, 1987.

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 B.S., University of Central Arkansas, 1988;  
 Ph.D., Louisiana State University, 1993.

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 B.A., University of Kansas, 1999;  
 M.A., University of Kansas, 2002;  
 Ph.D., Oklahoma State University, 2009.

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**JESSICA L. HOGAN, 2006**

Instructor of Mathematics  
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 Education  
 B.S., Arkansas Tech University, 1976;  
 M.Ed., Arkansas Tech University, 1977;  
 Ph.D., University of Arkansas, 1997.

**NANCY D. HORTON, 1999**

Instructor of Mathematics  
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**CHRISTOPHER E. HOUSENICK, 2009**

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 M.A., Pennsylvania State University, 2001;  
 Ph.D., Pennsylvania State University, 2005.

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Associate Professor of Communication  
 B.S.E., Baylor University, 1992;  
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 Ph.D., Texas A & M, 2011.

**CYNTHIA L. HUKILL, 2008**

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 Head, Department of Music  
 B.M., University of North Texas, 1972;  
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 B.S., University of Benin, 1996;  
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 Business Administration, 1999;  
 M.B.A., University of Texas at El Paso, 2000;  
 Ph.D., Texas Tech University, 2009.

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 B.S., Michigan State University, 1983;  
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 B.A., Idaho State University, 1989;  
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**CYNTHIA JACOBS, 2007**

Associate Professor of Biology  
 D.V.M., Louisiana State University, 1982.

**ELLEN J. JENKINS, 1997**

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 Director of Honors  
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 Sciences, 2013.

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**GEORGE P. JOHNSON, 1990**

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**SUSAN JORDAN, 1994**

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**PAUL S. LAKE, 1981**

Professor of English  
B.S., Towson State University, 1975;  
A.M., Stanford University, 1979.

**ROBIN C. LASEY, 2004**

Associate Professor of Chemistry  
B.S., University of Missouri-Rolla, 1994;  
Ph.D., Bowling Green State University, 2002.

**BRENDA LAUFFART, 2012**

Instructor of Chemistry  
B.A., Open University, 1993;  
M.Phil., University of Newcastle upon Tyne, 2000.

**JUNE LAWSON, 2007**

Assistant Professor of Curriculum and Instruction  
Director of Teacher Education Student Services  
B.A., University of Arkansas, 1973.

**DONG-SOO LEE, 2012**

Assistant Professor of Hospitality Administration  
B.S., University of Santo Tomas, 1997;  
M.S. HRIM, Pennsylvania State University, 2003;  
M.B.A., Kyung Hee University, 2001;  
Ph.D., Texas Tech University, 2011.

**SANGKI LEE, 2008**

Associate Professor of Journalism  
B.A., Sogang University, 1997;  
M.A., Sogang University, 1999;  
M.A., Michigan State University, 2002;  
Ph.D., Pennsylvania State University, 2007.

**SEUNG SUK LEE, 2009**

Associate Professor of Hospitality Administration  
B.S., Oklahoma State University, 2000;  
M.S., Oklahoma State University, 2004;  
Ph.D., Iowa State University, 2008.

**YUNG K. LEE, 2014**

Assistant Professor of Electrical Engineering  
B.S., Korea Aerospace University, 1997;  
M.S.E.E, Wichita State University, 2008;  
Ph.D., Wichita State University, 2013.

**TIMOTHY W. LEGGETT, 2002**

Associate Professor of Curriculum and Instruction  
B.S., William Carey College, 1975;  
M.R.E., New Orleans Baptist Theological  
Seminary, 1977;  
M.Ed., William Carey College, 1980;  
G.S.R.E., Southwestern Baptist Theological  
Seminary, 1983;  
Ed.D., Nova Southeastern University, 1995.

**JENNIFER LEWTER, 2012**

Instructor of Biology  
B.S., Arkansas Tech University, 2002;  
M.S., University of Arkansas, 2005.

**THOMAS G. LIMPERIS, 2003**

Associate Professor of Mathematics  
Head, Department of Mathematics  
B.S., University of Arkansas, 1989;  
M.S., University of Arkansas, 1990;  
Ph.D., University of Arkansas, 1998.

**MICHAEL A. LINK, 1965**

Associate Professor of History  
B.S., Henderson State University, 1962;  
M.S., Henderson State University, 1963;  
Ph.D., (History), Mississippi State University,  
1966;  
Ph.D., (Philosophy and Religion), Protestant  
Faculty of Paris, 1976.

**JOSHUA LOCKYER, 2011**

Assistant Professor of Anthropology  
B.A., University of Arizona, 1998;  
Ph.D., University of Georgia, 2007.

**STANLEY D. LOMBARDO, 1977**

Professor of English  
B.A., State University of New York at Buffalo,  
1970;  
Ph.D., Indiana University, 1976.

**ERIC C. LOVELY, 2002**

Associate Professor of Biology  
B.A., Bloomsburg University of Pennsylvania,  
1992;  
M.S., University of New Hampshire, 1995;  
Ph.D., University of New Hampshire, 1999.

**LOWELL H. LYBARGER, 2007**

**BRIAN LYONS, 2013**

Associate Librarian  
B.A., Rutgers University, 1990;  
M.A., University of Washington, 1997;  
MLIS, Kent State University, 2006;  
Ph.D., University of Toronto, 2003.

Associate Professor of Health and Physical  
Education  
B.S., State University of New York at Buffalo,  
1987;  
M.P.A., Golden Gate University, 1989;  
M.A., University of Mississippi, 1993;  
Ph.D., University of Mississippi, 1996.

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### **MERLIN R. MANN, 2012**

Associate Professor of Journalism  
B.A., University of Oregon, 1975;  
M.A., Abilene Christian University, 1986;  
Ph.D., University of Missouri, 1991.

### **KEVIN H. MASON, 1986**

Professor of Marketing  
B. S., Arkansas Tech University 1982;  
M.B.A., University of Arkansas, 1986;  
Ph.D., University of Arkansas, 1995.

### **LUCAS D. MAXWELL, 2012**

Assistant Professor of Agricultural Education  
B. S., Southern Illinois University Carbondale,  
2001;  
M.S., Southern Illinois University Carbondale,  
2005;  
Ph.D., University of Missouri, 2010.

### **JERRY MAYO, 2010**

Associate Professor of Health and Physical  
Education  
B.A., Arkansas State University, 1991;  
M.S., Arkansas State University, 1993;  
M.S., University of Central Arkansas, 2007;  
Ph.D., The University of Mississippi, 1998.

### **TONYA C. MAYS, 2012**

Instructor of Health Information Management  
B.S., Arkansas Tech University, 1999.

### **AARON J. MCARTHUR, 2012**

Assistant Professor of History  
B.A., Idaho State University, 2003;  
M.A., University of Nevada, Las Vegas, 2005;  
Ph.D., University of Nevada, Las Vegas, 2012.

### **SIRIPORN MCDOWALL, 2015**

Assistant Professor of Hospitality Administration  
B.A., Thammasat University, Bangkok, 1980;  
M.A., University of Southwestern Louisiana, 1984;  
Ph.D., Kansas State University, 1999.

### **REBECCA M. MCHUGH, 2013**

Assistant Professor of Psychology  
B.A., Edinboro University of Pennsylvania, 2002;  
M.S., University of Pittsburg, 2009;  
Ph.D., University of Pittsburg, 2013.

### **ASHLEY MCKEEVER, 2014**

Assistant Professor of English  
B.A., Evangel University, 2003;  
M.A., Missouri State University, 2005;  
Ph.D., University of Texas at Arlington, 2014.

### **TERRI J. MCKOWN, 2004**

Associate Professor of Nursing  
B.S.N., Arkansas Tech University, 1991;  
M.S.N., University of Central Arkansas, 2000;  
D.N.P., University of Tennessee, 2009.

### **CATHI MCMAHAN, 2000**

Associate Professor of Recreation and Park  
Administration  
Head, Department of Parks, Recreation, and  
Hospitality Administration  
B.S., Arkansas Tech University, 1985;  
M.S., Northwestern State University, 1986;  
Ph.D., University of Arkansas, 2007.

### **JAMES R. MCSWEENEY, 2013**

Instructor of Health and Physical Education  
Head Athletic Trainer  
B.S., Barry University, 2002;  
M.S., Barry University, 2004.

### **CHARLES MEBI, 2009**

Associate Professor of Chemistry  
B.Sc., University of Buea (Cameroon), 1969;  
M.Sc., University of Buea (Cameroon), 1998;  
Ph.D., University of Nevada, 2007.

### **DAVID J. MIDDLETON, 1998**

Professor of Computer and Information Science  
B.S., University of Sydney, 1979;  
Ph.D., University of North Carolina at Chapel Hill,  
1986.

### **JULIE MIKLES-SCHLUTERMAN, 2007**

Associate Professor of Sociology  
B.A., Arkansas Tech University, 1997;  
M.A., University of Tennessee, 2002;  
Ph.D., University of Tennessee, 2007.

### **GEORGEIO D. MILAM, 2013**

Instructor of Health and Physical Education  
Assistant Coach of Football  
B.S., Southern Arkansas University, 2008;  
M.S., Southern Arkansas University, 2010.

### **JEFFREY A. MITCHELL, 1994**

Professor of Philosophy  
B.A., Whitman College, 1986;  
M.A., Vanderbilt University, 1990;  
Ph.D., Vanderbilt University, 1993.

### **RAYMOND L. MONICA, 2013**

Instructor of Health and Physical Education  
Head Coach of Football  
B.S., University of North Alabama, 1990.



**JOHNETTE MOODY, 1997**

Associate Professor of Computer and Information Science  
 B.S., Arkansas Tech University, 1994;  
 M.Ed., Arkansas Tech University, 1996;  
 D.B.A., Argosy University, 2006.

**LARRY J. MORELL, 1998**

Professor of Computer and Information Science  
 B.A., Duke University, 1974;  
 M.S., Rutgers University, 1976;  
 Ph.D., University of Maryland, 1983.

**ARDITH A. MORRIS, 1982**

Professor of Communication/Theatre  
 B.A., University of the Ozarks, 1973;  
 M.A., University of Arkansas, 1975;  
 Ph.D., Northwestern University, 1989.

**GARY E. MORRIS, 2002**

Instructor of Music  
 Director of Choirs  
 B.M.E., Arkansas State University, 1970,  
 M.S.E., Arkansas State University, 1971.

**JAMES L. MOSES, 1999**

Professor of History  
 B.A., Louisiana State University, 1986;  
 M.A., University of New Hampshire, 1989;  
 Ph.D., Tulane University, 1997.

**DAVID MUDRINICH, 1998**

Professor of Art  
 B.S., Pennsylvania State University, 1976;  
 M.F.A., University of Georgia, 1992.

**TOMMY L. MUMERT, 1989**

Assistant Professor of Journalism  
 B.S., Arkansas State University, 1978;  
 M.A., Arkansas State University, 1986.

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 M.S., Texas A & M University, 2000;  
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**JAMES R. MUSSER, 2005**

Associate Professor of Physics  
 Head, Department of Physical Sciences  
 B.S., West Texas State University, 1987;  
 Ph.D., Texas A & M University, 2005.

[Top](#)**V. CAROLYN NEEL, 2011**

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 B.A., University of North Texas, 1997;  
 M.A., University of Hawaii, 2000;  
 Ph.D., University of Hawaii, 2006.

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Associate Professor of Computer and Information Science  
 B.S., Gakushuin University, 1991;  
 M.S., Oklahoma City University, 1993;  
 Ph.D., Oklahoma State University, 1999.

**HANNA E. NORTON, 2001**

Professor of Journalism  
 Assistant Vice President for Academic Affairs  
 A.B.J., University of Georgia, 1994;  
 M.A., University of Georgia, 1998;  
 Ph.D., University of Georgia, 2001.

**TROY NORTON, 2005**

Instructor of Health and Physical Education  
 B.S., Arkansas Tech University, 2002;  
 M.Ed., Arkansas Tech University, 2005.

**THOMAS E. NUPP, 1997**

Professor of Wildlife Science  
 B.S., The Pennsylvania State University, 1987;  
 M.S., Auburn University, 1992;  
 Ph.D., Purdue University, 1997.

[Top](#)**DAVID M. OSBURN, 2000**

Associate Professor of Psychology  
 B.A., University of Arizona, 1979;  
 M.Ed., Wichita State University, 1987;  
 M.A., Wichita State University, 1999;  
 Ph.D., Wichita State University, 2000.

[Top](#)**NANCY B. PARK, 2001**

Instructor of Computer and Information Science  
 B.S., Arkansas Tech University, 1994;  
 M.B.A., University of Arkansas, 1995;  
 M.I.S., University of Arkansas, 1998.

**PHILIP D. PARKER, 1977**

Professor of Music  
 B.M., Wichita State University, 1975;  
 M.M., Indiana University, 1977.

**JASON A. PATTON, 2008**

Associate Professor of Geology  
 B.S., Arkansas Tech University, 1996;  
 M.S. Murray State University, 1998;  
 Ph.D., University of Arkansas, 2008.

**JACKIE L. PAXTON, 2005**  
Professor of Curriculum and Instruction  
B.S.E., University of Central Arkansas, 1978;  
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Ed.D., University of Arkansas, 1990.

**JEFFREY V. PEARSON, 2011**  
Assistant Professor of History  
B.A., Indiana University, 1998;  
M.A., University of New Mexico, 2001;  
Ph.D., University of New Mexico, 2011.

**KATHRYN D. PEARSON, 1984**  
Assistant Professor of Mathematics  
B.S., Arkansas Tech University, 1976;  
M.Ed., Arkansas Tech University, 1979;  
Ed.D., Nova Southeastern University, 2000.

**ROCKIE D. PEDERSON, 2011**  
Associate Professor of Health and Physical  
Education  
B.S.E., Henderson State University, 1979;  
M.S.E., Henderson State University, 1980;  
Ph.D., Texas Woman's University, 2000.

**THOMAS W. PENNINGTON, 1995**  
Professor of Legal Studies  
Associate Vice President and  
Counsel to the President  
B.S., Arkansas Tech University, 1990;  
J.D., University of Arkansas, 1993.

**STEPHANIE PEPPER, 2010**  
Assistant Professor of Curriculum and Instruction  
B.M.E., Delta State University, 1973;  
M.Ed., University of Mississippi, 1998;  
Ed.S., University of Mississippi, 2001;  
Ed.D., University of Mississippi, 2007.

**SUSAN POZNAR, 1993**  
Professor of English  
B.A., Brandeis University, 1980;  
M.A., Duke University, 1982;  
Ph.D., Duke University, 1989.

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**MALCOLM R. RAINEY, 2010**  
Professor of Animal Science  
Head, Department of Agriculture  
B.S., Southeastern Louisiana University, 1982;  
M.Ag., West Texas State University, 1985;  
Ph.D., Mississippi State University, 1988.

**NELSON R. RAMÍREZ, 2006**  
Associate Professor of Spanish  
B.A., University of California, Berkeley, 1997;  
M.A., University of California, Berkeley, 1999;  
Ph.D., University of California, Berkeley, 2005.

**SHELLY RANDALL, 2014**  
Assistant Professor of Nursing  
B.S.N., Arkansas Tech University, 2000;  
M.S.N., West Texas A & M University, 2004;  
Ph.D., Texas Woman's University, 2013.

**JAMES REASONER, 2008**  
Instructor of Electrical Engineering  
B.S.E.E., U.S. Naval Academy, 1971;  
M.A., U.S. Naval War College, 1986.

**MARK REAVIS, 2012**  
Assistant Professor of Economics and Finance  
B.A., Ouachita Baptist University, 1987;  
M.B.A., Texas A & M University, 2005;  
Ph.D., Northcentral University, 2014.

**SEAN S. REED, 2012**  
Assistant Professor of Music  
B.M., University of Texas at Austin, 1995;  
M.M., Rice University, 1998;  
D.M.A., University of Rochester, 2004.

**WILLIAM REEDER, 2010**  
Assistant Professor of Journalism  
B.A., Arkansas Tech University, 1996;  
M.A., Arkansas Tech University, 2002.

**RANDELL W. RENFRO, 2003**  
Assistant Professor of Agriculture  
B.S., Arkansas Tech University, 1980;  
M.S., University of Arkansas, 1982.

**CAROLYN RICONO, 2013**  
Assistant Professor of Nursing  
B.S.N., Chamberlain College, 2009;  
M.S.N., University of Alabama at Birmingham,  
2012.

**DAVID W. ROACH, 1983**  
Professor of Management  
B.A., University of Arkansas, 1982;

**JEFF W. ROBERTSON, 1997**  
Professor of Astrophysics  
Dean, College of Natural and Health Sciences

**RONALD D. ROBISON, 1988**  
Associate Professor of Computer and Information  
Science

M.B.A., University of Arkansas, 1983;  
Ph.D., University of Arkansas, 1991.

Director of Astronomical Observatory  
B.S., University of Kansas, 1989;  
M.S., San Diego State University, 1991;  
Ph.D., Indiana University, 1995.

B.S., Iowa State University, 1970;  
M.S., University of Southern California, 1975.

**SARAH H. ROBISON, 1989**

Associate Professor of Computer and Information  
Science

B.A., University of Arkansas at Monticello, 1978;  
M.Ed., Southern Arkansas University, 1982;  
M.S., Nova Southeastern University, 1994.

**MICHAEL T. ROGERS, 2007**

Associate Professor of Political Science  
B.A., Wabash College, 1995;

M.A., University at Albany-SUNY, 1999,  
Ph.D., University at Albany-SUNY, 2005.

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**REGINA ST. JOHN, 2006**

Associate Professor of English

B.A., University of Arkansas at Monticello, 1993;  
M.A., Arkansas State University, 1994;  
Ph.D., Ball State University, 2004.

**JENNIFER E. SAMSON, 2012**

Assistant Professor of Psychology

B.S., Vanderbilt University, 2000;  
M.S., Vanderbilt University, 2009;  
Ph.D., Vanderbilt University, 2012.

**JENNIFER L. SAXTON, 2011**

Instructor of Professional Studies

B.A., Arkansas Tech University, 1999;  
M.S., Arkansas Tech University, 2009.

**JEREMY S. SCHWEHM, 2012**

Assistant Professor of Professional Studies

B.A., Louisiana State University, 2000;  
M.A., Northwestern State University of Louisiana,  
2007;  
Ph.D., University of Georgia, 2011.

**MONA CHADWICK SCOTT, 2010**

Associate Professor of Educational Leadership

B.S., Texas Tech University, 1975;  
M.S., Sul Ross University, 1996;  
Ed.D., Lamar University, 2009.

**SUSAN SELF, 2012**

Assistant Professor of Nursing

B.S.N., Arkansas Tech University, 1998;  
M.S.N., Arkansas Tech University, 2011.

**SHWADHIN SHARMA, 2015**

Assistant Professor of Computer and Information  
Science

B.B.A., Kathmandu University, 2004;  
M.B.A., Pokhara University, 2006;  
M.S., North Carolina A&T State University, 2010.

**DONNA S. SHERRILL, 1992**

Instructor of Mathematics

B.S., Arkansas Tech University, 1990;  
M.Ed., Arkansas Tech University, 1992.

**HAMED SHOJAEI, 2009**

Associate Professor of Physics

B.S., Sharif University of Technology (Iran), 1995;  
M.S., Sharif University of Technology (Iran) 1997;  
Ph.D., Indiana University, 2009.

**REBECCA A. SHOPFNER, 2000**

Associate Professor of Teaching and Learning

B.S.E., University of Central Arkansas, 1973;  
M.Ed., Arkansas Tech University, 1986;  
Ed.D., University of Arkansas, 1999.

**KENNETH W. SHORES, 1985**

Associate Professor of Mathematics

B.S., Arkansas Tech University, 1970;  
M.S., University of Arkansas, 1972.

**AMBER SIERRA, 2014**

Assistant Professor of Physics

B.S., University of Arkansas at Little Rock, 1996;  
M.S., Ohio State University, 2001;  
Ph.D., University of Arkansas at Little Rock, 2014.

**CHERYL S. SMITH, 1992**

Professor of Nursing

B.S.N., University of Southern Alabama, 1983;  
M.S., University of Southern Mississippi, 1990;  
Ph.D., University of Arkansas for Medical  
Sciences, 2006.

**MONTY J. SMITH, 2010**

Assistant Professor of Mechanical Engineering

B.S., Texas A & M University, 1987;  
M.S., Purdue University, 1990;  
Ph.D., Purdue University, 1997.

**SANDRA SMITH, 2011**

Associate Professor of Emergency Management

Head, Department of Emergency Management  
B.S.N., Duke University, 1981;  
M.S.N., University of Central Arkansas, 1999;  
Ph.D., Loyola University, 2005.

**TIMOTHY E. SMITH, 1998**

Professor of Music

**V. CAROLE SMITH, 2004**

Professor of Curriculum and Instruction

**DARLA D. SPARACINO, 1993**

Associate Professor of Health Information  
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B.M., St. Olaf College, 1989;  
M.M., Indiana University, 1991;  
D.M., Indiana University, 1998.

B.M., University of Arizona, 1969;  
M.M., University of Arizona, 1972;  
M.Ed., University of Arizona, 1980;  
Ph.D., University of Arizona, 1986.

Management  
B.S., Arkansas Tech University, 1989;  
M.Ed., Arkansas Tech University, 1995;  
MSHI, Arkansas Tech University, 2012.

**SARAH STEIN, 2014**

Assistant Professor of English  
B.A., University of Minnesota, 2004;  
Ph.D., Emory University, 2012.

**JAMES STEUBER, 2008**

Associate Professor of Mechanical Engineering  
Director, Mechanical Engineering  
B.S., Arkansas Tech University, 2001;  
M.S., Texas A & M University, 2007;  
Ph.D., Texas A & M University, 2009.

**IVAN H. STILL, 2006**

Associate Professor of Biology  
B.S., University College London, 1988;  
Ph.D., University of Newcastle-upon-Tyne, 1992.

**JAMES E. STOBAUGH, 2013**

Assistant Professor of Sociology  
B.A., University of Hawaii, 2002;  
M.A., University of Memphis, 2004;  
Ph.D., University of California at Irvine, 2012.

**JOSEPH N. STOECKEL, 1992**

Professor of Fisheries Science  
B.A., Southern Illinois University at Carbondale, 1978;  
M.A., Southern Illinois University at Carbondale, 1985;  
Ph.D., Virginia Polytechnic Institute and State University, 1993.

**ANNETTE B. STUCKEY, 2006**

Assistant Professor of Professional Studies  
B.S., University of Arkansas at Pine Bluff, 1993;  
M.Ed., Arkansas Tech University, 2003.

**JOSEPH SWAIN, 2009**

Associate Professor of Geography  
B.S., Northwestern State University, 2000;  
M.A., Western Illinois University, 2003;  
Ph.D., University of Oklahoma, 2008.

**WILLIAM BROWDER SWETNAM, 2014**

Instructor of English Language Institute  
B.A., Missouri Southern State University, 1986;  
M.A., Northern Arizona University, 1994;  
Ed.D., University of Nebraska, 2005.

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**ZHI TAO, 2013**

Assistant Professor of Management  
B.S., Henan University, 1995;  
B.S., East China University of Science and Technology, 2001;  
M.A., University of Delaware, 2005;  
Ph.D., Kent State University, 2013.

**H. MICHEAL TARVER, 2002**

Professor of History  
B.G.S., The University of Louisiana at Lafayette, 1983;  
M.A., The University of Louisiana at Lafayette, 1990;  
Ph.D., Bowling Green State University, 1995.

**TERESA TAYLOR, 2004**

Instructor of Mathematics  
B.S., Arkansas Tech University, 1990;  
M.Ed., Arkansas Tech University, 1994;  
M.Ed., Arkansas Tech University, 2005.

**WILL TAYLOR, 2014**

Instructor of English Language Institute  
B.A., Welch College, 2005;  
M.A., Columbia International University, 2006.

**BRUCE L. TEDFORD, 2001**

Associate Professor of Biology  
B.S., University of Arkansas at Little Rock, 1976;  
M.A., University of California, 1980;  
Ph.D., Louisiana State University, 1995.

**SHERYLE TINERELLA, 2011**

Assistant Librarian  
B.A., Northeastern Illinois University, 2001;  
M.L.I.S., University of Wisconsin-Milwaukee, 2008.

**SALLY R. TODD, 2014**

Assistant Professor of Music  
B.M., Indiana University, 1995;  
M.M., Indiana University, 1997.

**MEGAN TOLAND, 2014**

Assistant Professor of Journalism  
B.A., Arkansas Tech University, 2006;  
M.A., Arkansas Tech University, 2008.

**TERESA TOLAND, 2014**

Assistant Professor of Curriculum and Instruction  
B.S.E., Southern Arkansas University, 1985;  
M.S.E., Henderson University, 1997;  
M.L.I.S., University of Oklahoma, 2005.

**BRENDAN TONER, 2014**

Assistant Professor of Political Science  
 B.A., West Chester University of Pennsylvania, 2001;  
 M.A., Virginia Tech University, 2004;  
 Ph.D., Southern Illinois University, 2013.

**ELLEN E. TREADWAY, 2013**

Assistant Professor of Teaching, Learning and Leadership  
 B.A., Rhodes College, 1986;  
 M.A.T., University of Memphis, 1987;  
 M.A., Indiana University, 1990;  
 Ph.D., Indiana University, 2000.

**L. KIM TROBOY, 2002**

Professor of Management Information Systems  
 B.S., Arkansas Tech University, 1980;  
 M.B.A., University of Arkansas, 1987;  
 Ph.D., University of North Texas, 1997.

**CHRISTOPHER TROMBLY, 2013**

Assistant Professor of Educational Leadership  
 B.A., Colorado State University, 1994;  
 M.A., Boston College, 1997;  
 M.Ed., Boston College, 2002;  
 Ph.D., Boston College, 2012.

**ROMAN C. TUBNER, 2014**

Instructor of Health and Physical Education  
 Assistant Coach of Women's Basketball  
 B.A., Centenary College of Louisiana, 2011;  
 M.Ed., University of Arkansas, Monticello, 2012.

**JACK E. TUCCI, 2013**

Professor of Management  
 William M. Lemley Endowed Chair  
 B.B.A., University of Texas of the Permian Basin, 1989;  
 M.B.A., University of Texas of the Permian Basin, 1990;  
 Ph.D., University of North Texas, 1996.

**BRENDA TYLER, 2014**

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 B.S., Arkansas Tech University, 1972;  
 M.S.E., University of Central Arkansas, 1974.

[Top](#)**JASON S. ULSPERGER, 2006**

Associate Professor of Sociology  
 B.S., University of Central Arkansas, 1997;  
 M.A., Arkansas State University, 1999;  
 Ph.D., Oklahoma State University, 2003.

**DAVID G. UNDERWOOD, 2001**

Professor of Education  
 Associate Vice President for Academic Affairs  
 B.A., Western Kentucky University, 1972;  
 M.P.S., Western Kentucky University, 1978;  
 M.A.Ed., Western Kentucky University, 1979;  
 Ph.D., Indiana University, 1985.

**SUSAN J. UNDERWOOD, 2003**

Professor of College Student Personnel  
 B.S., Western Kentucky University, 1980;  
 M.A.Ed., Western Kentucky University, 1982;  
 Ph.D., New Mexico State University, 1990.

**RACHAEL E. URBANEK, 2012**

Assistant Professor of Wildlife Science  
 B.S., Pennsylvania State University, 2005;  
 Ph.D., Southern Illinois University Carbondale, 2012.

[Top](#)**PHILIPPE VAN HOUTTE, 2007**

Associate Librarian  
 B.A., Arkansas Tech University, 2007  
 M.L.S., Texas Woman's University, 2011.

**THOMAS A. VAUGHN, 2003**

Associate Professor of Communication  
 B.A., University of Arkansas, 1990;  
 M.A., University of Arkansas, 1992;  
 Ph.D., Indiana University, 1998.

[Top](#)**LYNN WALSH, 2010**

Associate Professor of Curriculum and Instruction  
 B.S.E., Indiana University, 1974;  
 M.A., University of Houston, 1980;  
 Ed.D., Baylor University, 2001.

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 B.S., Arkansas Tech University, 1975;  
 M.Ed., Arkansas Tech University (Physical

**JAMES R. WALTON, 2006**

Associate Professor of Marketing  
 B.S.B.A., Missouri Southern State College, 1979;  
 M.B.A., University of Central Arkansas, 1993;  
 Ph.D., Texas Tech University, 2001.

Education), 1979;  
M.Ed., Arkansas Tech University (Elementary  
Education), 1992.

**DANA D. WARD, 1988**  
Professor of Spanish  
B.A., Hendrix College, 1974;  
M.A., University of Arkansas, 1977;  
Ph.D., University of Arkansas, 1987.

**DAVID W. WARD, 1999**  
Professor of Psychology  
B.S., University of Texas, 1986;  
M.S., University of Georgia, 1990;  
Ph.D., University of Georgia, 1998.

**DAWN M. WARD, 2012**  
Professor of Art  
Head, Department of Art  
B.A., Northeastern State University, 1985;  
M.A., New York University, 1991;  
Ph.D., New York University, 1998.

**JASON E. WARNICK, 2006**  
Associate Professor of Psychology  
B.A./B.S., Arkansas State University, 2002;  
M.A., University of Mississippi, 2004;  
Ph.D., University of Mississippi, 2006.

**AILEEN WATTS, 2013**  
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B.S., Southern Utah University, 1996;  
M.A., George Washington University, 2003;  
Ed.D., George Washington University, 2010.

**SUSAN WEST, 2008**  
Assistant Professor of Hospitality Administration  
B.A.A.S., Stephen F. Austin State University,  
2000;  
M.A., University of Arkansas, 2003.

**DONNA R. WHITE, 2001**  
Professor of English  
B.A., Arkansas Tech University, 1976;  
M.A., University of Texas, 1983;  
Ph.D., University of Minnesota, 1991.

**REBECCA WIEWEL, 2014**  
Assistant Professor of Anthropology  
B.A., University of Kansas, 2004;  
M.A., University of Wyoming, 2008;  
Ph.D., University of Arkansas, 2014.

**JENNIFER WILLBANKS, 2014**  
Instructor of Psychology  
B.A., Arkansas Tech University, 2010;  
M.S., Arkansas Tech University, 2012.

**MELINDA A. WILKINS, 1988**  
Professor of Health Information Management  
Director of Health Information Management  
B.S., Southwestern Oklahoma State University,  
1983;  
M.Ed., Southwestern Oklahoma State University,  
1988;  
Ph.D., Capella University, 2008.

**ALVIN WILLIAMS, 2012**  
Assistant Professor of Agriculture  
B.S., Northwestern Oklahoma State University,  
1977;  
D.V.M., Oklahoma State University, 1981;

**PENNY P. WILLMERING, 1999**  
Professor of Rehabilitation Science  
Director of Rehabilitation Science  
B.S.Ed., University of Missouri-Columbia, 1979;  
M.A., Southern Illinois University, 1986;  
Ph.D., University of Madison-Wisconsin, 1999.

**DEBORAH WILSON, 1992**  
Professor of English  
B.A., Louisiana Tech University, 1974;  
M.Ed., Mississippi College, 1982;  
Ph.D., Louisiana State University, 1991.

**ERICA WONDOLOWSKI, 2015**  
Assistant Professor of Rehabilitation Sciences  
B.A., Eastern Connecticut State University;  
M.S., Springfield College, 2011.

**JERRY D. WOOD, 2010**  
Assistant Professor of Computer and Information  
Sciences  
B.S., University of Arkansas at Little Rock, 2003;  
M.S., Arkansas Tech University, 2008.

**JEFFREY R. WOODS, 2000**  
Professor of History  
Dean, College of Arts and Humanities  
B.A., University of Kansas, 1992;  
M.A., University of Arkansas, 1994;  
Ph.D., Ohio University, 2000.

**SAM M. WORLEY, 1997**  
Associate Professor of English  
B.A., The University of Texas at Austin, 1981;  
M.A., The University of North Carolina at Chapel  
Hill, 1986;  
Ph.D., The University of North Carolina at Chapel  
Hill, 1991.

[Top](#)

**TSUNEMI YAMASHITA, 1998**  
Professor of Biology  
B.A., Hendrix College, 1985;  
Ph.D., Vanderbilt University, 1993.

**JESSICA YOUNG, 2013**  
Assistant Professor of Physics  
B.S., Henderson State University, 2006;  
M.S., University of Arkansas, 2011;



## [Top](#)

### **ANNETTE ZAKHARIAN, 1984**

Professor of French  
A.B., Rutgers University, 1974;  
M.A., Syracuse University, 1980;  
D.A., Syracuse University, 1983.

## Distinguished Professor

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### **ROBERT CHARLES BROWN, 1993**

President Emeritus and Distinguished Professor of Economics  
B.A., Northwestern State University, 1967  
M.A., Louisiana State University, 1969  
Ph.D., Louisiana State University, 1976

### **RICHARD R. COHOON, 1960**

Distinguished Professor and Professor Emeritus of Geology  
B.A., Oklahoma City University, 1954;  
M.S., University of Oklahoma, 1959;  
Ed.D., Oklahoma State University, 1974.

### **JACK R. HAMM, 1972**

Distinguished Professor and Professor Emeritus of Mathematics  
B.S., Arkansas Tech University, 1964;  
M.S., University of Missouri at Rolla, 1968;  
Ph.D., University of Missouri at Rolla, 1972.

### **JOHN W. WATSON, 1978**

Distinguished Professor of Mathematics  
B.A., University of Arkansas, 1971;  
M.S., University of Arkansas, 1973;  
Ed.D., Oklahoma State University, 1978.

## Faculty Emeriti

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### **JOHN J. CADLE, 1977**

Professor Emeritus of Physical Education  
B.S.E., Central Missouri State University, 1965;  
M.S., Central Missouri State University, 1967;  
Ed.D., University of Southern Mississippi, 1970.

### **ROBERT L. CASEY, 1971**

Professor Emeritus of Music  
B.A., Arkansas Tech University, 1954;  
M.M.E., University of North Texas, 1959;  
Ed.D., Washington University, 1971.

### **ELDON G. CLARY, JR., 1967**

Professor Emeritus of Secondary Education  
B.S.E., North Texas State University, 1962;  
M.Ed., North Texas State University, 1964;  
Ed.D., North Texas State University, 1968.

### **EDWARD J. CONNELLY, 1960**

Professor Emeritus of Music  
B.M., De Paul University, 1955;  
M.M., University of Illinois, 1960;  
D.M.A., University of Colorado, 1979.

### **HAL D. COOPER, 1979**

Professor Emeritus of Music  
B.M.E., Henderson State University, 1966;  
M.M.E., Henderson State University, 1974.

### **ROBERT R. EDWARDS, 1989**

Professor Emeritus of Management  
B.A., Arkansas Tech University, 1960;  
M.S., American Technological University, 1981;  
Ph.D., University of Arkansas, 1988.

### **PATRICIA A. GORDON, 1965**

Professor Emeritus of Health and Physical Education  
B.S.E., University of Central Arkansas, 1957;  
M.Ed., University of Oklahoma, 1960;  
Ed.D., University of Arkansas, 1977

### **ROYCE D. JONES, 1973**

Professor Emeritus of Accounting  
B.S., Arkansas Tech University, 1965;  
M.B.A., East Texas State University, 1971.

### **DAVID W. KRUEGER, 1960**

Professor Emeritus of History  
B.S., Memphis State University, 1958;  
M.A., Memphis State University, 1958.

**JOSEPH L. MOORE, 1988**

Professor Emeritus of Economics  
B.S.B.A., University of Arkansas, 1965;  
M.B.A., University of Arkansas, 1966;  
Ph.D., University of Arkansas, 1975.

**BOBBY MULLEN, 1956**

Professor Emeritus of Mathematics  
B.S., Arkansas Tech University, 1952;  
M.A., University of Arkansas, 1955.

**AUDREY R. OWENS, 1984**

Professor Emeritus of Nursing  
B.S., Youngstown State University, 1971;  
M.S., Youngstown State University, 1978;  
M.S., Texas Woman's University, 1979;  
Ed.D., The University of Akron, 1983.

**DONALD E. RICKARD, 1967**

Professor Emeritus of Physical Science  
B.S.E., University of Central Arkansas, 1960;  
M.S.E., University of Central Arkansas, 1966.

**EARL F. SCHROCK, Jr., 1971**

Professor Emeritus of English  
B.A., Arkansas Tech University, 1966;  
M.A., University of Arkansas, 1968;  
Ph.D., University of Arkansas, 1980.

**RICHARD S. SMITH, 1991**

Professor Emeritus of Economics  
B.B.A., University of Iowa, 1965;  
M.A., University of Iowa, 1970;  
Ph.D., University of Texas, 1974.

**WILLIAM W. TRIGG, 1959**

Professor Emeritus of Chemistry  
B.S., University of Arkansas, 1956;  
M.S., University of Arkansas, 1960;  
Ph.D., Louisiana State University, 1967.

**HILDA J. TURNER, 1979**

Professor Emeritus of Business  
B.S., Arkansas Tech University, 1960;  
M.Ed., University of Arkansas, 1968;  
Ed.D., University of Arkansas, 1976.

**THOMAS P. TYLER, 1967**

Professor Emeritus of Economics  
B.A., Hendrix College, 1965;  
M.B.A., University of Arkansas, 1967;  
Ph.D., University of Arkansas, 1980.

**VICTOR K. VERE, 1976**

Professor Emeritus of Geology  
B.S.E., State University of New York (Cortland),  
1961;  
M.S., Syracuse University, 1968;  
Ph.D., Syracuse University, 1972.

**KENNETH R. WALKER, 1958**

Professor Emeritus of History  
B.A., Goshen College, 1949;  
M.A., Indiana University, 1950;  
M.Ed., University of Arkansas, 1964;  
Ph.D., Indiana University, 1952.

**JAMES T. WILLCUTT, 1967**

Professor Emeritus of Physics  
B.S., Arkansas Tech University, 1965;  
M.S., University of Missouri at Rolla, 1967.

**KEITH C. WILLS, 1968**

Professor Emeritus of Health and Physical  
Education  
B.A., Hendrix College, 1958;  
M.S.E., Arkansas State University, 1965;  
Ph.D., Texas A & M University, 1970.

**CHIA CHI YANG, 1980**

Professor Emeritus of Chemistry  
B.S., National Chen Kung University, Taiwan,  
1949;  
M.S., Georgia Tech, 1968;  
Ph.D., Georgia Tech, 1979.

## General Information

### The Campus

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Arkansas Tech University, with its spacious 516-acre campus, is located on the northern edge of the city of Russellville. This growing community, with a population of approximately 28,000, is ideally situated between the mountains of the Ozark National Forest on the north and those of the Ouachita National Forest on the south. It is midway between the state's two largest population centers, Fort Smith, 85 miles to the west, and Little Rock, 75 miles to the east. Interstate Highway 40 passes just north of the campus and connects these two cities.

Arkansas Tech University's Lake Point Conference Center is located west of Russellville and is home to the College of Professional Studies and Community Outreach and offers both credit and non-credit programs. Lake Point is nestled on Lake Dardanelle in a beautiful wooded setting and offers private guest rooms, elegant and casual food service, unique amenities and spectacular views from every building. Lake Point Conference Center can accommodate a wide variety of meetings, training, conferences, retreats, as well as business and social functions.

In addition, Russellville is the crossroads of activity for State Highways 7, 22, 64, and 124. The historic natural crossing of the Arkansas River at Dardanelle is four miles to the south. The navigable river forms a 36,600 acre lake with 315 miles of shoreline behind a lock and dam located just southwest of the city. The Missouri Pacific Railroad passes through the city and parallels the river between Little Rock and Fort Smith.

Russellville is the county seat of Pope County. Historic Dwight Mission, established by the American Board of Foreign Missions among the Cherokee Indians in 1821, was located a short distance west of the campus of Arkansas Tech University on Illinois Bayou, where that stream is now crossed by Highway 64. Descendants of Cephas Washburn, the intrepid missionary who founded the mission and named it for Timothy Dwight of Yale, live in Russellville at the present time.

Arkansas Tech University is in the center of an area experiencing vigorous industrial development as evidenced by the growth of local industry and the number of national concerns locating plants in the area. Arkansas Nuclear One, the first nuclear power plant completed in the Southwest, and a second nuclear power unit have been constructed near Russellville by Entergy, thus assuring continued industrial growth. Headquarters for District 9 of the Arkansas Highway Department and for the Ozark – St. Francis National Forests are located in Russellville. The McClellan – Kerr Navigation Project is having a significant effect upon the development of the area. The impoundment of the Arkansas River has formed Lake Dardanelle which borders the west edge of the campus. Poultry, cattle, soybeans, cotton, and lumber are the principal money crops in the area served by Arkansas Tech University.

### History

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Arkansas Tech University was created by an act of the Arkansas General Assembly in 1909. Under the provisions of this Act, the state was divided into four Agricultural School Districts. Boards of Trustees were appointed by the Governor with the approval of the Senate, and appropriations were made for the erection of buildings and employment of a faculty for a district agricultural school in each of the four districts.

Twenty counties of northwestern Arkansas were designated as the Second District. Governor Donaghey appointed W. U. Balkman, J. R. Williams, H. S. Mobley, A. D. Shinn, and O. P. Nixon as a Board of Trustees for the Second District Agricultural School. Several towns made efforts to have the school located in their area. After considering all proposals, the Board of Trustees decided to locate it at Russellville, which had made an offer of a tract of 400 acres of land adjoining the city limits and a cash bonus of several thousand dollars.

The school opened its doors for students in the fall of 1910. The first class to graduate from the school was the high school class of 1912. In 1921-22, a freshman year of college work was offered, in 1922-23 a second year, in 1923-24 a third year, and in 1924-25 a fourth year. The General Assembly in 1925 changed the name from the Second District Agricultural School to Arkansas Polytechnic College with power to grant degrees. The class of 1925 was graduated with the degree of bachelor of science, as was the class of 1926. The effort to maintain a four-year high school and a four-year college proved beyond the resources of the institution at that time, and it became a junior college in the fall of 1927. The four years of secondary work were dropped, one year at a time, and the last high school class was the class of 1929.

Changing and increasing demands for college education in Arkansas caused the Board of Trustees in 1948 to convert the college from a junior college to a degree-granting institution. In 1948-49 the college offered the third year of college work, and in 1949-50 the fourth year, with the first baccalaureate degrees awarded at the end of the 1949-50 spring semester. A graduate program leading to the degree of master of education was established in 1976. Graduate courses were first offered by Arkansas Tech in the summer of 1975.

In accordance with an act of the Arkansas General Assembly and by the authority of the State of Arkansas Board of Higher

Education, the name of Arkansas Polytechnic College was changed to Arkansas Tech University, effective July 9, 1976.

Arkansas Tech has consistently adjusted its scope to accommodate immediate and future needs. In 1985 the institution reorganized its programs into the Schools of Business, Education, Liberal and Fine Arts, Physical and Life Sciences, and Systems Science. In 1997, the School of Community Education and Professional Development was established. As part of ongoing efforts in strategic planning and a recognition of the growth and scope of the institution and its programs, the schools were renamed in 2009: College of Business, College of Education, College of Arts and Humanities, College of Natural and Health Sciences, College of Applied Sciences, and College of Professional Studies and Community Outreach. In 2013, the College of Applied Sciences was renamed the College of Engineering and Applied Sciences.

## Vision Statement

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The vision of Arkansas Tech University is to be a student-centered university of choice.

## Mission Statement

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(adopted February 28, 2008)

Arkansas Tech University, a state-supported institution of higher education, is dedicated to nurturing scholastic development, integrity, and professionalism. The University offers a wide range of traditional and innovative programs which provide a solid educational foundation for life-long learning to a diverse community of learners.

## General Education Goals

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The general education curriculum is designed to provide a foundation for knowledge common to educated people and to develop the capacity for an individual to expand that knowledge over his or her lifetime. Students who have completed the general education curriculum at Arkansas Tech University will be able to:

Communicate effectively

Think critically

Develop ethical perspectives

Apply scientific and quantitative reasoning

Demonstrate knowledge of the arts and humanities

Understand wellness concepts

(See "[General Education Requirements](#)")

## Programs of Study

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In carrying out its mission, the University offers programs of study leading to associate and baccalaureate degrees in the areas listed below. Graduate level degrees can be found in the [Graduate Catalog](#).

### College of Arts and Humanities

[Art Education](#)

[Communication](#)

[Creative Writing](#)

[Creative Writing Education](#)

[Criminal Justice](#) (A.S.)

[English](#)

[English Education](#)

[Fine Arts](#)

[Foreign Language](#)

[Foreign Language Education](#)

[General Education](#) (A.A.)

[Graphic Design](#)

[History](#)

[International Studies](#)

[Journalism](#)

[Music](#)

[Music Education](#)  
[Ozark-Ouachita Studies](#) (A.S.)  
[Political Science](#)  
[Psychology](#)  
[Public History](#)  
[Rehabilitation Science](#)  
[Social Studies Education](#)  
[Sociology](#)  
[Speech Education](#)

### **College of Business**

[Accounting](#)  
[Business Data Analytics](#)  
[Business Education](#)  
[Economics and Finance](#)  
[Management and Marketing](#)

### **College of Education**

[Elementary Education](#)  
[Health and Physical Education](#)  
[Middle Level Education](#)  
[Secondary Education](#)

### **College of Engineering and Applied Sciences**

[Agriculture Business](#)  
[Agriculture Education](#)  
[Computer Science](#)  
[Culinary Management](#) (A.A.S.)  
[Electrical Engineering](#)  
[Emergency Management](#)  
[Hospitality Administration](#)  
[Information Systems](#)  
[Information Technology](#)  
[Information Technology](#) (A.A.S.)  
[Mechanical Engineering](#)  
[Nuclear Technology](#) (A.S.N.T.)  
[Recreation and Park Administration](#)

### **College of Natural and Health Sciences**

[Biology](#)  
[Chemistry](#)  
[Engineering Physics](#)  
[Fisheries and Wildlife Science](#)  
[Geology](#)  
[Health Information Management](#)  
[Life Science for Teacher Licensure](#)  
[Physical Science for Teacher Licensure](#)  
[Mathematics](#)  
[Mathematics Education](#)  
[Medical Technology](#)  
[Nuclear Physics](#)  
[Nursing](#)  
[Physical Science](#)  
[Physics](#)

### **College of Professional Studies and Community Outreach**

[Early Childhood Education](#) (A.S.)  
[Professional Studies](#)

### **Minors Offered**

<b>Minor</b>	<b>Hours</b>
<a href="#">Accounting</a>	21 hours
<a href="#">Agriculture</a>	21 hours
<a href="#">Anthropology</a>	18 hours
<a href="#">Art</a>	18 hours
<a href="#">Biology</a>	20 hours
<a href="#">Business and Entrepreneurship</a>	18 hours
<a href="#">Chemistry</a>	21 hours
<a href="#">Communication</a>	18 hours
<a href="#">Creative Writing</a>	18 hours
<a href="#">Criminal Justice</a>	18 hours
<a href="#">Economics</a>	18 hours
<a href="#">Emergency Management</a>	18 hours
<a href="#">Engineering Physics</a>	20 hours
<a href="#">English</a>	18 hours
<a href="#">Film Studies</a>	18 hours
<a href="#">French</a>	17 hours
<a href="#">Geography</a>	18 hours
<a href="#">Geology</a>	20 hours
<a href="#">German</a>	17 hours
<a href="#">History</a>	18 hours
<a href="#">Hospitality Administration</a>	18 hours
<a href="#">Japanese</a>	17 hours
<a href="#">Journalism</a>	18 hours
<a href="#">Latin American Studies with language proficiency</a>	18 hours
<a href="#">Latin American Studies without language proficiency</a>	16 hours
<a href="#">Mathematics</a>	20

	hours
<a href="#">Military Science</a>	21 hours
<a href="#">Philosophy</a>	18 hours
<a href="#">Physical Science</a>	20 hours
<a href="#">Political Science</a>	18 hours
<a href="#">Pre-Law</a>	21 hours
<a href="#">Psychology</a>	18 hours
<a href="#">Recreation and Park Administration</a>	18 hours
<a href="#">Rehabilitation Science</a>	18 hours
<a href="#">Religious Studies</a>	18 hours
<a href="#">Sociology</a>	18 hours
<a href="#">Spanish</a>	17 hours
<a href="#">Spanish Medical Interpretation</a>	22 hours
<a href="#">Strategic Studies</a>	18 hours
<a href="#">TESL</a>	18 hours
<a href="#">Theatre</a>	18 hours

## Facilities Management

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The facilities management of Arkansas Tech University is located on a tract of 516 acres near the northern boundary of the city of Russellville. Acreage provides space for varsity and intramural recreational activities, drill fields, and the University farm. The McClellan – Kerr Arkansas River Navigation System provides a freshwater lake which borders on the west edge of the campus.

All instructional programs are taught in buildings which have been specifically designed or modified to complement the projected instructional tasks. The Corley Building, expanded in 2009, provides instructional space and state of the art laboratories for engineering, computer science, and mathematics. McEver Hall, renovated and expanded in 2010, provides specialized classrooms and labs for Biological and Physical Sciences. Norman Hall, which was completed in 2007, houses the Department of Art and contains a gallery and specialized classrooms. Rothwell Hall houses Academic Advising, College of Business offices and classrooms, a trading room with a live Stock Market Ticker and Video Display Wall, and the Arkansas Small Business and Technology Development Center. Rothwell Hall was not only completed in Arkansas Tech's 100th year of operation (2009), but is also Tech's 100th building.

The College of Professional Studies and Community Outreach and the Center for Leadership and Learning are located at our Lake Point Conference Center which was acquired by Tech in 2006.

Arkansas Tech University has several resources which lend themselves to serving the cultural and recreational needs of the University and surrounding community. The John E. Tucker Coliseum complements the instructional program by providing a modern setting for concerts, conventions, and sporting events. The Witherspoon Arts and Humanities Building has a modern auditorium with a seating capacity of 742. The L.L. "Doc" Bryan Student Services Center constitutes the main facility for student services, student government, publications, and indoor recreational activities. The Arkansas Tech Museum, located in the Techionery Building, contains exhibits on archeology and early history of western Arkansas; museum lectures and events address cultural needs on the campus and in the community, and offer opportunities for



students in the Parks, Recreation and Hospitality Department to become involved in interpretive activities.

Ross Pendergraft Library and Technology Center houses more than 1,225,000 items, including: 175,000 print volumes; 900,000 microforms; 120,000 government documents; 16,000 multimedia items; and 700 periodical subscriptions. Among these holdings are extensive backfiles of journals and newspapers. Photocopiers and microform reader-printers are available at several locations in the library. The library is a member of AMIGOS, a regional broker of international bibliographic data and information services. Over 150 electronic databases covering most subjects are accessible from the library and over the Internet through the Tech homepage at <http://library.atu.edu>. Assistance in the retrieval and use of materials is provided by seven professional librarians, ten paraprofessional staff, and a number of part-time employees. Librarian-mediated instruction and online searches are provided on request. Materials not available in the library may be requested through our interlibrary loan system, normally at no charge. The Library is the publisher of the retrospective Arkansas Gazette Index.

Pendergraft Library is open 97 hours per week except between semesters and during holidays. The state-of-the-art facility includes a variety of computer labs (both open use and instructional), a music/multimedia lab, a distance learning classroom, a large conference room, nine group study rooms, satellite downlink, cable TV connections, 135 publicly accessible computers, 138 lab computers, about 400 data drops for laptop computers, and access to the Tech wireless network.

## Admission

Individuals who meet the admission requirements listed below may apply to Arkansas Tech University. The University reserves the right to reject the application of any individual. Every student must file an application for admission. Applications and additional information about Arkansas Tech are available from the [Office of Admissions](#), Arkansas Tech University, 1605 Coliseum Drive, Suite 141 Doc Bryan, Russellville, Arkansas 72801.

Students may apply on-line from the Tech website at [www.atu.edu](http://www.atu.edu) or e-mail for additional information via [tech.enroll@atu.edu](mailto:tech.enroll@atu.edu).

Tech will provide equal opportunity in admission to all persons. This applies to all phases of the admission process. Any demographic information collected through the admission application is on a voluntary basis and is to be used in a nondiscriminatory manner consistent with applicable civil rights laws for reporting and statistical purposes only and cannot affect eligibility for admission.

Tech is subject to and endorses both the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. The Director of Disability Services serves as the coordinator for these federal programs. The [Office of Disability Services](#) is located in Doc Bryan and can be contacted by calling (479) 968-0302 or FAX (479) 964-0375.

All students at Arkansas Tech University will be assigned a permanent, randomly generated, student identification number.

All students must provide proof of two measles, one mumps and two rubella immunizations by way of an official record from another educational institution, certificate from a licensed medical doctor, or an authorized public health department representative. Proof of the appropriate immunizations must be presented to the [Office of Admissions](#) prior to admission to the university.

All students who hold resident alien status must provide a copy of their resident alien card documenting an unexpired status.

Entering freshmen must comply with the following admission requirements and freshman placement standards. This includes students who enter with college credit earned prior to high school graduation, during summer following high school graduation, or by advanced placement.

Residual college entrance exams, taken on other college campuses, will not be accepted for admission.

### Entering Freshman/New Student

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New students to Arkansas Tech University must submit an application for admission, college entrance exam scores, an official record documenting completion of secondary requirements, and proof of immunization documenting 2 MMR. If you have concurrent college credit, an official transcript from that institution is required. For Advanced Placement (AP), College Level Examination Program (CLEP), or International Baccalaureate (IB) credit, original score reports or a certified copy from your high school will need to be submitted prior to credit being awarded. A minimum criterion for exam scores and grade point average is listed below:

1. Composite ACT score of 15 or above, composite SAT score of 1060 or above, or a composite COMPASS score of 47 (averaging scores in algebra, writing, and reading) or above for students who graduate from a public secondary school; composite ACT score of 19 or above, composite SAT score of 1330 or above, or a composite COMPASS score of 68 (averaging scores in algebra, writing, and reading) or above for students who graduate from a private secondary school, home school, or received a GED. Note: The ACT Writing exam is not required for admission purposes.
2. Completion of graduation requirements from an accredited public or private secondary school, a non-accredited private secondary school, or a home school program documenting a minimum 2.0/4.0 cumulative grade point average, and completion of the university's secondary school core curriculum, OR minimum GED score of 600.

### Secondary School Core Course Recommendation

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A minimum of twenty-two earned core course credits is required, from grades nine through twelve, for admission purposes. Two additional units of foreign language are recommended for college preparation. Asterisks indicate core courses required by Act 1290 for unconditional admission.

\*English - 4 units, with emphasis on writing skills, but not to include oral communications, journalism, drama, or debate.

\*Mathematics - 4 units, including algebra I and algebra II, geometry, and an advanced math course. The fourth unit may be college algebra or a higher level college math course, as long as three college credit hours are earned. It is strongly recommended that students take a math course during their senior year.

\*Natural Science - 3 units with lab experience chosen from Physical Science, Biology or Applied Biology/Chemistry, Chemistry, Physics or Principles of Technology I & II or PIC Physics.

\*Social Studies - 3 units, [one (1) unit of world history, one (1) unit of U.S. history, one half (1/2) unit of civics].

Oral Communications - ½ unit of oral communications.

Physical Education - ½ unit of physical education.

Health and Safety - ½ unit of health and safety.

Economics - ½ unit of economics.

Fine Arts - ½ unit of fine arts.

Electives - 6 units of career focus electives.

## Freshman Placement Standards

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In accordance with A.C.A. § 6-61-110, first-time entering undergraduate students (includes students who entered college the summer of 1995 or thereafter and students who enter with advanced standing) who enroll in baccalaureate degree programs or associate-degree transfer programs must meet the following placement standards prior to enrollment in college-level mathematics reading, or English composition courses. Remedial courses do not provide credit toward a degree.

**Mathematics** – Students scoring 19 or above on the mathematics section of the ACT, 460 or above on the quantitative portion of SAT-1, may enroll in college-level mathematics courses. For students who take the COMPASS, those scoring a 41 or above on the algebra section may enroll in college-level mathematics courses. Students not meeting the standard must successfully complete a developmental (pre-college level) mathematics program, demonstrating achievement at least as sophisticated as intermediate algebra, in order to be placed in college-level mathematics courses.

**English Composition** – Students scoring 19 or above on the English section of the ACT or 450 or above on the writing section of SAT-1 may enroll in college-level English courses. For students who take the COMPASS, those scoring 80 or above on the writing section may enroll in college-level English courses. Students not meeting the standard must successfully complete a developmental program.

**Reading** – Students scoring 19 or above on the reading section of the ACT, 470 or above on the reading section of SAT-1 will be considered to have met minimal reading skill requirements. For students who take the COMPASS, those scoring 83 or above on the reading section will be considered to have met minimal reading skill requirements. English composition may be taken concurrent with or subsequent to any required developmental reading program.

Students who are required to complete developmental program(s) in mathematics, English, and/or reading, must enroll in the appropriate course during their first semester at Tech and in each subsequent semester until the developmental program is completed successfully.

## Former Students

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Students who have interrupted their attendance at Arkansas Tech University for more than one year or who have attended another university in the interim must reapply for admission. Additional documents are required for readmission. Notification will be sent. Academic clemency may be granted in accordance with the clemency policy detailed in the [Regulations and Procedures](#) section.

## Transfer Students

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Transfer students making application for admission to Arkansas Tech University must submit official transcripts from all colleges/universities where they have been officially registered. Students seeking transfer of credit from other institutions may be asked to provide a catalog or course description from the transfer institution.

Students with fewer than 24 semester hours of earned college-level credit must also submit a final high school transcript and must request current transferable ACT or SAT scores be sent to the University. ACT, SAT, or COMPASS scores will not be required if the English and mathematics general education requirements have been satisfied with grades of “C” or better. In the event that receipt of a student’s transcript is unavoidably delayed, as may frequently occur at midyear, a transfer student may be admitted provisionally pending receipt of the official transcript. However, the University reserves the right to require immediate withdrawal if the previous record does not meet admission requirements.

Applicants for transfer must have earned a GPA of 2.00 (on a 4.00 scale) on all courses attempted and be eligible to re-enroll at the last college or university attended.

## Transfer Credit

ATU will recognize transfer credit from a U.S. institution provided that the institution is accredited by one of the six U.S. regional accreditation associations, and for courses that are approved for transfer by ADHE through ACTS. Acceptance of course credit may depend on the date that the institution was accredited or the date that a course was approved for transfer by ADHE. Transfer credit for coursework from institutions outside the U.S. will be considered on an individual basis. Students seeking transfer of credit from a foreign college/university must complete a credential evaluation through a company authorized by Arkansas Tech University (a list of approved service providers can be obtained in the [IMSSO](#) or in the [Registrar's Office](#)). **Transfer credit, although accepted by the university, is not guaranteed to be applicable toward meeting degree requirements for the particular program of study selected by the transfer student.**

The most current available course transfer information on file with the university will be used at the time of advising and/or registration. The student is responsible for having all up-to-date official transcripts on file with the university for use at that time. The student, not the university, is responsible for advising and/or registration issues that may arise due to official transcripts being submitted and placed on file after advising or registration has taken place.

## Arkansas Course Transfer System (ACTS)

The Arkansas Course Transfer System (ACTS) is designed to assist in planning the academic progress of students from the high school level through the adult workforce. This system contains information about the transferability of courses within Arkansas public colleges and universities. Students are guaranteed the transfer of applicable credits and equitable treatment in the application of credits for admissions and degree requirements. Students may complete specified General Education courses anywhere in the public system as well as many courses in the degree/major that have been pre-identified for transfer. Course transferability is not guaranteed for courses listed in ACTS as "No Comparable Course." Transferability of courses taken prior to January 1, 2007, is at the discretion of the receiving institution. The Arkansas Course Transfer System can be accessed at <http://acts.adhe.edu/>.

Act 747 of 2011 establishes a statewide common course numbering system for postsecondary courses. The Arkansas Course Transfer System (ACTS) meets this requirement.

The following table lists those courses found within ACTS and the equivalent Arkansas Tech University course as of April 1, 2015. Please refer to the ACTS website (<http://acts.adhe.edu/studenttransfer.aspx>) for the most up-to-date course listings.

<b>ACTS Course Index Number</b>	<b>ACTS Course Index Name</b>	<b>Arkansas Tech University Course Number</b>	<b>Arkansas Tech University Course Name</b>
ANTH1013	Introduction to Anthropology	<a href="#">ANTH 1213</a>	Introduction to Anthropology
ANTH2013	Cultural Anthropology	<a href="#">ANTH 2003</a>	Cultural Anthropology
ARTA1003	Art Appreciation	<a href="#">ART 2123</a>	Experiencing Art
ARTA2003	Art History Survey I	<a href="#">ART 2103</a>	Art History I
ARTA2103	Art History Survey II	<a href="#">ART 2113</a>	Art History II
BIOL1004	Biology for Non-Majors	<a href="#">BIOL 1014</a>	Introduction to Biological Sciences
BIOL1014	Biology for Majors	<a href="#">BIOL 1114</a>	Principles of Biology
BIOL1034	Botany for Majors	<a href="#">BIOL 2134</a>	Principles of Botany
BIOL1054	Zoology	<a href="#">BIOL 2124</a>	Principles of Zoology
BIOL2404	Human Anatomy and Physiology I *	<a href="#">BIOL 2404</a>	Human Anatomy and Physiology I
BIOL2414	Human Anatomy and Physiology II *	<a href="#">BIOL 2414</a>	Human Anatomy and Physiology II
CHEM1004	Chemistry I for General Education	<a href="#">CHEM 1114</a>	Survey of Chemistry
CHEM1214	Chemistry I for Health Related Professions	<a href="#">CHEM 1113/CHEM 1111</a>	Survey of Chemistry and Lab
CHEM1224	Chemistry II for Health Related Professions	<a href="#">CHEM 2204</a>	Organic Physiological Chemistry
CHEM1414	Chemistry I for Science Majors	<a href="#">CHEM 2124</a>	General Chemistry I
CHEM1424	Chemistry II for Science Majors	<a href="#">CHEM 2134</a>	General Chemistry II
CPSI1003	Introduction to Computers	<a href="#">COMS 1003</a>	Introduction to Computer Based Systems

CRJU1023	Introduction to Criminal Justice	<a href="#">CJ 2003</a>	Introduction to Criminal Justice
DRAM1003	Theatre Appreciation	<a href="#">TH 2273</a>	Introduction to Theatre
ECON2103	Principles of Macroeconomics	<a href="#">ECON 2003</a>	Principles of Economics I
ECON2203	Principles of Microeconomics	<a href="#">ECON 2013</a>	Principles of Economics II
ENGL1013	Composition I	<a href="#">ENGL 1013</a>	Composition I
ENGL1023	Composition II	<a href="#">ENGL 1023</a>	Composition II
ENGL2013	Introduction to Creative Writing	<a href="#">ENGL 2043</a>	Introduction to Creative Writing
ENGL2023	Introduction to Technical Writing	<a href="#">ENGL 2053</a>	Technical Writing
ENGL2113	World Literature I	<a href="#">ENGL 2003</a>	Introduction to World Literature
ENGL2653	American Literature I	<a href="#">ENGL 2013</a>	Introduction to American Literature
FREN1013	French I	<a href="#">FR 1013</a>	Beginning French I
FREN1023	French II	<a href="#">FR 1023</a>	Beginning French II
FREN2013	French III	<a href="#">FR 2013</a>	Intermediate French I
FREN2023	French IV	<a href="#">FR 2023</a>	Intermediate French II
GEOG1113	Human Geography	<a href="#">GEOG 2023</a>	Human Geography
GEOG2103	World Regional Geography	<a href="#">GEOG 2013</a>	Regional Geography of the World
GEOG2223	Physical Geography	No Comparable Course	No Comparable Course
GEOL1114	Physical Geology	<a href="#">GEOL 1014</a>	Physical Geology
GEOL1124	Environmental Geology	No Comparable Course	No Comparable Course
GEOL1134	Historical Geology	<a href="#">GEOL 2024</a>	Historical Geology
GERM1013	German I	<a href="#">GER 1013</a>	Beginning German I
GERM1023	German II	<a href="#">GER 1023</a>	Beginning German II
GERM2013	German III	<a href="#">GER 2013</a>	Intermediate German I
GERM2023	German IV	<a href="#">GER 2023</a>	Intermediate German II
HEAL1003	Personal Health	<a href="#">HLED 1513</a>	Personal Health and Wellness
HIST1113	World Civilizations I	<a href="#">HIST 1503</a>	World History to 1500
HIST1123	World Civilizations II	<a href="#">HIST 1513</a>	World History since 1500
HIST2113	United States History I	<a href="#">HIST 2003</a>	United States History to 1877
HIST2123	United States History II	<a href="#">HIST 2013</a>	United States History since 1877
MATH1113	Quantitative Literacy/Mathematical Reasoning	<a href="#">MATH 1003</a>	College Mathematics
MATH1103	College Algebra	<a href="#">MATH 1113</a>	College Algebra
MATH1203	Plane Trigonometry	<a href="#">MATH 1203</a>	Plane Trigonometry
MATH1305	Pre-Calculus	<a href="#">MATH 1914</a>	Precalculus
MATH2103	Introduction to Statistics	<a href="#">MATH 2163</a>	Introduction to Statistical Methods
MATH2203	Survey of Calculus	<a href="#">MATH 2243</a>	Calculus for Business and Economics
MATH2405	Calculus I	<a href="#">MATH 2914</a>	Calculus I
MATH2505	Calculus II	<a href="#">MATH 2924</a>	Calculus II
MATH2603	Calculus III	<a href="#">MATH 2934</a>	Calculus III
MUSC1003	Music Appreciation	<a href="#">MUS 2003</a>	Introduction to Music
PHIL1103	Philosophy	<a href="#">PHIL 2003</a>	Introduction to Philosophy
PHSC1004	Physical Science	<a href="#">PHSC 1013/PHSC 1021</a>	Introduction to Physical Science and Physical Science Lab
PHSC1104	Earth Science	<a href="#">GEOL 1004</a>	Essentials of Earth Science
PHSC1204	Introduction to Astronomy	<a href="#">PHSC 1053/PHSC 1051</a>	Astronomy and Observational Astronomy Lab
PHYS2014	Algebra/Trigonometry-Based Physics I	<a href="#">PHYS 2014</a>	Physical Principles I
PHYS2024	Algebra/Trigonometry-Based Physics II	<a href="#">PHYS 2024</a>	Physical Principles II
PHYS2034	Calculus-Based Physics I	<a href="#">PHYS 2114</a>	General Physics I



PHYS2044	Calculus-Based Physics II	<a href="#">PHYS 2124</a>	General Physics II
PLSC2003	American National Government	<a href="#">POLS 2003</a>	American Government
PLSC2103	State and Local Government	No Comparable Course	No Comparable Course
PSYC1103	General Psychology	<a href="#">PSY 2003</a>	General Psychology
PSYC2103	Developmental Psychology	No Comparable Course	No Comparable Course
SOCI1013	Introduction to Sociology	<a href="#">SOC 1003</a>	Introductory Sociology
SOCI2013	Social Problems	<a href="#">CJ/SOC 2033</a>	Social Problems
SPAN1013	Spanish I	<a href="#">SPAN 1013</a>	Beginning Spanish I
SPAN1023	Spanish II	<a href="#">SPAN 1023</a>	Beginning Spanish II
SPAN2013	Spanish III	<a href="#">SPAN 2013</a>	Intermediate Spanish I
SPAN2023	Spanish IV	<a href="#">SPAN 2023</a>	Intermediate Spanish II
SPCH1003	Introduction to Oral Communication	<a href="#">SPH 1003</a>	Introduction to Speech Communication
ACCT2003	Principles of Accounting I	<a href="#">ACCT 2003</a> **	Principles of Accounting I
ACCT2013	Principles of Accounting II	<a href="#">ACCT 2013</a> **	Principles of Accounting II
BLAW2003	Legal Environment of Business	<a href="#">BLAW 2033</a> **	Legal Environment of Business
BUSI2103	Business Statistics	<a href="#">BUAD 2053</a> **	Business Statistics

\* **Note - Human Anatomy and Physiology I and Human Anatomy and Physiology II must be taken at the same institution to be transferable.**

\*\* **Note - Accounting and business courses are not general education core courses.**

\*\*\***Note - Applied Technical Math courses not guaranteed for transfer.**

## International Student Admissions

The [International and Multicultural Student Services Office \(IMSSO\)](#) is pleased to serve as the admissions office for international students studying at Arkansas Tech University (Tech). Any student who is not a United States citizen or a permanent resident of the United States is considered an international student. International students are subject to out-of-state tuition rates and an international student services fee as well as additional admission requirements. International students interested in applying for admission to Tech must submit the following documents:

1. **Application** – An application for international admission, properly completed
2. **Application Fee** – A nonrefundable application fee of \$50 USD
3. **Academic Records** – All transcripts must be originals or school-certified copies of originals with official English translations. Notarized copies are not accepted.
  - i. **Entering Freshmen:** All applicants must submit appropriate academic records verifying previous educational attainment and the completion of secondary education requirements or the equivalency of US high school. This documentation should include grade/mark sheets as well as certificate/diplomas showing completion of secondary education equivalent to 12 years of US high school.
  - ii. **Transfer Students:** Students who have previously attended college either in the US or abroad must submit official transcripts from all colleges/universities where they have been officially registered. Students seeking transfer of credit from a foreign college/university must complete a credential evaluation through a company authorized by Arkansas Tech University (a list of approved service providers can be obtained in the [IMSSO](#) or in the [Registrar's](#) Office) and submit catalog or course descriptions from the transfer institution. Students with fewer than 24 semester hours of earned college-level credit must also submit a high school transcript or the equivalency of a US high school transcript and diploma as well as complete an entrance exam such as the ACT, SAT or COMPASS.
4. **Entrance Exam** – All applicants must complete the ACT, SAT or COMPASS exam. Students who have not completed the ACT or SAT may take the COMPASS exam on campus upon arrival and after admission to assist in advisement and course placement. However, if ACT or SAT scores are available, please provide this documentation along with the application for admission. Students with more than 24 semester hours of earned college-level credit are not required to take an entrance exam.
5. **English Proficiency** – Students who wish to apply for admission to the [English Language Institute \(ELI\)](#) are not required to demonstrate English proficiency. All other applicants should submit official documentation of meeting one of the following standards:
  - a. A minimum score of 500 on the written TOEFL (Test of English as a Foreign Language), 173 on the computerized TOEFL or 61 on the Internet-based TOEFL. Scores must be received directly from Educational Testing Service (ETS). The school code for Arkansas Tech University is 6010.
  - b. A minimum score of 5.5 on the International English Language Testing System (IELTS). An official score card must be sent directly to Arkansas Tech University.
  - c. An EIKEN score of Grade 2A. Scores must be sent directly from STEP, Inc. (Society for Testing English

Proficiency).

- d. For transfer students from US colleges/universities, one of the above mentioned documents can be provided or an official college/university transcript showing successful completion of college-level English Composition I and English Composition II with a grade of C or better.

NOTE: Test scores are only valid for 2 years. Please submit only those scores taken within two years from the time of application.

6. **Evidence of Sufficient Financial Support** – Undergraduate costs are estimated at \$20,120 USD for 9 months of study including tuition and fees, housing, meals, books and other living expenses. Applicants must provide certified evidence of the source and amount of funding that will be utilized to support educational expenses. Documents must be official and issued within the 6 months previous to the time of application. No copies are accepted.
7. **Passport** – Please provide a photocopy of your current passport as well as any previous visas to the US, I-20's and an I-94 card if available.

The application for international admission and all supporting documents should be submitted by May 1 for the fall semester, October 1 for the spring semester and March 1 for both summer sessions for priority consideration. Applications are still accepted after the priority dates. Admission will not be granted until all supporting documentation as listed above has been received and evaluated. Upon acceptance, notification will be sent to the student along with an I-20 (Certificate of Eligibility).

Any deferral of admission requires updated evidence of financial support. The application fee may be applied to defer an application for admission in the same program for up to one (1) calendar year from the original application date. However, the applicant is responsible for paying a \$25 USD fee for each deferral within the calendar year. If an applicant does not complete the admission process within one (1) calendar year from the original application date, the applicant is responsible for submitting new application fees. Please send a written request for deferral to [IMSSO](#) along with the fee and updated financial support documentation within 60 days of the start date of your last admission.

Full payment of tuition and fees must be paid at registration each semester. International students are required to purchase a health insurance policy provided by the university. Tech receives no remuneration as a result of international student enrollment in the health insurance plan.

More detailed information regarding international student admissions may be obtained by contacting the International and Multicultural Student Services Office, Tomlinson 29, Arkansas Tech University, Russellville, Arkansas, 72801-2222, USA; telephone 479-964-0832; fax 479-880-2039; web <http://www.atu.edu/imssso>.

## Conditional Admission

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First-time entering freshmen and transfer students who have been denied admission may file a written appeal addressed to the Assistant Vice President for Enrollment Management seeking conditional admission. The appeal must be made within ten calendar days from the date admission was denied and should state applicant's grounds for appeal. Students granted conditional admission will be admitted on academic probation.

## Non-Degree Admission

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Arkansas Tech University serves the general public by allowing individuals to enroll in classes for professional development and self-fulfillment without meeting regular admission requirements. The student admitted under this policy, who later chooses to pursue a degree, must reapply for admission as a degree seeking student and meet standard admission policies. A maximum of 27 credit hours earned as a non-degree seeking student may be applied to a degree program. Financial aid benefits may not be granted to students admitted as non-degree seeking. For more information, call the [Office of Admissions](#) at (479) 968-0343.

## High School – University Admissions

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Arkansas Tech University welcomes the opportunity to serve area schools by complementing their programs with special opportunities for students to enroll for college courses and earn college credit by attending Tech during summer sessions or by attending on a part-time basis during the regular academic year, concurrent with enrollment in secondary school. In accordance with the Arkansas Code of 1987 Annotated, paragraph 6-18-223 makes provisions whereby a student who is enrolled in a public school in Arkansas and who has completed the eighth grade is eligible to enroll at Arkansas Tech University upon approval of the appropriate public school official, provided the student does not need developmental courses in mathematics, English or reading and has a cumulative high school grade point average of 2.00 or greater on a 4.0 scale.

Once admitted and enrolled, concurrent students do not need to reapply for the concurrent program unless there is a break in fall/spring enrollment. Concurrent students must reapply when changing admission status, for example, from concurrent to entering freshmen. The course(s) agreed upon by the student and their high school must also be approved each term by a university official. The application for concurrent enrollment can be found at <http://www.atu.edu/admissions>.



## ACT (American College Testing) Program

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Entering freshmen are required to provide Arkansas Tech University with American College Testing (ACT) Assessment scores for purposes of admission, academic placement, and the awarding of academic scholarships. The ACT, which covers English, mathematics, reading and science reasoning, is administered six times per year at test centers, such as high schools, colleges and universities, across the nation. ACT information and registration forms may be obtained from local high schools, colleges, or universities.

You may also contact the [Arkansas Tech University Testing Center](#) for ACT information. In addition, you may correspond directly with ACT at [American College Testing Program](#), P.O. Box 168, Iowa City, Iowa 52243.

The 2015-2016 ACT national test schedule is as follows:

### Test Date

September 12, 2015

October 24, 2015

December 12, 2015

February 6, 2016

April 9, 2016

June 11, 2016

Please check the ACT Website for registration deadlines for 2015-2016 tests and for the 2016-2017 test schedule at [www.actstudent.org](http://www.actstudent.org).

## COMPASS (Computerized-Adaptive Placement Assessment and Support System)

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Entering freshmen are required to provide Tech with American College Testing (ACT) Assessment, Scholastic Aptitude Test (SAT), or Computerized-Adaptive Placement Assessment and Support System (COMPASS) scores for purposes of admission and academic placement. COMPASS is administered on the computer and consists of three tests: writing, math-algebra, and reading. Please contact the Arkansas Tech University Testing Center for ACT or COMPASS information at (479) 968-0302.

## Student Retention and Graduation Rates

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For information about retention and graduation rates at Tech, go to <http://ir.atu.edu> or contact the Office of Institutional Research at 479-964-3219.

## Selecting a Major Field

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Arkansas Tech University encourages students to give serious thought to the selection of a major field of study. They should determine the academic pursuits that lead to the vocations most attractive, not only in financial gain, but in interest as well. They should then examine the program of study most closely related to their interest areas. Arkansas Tech provides students with an online career and education planning tool called FOCUS 2 to help with choosing a major. For access to FOCUS 2 and other helpful information on choosing a major, visit the Career Services page at <http://www.atu.edu/career/choosingamajor.php>

## Undecided Study

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Many students entering the University have not chosen a major. The individual who has not decided on a major may enroll in general education courses which are required of all candidates for the baccalaureate degree (see [General Education Requirements](#)). All undergraduate students, who have earned less than 60 credit hours, will be assigned to the Academic Advising Center. The Academic Advising Center is located in Rothwell Hall, room 107, and can be contacted by calling (479) 964-0843. Students enrolled as “undecided” may select a major at any time; however, a student must select a major during the semester in which the student earns 45 credit hours.

## Procedure for Scheduling Courses

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Detailed procedures for registration/early registration are available each semester online at [www.atu.edu](http://www.atu.edu). Prior to enrollment, students, in consultation with an academic advisor in their major field of study, prepare a class schedule and officially register for classes, pay fees and, if living on campus, pay room rent and board.

## Course Information

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All courses taught at Arkansas Tech University are listed alphabetically by subject area in the [Course Descriptions](#) section. Course symbols, the four-digit numbers used to identify courses within a department, have the following significance: the first digit of the number denotes the year level at which the course is given; the second and third digits differentiate the course from others in the department; the fourth digit shows the number of credit hours given. Typically an "hour of credit" requires one hour of classroom work per week for the duration of a semester.

## Graduate Program

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The requirements for the degree of master of education, master of science, master of liberal arts, master of arts, master of science in nursing, master of engineering, and educational specialist degree are set forth in the publication entitled ["Graduate Catalog"](#). Information may be obtained by contacting the Dean of the Graduate College, telephone (479) 968-0398.

## Fees and Expenses

Students enrolling at Arkansas Tech University are assessed tuition and fees to cover the costs of instruction and other student services common to a university setting. Additionally, certain courses requiring individual instruction or special facilities carry fees which are listed with the course description.

Students enrolling for twelve or more semester hours of undergraduate courses for the fall or spring semester are considered full-time. Tuition is assessed for each course at the appropriate credit-hour rate according to residency for full-time and part-time students. Instate tuition is \$209 per credit hour (\$418 per credit hour for out-of-state students). Up to \$14.00 per credit hour (\$28.00 per credit hour for out-of-state students) of the tuition fee for courses taken during the fall and spring semesters will be allocated to athletics.

Students enrolled for any semester, including summer semesters, are assessed a \$130 technology fee, a \$10 technology equipment fee, a \$5 per credit hour instructional support fee, a \$10 per credit hour strategic facilities initiative fee, a \$12 assessment fee, a \$7 transcript fee, a \$2 per credit hour student support fee, a \$2 per credit hour student communication fee, and \$3 per credit hour Health and Wellness fee.

All fees and charges to students are set by the University's Board of Trustees. Every attempt is made to establish charges in time to appear in the catalog; however, when this is not possible, estimated charges are shown. **The University reserves the right to change fees and charges at any time if conditions necessitate or permit the change.**

Total University charges for instate residents for the school year (twelve hours fall and spring semesters) are estimated as follows:

Tuition (based on 12 credit hours)	\$5,016
Technology, assessment, and transcript fees	318
Student Communication Fee (\$2.00 per credit hour)	48
Student Support Fee (\$2.00 per credit hour)	48
Instructional Support Fee (\$5.00 per credit hour)	120
Strategic Facilities Initiative Fee (\$10.00 per credit hour)	240
Health and Wellness Fee	72
Room and board:	
Residence Hall with Meal plan (average)	6,287
University Commons Apartments	from 5,222 to 6,488
Vista Place Apartments	5,222
Books and supplies (estimated)	1,410

Certain courses may also have fees attached. See individual course descriptions to determine whether a course fee is applicable.

Tuition, fees, and a minimum of one-fourth of the room and board charges for on campus students are due and payable prior to the start of each term. The balance of room and board charges may be paid in three monthly installments. For information about payment plans and full payments online, go to: <http://stuacct.satu.edu>. Meal plans without board must be paid prior to the start of each term.

## Fees and Charges

Prices quoted are rates currently in place for the 2015-2016 academic year. All rates are subject to change as necessary.

Undergraduate tuition <sup>1,2</sup>	Instate	Out-of-State
Full-time (12 credit hours per semester)	\$2,508	\$5,016
Summer and part-time (per credit hour)	209	418
Graduate tuition <sup>1,2</sup> (per credit hour)	261	522
Instructional support fee (per credit hour)	5	5
Strategic facilities initiative fee (per credit hour)	10	10
Student support fee (per credit hour)	2	2
Student communication fee (per credit hour)	2	2
Technology fee (required each semester or term)	130	130
Technology equipment fee (required each semester or term)	10	10

Assessment fee (required each semester or term)	12	12
Transcript fee (required each semester or term)	7	7
Health and Wellness Fee (per credit hour)	3	3
Late registration fee		25
Course change fee		10
Distance learning/Mixed Technology fee (per credit hour assessed on all distance learning/mixed technology courses)		5
International Student service fee		
Per semester (fall/spring)		30
Per summer term (five-week)		15
Residence Hall Board Charges (Each fall and spring semester)		
19 meal-per-week plan (Plan A)		1,228
15 meal-per-week + \$200 Declining Balance Dollars (Plan B)		1,381
165 meals + \$200 Declining Balance Dollars (Plan C)		1,311
145 meals + \$230 Declining Balance Dollars (Plan D)		1,311
106 meals + \$250 Declining Balance Dollars (Plan E)		1,277
65 meals per semester plus \$100 Declining Balance Dollars- Commuter Plan (Plan F)		527
\$750 Declining Balance Dollars Only Plan - Commuter Plan (Plan G)		750
Residence Hall Room Charges		
Baswell, Nutt Hall, M-Street, Paine, South Hall, and Stadium Suites - Doubles		2,046
Jones, Roush and Tucker Halls		1,703
Brown, Critz/Hughes, Turner and Wilson Halls		1,505
Caraway Hall		1,601
Stadium Suites, Nutt Hall Singles		2,446
Tucker Single		2,103
Wilson Single		1,905
University Commons Apartments		
2 bedroom apartments (Each fall and spring semester)		3,244
4 bedroom apartments (Each fall and spring semester)		2,611
Vista Apartments		2,611
Returned check		10
Replacement of ID card		25
Post office box rent (required of students living in university housing)		
Per semester (fall/spring)		15
Per summer term		7.50
Auto registration		30
Parking fees and fines (see Traffic Regulations)		
(All students parking on campus must have parking permits.)		
<sup>1</sup> Students who enroll for undergraduate and graduate courses will be charged according to the course classification.		
<sup>2</sup> Required course fees are listed along with the appropriate course descriptions.		
<sup>3</sup> Up to \$14.00 (\$28.00 for out of state students) per credit hour of the tuition fee will be allocated to athletics.		

## Estimated Living Expenses

All students living in residence halls are required to purchase a meal plan (exceptions - Vista Place and University Apartments); Declining Balance Dollars (DCB) may be used in Chambers Cafeteria, Baswell Techionery, and Convenience Store.

Payment for room and board is due and payable prior to the start of the semester. For information about setting up a payment plan online, go to: <http://stuacct.satu.edu>. Room and board charges are subject to change.

When space permits, students may be allowed single occupancy of a residence hall room. The additional charge of \$400 per semester is payable in full upon receipt of the monthly statement.

Residence halls are closed between fall and spring semesters. However, residents may remain in the residence halls during this period provided they submit proper paperwork to the Office of Residential Life to gain approval. There will be an additional cost for residents approved to remain in the residence halls over this break period. Residents may remain in the

residence halls during all other breaks, provided they notify the residence hall staff of their intentions prior to the break period.

University Commons apartments are available to upper-class students. No board plan is required, and students are able to sign a nine-month or twelve-month contract. Two bedroom and four bedroom apartments are available.

## Payment of Accounts

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Tuition and all other fees and charges, including at least one-fourth of room and board charges for students in residence halls, are due and payable prior to the start of each term. Financial settlement may be made by personal payment or **AUTHORIZED** financial aid (loans, scholarships, grants, third parties, etc.). Visa, Master Card, and Discover credit cards are accepted for all charges. Information to set up a payment plan or pay in full online, is offered via the website: <http://stuacct.s.afu.edu>. Payment may be made in person at the Student Accounts Office, Doc Bryan Student Services Center, Office 133. Registration is not complete until all financial obligations have been met satisfactorily. Failure to make financial settlement will result in cancellation of the class schedule.

Monthly billing statements are electronic. Near the first of each month, notification and information for access will be provided to students via the individual student e-mail address and online at <http://stuacct.s.afu.edu>. Students are responsible for accessing billing statements and printing a paper copy if desired. In addition, paper copies are mailed twice yearly shortly before the beginning of the fall and spring terms. Students registering between billing cycles are responsible for accessing their charges online or contacting Student Accounts to insure making correct payment by the required due date. Payment is due even if billing statement is not received.

Students with delinquent accounts are not eligible for food service, transcripts, recommendations, advance registration, or readmission to any term. Collection fees for outstanding debts owed to the University will be assessed to the student.

The University reserves the right to amend or add to the regulations of the institution, including those concerning charges and methods of payment, and to make such changes applicable to students enrolled in the University, as well as to new students.

## Important Information for Reduction of Tuition and Fees for Official Withdrawal

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The following reduction information **specifically** addresses courses that begin and end with the main term dates for Spring, Summer I, Summer II and Fall, as listed in the [Academic Calendar](#). Courses with beginning and/or ending dates that are different than the main terms listed above may have different reduction periods. It is the students' responsibility to consult the Student Accounts or Registrar's Office for these reduction dates prior to withdrawing. withdrawal dates for courses with beginning and/or ending dates outside the traditional term can be found at: <http://www.atu.edu/registrar>.

In the event a student is receiving student financial aid, any refund amount attributable to a loan, grant, or scholarship will be returned to the appropriate account and not to the student. The amount returned to federal programs will be the amount of unearned Federal aid based on the number of calendar days of attendance up to the sixty percent point of the semester. Aid accounts will be refunded in the following order up to the amount of the original disbursement: Federal Direct Loan Programs, Federal Perkins Loan Program, Federal Direct PLUS Loan Program, Federal Pell Grant Program, Federal SEOG Program, Arkansas Department of Higher Education Programs, Tech scholarships and private aid. Additionally, students who have received a cash payment of Federal aid money will receive a letter after their withdrawal informing them of any amount to be repaid. These repayments will be made through the Student Accounts Office. The student will be ineligible to register for additional courses until the required payments are made.

## Reduction of Tuition and Fees for Official Withdrawal - Summer Semesters

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Students registering for a summer semester, but officially withdrawing from the courses by the end of the second day of the summer semester, as listed in the [Academic Calendar](#) will receive a 100 percent reduction of tuition and fees. Students registering for a summer semester, but officially withdrawing from the University by the end of the fifth day of the semester in a summer term, as listed in the [Academic Calendar](#) will receive an 80 percent reduction of tuition for courses which they are enrolled in at time of withdrawal. No reduction in tuition will be made after the fifth day of the summer semester. No reduction of fees will be made after the second day of the semester.

## Reduction of Tuition and Fees for Official Withdrawal - Spring and Fall Semesters

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Students registering for the fall or spring semester but officially withdrawing from the University by the end of the fifth day of the semester, as listed in the [Academic Calendar](#) will receive a 100 percent reduction of tuition and fees. Room and Board will be reduced on a pro rata basis. Thereafter, students officially withdrawing by the end of the twenty-fifth day of the semester will receive an 80 percent reduction of tuition only for courses in which they are enrolled at time of withdrawal. No reduction in tuition will be made after the twenty-fifth day of the semester. No reduction in fees will be made after the fifth



day of the semester.

## Reduction of Tuition/Fees for Dropping to Fewer Hours

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Students dropping to fewer hours before the end of the second day of the semester in a summer term, as listed in the [Academic Calendar](#) will receive 100 percent reduction for the courses which are dropped. Students dropping to fewer hours before the end of the fifth day of the semester in a summer term as listed in the [Academic Calendar](#) will receive an 80 percent reduction for the courses which are dropped. No reduction in tuition will be made after the fifth day of the semester. No reduction in fees will be made after the second day.

Students enrolled for the fall or spring semester who drop courses by the end of the fifth day of the semester, as listed in the [Academic Calendar](#) will receive a 100 percent reduction of tuition for the courses dropped. Thereafter, students enrolled who drop courses before the end of the twenty-fifth day of the semester will receive an 80 percent reduction of the courses dropped. No reduction will be made after the twenty-fifth day of the semester. No reduction in fees will be made after the fifth day of the semester.

Mini-terms and courses with unusual beginning and ending dates may have different reduction dates. It is the students' responsibility to verify dates with Student Accounts or the Registrars' Office prior to withdrawing. Find your specific course reduction dates at <http://www.atu.edu/registrar/> and click on "Dates for Adding and Dropping Condensed Courses."

## Reduction of Room and Board

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A student withdrawing from school will be charged pro rata room and board to the date of official check-out from the residence hall. It is the student's responsibility to make arrangements to do a complete check-out with their hall staff upon withdrawal from the university. Students moving from the residence hall at their request during an academic year will be charged the full room and board for term of their housing agreement (typically an academic year). Students moving into residence halls during a semester will pay a pro rata charge on room and board.

Students moving out of University Commons apartments before the end of their lease term will forfeit their deposit and will be responsible for all apartment rent.

## Out-of-State Residence Status for Tuition and Fee Purposes

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Students classified as "out-of-state" must pay out-of-state tuition as shown in the section entitled "Fees and Charges."

Effective spring 2015, no student under the age of 21 shall be admitted to Arkansas Tech University and classified as instate for fee purposes unless the parent or legal guardian is a bona fide domiciliary of Arkansas and has resided in this state in that status for at least six consecutive months prior to the beginning of the term or semester for which the fees are to be paid.

Any student age 21 or older must be a legal resident of Arkansas and must have lived in the state for at least six consecutive months prior to the beginning of the term or semester for which fees are to be paid to be classified as an instate student.

All undergraduate students who are legal residents of states which are contiguous to Arkansas (specifically, Louisiana, Mississippi, Missouri, Oklahoma, Tennessee, or Texas) shall receive a waiver of out-of-state tuition charges.

A student from outside of Arkansas entitled to be treated as an instate student for fee purposes should complete an "Application for Residency Classification as Instate Domiciliary" and supply evidence to that effect.

# Student Services Operations

## Campus Life

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While academic achievement leading to graduation is the reason for attending Arkansas Tech University, the experiences that students have outside the classroom prove to have a lifelong impact. Experiences offered through Campus Life enhance maturity, leadership, time management, friendships, career development, and civic engagement along with many other essential life skills.

Campus Life offers programs and services in the following areas: campus recreation, co-curricular experience, facilities, Greek life, leadership programs, new student orientation, outdoor recreation, registered student organizations, service initiatives, spirit squads, and student activities.

For more information, please visit: [www.atu.edu/campuslife](http://www.atu.edu/campuslife)

### Campus Recreation

Campus Recreation provides participation in a variety of sport, fitness and recreation events that stimulate student learning and personal development while enhancing the quality of life for Arkansas Tech University students. Campus Recreation achieves this mission by providing opportunities for a diversified population to recreate, exercise and socialize through a variety of programs within intramural sports, fitness, outdoor recreation and various special events.

For more information, please visit: [www.atu.edu/campusrecreation](http://www.atu.edu/campusrecreation)

### Co-Curricular Experience (On Track)

On Track is a co-curricular experience designed to enhance student development beyond the classroom setting, encourage students to network socially among peers and to include students in traditional and signature University events. Each semester, a map of events and activities will be available to students categorized by interest.

For more information, please visit: [www.atu.edu/ontrack](http://www.atu.edu/ontrack)

### Facilities

Facilities are available to support registered student organizations, campus departments, and students in achieving their objectives. This is accomplished by operating and maintaining rooms that are user friendly, flexible and comfortable for students, faculty, staff and visitors.

Venues are offered for many different types of events such as meetings, lectures, conferences, banquets and dances. By combining a number of room options with various layouts in the Doc Bryan Student Services Center, Young Ballroom, or Baswell Techionery, each event will be specific and fit the needs of every individual.

For more information, please visit: [www.reservations.atu.edu](http://www.reservations.atu.edu)

### Greek Life

By emphasizing academic excellence, active participation in community service and philanthropic activities, ongoing leadership development, and social excellence, the Office of Greek Life helps promote fraternities and sororities as an integral and productive part of the Arkansas Tech community. The Office of Greek Life provides guidance and support for governing councils (Interfraternity Council and College Panhellenic Council), Greek organizations, and the Order of Omega Honor Society.

For more information, please visit: [www.atu.edu/greeks](http://www.atu.edu/greeks)

### Leadership Programs

- **LEAD Academy-** The LEAD Academy is designed to prepare students to take on leadership roles by identifying individual strengths and examining how to approach leadership. Throughout this three phase program, students will apply leadership techniques to enhance their experiences within the campus and community.
- **Freshmen Leadership Retreat-** The Freshmen Leadership Retreat is an overnight retreat that allows freshmen to make connections with other Tech students interested in becoming leaders and helps incoming students identify how they can begin making their mark at Tech. Students will participate in low and high ropes activities while learning how to make the most of the college experience.

For more information, please visit: [www.atu.edu/leadership](http://www.atu.edu/leadership)

### New Student Orientation

Go Bold New Student Orientation is a mandatory two-day program held before classes begin. Orientation is designed to help incoming freshman transition into college and outlines the University's academic, social and developmental



opportunities. The program includes information about resources available on campus and also provides an opportunity for new students to meet their Bridge to Excellence mentor.

GO BOLD Adventure Camp provides incoming freshman with a unique experience leading to a sense of belonging, connection, and excitement about becoming a Tech student. This extended orientation program provides freshmen with the opportunity to start building friendships and transition to life as a college student, while strengthening their bond to Arkansas Tech University through the introduction of campus culture and traditions.

For more information, please visit: [www.atu.edu/orientation](http://www.atu.edu/orientation)

### **Outdoor Recreation**

Outdoor Recreation exists to provide students an outlet to develop their physical and emotional health in the outdoors. Through being active, students will gain a mutual respect for themselves, one another and the environment. To better experience the natural beauty that Arkansas has to offer, hiking, rock climbing, canoeing and other outdoor recreational trips are offered each semester. In addition to free trips, the outdoor recreation department also provides outdoor gear check-outs for mountain bikes, hammocks, tents, canoes and kayaks. Outdoor Recreation brings students from all backgrounds together to play in natural team settings, further promoting the global community at Arkansas Tech University.

For more information, please visit: [www.atu.edu/outdoorrecreation](http://www.atu.edu/outdoorrecreation)

### **Registered Student Organizations**

Arkansas Tech has over one hundred Registered Student Organizations. These organizations are run by students who produce their own programming and initiatives to fulfill their individual purposes. This is an opportunity for students to apply what they have learned in the classroom to real world experiences.

For more information, please visit: [www.atu.collegiatelink.net](http://www.atu.collegiatelink.net)

### **Service Initiatives**

- **Alternative Spring Break-** Alternative Spring Break is an opportunity for students to visit another community to give back during their Spring Break. Students not only volunteer with different community agencies but also have a chance to explore the city and be a "tourist".
- **Volunteer Opportunities-** Students are connected with service agencies throughout the community to aid in their services. Monthly service drives and action days are held throughout the year to help students engage with the Russellville community.

For more information, please visit: [www.atu.edu/service](http://www.atu.edu/service)

### **Spirit Squads**

The Tech Cheer squad is composed of up to sixteen members. The Golden Girls dance team is composed of up to fourteen members. The squads are selected each spring to serve for the following academic year. Tech Cheer participates in all home and selected away football, basketball, and volleyball games. The Golden Girls participate and perform at all home football and basketball games. Both squads participate in pep rallies throughout the year as well as campus and community related events.

For more information, please visit: [www.atu.edu/spirit](http://www.atu.edu/spirit)

### **Student Activities**

Fully engaging students in their college experience requires not only academic experiences but also a diverse offering of activities and programs to meet their social and personal needs. Student Activities meets these needs by providing various events throughout the year to include comedians, movies, carnivals, dances, educational speakers, spirit programs, and many more! There are numerous leadership opportunities available through the Student Activities Board.

For more information, please visit: [www.atu.edu/sab](http://www.atu.edu/sab)

## **Counseling Services**

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Counseling services provides counseling, consultation, and outreach to the Arkansas Tech University community. The counseling staff is committed to promoting the educational mission of the university by working with the campus community to establish and maintain healthy and effective behavior patterns and lifestyles that enhance learning and personal development. The range of services provided includes personal counseling for students in individual, couples, or group sessions. The staff provides consultations to students, parents, staff, faculty and administration. There is a small library of self-help books and videos, and a variety of informational brochures available. Presentations and outreach programming are scheduled throughout the year and are available upon request.

Services are provided Monday-Friday from 8:00 am-5:00 pm year round. Counseling Services is staffed by licensed counselors trained to provide professional counseling services. For additional information, please visit the Health and

Wellness Center in Dean Hall 126 or call 479-968-0389.

## Department of Public Safety

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The Department of Public Safety is located at 1508 North Boulder Avenue. To report a crime or request information, contact Public Safety at 479-968-0222. In an emergency, call 911. Public Safety maintains direct contact with the 911 Communications Center for all emergency services. It is the responsibility of Public Safety to investigate all reports of criminal activity and accidents that occur on University property. Visit Public Safety's website at [www.atu.edu/psafe](http://www.atu.edu/psafe) for more information and services offered.

## Disability Services for Students

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The Office of Disability Services (DS) facilitates services and accommodations that enable students with disabilities to access the same opportunities as their peers with the greatest degree of independence possible. Students who require accommodations are encouraged to contact DS in order to assess the student's needs and prepare a tailored plan of accommodation specifically addressing barriers to academics, activities, or access to facilities.

The Director of DS is responsible for interfacing with students seeking accommodations, obtaining disability related documents, certifying eligibility for services, determining reasonable accommodations, and developing an accommodation plan for students. Offices are located in the Doc Bryan Student Services Building, Suite 171. Students may schedule an appointment by calling (479) 968-0302, (479) 964-3290 (TTY), or by email at [utds@atu.edu](mailto:utds@atu.edu).

## Health and Wellness Center

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Recognizing that optimum health is essential to effective learning, the university maintains health services available to all students. The Health and Wellness Center, located in Dean Hall Room 126 (entrance on north side of the building), provides confidential treatment of minor injuries and illnesses through a well-equipped facility and within the scope and practice of the registered nurse and certified nurse practitioners who staff the center full-time. The nurses make appropriate referrals to local health care providers when necessary.

The university assumes no financial responsibility for student care other than that provided by the Health and Wellness Center. Students are urged to carry their own health insurance.

In addition to clinical services, a wide range of health promotion and educational programs are provided in a variety of campus settings.

Patient Hours are Monday-Friday, 8:00 am-5:00 pm. Students are strongly encouraged to make appointments; however, available walk-in times are from 3:00 pm - 4:00 pm on Monday, Wednesday, and Friday. The Health and Wellness Center staff can be contacted by phone at 479-968-0329, email at [hwc@atu.edu](mailto:hwc@atu.edu) or online at [www.atu.edu/hwc](http://www.atu.edu/hwc).

## Student Accident and Health Insurance

Arkansas Tech cooperates with a number of other higher educational institutions in Arkansas to make available a student group insurance policy. Students not adequately covered by an individual or family group insurance policy may purchase this policy at the beginning of any semester. Students may contact the Health and Wellness Center for more information. All international students are required to purchase a medical insurance plan that satisfies the requirements of the Office of International and Multicultural Student Services.

## International and Multicultural Student Services

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The International and Multicultural Student Services Office provides support services designed to enrich the college experience for multicultural and international students. The office actively recruits multicultural and international students to increase the diversity of the Tech campus, provide the opportunity for cultural exchange, and aid in helping all Tech students develop an appreciation for cultural differences.

The office offers a wide range of services for international students, including orientation, immigration updates, cross-cultural programming, and other support services necessary to ease the transition of international students into the U.S. culture. American college students play a vital role in this process by volunteering to serve as mentors to new international students through the Global Connect program.

Several established student organizations receive support from the International and Multicultural Student Services Office, including the Black Student Association, the Chinese Student Association, the Hispanic Student Association, the Indian Student Association, the Japanese Student Association, the Saudi Student Association and the Association for Cultural Interaction. Working together, programs are developed and sponsored throughout the year to educate faculty, staff and students regarding international and multicultural heritage.

Additional information may be obtained by calling (479) 964-0832, faxing (479) 880-2039, or writing to the Director of International and Multicultural Student Services, Tomlinson Room 29, Arkansas Tech University, Russellville, Arkansas 72801, U.S.A.

## English Language Institute

The mission of the ATU English Language Institute (ELI) is to provide classes that assist non-native speakers of English in developing the English language skills necessary to successfully pursue academic work in a United States college or university. The ELI accomplishes the mission by delivering non-credit English as a Second Language (ESL) academic reading, writing, speaking and note-taking instruction for English language deficient students. As part of the Department of English and World Languages, ELI welcomes students from diverse backgrounds whether international or U.S. resident. Additional information may be obtained by calling (479) 964-0807, faxing (479) 880-2039, or writing to the Coordinator of the English Language Institute, Dean Hall, Arkansas Tech University, Russellville, Arkansas 72801, U.S.A.

## Student Exchange Opportunity - Arkansas Tech University Komazawa University Student Exchange

Students who wish to improve their Japanese language skills and learn more about Japanese society may do so by studying for a semester or a year at Komazawa University in Tokyo. Students must have completed two years of university work, in the case of undergraduates, and one year of graduate work, in the case of graduates, prior to enrollment in this program. Applicants must have good academic standing and a minimum of two years of Japanese language instruction. Students will be admitted in the first semester beginning in April, or in the fall term which begins in September. Costs include Tech tuition and fees (students are exempt from Komazawa tuition) as well as transportation and living expenses. More information may be obtained from the Office of International and Multicultural Student Services, Tomlinson Room 029 phone (479-964-0832) or the College of Arts and Humanities, Witherspoon 240, phone (479-968-0274).

## Norman Career Services

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The Norman Career Services office is dedicated to educating and professionally preparing students to meet their career goals. The office provides students and alumni a variety of resources on-campus and through the website at [www.atu.edu/career](http://www.atu.edu/career). The Norman Career Services office also provides an online career management program, CAREERlink, for students and graduates who are searching for internships, on-campus, part-time, and/or full-time positions. Beginning with the student's freshmen year, all students are encouraged to take self-assessments through FOCUS 2. The staff is available for private appointments to assist students and alumni with their career goals, resumes, cover letters, and personal marketing plans. Additionally, outreach programs for students are available including professional development workshops, classroom visits, custom student organization workshops, and employer events.

Employers partner with the Norman Career Services office to post employment opportunities through CAREERlink, as well as to arrange for additional opportunities to grow their on-campus presence. Events such as career fairs, information sessions, corporate mixers, and interviews are all arranged through Norman Career Services. By ensuring that Arkansas Tech University graduates are given every opportunity for success, Norman Career Services strives to inform students and prepare them to be successful in the workforce.

Additional information concerning Norman Career Services may be obtained by visiting the website at [www.atu.edu/career](http://www.atu.edu/career), by calling (479) 968-0278, or by emailing [career.services@atu.edu](mailto:career.services@atu.edu).

## Residence Life

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The Office of Residence Life exists as a vital part of the educational program and academic support services of the University. The Office of Residence Life strives to provide a clean, well-maintained, and safe living environment that is conducive to study and will foster a meaningful growth experience. Activities and programs presented within the residence halls are designed to develop a community which encourages educational opportunities while promoting maturity, responsibility, and above all, academic success.

Single students between the ages of 18 and 21, and with fewer than 60 earned credit hours of college work, who are University main campus (Russellville, Arkansas) students are required to live on campus, as space permits, in University owned housing facilities. These students are required to purchase a meal plan unless living in the University Commons Apartments or Vista Place. Exemptions to the On-Campus Residency Requirement include: students living with immediate family (Mother, Father, Sister, Brother) within 30 miles driving distance of the Russellville, Arkansas campus, married students, or students with dependent children. Students under the age of 18 between August 23, 2015 and January 1, 2016 must sign the Arkansas Tech University Waiver and Release of Liability for a Minor Living on Campus prior to being allowed to sign a housing contract and live in On-Campus housing. The Arkansas Tech University Waiver and Release of Liability for a Minor Living on Campus is available through the Office of Residence Life at <http://www.atu.edu/reslife/>. Students 17 or under on January 1, 2016 are not permitted to live in University owned housing facilities.

Students who are Arkansas Tech University Ozark campus (Ozark, Arkansas) students, who meet the aforementioned

requirements, may live on-campus at the University main campus (Russellville, Arkansas). However, Arkansas Tech University Ozark campus (Ozark, Arkansas) students are not required to live on-campus.

Applications for University housing, housing contracts, room assignments, and questions concerning housing are managed by the Office of Residence Life. Students may begin the housing application process online at [www.atu.edu/reslife](http://www.atu.edu/reslife). The Residence Life staff may be contacted by phone at 479-968-0376, or email at [housing@atu.edu](mailto:housing@atu.edu).

Housing rules and regulations for all students contracted with the Office of Residence Life can be found in the Arkansas Tech University Student Handbook under the section "Guide to Residence Hall Living," located online at <http://issuu.com/arkansastechuniversity/docs/studenthandbook2014>. Students residing in any facilities maintained by the Office of Residence Life are responsible for understanding all policies contained in the guide. Questions should be directed to Aaron Hogan, Associate Dean for Residence Life, at [ahogan@atu.edu](mailto:ahogan@atu.edu).

## Residence Life Housing Facilities

Arkansas Tech University offers seventeen 17 living facilities for our students. Residence halls and apartments are air-conditioned and are constructed to accommodate two students per room (M Street, Stadium Suites, Nutt Hall, and Wilson Hall have some designed single rooms available). All residence halls and apartments are completely furnished. Amenities include cable television, internet access, and wireless internet available in each lobby. Laundry facilities are located in all residence halls and apartments. Laundry fees are included with student housing fees. Arkansas Tech University is a Smoke and Tobacco Free Campus; this includes all residence hall and apartment rooms.

To be eligible to be a Resident in a **University residence hall**, a person must carry a meal plan (for residents of Vista Place, and University Commons Apartments; a meal plan is optional) and be enrolled at the University campus in a minimum of (6) undergraduate semester hours each semester or a minimum of six (6) graduate hours each semester. The University reserves the right not to contract with persons who are currently violating or have previously violated the terms and conditions of a housing contract or other University rules or regulations, or who have a past due balance with the University.

To be eligible to be a Resident in the **University Commons Apartments**, a person must be enrolled at the University campus in a minimum of (6) undergraduate semester hours each semester or a minimum of six (6) graduate hours each semester. Initial preference for University Commons Apartment assignments will be given to those students who have earned a minimum of thirty (30) credit hours of college work and have a minimum (2.5) cumulative grade point average. The University reserves the right not to contract with persons who are currently violating or have previously violated the terms and conditions of a housing contract or other University rules or regulations, or who have a past due balance with the University. The maximum number of persons occupying an apartment shall be no more than four (4) persons in a four-bedroom apartment, and no more than two (2) persons in a two-bedroom apartment. No other occupants are permitted.

To be eligible to be a Resident in **Vista Place Apartments**, a person must be enrolled at the University campus in a minimum of (6) undergraduate semester hours each semester or a minimum of six (6) graduate hours each semester. Initial preference for Vista Place Apartment assignments will be given to those students who have earned a minimum of thirty (30) credit hours of college work and have a minimum (2.5) cumulative grade point average. The University reserves the right not to contract with persons who are currently violating or have previously violated the terms and conditions of a housing contract or other University rules or regulations, or who have a past due balance with the University. The maximum number of persons occupying an apartment shall be no more than four (4) persons in a four-bedroom apartment.

Photos and descriptions of the residence halls and apartments are available at <http://www.atu.edu/reslife>

## Student Financial Aid

The primary purpose of student financial aid at Tech is to provide assistance to students who, without aid, would be unable to attend college. Financial assistance consists of scholarships, grants, loans, and part-time employment, which may be offered to students singularly or in various combinations, depending upon the degree of need. In determining the extent of a student's need, the University must consider the financial support which may be expected from the income, assets, and other resources of the parents and the student. Aid awards by the University are considered supplementary to the efforts of the student's family in assisting their children with college expenses. All awards are administered by the Financial Aid Office in accordance with the University's equal educational opportunity policy. The University does not participate in individual financial aid agreements with other institutions, including study abroad programs. Study abroad in a Tech sponsored program approved for academic credit is considered for Federal aid in the same manner as all other for academic credit classes.

Application forms for all types of aid may be obtained from the Financial Aid Office in Doc Bryan Student Services Center, Office 117.

### Cost of Attendance

A student's cost of attendance (also called the financial aid budget) is the total of required tuition and fees and allowances



for books and supplies, room and board, travel and personal expenses. Since federal regulations allow the cost of a computer to be added to the cost of attendance one time during the college career of a student, the cost of a computer and related accessories up to \$1,500 purchased no earlier than four months prior to enrollment will be added to the student's cost of attendance budget upon the student's submission of an itemized paid-in-full receipt. This will be a one time adjustment with the costs being spread over the school year. No further adjustments will be made for upgrades or additional software at any time during the student's career. Other adjustments to the cost of attendance allowed by federal regulations include Tech sponsored study-abroad programs approved for academic credit, child care costs, purchase of equipment required by all students in the same course of study, and reasonable expenses incurred related to a student's disability. These adjustments may result in additional financial aid if the student was not already receiving the maximum amount of every type of aid for which they were eligible. For more information, contact the Financial Aid Office: (479) 968-0399.

### **Scholarship Stacking Policy**

Act 1180 of 1999 prohibits postsecondary institutions from using public funds in a student aid package which may contain a combination of state, institutional, private and federal funds that exceeds the cost of attendance at the institution. Arkansas Tech follows the Arkansas Department of Higher Education regulations by reducing scholarship amounts which cause awards to exceed cost of attendance. In absence of direction from a private donor, private funds will be credited to the first semester attended unless they cause an over-award for the semester. In these cases, the scholarship will be divided equally between the current and following semester. For more information on the scholarship stacking policy, contact the Financial Aid Office: (479) 968-0399.

Additionally, students who have received a cash payment of Federal aid money will receive a letter after their withdrawal informing them of any amount to be repaid. These repayments will be made through the Student Accounts Office.

The student will be ineligible to register for additional courses until the required payments are made.

### **Academic Policy for Students Receiving Federal Student Financial Aid**

This policy applies to funds received through the Federal Pell Grant, the Federal Supplemental Educational Opportunity (FSEOG), the Federal Work Study, the Federal Perkins Loan, the Federal Subsidized Direct Loan, the Federal Unsubsidized Direct Loan and the Federal Direct PLUS loan programs.

This policy will be applied automatically and without favor or prejudice. With the exception of certificate and clock hour students, all federal aid recipients' progress is reviewed annually at the end of each spring semester and upon the receipt of each new financial aid application. Certificate students are reviewed at the end of fall, spring and summer two semesters. Clock hour students are reviewed at the end of each payment period. Students who have filed a successful appeal will be placed on an academic plan which will be monitored throughout the course of the plan. Individual students will be reviewed within the semester if notification of a grade change is received by the Financial Aid Office.

Any appeal of this policy must be made in writing to the Financial Aid Academic Policy Appeal Committee and turned in to the Financial Aid Office within thirty days of the notification of the violation. Financial aid will not be paid retroactively for any semester's lost eligibility.

Students must meet all conditions of the policy. Violation of any section will result in loss of aid.

### **Changing Majors**

When students change majors they are required to continue meeting all sections of this policy. If the major change causes the student to exceed the maximum number of hours attempted, they may appeal and provide a memo from their advisor detailing the hours from the previous major which do not apply to the current major. All hours not applicable to the new major will then be disregarded in the calculation of maximum hours. The cumulative grade point average will still be considered as the student's grade point.

### **Institutional Academic Suspension**

Any student whose name appears on the institutional suspension list will not be eligible to receive aid for their next period of enrollment even if they re-enroll with the approval of the Admissions Council unless summer hours earned at Tech re-establish eligibility.

It is the student's responsibility to notify the Financial Aid Office when they are no longer on the suspension list.

### **Withdrawals/All "F" Grades**

Federal regulations require a calculation to determine how much aid, if any, must be returned to the Federal program when a student withdraws or receives all grades of "F". Students who must repay funds will be notified within 45 days of the amount by the Financial Aid Office.

### **First Undergraduate Degree**

A student is considered making satisfactory academic progress if hours earned divided by hours attempted equal 67% or greater. Example: If a student enrolls in fifteen (15) hours and earns nine (9) hours, the percentage equals 60%. Therefore this student is NOT making satisfactory academic progress. On the other hand, if the same student had earned twelve (12) hours, the percentage would be 80%, which is satisfactory.

hours, the percentage would equal 80% and the student would be making satisfactory academic progress. Note: Accepted transfer hours are counted as both attempted and earned and are considered in this calculation. Students granted academic clemency will have all semesters attended counted on the basis of attempted hours.

Incomplete, repeat and audit classes are counted as hours attempted, but do not increase hours earned. For repeated courses, only the grade from the best attempt of the repeated course is calculated into a student's cumulative grade point average although all grades and all attempts are recorded on the student's academic record. Federal financial aid will pay for only one repeat of a class with a grade of "D" or better. If an incomplete grade is not replaced by an earned letter grade by the end of the next regular semester it will become a grade of "F" and will be considered in the next regular determination of policy progress. No special consideration of the effects of dropping classes will be allowed unless the Student Financial Aid Director is contacted for approval prior to dropping the courses.

A student must receive a bachelor's degree by the end of 180 attempted credit hours, an associate's degree by the end of 90 attempted credit hours and a certificate by the end of 45 attempted credit hours. Allowances will be made for semesters involving required remedial course work, bachelor's degrees which require more than 120 earned hours, associate's degrees which require more than 60 earned hours, and certificates which require more than 30 earned hours. All semesters attended will be counted whether a student received financial aid during the semester or not. Clock hour students must complete their program by the end of 150% of the published length of the program.

### **Required Grade Point Average First Undergraduate Degree**

With the exception of certificate and clock hour students, all students must have a minimum cumulative grade point average (GPA) of 1.0 at the end of their first semester, 1.50 at the end of their second semester, 1.75 at the end of their third semester and 2.0 at the end of their fourth and all subsequent undergraduate semesters or "equivalent transfer semesters." (Transfer students will be assigned "equivalent transfer semesters" based on the number of hours accepted by the Registrar's Office.) Example: A student who attempts 24 hours in four half-time semesters would be required to have a 2.0 at the end of the fourth semester. While a student who attempts 24 hours in two full-time semesters would still have two additional semesters before a 2.0 GPA would be required. Certificate and clock hour students must have a 1.5 GPA at the end of the first semester and a cumulative GPA of at least 2.0 thereafter. No appeal will be granted for anyone in violation of the required cumulative 2.0 GPA. Students granted academic clemency will have a "financial aid GPA" based on all hours completed and will not receive aid until that GPA reaches at least 2.0.

Any student who fails to meet the required 2.0 GPA will be reinstated once the required GPA is met. However, financial aid will not be paid retroactively for any aid lost because of this requirement. It is the student's responsibility to notify the Financial Aid Office when they have attained the required GPA.

### **Subsequent Bachelors Degree OR Teacher Certification**

Any second undergraduate degree or certification must be completed by the end of 45 attempted hours. If a degree is not completed within this time frame, the student may appeal and provide a memo from their advisor detailing the reasons why it was not possible for the subsequent degree to be completed in the required time frame. All hours not applicable to the subsequent degree are then disregarded in the calculation of maximum hours.

### **Required Grade Point Average Subsequent Credentials or Teacher Certification**

Students must maintain a cumulative 2.0 GPA.

## **Academic Scholarship Requirements**

All academic scholarships are awarded on a competitive basis. The deadline to apply for Distinguished Scholars, Second Century Scholars, or Collegiate Scholars is February 28 of the current award year. The deadline to apply for University Honors is December 1 of the current award year. The deadline to apply for Transfer Scholarships is June 1 for a fall term and December 15 for a spring term of the current award year. The amount of total funds received by each student will be contingent on the Arkansas Department of Higher Education Scholarship Stacking Policy, Arkansas Act 1180 of 1999.

Main campus scholarship awards will only pay for main campus coursework. Students may receive only one Tech-funded academic scholarship in any semester. Scholarship recipients must live in a residence hall or receive an exemption to the residency requirements from the Office of Residential Life in accordance with established University policy. Recipients are responsible for making on-campus housing arrangements. Students who live in Louisiana, Mississippi, Missouri, Oklahoma, Tennessee, and Texas are considered in-state for tuition purposes and are therefore eligible for academic scholarship awards. Original ACT or SAT reports should not be altered. Superscores or recalculated exam scores, using subset scores from multiple exams, will not be accepted. A traditional-aged high school student who opts to take the GED and scores a minimum of 680 may apply for academic scholar awards. Students receiving scholar awards must be U.S. citizens.

All scholarship recipients must be admitted to the University with a Free Application for Federal Student Aid application (FAFSA) on file before a scholarship will be credited to a student's account. All additional information requested by the Financial Aid Office must be submitted by December 1 in order to meet the aid application requirements for second semester renewal. For all subsequent semesters, the FAFSA and all requested documentation must be on file by August 1 each year.

Scholarships are awarded for consecutive fall and spring terms only and do not cover summer terms. Scholarships may be deferred for up to one year upon Scholarship Committee approval. A deferment must be requested in writing prior to the semester for the scholarship award.

Students who receive scholarship awards are responsible for knowing the renewal requirements printed on their award notification or online at <http://www.atu.edu/admissions/>. Receipt, continued receipt, or renewal of all academic scholarships is also contingent upon the student honoring the Arkansas Tech University Student Code of Conduct as well as local, state, and federal laws. Transfer, CLEP, AP, and IB credit cannot be used to qualify for scholarship renewal.

All scholarship students are eligible for a one-time only grace semester. A grace semester is applied automatically through the Financial Aid Office. Students who qualify for a grace semester must be within .25 of the semester requirement while their cumulative GPA met the requirement. After a student's grace semester is used, failure to meet the renewal requirements in any semester will result in the forfeiture of the scholarship for all subsequent semesters. Students who fail to meet renewal requirements are notified via their official student email.

To remain in compliance with Act 323 of 2009, the University reserves the right to cancel or modify any scholarship funded by the institution at any time.

Students, who received scholarship awards prior to fall 2010, refer to the undergraduate catalog printed for the year of entry for renewal requirements.

### **Academic All-Star Scholarship**

Transfer students who are selected as Academic All-Stars by their two-year institution are eligible to apply for this scholarship. The maximum award for this scholarship is \$2,550 per semester. A student must enroll in and complete 15 or more hours with a 3.25 semester GPA for renewal of up to five semesters or completion of an undergraduate degree, whichever comes first. Priority consideration will be given to the first ten students who apply prior to June 1. Transfer scholarships must be used on the main campus in Russellville.

### **Advanced Scholars Stipend**

The Advanced Scholars Stipend is a \$1000 per semester award made in recognition of University Honors membership or Arkansas Governor's or Governor's Distinguished awards. All students who are awarded an Advanced Scholars Stipend must retain their University funded academic ACT scholarship award to remain eligible for the stipend. Students who fail to retain their academic award forfeit the Advanced Scholars Stipend. Students are only eligible for one Advanced Scholars Stipend in any semester.

### **Collegiate Scholars**

Collegiate Scholars receive a maximum award of \$500 per semester for up to four semesters. Incoming freshmen who score 21-23 ACT composite and earn a 3.25 cumulative high school GPA are encouraged to apply. Scholarship recipients must enroll in a minimum of 15 hours during the fall semester of the freshman year and complete a minimum of 12 hours with a 3.00 semester GPA to be eligible for the scholarship for the following semester. Recipients must enroll in a minimum of 15 hours for the spring semester and complete a total of 30 hours for the freshman year with a 3.00 semester GPA to be eligible for the scholarship for the sophomore year. Transfer, CLEP, AP, and IB credit cannot be used to qualify for scholarship renewal. Renewal for subsequent semesters requires a 3.25 semester GPA on a minimum of 15 hours. This scholarship must be used the fall semester following high school graduation.

### **Distinguished Scholars**

Distinguished Scholars receive a maximum award of \$4500 per semester for up to eight semesters or until the completion of an undergraduate degree, whichever comes first. Incoming freshmen who score 26-36 ACT composite and earn a 3.25 cumulative high school GPA are encouraged to apply. Scholarship recipients must enroll in a minimum of 15 hours during the fall semester of the freshman year and complete a minimum of 12 hours with a 3.00 semester GPA to be eligible for the scholarship for the following semester. Recipients must enroll in a minimum of 15 hours for the spring semester and complete a total of 30 hours for the freshman year with a 3.00 semester GPA to be eligible for the scholarship for the sophomore year. Transfer, CLEP, AP, and IB credit cannot be used to qualify for scholarship renewal. Renewal for subsequent semesters requires a 3.25 semester GPA on a minimum of 15 hours. This scholarship must be used the fall semester following high school graduation.

### **Phi Theta Kappa**

Transfer students who are members of Phi Theta Kappa International Honor Society and have completed a minimum of 12 transferable, for-credit hours with a minimum 3.50 college GPA are eligible to apply for a Phi Theta Kappa Transfer Scholarship. These scholarships are competitive and the maximum award is \$2550 a semester. A student must enroll in and complete 15 or more hours with a 3.25 semester GPA for renewal of up to five semesters or completion of an undergraduate degree, whichever comes first. Transfer scholarships must be used on the main campus in Russellville.

### **Presidential Honors Transfer Scholarship**

This scholarship allows any Arkansas two-year college president/chancellor the opportunity to name one student each fall for a transfer scholarship with a maximum award of \$2,550 per semester. A student must enroll in and complete 15 or more hours with a 3.25 semester GPA for renewal of up to five semesters or completion of an undergraduate degree, whichever



comes first. Interested students should check with their current two-year school's Financial Aid Office or President's/Chancellor's office for further details. Transfer scholarships must be used on the main campus in Russellville.

### **Second Century Scholars**

Second Century Scholars receive a maximum award of \$2,550 per semester for up to eight semesters or until the completion of an undergraduate degree, whichever comes first. Incoming freshmen who score 24-25 ACT composite and earn a 3.25 cumulative high school GPA are encouraged to apply. Scholarship recipients must enroll in a minimum of 15 hours during the fall semester of the freshman year and complete a minimum of 12 hours with a 3.00 semester GPA to be eligible for the scholarship for the following semester. Recipients must enroll in a minimum of 15 hours for the spring semester and complete a total of 30 hours for the freshman year with a 3.00 semester GPA to be eligible for the scholarship for the sophomore year. Transfer, CLEP, AP, and IB credit cannot be used to qualify for scholarship renewal. Renewal for subsequent semesters requires a 3.25 semester GPA on a minimum of 15 hours. This scholarship must be used the fall semester following high school graduation.

### **Senior Service Fellowships**

Fellowships in the various colleges of the University are open to a limited number of outstanding advanced students. These service fellowships are awarded at the discretion of college committees when the caliber of the applicant justifies such assistance. Candidates for the fellowship must have earned 90 semester hours of credit, have a minimum grade point average of 3.00 on all work, and be enrolled in a minimum of 12 hours for the semester(s) for which the fellowship is granted. Any deviation or exception to this policy must be approved by the Office of Academic Affairs. Students who would like to be considered for a Senior Service Fellowship must make written application by April 1 to the appropriate dean.

### **Tech Transfer Scholarship**

The award amount varies for this competitive scholarship. Students who have completed 12 or more transferable, for-credit hours at an accredited college or university with a minimum 3.25 transfer GPA should apply. Students who receive transfer scholarships are required to enroll in and complete 15 or more hours with a 3.25 semester GPA for renewal of up to five semesters or completion of an undergraduate degree, whichever comes first. Transfer, CLEP, AP, and IB credit cannot be used to qualify for scholarship renewal. Transfer scholarships must be used on the main campus in Russellville.

### **University Honors Scholarship**

University Honors participants receive a maximum award of \$5300 per semester for up to eight semesters or until the completion of an undergraduate degree, whichever comes first. Students who score a 28-36 ACT and have a 3.50 cumulative high school GPA are encouraged to apply. The University Honors application deadline is December 1 of the current academic year. Students who are chosen for an interview will be notified in December and January. Invitations to join the University Honors Program will be sent by February 1 to selected interview candidates. All University Honors scholarship recipients must participate in University Honors curriculum requirements, in the sophomore service requirement, and attend all Honors functions. Scholarship recipients must complete a minimum of 15 hours per semester with a 3.25 semester GPA to be eligible for the scholarship for the following semester.

University Honors Scholarship recipients will receive an Advanced Scholars Stipend. The \$1000 per semester stipend is awarded fall and spring terms only for the duration the student remains active as a University Honors undergraduate scholarship recipient. Recipients who fail to retain their University Honors scholarship award forfeit the Advanced Scholars Stipend. For additional information on the University Honors scholarship, contact Dr. Jan Jenkins, Director of Honors, at (479) 968-0456.

### **Arkansas Tech University Foundation Scholarships**

Arkansas Tech University Foundation Scholarships will be awarded if funds are sufficient. To be considered for an Arkansas Tech University Foundation scholarship where need is a determining factor, a Federal Financial Aid Application ([www.fafsa.com](http://www.fafsa.com)) must be on file in the Financial Aid Office. Federal and state regulations do not permit students to receive financial aid in excess of their cost of attendance. For complete details regarding scholarship stacking regulations, contact the Financial Aid Office.

Students who receive privately funded scholarships will be responsible for writing thank you notes. Expressing appreciation to donors for their interest in and support of higher education is an important part of receiving a scholarship.

The Arkansas Tech University Foundation reserves the right to amend scholarship requirements and criteria.

### **Applying for Foundation Scholarships**

The student is responsible for submitting the Foundation Scholarship Application and all documentation listed in the scholarship criteria to the Office of Development. The application and all required documentation must be **received** by February 28 (i.e., applicant letter, reference letters, etc.). Only one application and documentation is required for multiple Foundation Scholarships.

Documentation must include a letter from the applicant explaining the need for the scholarship, special family circumstances, career goals, and **three** letters of recommendation from any of the following: Arkansas Tech faculty, High

School Counselor, Principal, Pastor, Employer, or someone familiar with your work ethic and family situation.

The applicant will be considered for all scholarships through the Office of Development where all the criteria requirements have been fulfilled.

**Submit Application Packet to:**

Office of Development  
1509 N. Boulder Avenue ADM 209  
Russellville, AR 72801-2222

All applications and documentation must be **received by February 28.**

To view the Foundation Scholarships offered at Arkansas Tech University please go to <http://www.atu.edu/givetotech/scholar-search.htm>

## **Athletic Scholarship**

The maximum number and maximum value of such scholarships will be determined by the constitution and by-laws of the NCAA Great American Conference. Applicants should contact the Arkansas Tech University Athletic Director at 479-968-0245.

## **Privately Supported Scholarships**

### **Arkansas Community Foundation Scholarships -**

<http://www.arcf.org/Scholarships/OurScholarships/tabid/426/Default.aspx>

Arkansas Community Foundation is a nonprofit organization that fosters smart giving to improve communities. The Community Foundation offers tools to help Arkansans protect, grow and direct their charitable dollars as they learn more about community needs. By making grants and sharing knowledge, the Community Foundation supports charitable programs that work for Arkansas.

### **Arkansas Education Association Scholarships - <http://www.aeaonline.org/awards-scholarships>:**

#### **Emma Scott - Scholarship for Future Teachers**

The Emma Scott Memorial Scholarships were established in 1961 by the Arkansas Education Association to honor Emma Scott. Miss Scott was a former English teacher in Little Rock and AEA staff member who is credited with establishing Future Teachers of America programs in Arkansas.

#### **TE Patterson - Memorial Undergraduate Scholarship**

This \$500 scholarship is awarded yearly to five African-American college students in Arkansas. Each year this scholarship also honors the memory of a distinguished African-American educator. The deadline for scholarship applications is March 1st. All applications must be completed with documents by the deadline. Otherwise the committee will not consider it.

### **Arkansas Health Information Management Association Scholarship**

An annual scholarship fund has been established by the Arkansas Health Information Management Association. The scholarship is awarded each spring to a deserving health information management major in his/her junior or senior year. The recipient is determined by the Executive Board of the Arkansas Health Information Management Association. Interested students should contact the Health Information Management Program office in Dean Hall Suite 201 to obtain an application. Application deadline is January 31st.

### **Arkansas Single Parent Scholarship Fund**

Single parents who reside in counties other than those listed below may find information for their county at

<http://www.aspsf.org/>

#### **Logan County Single Parent Scholarship Fund**

LCSPSF offers approximately \$500 per semester (spring, fall, summer), which may be used to support the needs of the scholar - pay for gasoline, pay for babysitter, pay for food, clothing, utilities, rent etc. Half the scholarship is provided at the beginning of the semester and the remainder after submission of the mid-semester grades, which must be passing grades. Students can apply for the scholarships on-line. Contact: Christy McCollough, Scholarships, 479-675-4326 email: [cmccollough@atu.edu](mailto:cmccollough@atu.edu). Mailing address: Jessica Philmon, First National bank, P.O. Box 31, Paris, AR 72855.

#### **Pope-Yell County Single Parent Scholarship**

Scholarships are awarded each semester to single parents who are residents of Pope or Yell counties. Recipients must have applied for federal financial aid and be eligible for a federal Pell Grant. Application deadline is July 15 for the fall semester and January 15 for the spring semester. Applications are available from Pope-Yell County Single Parent Scholarship Board, River Valley Shelter for Battered Women and Children, Inc. P.O. Box 2066, Russellville, Arkansas 72811.

### **J.D. Knight Scholarship**

This scholarship was established by Mrs. J.D. Knight in memory of her late husband, Mr. J.D. Knight, a former member of the Arkansas Tech Board of Trustees. The recipient must be majoring in accounting, business, or economics and must

have an interest in banking as a possible career. An application may be obtained from the Accounting Department in the College of Business.

### **Cora McHenry Scholarship for Teaching Excellence**

Three partial tuition scholarships available to African-American students committed to teaching in the public school of Arkansas at either the early childhood/middle or secondary level. To be eligible, a student must be eligible for the teacher education program, be a member of SNEA or CMLA, be enrolled in a 15 credit hour course load, and have a cumulative grade point average of 2.5 or better. To apply a student should submit a letter of application, two letters of recommendation from school officials, a brief essay on why the applicant is interested in teaching, and including a record of activities in school, church, and the community to Dr. V. Carole Smith, College of Education, Arkansas Tech University. Application deadline is February 28.

### **R. Lewis Urton Senior Rehabilitation Scholarship**

An annual grant provided by the Arkansas Rehabilitation Association to a senior major in rehabilitation science. Applications for the scholarship are received during the spring semester. Students interested in applying should contact the Director of the Rehabilitation Science program. Each applicant will be interviewed by a committee made up of members of the Arkansas Rehabilitation Association.

## **Application for Federal Student Aid**

**General** - Students use the Free Application for Federal Student Aid and list Tech as one of the schools to receive information. With the exception of Unsubsidized, Additional Unsubsidized Federal Direct and PLUS loans, students must be financially eligible to receive funds from Federal financial aid programs.

**Deadline** - To receive equal consideration, a student must have a complete application on file by April 15. All remaining funds will be awarded on a first-come, first-serve basis until depleted. **Note: All requested information must be returned to the Financial Aid Office by July 15 to ensure aid availability at the beginning of the fall semester.**

### **Federal Pell Grant**

The Federal Pell Grant provides direct grants from the government to the undergraduate student for educational expenses. Since this is a grant program, the student does not have to repay the amounts received, unless the semester for which a grant is received is not completed.

Under current guidelines, only students who have never received a bachelor's degree and who have not already received the equivalent of twelve semesters of the grant are eligible for the Federal Pell Grant. The university does not determine whether a student is financially eligible. The amount of the grant given to an individual student is based on a schedule provided to the university by the government. No eligible student will be denied a grant.

### **Federal Supplemental Educational Opportunity Grant Program**

The purpose of the Supplemental Educational Opportunity Grant Program is to provide additional funds to qualified students of exceptional need. Each grant is awarded according to federal guidelines.

### **Student Employment**

The University uses student employees when practicable, but students are not encouraged to work to an extent which would hinder their scholastic program. Employment assignments are made under both the Federal College Work-Study Program and the institutional Non-Work-Study Program. To be eligible for student employment, the student must be enrolled at least half-time, successfully pass minimum load requirements, satisfy grade point requirements, maintain satisfactory employer-employee relations and have conduct and personal appearance that reflect credit to the student and the University.

### **William D. Ford Direct Loan Program**

Federal regulations require a delayed disbursement of thirty days for all first-year, first-time undergraduate student borrowers in any Federal Direct Loan program. Additionally, all student borrowers must be enrolled in a minimum of six hours.

### **Federal Direct PLUS Loans**

Parents of students may borrow annually the amount of the student's cost of education minus other aid for each child who is enrolled at least half time and is a dependent undergraduate student. PLUS is limited to parents who do not have an adverse credit history, and late payments on outstanding obligations are not to be considered as having adverse credit history. The interest rate is determined each June with the borrower beginning payment within sixty days of loan disbursement. Graduate students may also borrow under the PLUS loan program. They have to meet the same credit history requirements, must apply for Federal financial aid and may borrow up to the cost of attendance less other financial aid. As with the Parent PLUS, the interest rate is determined each June.

### **Federal Direct Subsidized Loans**

The Federal Direct Loan program authorizes loans up to \$3,500 per year for first-year undergraduates, \$4,500 for second-year undergraduates, and \$5,500 per year for undergraduates who have completed two years of undergraduate work. The

maximum an undergraduate student may borrow is \$23,000. Under this program a student must financially qualify for the loan. The interest rate is determined each June.

Repayment of principal and interest ordinarily begins six months after the student leaves school or ceases to be at least a half-time student. However, interest will begin to accrue as of the date the student ceases to be at least half-time. The amount of the monthly payments will be based on the total amount borrowed.

### **Federal Direct Unsubsidized Loans**

The Federal Direct Unsubsidized Stafford Loan has the same loan limits and deferments as the Direct Subsidized Loan. However, the student does not have to be financially eligible for the loan and must either pay the interest while in school or have it capitalized for repayment with the loan principal. The total borrowed in Subsidized and Unsubsidized Direct undergraduate loans may not exceed the student's yearly maximum as shown above. Graduate students may borrow up to \$20,500 for a school year, not to exceed the total undergrad and grad maximum of \$138,500. The interest rate is determined each June.

**Federal Direct Additional Unsubsidized Loan** - Dependent students may borrow \$2,000 per year for four years. Independent students may borrow up to \$6,000 per year for the first two years of undergraduate study and \$7,000 per year thereafter with an undergraduate maximum of \$34,500. Borrowers do not have to show need but do have to apply for financial aid. The interest rate is determined each June. Students are responsible for paying the interest that accrues on the loan from the time the loan is disbursed until it is paid in full but have the option to defer interest payments while in school and have the interest added to the amount borrowed.

## **Arkansas Department of Higher Education Programs**

The programs listed below are awarded and administered by the Arkansas Department of Higher Education. Further information may be obtained by writing to: Arkansas Department of Higher Education, 114 East Capitol, Little Rock, AR 72201, or by calling (479) 371-2000, or 1-800-547-8839 or at [www.adhe.edu](http://www.adhe.edu). The application for all programs is available on-line.

### **Arkansas Academic Challenge Scholarship Program**

The Academic Challenge Program provides scholarships to Arkansas residents pursuing a higher education. Funded in large part by the Arkansas Scholarship Lottery, the Academic Challenge Scholarship is available to students regardless of their academic status, whether just graduating from high school, currently enrolled in college, enrolling in college for the first time, or re-enrolling after a period of time out of college. The application deadline is June 1. There are no income restrictions but students still must complete the Free Application for Federal Student Aid. The scholarship award amount will be determined annually in early Spring.

### **Arkansas National Guard Tuition Incentive Program (G-TIP)**

The Arkansas National Guard Tuition Incentive Program (G-TIP) provides up to \$5,000 per year to Arkansas residents who are active members of the Arkansas Army/Air National Guard. Applications may be obtained from the unit commander or online at <http://www.arguard.org/Education/ta.asp>

### **Governor's Distinguished Scholars**

The Governor's Distinguished Scholars Program provides a tuition, mandatory fees, and room and board not to exceed \$10,000 per year to students who achieve 32 or above on the ACT or 1410 on the SAT or are a National Merit Finalist attending an approved Arkansas public or private college or university. The scholarship is renewable for up to three additional years provided the student meets the continuing eligibility standards. Application deadline is February 1 of high school graduation year.

### **Governor's Scholars Program**

The Governor's Scholars Program provides \$4,000 merit grants each year to seventy-five of Arkansas' academically superior high school graduates in order to assist them in their undergraduate studies at approved colleges or universities in Arkansas. The scholarship is renewable for up to three additional years provided the student meets the continuing eligibility standards. Applications should be submitted prior to February 1 of high school graduation year.

### **Higher Education Opportunities Grant (GO! Opportunities Grant)**

The GO! Grant provides \$1000 grants to full-time and \$500 grants to part-time students based on financial need. Students must be an Arkansas resident for at least 12 months prior to applying for the grant. Students also must meet the financial need criteria established for the GO! Grant and attend an approved Arkansas Institution. Applicants must complete the Free Application for Student Aid (FAFSA). Application deadline is June 1.

### **Law Enforcement Officer's Dependents Scholarship**

The Law Enforcement Officers' Dependents Scholarship (LEO) provides a waiver of tuition, fees, and room at any public college, university, or technical institute in Arkansas for dependents and spouses of Arkansas law enforcement officers, some Highway and Transportation Department employees, and other public employees, who were killed or permanently disabled in the line of duty. Application deadline is June 1.



### **Military Dependent's Scholarship**

The Military Dependent's Scholarship Program provides a waiver of tuition, fees, and on-campus room and board to full-time students at any public college, university, or technical institute in Arkansas for dependents and spouses of Arkansans who were killed or missing in action or who were prisoners of war or who are totally and permanently disabled. All applicants must also apply for and show acceptance or denial of the Federal dependent's Educational Assistance Program. Application deadline is June 1.

### **Teacher Opportunity Program (TOP)**

The TOP program offers reimbursement grants to cover tuition and fees for up to six hours per fiscal year to current Arkansas teachers seeking to further their education..

### **The State Teacher Education Program (STEP)**

The State Teacher Education Program (STEP) provides Federal student loan repayment grants of up to \$7,000 to Arkansas residents who earned a teaching degree after 4/1/2004, are teaching in a public school in a geographical and/or subject shortage area or who are minorities. Application deadline is June 1.

### **The Workforce Improvement Grant**

A need based grant for non-traditional students who are at least 24 years old. The program's goal is to help those students returning to school who have financial need but might not be eligible for assistance from traditional state and federal programs. The annual award is a maximum of \$2,000 for a student enrolled full time (12 semester hours), but may be less in order to prevent an overaward as defined by Federal regulations. Students enrolled part time will have their grants prorated based on the number of hours enrolled. Because the grants are not renewable, students must apply each year by completing a FAFSA by July 1 of each year.

## **Other Sources of Assistance**

### **Arkansas National Guard**

Act 82 of 2005 provides a tuition and waiver assistance program for soldiers and airmen of the Arkansas National Guard. Members of the Arkansas National Guard should contact the Student Accounts Office for information.

### **Dr. James I. Balch Student Loan Fund**

An interest-free loan to be repaid in installments of twenty percent, forty percent, and forty percent at nine, eighteen, and thirty-six month intervals. A student must be a junior or senior with a 3.0 cumulative grade point average, must demonstrate financial need, and must file a separate loan application. Information regarding the application process is available through the Payroll and Special Services Office.

### **Military Activation**

Students who cease attendance at Arkansas Tech University without completing and receiving a grade in one or more courses due to military activation or deployment may receive compensation for the resulting monetary loss as provided by Act 85 of 2005. Please contact the Registrar's Office for information.

### **Native American Out-of-State Waiver**

Arkansas Tech University offers in-state tuition rates to Native American students in other states belonging to tribes which formerly lived in Arkansas, before relocation, and whose names are on the rolls of tribal headquarters. Tribes thus identified include the Caddo, Cherokee, Chickasaw, Choctaw, Creek (Muskogee), Delaware, Kickapoo, Osage, Quapaw, Shawnee, and Tunica. Students who qualify for in-state tuition for fee purposes may apply for freshman academic scholarship. For more information contact the Office of Admissions at (800) 582-6953.

### **Over 60 Tuition Waiver**

Arkansas residents who are sixty or older on the first day of class may have tuition and fees waived upon completion of certification of eligibility. Students must notify the Financial Aid Office each semester of the number of enrolled hours which need to be waived. Applications are available in the Financial Aid Office.

### **Mr. Tommy Memorial Student Loan Fund**

Arkansas Tech has a special loan fund known as the "Mr. Tommy Memorial Student Loan Fund." This fund was established by Arkansas Tech alumni as a memorial to the late E.S. Tomlinson, for many years head of the biology department. Supplementing lesser contributions by hundreds of former students is the Margaret McFadden Lykes, Jr., contribution. Loans from this fund are limited in amount and intended primarily for emergency aid to students. One semester of successful residence is required of all students applying for these loans. Information relative to this fund may be obtained from the Student Services Office.

### **Veterans Benefits**

Arkansas Tech University is approved by the State Approving Agency for Veterans as a school (college, university, etc.) whereby veterans and dependents of deceased or disabled veterans may obtain subsistence while working toward a degree. Eligible students should contact the Office of Veteran Services to obtain information regarding school attendance under the following program: Title 38, Chapter 30, Montgomery GI Bill for Veterans; Title 38, Chapter 32, Veterans

Educational Assistance Program (VEAP); Title 38, Chapter 33, Post-9/11 GI Bill; Title 38, Chapter 35, Survivors and Dependents Education; Title 10, Chapter 1606, Montgomery GI Bill for Selective Reserves; and Title 10, Chapter 1607, Reserve Educational Assistance Program.

All students must be working toward a degree and should follow the curriculum outline for their objectives, since only specific courses may be applied toward VA certification and graduation. Veterans may be given placement credit for prior military training. The Office of Veteran Services is available to assist students concerning VA benefits. The Office of Veteran Services is located in the Doc Bryan Student Services Center, Office 163.

Enrollment certification will not be sent to the Department of Veteran's Affairs until transcripts are on file and the person applying for veteran's benefits has been admitted to the University.

Effective spring 2015, all active duty military service persons and veterans eligible under the GI Bill as determined by the VA who are classified as "out-of-state" for tuition purposes shall receive a waiver of out-of-state tuition charges.

### **Vocational Rehabilitation Assistance**

Persons who have substantial handicap to employment as a result of a permanent disability may receive, at no cost to themselves, vocational counseling and some financial assistance toward the cost of their college training when the vocational objective of the disabled person is approved by the Vocational Rehabilitation Counselor. These services are available through the Division of Rehabilitation Services, 1401 Brookwood Drive, Little Rock, Arkansas 72203. Application for assistance or request for information about the program may be made to that address or to a local rehabilitation counselor.

### **Workforce Investment Act**

The Workforce Investment Act is a federal program which provides financial assistance to individuals in need. The program's primary targets are individuals with barriers to employment and dislocated workers. Candidates who meet eligibility requirements will receive tuition and book scholarships for two years to complete an associate degree at Arkansas Tech University. WIA is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Requests for information about eligibility may be made through the WIA office, 104 S. Rochester, Russellville, AR 72801; telephone 968-4919; TDD/ARS: 1-800-285-1131.

## **University Bookstore**

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The Arkansas Tech University Bookstore is located in the Young Building. Textbooks, study guides, school supplies, computer software, caps and gowns for graduation, Tech apparel and gifts, in addition to other items may be purchased.

A full refund will be given on new or used textbooks until the end of the 3rd class day. The following conditions will apply:

1. You need your cash register receipt and Tech I.D.
2. Your new textbooks must be returned in brand new condition with no bent corners or water damage.
3. Wrapped or boxed textbooks must be unopened.

### **Textbook Refund Policy**

An extended period for refunds is available to students who drop a class or withdraw from school. Specific dates will be posted each semester. Students must have a withdrawal slip and receipt. Returns are not allowed on study guides, workbooks, cliffnotes, wrapped or boxed merchandise that is opened, etc. The manager reserves the right to make the decision on the condition or salability of the merchandise.

### **Buy Back Policy**

Students may sell their textbooks for cash at the bookstore during examination week. Fifty percent of the new price will be paid to the student if the bookstore has received a request from the instructor stating the textbook will be used the following semester, the textbook is in good condition (no water damaged books will be bought back), and the bookstore is not overstocked. Select textbooks not bought at the Campus Bookstore may have less value than 50% of the new price. Textbooks with a new edition pending may be bought back at less than 50 percent of new price. Current market value will be paid on current editions not used or needed for the following semester on campus. A current Tech ID is required to sell books back. The bookstore does not guarantee the buy back of any textbook at any time.

Additional information concerning the University Bookstore may be obtained by visiting their web site at <http://bookstore.atu.edu>, by calling (479) 968-0255 or by faxing (479) 964-0861.

## **University Testing Center**

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The University Testing Center provides services which assist in the recruitment, retention, and graduation of students.



Testing services include providing registration information and materials and administering examinations such as the American College Test Assessment (ACT), Graduate Record Exam (GRE), Law School Admission Test (LSAT), Miller Analogies Test (MAT), Professional Assessments for Beginning Teachers (Praxis) and others. Test registration bulletins and preparatory materials are available online for many exams. Tests that will allow an individual to earn college credit by attaining the qualifying score established by Arkansas Tech University are also administered and include Advanced College Placement (AP), College Level Examination Program (CLEP), National League for Nursing (NLN) and Arkansas Tech examinations. Arkansas Tech University placement exams include the Residual ACT and the Computer Adaptive Placement Assessment & Support System (COMPASS). Tests that require payment must be paid in advance at Student Accounts located in the Doc Bryan Student Services Center.

The University Testing Center is located in Doc Bryan, Suite 171 and may be reached by calling 479-968-0302 or fax 479-968-0375. For additional information, students may visit <http://www.atu.edu/testing>.

# Scholarships

## Foundation General Scholarships

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The student is responsible for submitting the General Foundation Scholarship Application, and all documentation listed in the scholarship criteria to the Office of Development. The application and all required documentation must be received by February 28 (i.e., applicant letter, reference letters, etc.). Only one application and documentation is required for multiple Foundation General Scholarships.

Documentation must include a letter from the applicant explaining the need for the scholarship, special family circumstances, and career goals. And three letters of recommendation from any of the following: Arkansas Tech faculty, High School Counselor, Principal, Pastor, Employer, or someone familiar with your work ethics and family situation.

The applicant will be considered for all scholarships through the Office of Development where all the criteria requirements have been fulfilled.

Submit Application Packet to:  
Office of Development  
1509 N Boulder Avenue ADM 209  
Russellville, AR 72801-2222

All applications and documentation must be received by February 28.

### **Susan Adams Memorial Scholarship**

The family and friends of Susan Adams have established a scholarship in her memory. The amount of the scholarship will be credited toward tuition for the recipient. Although any worthy student is eligible to receive the scholarship, preference in selection will be given to out-of-state students who are children of Tech graduates.

### **Heartsill and Polly Bartlett Scholarship**

Preference will be given to a student who is a traditional, incoming freshman from Pope or Yell County, Arkansas, has a cumulative grade point average from high school of 2.0 or higher, has demonstrated financial need and is planning to attend Arkansas Tech University full-time. To be considered for this scholarship, applicants must submit a letter of application and a letter of recommendation from their high school counselor in addition to a completed scholarship application. This scholarship may be renewable at the discretion of Arkansas Tech University if the recipient is making acceptable academic progress. Scholarships will be awarded each year that funds are sufficient.

### **Janet Beck Memorial Scholarship**

This memorial scholarship has been established by the parents and friends of Janet Beck in honor of her many accomplishments. Awards will be made each year that funds are sufficient to a graduating senior from Sacred Heart High School. In the event that no applicant meets the specified criteria in a given year, this scholarship may go un-awarded for that year. Two letters of recommendation from high school teachers and/or counselors should accompany the scholarship application.

### **B. J. Burton Memorial Scholarship**

Scholarships and awards will be granted each fall that funds are sufficient. The recipient must be a member of the Arkansas Tech Softball Team, with full-time student status, sophomore level or higher, and have a cumulative grade point average of 2.5 or higher. Demonstrate financial need. The scholarship may be renewed for the spring semester provided the recipient continues to meet the scholarship criteria and funds are sufficient. Scholarship recipients from one year will be eligible to reapply for subsequent years.

### **Judge J. E. Chambers Scholarship**

Proceeds from an endowment by the family of the late Judge John E. Chambers provide scholarships for outstanding applicants from Danville, Western Yell County or Dardanelle high schools. Academic promise and service to school and community will be heavily considered in determining the recipient. Submit application with two supporting letters of recommendation.

### **John Clement / First State Bank Scholarship Fund**

Established by the First State Bank, this scholarship honors John Clement for his many years of service to the River Valley community. Scholarship applicants must be an entering freshmen who graduated from Ola or Plainview, have the recommendation of their high school counselor as being qualified to complete a higher education curriculum. Additionally, applicants must have demonstrated financial need and not have access to other scholarships or grants which will completely pay their education costs.

### **Connie V., Loretta M., & Elora C. Coker Scholarship**

This scholarship will be awarded each year that funds are sufficient. Preference will be given to an incoming freshman, a

graduate of Two Rivers School District in Arkansas, and enrolls in 15 semester credit hours or more. This scholarship may be renewed for the freshman spring semester if the recipient continues to enroll in 15 credit hours and maintains a cumulative 2.0 grade point average or higher. If the recipient meets the scholarship renewal requirements of the freshman year, the scholarship may be renewed for an additional six consecutive semesters provided the recipient enrolls in and successfully completes 15 credit hours each semester and maintains a cumulative 2.5 grade point average or higher.

#### **Angelo and Rosa Denova Graduate History Award**

The recipient of this award will be selected by a History Department Paper Prize Award Committee. It is open to any student enrolled in a graduate History course at Arkansas Tech, regardless of major, during the current award cycle. Students should submit a scholarly paper written during the current award cycle in a History class at Arkansas Tech. Specific Submission Guidelines are available from Department of History and Political Science.

#### **Disabled American Veterans Simpson Turner Chapter 27 Scholarship**

This scholarship was established by the members of the DAV Simpson Turner Chapter 27 to benefit the children and grandchildren of military veterans. Scholarships will be awarded each year that funds are sufficient to a full-time student who is not solely an online student, has a minimum grade point average of 2.5, and has demonstrated financial need. Additionally, the student must submit a statement of need of no more than 500 words and must produce proof of military service of his/her parent or grandparent.

#### **Arkansas Tech Faculty/Staff Scholarship**

This scholarship was established to benefit faculty, staff, or dependents of faculty/staff enrolled in classes at Arkansas Tech University. Any full-time or part-time student who is eligible for the Aid for On-Campus Study program and has submitted a "Faculty Staff Waiver" through Arkansas Tech is eligible. This scholarship is non-renewable for the following semester, although recipient is eligible to reapply in subsequent years.

#### **Nicki Goodlett Memorial Scholarship**

A scholarship award will be made each year that funds are available. The student must meet the following criteria: be an Arkansas resident, full-time student, be of sophomore classification (30 credit hours) or higher, have a 2.0 cumulative GPA or higher, receiving no other scholarships. Applicants should submit a letter of application expressing need and goals, three letters of recommendation from a pastor, faculty member, or other who can articulate the applicant's background, financial situation, and goal: and show performance that reflects an ability to successfully attain a college degree and demonstrates a significant trend toward academic improvement.

#### **Benny and LaVel Harris Scholarship**

This scholarship was established through the generosity of Benny and LaVel Harris to benefit students from Stone County, Arkansas. The recipient will be a graduate of a Stone County, Arkansas, high school, a full-time student, have a cumulative grade point average of 2.5, and have demonstrated financial need.

#### **Savannah Kaitlyn Hintze Memorial Scholarship**

This scholarship, established by the family and friends of Savannah Kaitlyn Hintze, will be awarded each year that funds are available to a full-time entering freshman. To be considered for this award, students must have a cumulative grade point average of 2.5 or higher and demonstrated financial need. Applicants should submit a letter of application that expresses need and goals. Also, the letter should include the applicant's views on volunteerism and community involvement. This scholarship is renewable for the spring semester, provided the recipient continues to meet the criteria.

#### **Charles and Carol Lee Ketcheside Scholarship**

Scholarships will be granted each year that funds are sufficient to a full-time student who is in good academic standing and has demonstrated financial need.

#### **M. E. Maxwell Scholarship**

The scholarship will be awarded each year funds are sufficient to a student who has been a Pope County resident for a minimum of five years, has an ACT composite score of 21 or above, a minimum cumulative grade point average of 3.0 or higher, is a full-time student, and demonstrates financial need. Recipients may re-apply for subsequent years.

#### **George C. McCarty Memorial Scholarship**

This scholarship is based on financial need of a male student. A scholarship award will be made each fall semester that funds are sufficient.

#### **Mitchell-Keathley Scholarship**

Established in honor of Mr. and Mrs. Bobby Keathley and Mr. Boss Mitchell, this scholarship will benefit graduates of Danville High School. To be eligible for this scholarship, the applicant must have attended Danville High School (Danville, AR) for the last four semesters prior to graduation and be accepted for admission to Arkansas Tech University. Additionally, high school grade point average, ACT score, leadership roles in school and community, and financial need will be considered.

#### **Van & Marilyn Moores Scholarship**

This partial-tuition general scholarship will be awarded annually. Most awards are made to incoming freshmen.

### **Harold and Jackie Neal Scholarship**

A scholarship awarded each year that funds are sufficient to a deserving Arkansas Tech University student who demonstrates financial need and is making acceptable academic progress.

### **Non-Traditional Student Scholarship**

This scholarship was established to benefit non-traditional students at Arkansas Tech University. The recipient will be a non-traditional student, aged 23 years or older, and maintain a minimum 3.0 cumulative GPA.

### **Rexann Oller International Students Scholarship**

The Rexann Oller International Students Scholarship will be awarded each year to an international student who shows academic achievement in international affairs and/or strong background and interest in international relations. This scholarship is open to all Arkansas Tech International undergraduate and graduate students who have a minimum GPA of 3.0. Preference will be given to students with demonstrated financial need. Recipients of other tuition scholarships are not eligible to apply. Please contact the office of ATU International Student Services and the Dean of Graduate Studies or full application requirements.

### **Anita Page Memorial Scholarship**

The recipient of this scholarship must work a designated number of hours per week in a department related to the student's major.

### **Joe Murphy Undergraduate History Award**

The recipient of this award will be selected by a History Department Paper Prize Award Committee. It is open to any student enrolled in an undergraduate History course at Arkansas Tech, regardless of major, during the current award cycle. Students should submit a scholarly paper written during the current award cycle in a History class at Arkansas Tech. Specific Submission Guidelines are available from Department of History and Political Science.

### **Tate Page Family Scholarship**

The family of the late Dr. Tate Page has endowed a scholarship in his memory which will be awarded annually.

### **Jim Price Memorial Scholarship**

Friends and members of the Church of Christ have established an endowed scholarship fund in memory of Jim Price to assist students who are members of the Church of Christ. The scholarship is awarded on a semester basis and can be renewed for one additional semester. To be eligible, a recipient must have completed 24 or more hours at Arkansas Tech with a "C" average or better. Applicants may contact the Jim Price Memorial Scholarship Fund Board of Directors at the Church of Christ Student Center in Russellville. Students should be recommended by their home congregation.

### **A.L. & Verneil Reed Scholarship Fund**

Established through the generosity of Mr. and Mrs. Reed, this scholarship shall be awarded each year that funds are sufficient to an undergraduate student who meets the entry requirements of Arkansas Tech and can provide proof of an earned cumulative grade point average of 3.0 or higher as reflected on an official high school transcript. In addition, applicants must enroll as a full-time student, successfully maintain that full-time status and have demonstrated financial need.

### **Davidson Roy Scholarship**

Awarded each year that funds are sufficient, this scholarship will be awarded to students who have a proven record of academic achievement and demonstrated financial need.

### **Russellville Kiwanis Club Jack Holloway / Joe Ray Scholarship**

This endowed scholarship has been established by the Russellville Kiwanis Club through the Arkansas Tech University Foundation for the purpose of providing scholarships for students attending Arkansas Tech University. This scholarship is in memory of Jack W. Holloway who was an active Kiwanian for over 30 years and a veteran of WW II. Joe Ray was from Havana and served in the Arkansas Senate. Scholarships will be granted each year that funds are sufficient with preference given to students who have graduated from high school in Perry, Yell, Newton or Pope County, have maintained a high school grade point average of at least 2.5 on a 4.0 scale and are planning to attend Arkansas Tech University on a full-time basis. Scholarships will be awarded for a period of one year. However, students may re-apply for subsequent years if they maintain a cumulative grade point average of 2.5 or higher at Arkansas Tech University.

### **Russellville Noon Lions Club Scholarship**

A scholarship will be awarded to a local student who exhibits academic ability, leadership, and financial need. Recipient will be required to attend a meeting of Russellville Noon Lions Club.

### **Russellville Rotary Club Scholarship**

A scholarship is awarded each year to a Pope County student. Applications may be made each summer to the Rotary Club through any of its members.

### **Charles Shelton Memorial Scholarship**

This memorial scholarship, established by the family and friends of Charles Shelton, will benefit graduates of Jasper High

School who attend Arkansas Tech University. The recipient will be a full-time traditional student from Jasper High School. Preference will be given to incoming freshmen who are majoring in mathematics. Recipient must maintain a minimum cumulative grade point average of 2.5. This scholarship is not automatically renewable, but the recipient is eligible to reapply in subsequent years.

#### **David Shinn Memorial Scholarship**

This scholarship, established by Cayce Shinn in memory of her husband, will be awarded each year that funds are available to a full-time student who maintains a minimum 3.0 cumulative GPA and has demonstrated financial need. Preference will be given to an incoming freshman. The scholarship is not automatically renewable after the first year, but recipients are eligible to re-apply in subsequent years.

#### **Mary Teresa Shinn Scholarship**

The scholarship is given in memory of Mary Teresa Shinn.

#### **Kenneth and Janice Sutton Scholarship**

Through the generosity of Kenneth and Janice Sutton, a scholarship has been established to assist students who are residents of Stone County, Arkansas. The recipient will be an entering freshman, who is attending Arkansas Tech the fall immediately following high school graduation, have a high school cumulative grade point average of 3.0 or higher, have an ACT score of 21 or higher, be enrolled as a full-time student, and have a letter of recommendation from the high school guidance counselor or teacher. The scholarship is renewable for the spring semester provided the student completed a full-time course load in the fall with a 2.5 grade point average and enrolls as a full-time student in the spring semester.

#### **Mary Elizabeth Ragland Urton Memorial Scholarship**

An award will be given each year that funds are sufficient to a deserving female student who has maintained a minimum grade point average of 2.5; practices her leadership skills; and exemplifies ethical and moral values.

#### **Alfred and Martha Brownlee Vance Scholarship**

An annual scholarship for an incoming freshman will be awarded each year funds are sufficient. Preference will be given to a Pope County resident.

#### **Vance Family Scholarship**

The annual scholarship will be awarded when funds are sufficient.

#### **Jessie Rye Wade Scholarship**

This scholarship will be awarded each year that funds are sufficient to full-time students who exhibit academic progress and have demonstrated financial need. To be considered, applicants must submit a completed application along with a letter of recommendation from an Arkansas Tech University faculty member.

#### **Eugene and Hazel Weir Educational Trust**

This scholarship was established to provide scholarships to qualified Arkansas Tech University students from Pope County, Arkansas. Mrs. Weir graduated from Atkins High School, attended Arkansas Tech and then went on to teach in Pope County schools for 48 years, including many years in Russellville.

#### **Robert Hays and Martha Williams Scholarship**

The Robert Hays and Martha Williams tuition scholarship is awarded to an incoming freshman. The recipient must be a resident of an Arkansas county within 100 miles of Arkansas Tech University. The student must have maintained a "B" average through high school, participated in school activities, possess the quality of good citizenship and have financial need. This scholarship is renewable for up to seven semesters or until recipient's graduation, whichever occurs first, as long as the recipient remains a full-time student and maintains a minimum 2.5 GPA.

#### **Ted and Betty Williams Scholarship**

In honor of Ted and Betty Williams, this scholarship has been established to provide scholarships during the fall and spring semesters for students who demonstrate financial need, maintain a cumulative grade point average of 3.0 or higher, enroll in and successfully complete a minimum of fifteen hours each semester, and exhibit leadership potential as demonstrated by extracurricular achievements. Scholarship recipients from one year will be eligible to re-apply for subsequent years. Applicants must submit a written application to the Director of Enrollment Management in a process that will be administered by the Office of Academic Affairs. This scholarship requires a separate application which is available through the Admissions Office in the Student Services Building.

#### **Teresa Williams Memorial Endowment Scholarship**

Endowed scholarships to Arkansas Tech will be awarded to qualified high school graduates of Benton, Arkansas.

## **Major Specific Scholarships**

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### **Alumni Association Scholarship**

## Alumni Association Scholarship

1. At least one parent must have graduated or completed one full semester (12 hours) of classes at Arkansas Tech University.
2. Must be an incoming high school graduate, enrolling in the fall semester following your high school graduation.
3. Must enroll in a minimum of 12 credit hours during the two semesters of the awarded scholarship.
4. Must have a minimum cumulative high school grade point average of 3.2 on a 4.0 scale and have a minimum composite ACT score of 21.
5. With this application, you must send official copies of your seven (7) semester high school transcript and ACT scores provided directly from the high school you attend along with two letters of recommendation.
6. Attach a one to three-page personal essay that includes why you selected Arkansas Tech University as your college of choice, information about siblings and/or parents who are currently enrolled in college, financial concerns your family has encountered, and any personal information that might help the selection committee with their decision.

Send completed applications and transcripts to:

Arkansas Tech University Alumni House  
ATTN: Alumni Scholarship Committee  
1313 N. Arkansas Ave.  
Russellville, AR 72801

\* Applications will be accepted February 1st and must be postmarked by March 15th.

Questions about the Arkansas Tech University Alumni Scholarship should be directed to the Alumni Office, (479) 968-0242 or [alumni@atu.edu](mailto:alumni@atu.edu)

## Athletic Scholarships

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Col. Alton F. Balkman Athletic Scholarship**

This partial-tuition scholarship will be awarded to a student from Arkansas who is either a current member of the Tech basketball or football team or a former member in the last semester or year of his or her undergraduate degree program. The student must demonstrate potential for service to country such as was exemplified by Colonel Alton F. Balkman. Applicants must have at least a "C" average and must submit a letter of application and two letters of recommendation from Athletic Department faculty. Financial need will be a consideration when making this award. This scholarship is renewable provided funds are available; the student receives the recommendation of the Athletic Department and continues to meet the scholarship criteria.

### **Deward and Anne Dopson Scholarship**

A scholarship awarded from funds contributed by Coach Dopson's former players, managers, and friends. The scholarship goes to a former student-athlete who has no further athletic eligibility remaining but has a semester or year remaining to finish his or her undergraduate degree. Past service to Tech will be a strong factor for selection.

### **Hindsman Athletic Scholarship**

This scholarship will be awarded each year that funds are sufficient to a member of the Tech Men's Basketball team. The recipient must be a full-time student with demonstrated financial need. This award is renewable for the spring semester as long as the recipient continues to meet the criteria and successfully completes a full-time course load in the fall semester.

### **Wilson Matthews Distinguished Scholar Athlete Fund**

Established in recognition of Mr. Wilson Matthews, a distinguished graduate of Arkansas Tech University, this scholarship will be awarded to students who participate in team sports. These scholarships are renewable annually based on the student-athlete's academic and athletic standing and with continued recommendation of the nominating coach and selection by the Matthews Scholarship Committee. Criteria for receiving this scholarship are: nomination by a coach; junior standing or above; GPA of 3.0; preferably from a rural area; and exemplary credentials in academics, athletics, and leadership skills in school or community. Selected students must submit a resume and three letters of reference representing the areas of academics, athletics and leadership. Consideration will be given for additional financial assistance being received and to those students who meet the criteria with an emphasis on football.



**Tate C. "Piney" Page Memorial Athletic Scholarship**

An endowed scholarship to assist a graduate assistant who excelled in football and academics has been established in memory of Dr. Page through contributions by the Russellville Kiwanis Club.

**Lambert Resimont Scholarship**

This endowed athletic scholarship to be awarded annually to a graduate assistant who excelled in basketball and academics.

**John E. Tucker Scholarship**

An endowed athletic scholarship awarded to a graduate assistant who excelled in football and athletics.

**Junior Auxiliary of Russellville Scholarship**

The following scholarships have been established through the Arkansas Tech University Foundation to benefit students attending Arkansas Tech University. Applications will be available for pick-up in the Office of Development, Administration Building room 209, the middle of February. A separate application must be completed for each scholarship for which you would like to be considered. Only the Junior Auxiliary of Russellville Scholarship Application will be considered. The application must be submitted to the address on the application.

**Junior Auxiliary of Russellville Book Scholarship**

An award to defray the cost of books will be made to a Russellville high school graduate each year that funds are sufficient. The student must be currently enrolled at Arkansas Tech University.

**Junior Auxiliary of Russellville Education Scholarship**

An award will be made each year that funds are available to an Arkansas Tech student majoring in Education and have junior or senior status. Applicants must have a cumulative grade point average of 3.0 or higher and demonstrate financial need.

**Junior Auxiliary of Russellville Judy Thacker**

This scholarship is open to any major at any level in their undergraduate career that has a minimum cumulative grade point average of 2.75. Preference will be given to a non-traditional student. Awards will be made each year that funds are sufficient.

**Junior Auxiliary of Russellville Marge Crabaugh**

An award will be granted each year that funds are available to a student majoring in a field pertaining to "Child Welfare." Applicants must have a cumulative grade point average of 3.0 or higher, be a Russellville or Pope County resident with junior or senior status.

**Junior Auxiliary of Russellville Nursing Award**

This fund has been established to provide a scholarship each year that funds are available to an Arkansas Tech University Nursing student in their junior or senior year of study. Applicants must have a cumulative grade point average of 3.0 or higher.

**Graduate College**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 72801  
(479) 968-0400

**Arkansas Fly Fishers Club Scholarship**

This scholarship was established by the Arkansas Fly Fishers Club to benefit a graduate student majoring in Fisheries and Wildlife Science. The applicant must be a full-time student, maintain a minimum cumulative grade point average of 3.0, demonstrate financial need. Student must be an Arkansas resident or a resident of a state bordering Arkansas. Application must be submitted along with a short essay stating why he/she needs a scholarship and setting out career goals. Undergraduate students may apply, but preference will be given to graduate students.

**Jimmie Hartman Hoover Memorial Scholarship**

This endowed scholarship was created for the purpose of assisting graduate students at Arkansas Tech University and will be awarded each year that funds are sufficient. The applicant must be a full-time graduate student who is enrolled in 6

semester credit hours in the Instructional Technology degree program and have a cumulative grade point average of 3.0 or higher. Preference will be given to students who have an interest in library science. In addition, financial need may be considered.

#### **Neal and Melissa Jenkins Graduate History Scholarship**

Through a gift by Dr. Ellen J. Jenkins, the above named scholarship in memory of Neal and Melissa Jenkins has been established to provide scholarships for students accepted to the Arkansas Tech University Graduate Program. The recipient must be a graduate student in History, be enrolled in a minimum of six credit hours in History, academic achievement and need will be a consideration in selecting the recipient. Submit two letters of recommendation and an applicant letter detailing need and career goals. Preference will be given to a first year graduate student. The scholarship will be awarded each year that funds are sufficient and may be renewed for the succeeding spring semester provided the recipient completed the six-hour course load in the fall semester with a 3.0 grade point average and enrolls in six credit hours of graduate History courses in the spring semester. In the event a qualified first-year student has not applied, a third-semester or higher applicant may be selected on a one-semester basis for the fall or spring. Recipients are not eligible to re-apply in subsequent semesters or years.

#### **Ed Leachman Emergency Management Scholarship**

Through the generosity of Roy and Sandy Smith, this scholarship was established to honor Mr. Ed Leachman, former assistant professor of Emergency Management. The recipient of this award must be an undergraduate or graduate student at Arkansas Tech University pursuing a degree within the Department of Emergency Management. The recipient must be active in the International Association of Emergency Managers and demonstrate financial need. Applicants must submit a statement as to how the scholarship will help him/her reach career goals.

#### **Rexann Oller International Students Scholarship**

The Rexann Oller International Students Scholarship will be awarded each year to an international student who shows academic achievement in international affairs and/or strong background and interest in international relations. This scholarship is open to all Arkansas Tech International undergraduate and graduate students who have a minimum GPA of 3.0. Preference will be given to students with demonstrated financial need. Recipients of other tuition scholarships are not eligible to apply. Please contact the office of ATU International Student Services and the Dean of Graduate Studies or full application requirements.

#### **John Rollow Memorial Fund**

Established as a tribute to John Rollow to assist non-traditional students in English and Creative Writing with tuition expenses, this scholarship is open to any non-traditional undergraduate or graduate student with demonstrated financial need and a cumulative grade point average of 2.5 or higher.

### **College of Business - Multi-Department Scholarships**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **G. M. and Ruby Cook Business Scholarship**

An endowed scholarship will be awarded annually to a business major.

#### **Dr. Robert R. Edwards Book Scholarship**

Several book scholarships are awarded each year to full-time senior students pursuing any of the business and economics majors. The scholarships, presented in recognition of outstanding academic achievement, are funded by contributions from the Business and Economics Department faculty.

#### **Billy Free Scholarship**

An annual scholarship will be awarded as funds are sufficient to a student who has declared a major in one of the fields in the College of Business.

#### **Betty Jo Gober Memorial Scholarship**

Through the generosity of Keith Gober, this scholarship has been established to provide scholarships for students in the College of Business. A scholarship recipient will be selected each fall and each spring semester that funds are available based on the following criteria: be an Arkansas resident, preference will be given to students from the Redfield and Waldron school districts, enrolled in 15 credit hours or more, be a traditional student of freshman, sophomore, junior, or senior classification and pursuing a Bachelor of Science in Business Administration degree (major in accounting, economics and finance, or management and marketing). An entering freshman must have an ACT score of 21 or higher (or SAT score of

500 or higher) and a 3.5 or higher grade point average. Attach to the application at least one letter of recommendation from a non-sports related teacher/counselor who is not a relative. A sophomore or higher classification must have a 3.25 or higher grade point, attach a letter of application that expresses need, goals and a letter of recommendation from a College of Business professor or work-related supervisor. Demonstrated financial need will be a consideration. Applicants who have full scholarship(s) paying tuition, fees, room and board will not be considered. This scholarship is for one semester only and recipients are not eligible to apply in subsequent semesters.

#### **Leenita Sue Gober Memorial Scholarship**

Through the generosity of Keith Gober, this scholarship has been established to provide scholarships for students in the College of Business. A scholarship recipient will be selected each fall and each spring semester that funds are available based on the following criteria: be an Arkansas resident, preference will be given to students from the Redfield, White Hall, and Waldron school districts, be enrolled in 15 credit hours or more, be a traditional or non-traditional student of freshman, sophomore, junior, or senior classification and pursuing a Bachelor of Science in Business Administration degree (major in accounting, economics and finance, or management and marketing). An entering freshman must have an ACT score of 21 or higher (or SAT score of 500 or higher) and a 3.5 or higher grade point average. Attach to the application at least one letter of recommendation from a non-sports related teacher/counselor who is not a relative. A sophomore or higher classification must have a 3.25 or higher grade point, attach a letter of application that expresses need, goals and a letter of recommendation from a College of Business professor or work-related supervisor. Demonstrated financial need will be a consideration. Applicants who have full scholarship(s) paying tuition, fees, room and board will not be considered. This scholarship is for one semester only and recipients are not eligible to apply in subsequent semesters.

#### **Jasper Vernon Howard Scholarship**

An endowed scholarship in memory of Jasper Vernon Howard will be awarded annually to a student in the College of Business. The recipient must demonstrate a financial need and must meet and maintain satisfactory scholastic requirements.

#### **International Business Experience Scholarship**

This scholarship will be awarded each year that funds are sufficient to students who demonstrate a financial need and are committed to/or are enrolled in an International Business Experience course.

#### **Bert and Annette Mullens Scholarship**

This partial-tuition scholarship is awarded each year that funds are sufficient to an incoming freshman majoring in business. Preference is given to a Pope County resident. Award is based on GPA, financial need and test scores.

#### **Regions Bank Scholarship**

This scholarship will be awarded each year that funds are sufficient to a junior or senior level student majoring in a degree program within the College of Business, enrolled in a 15 credit hour or more course load, with a cumulative grade point average of 3.0 and demonstrated financial need. This scholarship can be renewed for up to three consecutive semesters provided the recipient enrolls in and successfully completes a 15 credit hour course load each semester and maintains a 3.0 grade point average.

#### **Simmons First Bank Annual Scholarship**

Awarded each semester that funds are sufficient, this scholarship is designated for a student who is presently residing in Pope or a surrounding county, has demonstrated financial need, maintains a cumulative GPA of 3.0 or higher, is a junior or senior enrolled as a full-time student in a major directly related to banking: Finance, Market Management, Economics or Accounting and is not employed by a competing financial institution. The scholarship is not automatically renewable each semester. The student may reapply for subsequent semesters.

#### **LeMoyne and Selma Smith Research Scholarship**

This scholarship was established to benefit a student majoring in a degree program within the College of Business. The student must be a junior or senior enrolled in a minimum of 12 credit hours, maintain a minimum cumulative grade point average of 3.0 and demonstrate financial need. The recipient must also demonstrate the ability to conduct research in the prescribed area. The research needs of the College of Business will be a guiding factor in the selection of the recipient, and the recipient will be mentored by the appropriate faculty member within the College while participating in research during the semester of the award.

#### **SMEI – Arkansas Top Manager Scholarship**

Through the generosity of the Board of Directors of the Sales and Marketing Executives International Arkansas (SMEI Arkansas), this scholarship has been established to provide a scholarship for students seeking a degree in management and marketing. The recipient must have the goal of pursuing a career in sales and marketing, have demonstrated financial need, have a minimum cumulative grade point average of 3.0, and participate in extra-curricular activities at Arkansas Tech. The recipient may be enrolled as a full-time or part-time student (minimum of 6 credit hours) and have completed at least two semesters at Arkansas Tech University. This scholarship will be awarded during the fall semester and is not renewable.

## Department of Accounting and Economics

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### Accounting Scholarships

Several fee and book scholarships are awarded each year to accounting majors. The scholarships are provided by contributions made to the Accounting Club by alumni of the Accounting Department. The recipient selection is based on need and potential in the accounting profession.

### Virginia Bachman Textbook Scholarship

This scholarship will be awarded each fall semester and is renewable for the succeeding spring semester as long as the recipient continues to meet the criteria and successfully completes the fall course load. Recipient selection will be a junior or senior Accounting major who is enrolled in a minimum of six semester credit hours and has a 2.0 or higher GPA. Financial need will be a consideration

### Dale Corley Memorial Scholarship

Friends and former students have established an endowed scholarship fund to commemorate the many years of service the late Mr. Corley rendered as professor and chairman of the Department of Accounting. An annual award is made to a senior accounting major.

### Burl Harris Memorial Scholarship

Mr. and Mrs. John G. Harris have established this scholarship in honor of Burl Harris, a long-time practicing Public Accountant and businessman in Russellville. During most of his life, he was actively involved in industrial development efforts for the Russellville area. Mr. Harris served on the Arkansas Tech University Foundation Board of Directors until his death in 1990. He was a dedicated supporter of the University as a whole and of the Department of Accounting in particular. This scholarship will be awarded each year that funds are available to a junior- or senior-level accounting major enrolled in a minimum of 6 or more credit hours.

### Jackie Knight Memorial Scholarships

A scholarship awarded annually to an outstanding and deserving senior-to-be majoring in accounting. Grade point and financial need will be considered in making the selection. This scholarship was established by the family and friends of Jackie Knight, former Vice President for Administration and Finance at Arkansas Tech University.

### Charles D. and Edna B. Labahn Scholarship

This tuition, fees, and book scholarship will be awarded each year that funds are sufficient. Applicants should be an incoming freshman who has graduated from an Arkansas High School with a "B" grade point average or higher. Applicants must have demonstrated financial need, have declared a major in Accounting, pre-med, or Recreation and Parks Administration, and have full-time student status. Submit two letters of recommendation from high school teachers and/or counselors with the application. This scholarship is renewable for up to seven consecutive semesters, provided the recipient continues to maintain a 2.5 or higher cumulative grade point average, maintains full-time student status, and specifically requests such renewal.

### Ross Pendergraft Scholarship

Four renewable partial-tuition scholarships are to be awarded to full-time undergraduate students who have demonstrated financial need and are majoring in computer science, accounting, or business/economics/finance-one from computer science, one from business and two from accounting. Each scholarship will be renewable with the original recipient provided he or she has a GPA of not less than 2.5 for the fall semester and a cumulative GPA of at least 3.0 at the end of each spring semester.

## Department of Management and Marketing

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Ross Pendergraft Scholarship**

Four renewable partial-tuition scholarships are to be awarded to full-time undergraduate students who have demonstrated financial need and are majoring in computer science, accounting, or business/economics/finance-one from computer science, one from business and two from accounting. Each scholarship will be renewable with the original recipient provided he or she has a GPA of not less than 2.5 for the fall semester and a cumulative GPA of at least 3.0 at the end of each spring semester.

## **Department of Agriculture**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Jack and Ida Ruth Jones Agriculture Scholarship**

Through the generosity of family and friends, the Jack and Ida Ruth Jones Agriculture Scholarship has been established to benefit Arkansas Tech students majoring in a program within the Agriculture Department. The recipient must be a junior or senior with a minimum cumulative grade point average of 2.5. The recipient must enroll in and complete a minimum of 15 credit hours per semester and demonstrate financial need. This scholarship may be renewed for up to three additional consecutive semesters provided the recipient enrolls in and successfully completes the required course load and maintains a minimum 2.5 cumulative grade point average.

### **Little Rock Grain Exchange Scholarship**

To be considered for this scholarship, students must have declared a major in Agriculture or Agriculture Business. Freshmen students must rank in the upper half of their Arkansas high school graduation class and possess ACT or SAT test scores that exceed the state average. Additionally, applicants must have two or more positive recommendations from their high school principal, counselor or teachers. Sophomore students must have two or more positive recommendations from their university or college teacher and have a 3.0 cumulative grade point average. Financial need will be considered although not determinative. Scholarships are renewable each semester up to a total of eight semesters assuming the student takes a full academic load of 15 hours per semester and maintains a minimum cumulative grade point average of 3.0 or higher.

### **Don C. Guess 4-H Scholarship**

An endowed scholarship awarded each year that funds are sufficient. Preference will be given to entering freshman who is an active member of 4-H in either Pope or Yell County, has exhibited at the Pope or Yell County Fair, has a cumulative high school grade point average of 2.75 or higher and is planning to pursue an Agriculture or Agriculture-Business degree.

### **Xzin McNeal Scholarship**

Scholarships are awarded annually to students in the Department of Agriculture. Recipients are selected based on demonstrated financial need and academic merit. Student must maintain a 2.5 grade point average.

### **John & Joie Nutt Scholarship**

This two-semester scholarship has been established to benefit students who are enrolled in either Agriculture or Agriculture Business at Arkansas Tech University. To be considered for this scholarship, students must be a sophomore, junior or senior and have a minimum cumulative grade point average of 2.75. To remain eligible to receive this award for the second semester, students need to complete 12 credit hours and have a minimum cumulative grade point average of 2.75. Scholarship recipients from one year will be eligible to re-apply for subsequent years; however, all applications will be considered equally for each award year.

### **James and Geneva Pledger Agriculture Scholarship**

Through the generosity of Jim and Geneva Pledger, the above named scholarship has been established to provide scholarships for Arkansas Tech students. One \$500 scholarship will be granted each year funds are available. The recipient must be a junior or senior in good standing, have declared a major within the Department of Agriculture, and have demonstrated financial need. Renewable for spring only and recipient may re-apply for subsequent years. Application should be directed to the head of the Agriculture Department.

### **Pope County Cattlewomen's**

A \$500 one-semester scholarship will be granted each fall that funds are available. The recipient must be a freshman or sophomore level student with a GPA of 2.5 or higher, full-time student enrolled in at least 12 semester credit hours, and have demonstrated financial need. Preference will be given to a Pope County resident. Recipient must be enrolled in a minimum of one course in the department of agriculture or be pursuing a degree in pre-veterinary science or biology.



Preference will also be given to students who themselves or their parents or grandparents are members of the Pope County Cattlemen's Association (submit copy of receipt or letter, if applicable). Applicant must submit one educational and one personal letter of recommendation, and a letter of application that expresses the student's need and goals, specifically career goals as they relate to agriculture.

#### **Pope County Farm Bureau**

Two \$500 scholarships will be awarded each fall semester that funds are available to Pope County students majoring in a degree program within the Department of Agriculture or Department of Nursing. Preference will be given to students whose parents or grandparents are members of Pope County Farm Bureau. Recipients will be full-time students, with sophomore classification or higher, and a cumulative grade point average of 2.5 or higher. The scholarship is renewable for the spring semester if the student maintains a 2.5 grade point average and successfully completes a 12 credit hour course load during the fall semester. The recipient is eligible to reapply in subsequent years.

#### **Pope County Master Gardeners Scholarship**

Established by the members of the Pope County Master Gardeners, this scholarship will benefit a full-time junior or senior student majoring in Agriculture Business – Plant Science/Horticulture Option. Recipient will have a minimum cumulative grade point average of 2.5 and will demonstrate financial need. This scholarship is not automatically renewable for the next semester, but preference will be given to the recipient should he/she reapply. Recipients may not receive the scholarship for more than four semesters.

#### **Melvorn Watson Scholarship**

Awards will be made each year that funds are available. This scholarship will be awarded to a student majoring in Agriculture or Agriculture Business with preference given to current or transfer students, especially those who have achieved junior status. Financial need will be a consideration and students who receive the scholarship may re-apply for the scholarship for subsequent years.

### **Department of Computer and Information Science**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **Arkansas Academy of Computing Scholarship**

The Arkansas Academy of Computing is an organization that promotes and furthers the development of computing education in the state of Arkansas. This scholarship is provided each year that funds are available to a freshman or sophomore student who is pursuing a major within the Department of Computer and Information Science.

#### **Laura Ferguson Computer Science Scholarship**

This endowed scholarship was established by Laura Ferguson, Arkansas Tech University class of 1934, who worked in the computer industry for the majority of her career. This scholarship is for an upper level student enrolled in a Bachelor of Science program in Computer and Information Science with preference given to residents of Pope County.

#### **Lloyd D. McDaniel Engineering or Computer & Information Science Scholarship**

Scholarship awards will be granted each year that funds are sufficient to any level student who has declared a major in Engineering or Computer and Information Science, has a grade point average of 3.0 or higher, has demonstrated financial need, and submits the private scholarship application in writing. To be eligible for this scholarship, students must be enrolled in the appropriate classes and be under the direction of an Engineering or Computer and Information Science advisor for the semester of the award. Awards may be renewed until graduation if the student maintains a cumulative grade point average of 3.0 or higher, remains a major in Engineering or the Computer and Information Science program and is making satisfactory progress toward an Engineering or Computer and Information Science degree.

#### **Ross Pendergraft Scholarship**

Four renewable partial-tuition scholarships are to be awarded to full-time undergraduate students who have demonstrated financial need and are majoring in computer science, accounting and economics, management and marketing—one from computer science, one from management and marketing and two from accounting and economics. Each scholarship will be renewable with the original recipient provided he or she has a GPA of not less than 2.5 for the fall semester and a cumulative GPA of at least 3.0 at the end of each spring semester.



## Department of Emergency Management

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Ed Leachman Emergency Management Scholarship**

Through the generosity of Roy and Sandy Smith, this scholarship was established to honor Mr. Ed Leachman, former assistant professor of Emergency Management. The recipient of this award must be an undergraduate or graduate student at Arkansas Tech University pursuing a degree within the Department of Emergency Management. The recipient must be active in the International Association of Emergency Managers and demonstrate financial need. Applicants must submit a statement as to how the scholarship will help him/her reach career goals.

### **James L. Witt Scholarship**

This scholarship was established for the purpose of providing scholarships for students attending Arkansas Tech University majoring in Emergency Management. Scholarships and awards will be granted each year that funds are sufficient, with preference given to students who have a minimum of 24 college hours, maintains a minimum class load of 6 hours per semester, and a cumulative 3.0 grade point average.

### **James L. Witt Scholarship**

This scholarship was established for the purpose of providing scholarships for students attending Arkansas Tech University majoring in Emergency Management. Scholarships and awards will be granted each year that funds are sufficient, with preference given to students who have a minimum of 24 college hours, maintains a minimum class load of 6 hours per semester, and a cumulative 3.0 grade point average.

### **Dr. Richard Ihde Emergency Management Communications Scholarship**

This scholarship, established by friends and family in memory of Dr. Richard Ihde, will be made each year that funds are available to a full-time graduate or undergraduate student majoring in Emergency Management. Consideration will be given to students who are in good academic standing, demonstrates financial need, and submits a 500-word (minimum) essay on the topic of the importance of communication in emergency management. The award is for one semester and may be renewed for the subsequent semester if the recipient remains a full-time student in good academic standing.

## Department of Engineering

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Col. Carl Baswell Engineering Scholarship**

To be considered for this scholarship, applicants must have successfully completed the pre-professional curriculum as outlined in the Arkansas Tech University catalog, reached the junior or senior level, declared a major in Engineering, earned a cumulative grade point average of 3.0 or higher, demonstrated financial need and be a resident of Arkansas.

### **Sybil W. Bates Engineering Scholarship**

To be eligible for this scholarship, a student must be an incoming freshman majoring in Engineering, have an ACT composite score of 26 or higher and a 3.5 or higher grade point average in core classes from high school. This scholarship is for the freshman year only and is not renewable for subsequent years.

### **A.C. Brown III Engineering Scholarship**

This scholarship, established in memory of A.C. Brown III by his friends, will be awarded to a full-time junior or senior majoring in mechanical or electrical engineering. The recipient must have a minimum cumulative 3.25 grade point average and demonstrate financial need. Campus and/or community involvement will be a component for consideration. The scholarship is renewable for the spring semester provided the recipient continues to meet the above criteria.

### **Jack L. King Scholarship**

This partial-tuition scholarship will be awarded each semester that funds are available. To be eligible for this scholarship the student must be a graduate of Western Yell County High School, have an ACT composite score of 19 or above and an ACT

Math and Science score of 22 or above, have declared a major in Engineering, Math, Science or a related field at Arkansas Tech University.

### **Majors Family Engineering Scholarship**

This partial tuition scholarship will be made to an engineering major at the junior or senior level. Recipients can be either continuing or transfer students. To be eligible for this scholarship, a student must have successfully completed the pre-professional curriculum as outlined in the Arkansas Tech University catalog, must have an overall GPA of 2.75 or greater, must be declared as a major within the engineering department and enroll in the appropriate classes with an engineering advisor for the semester of the award. Awards may be renewed for one additional semester if the student maintains a 2.75 overall grade point average, remains a major in the engineering program and is making satisfactory progress toward an engineering degree.

### **Lloyd D. McDaniel Engineering or Computer & Information Science Scholarship**

Scholarship awards will be granted each year that funds are sufficient to any level student who has declared a major in Engineering or Computer and Information Science, has a grade point average of 3.0 or higher, has demonstrated financial need, and submits the private scholarship application in writing. To be eligible for this scholarship, students must be enrolled in the appropriate classes and be under the direction of an Engineering or Computer and Information Science advisor for the semester of the award. Awards may be renewed until graduation if the student maintains a cumulative grade point average of 3.0 or higher, remains a major in Engineering or the Computer and Information Science program and is making satisfactory progress toward an Engineering or Computer and Information Science degree.

### **David Harlan McMillan Memorial Scholarship**

This scholarship will be awarded each year that funds are sufficient with preference given to an Arkansas resident at the junior or senior level who is majoring in electrical or mechanical engineering, has a cumulative grade point average of 3.0 or higher and is enrolled in a 15 hour or more course load. The scholarship may be renewed for up to three consecutive semesters provided the recipient enrolls in and successfully completes a 15 hour course load each semester and maintains a cumulative 3.0 or higher grade point average.

### **James E. and Martha S. Newton Engineering Scholarship**

Scholarships will be granted each fall that funds are sufficient in accordance with the following criteria: the recipient must be a Pope County resident, junior or senior level student, major in engineering, be a full-time student enrolled in a minimum of 15 semester credit hours, and have a cumulative 3.0 or higher grade point average. Financial need will be considered. The scholarship may be renewed for the spring semester provided the recipient continues to meet the scholarship criteria and funds are sufficient. Scholarship recipients from one year will be eligible to reapply for subsequent years.

### **Glori Ann Perkins Scholarship**

The awarding of this scholarship will alternate between art/art education and engineering majors. The applicant must be a junior level student, enrolled in 15 semester hours or more, maintain a cumulative 3.2 or higher grade point average, have demonstrated financial need, and be a student legally present in the United States. This scholarship may be renewed three additional consecutive semesters provided the recipient enrolls in and successfully completes a 15 hour course load each semester, maintains a cumulative 3.2 grade point average, and is on track to graduate by the end of the fourth semester.

### **Ann and Gill Richards Engineering Scholarship**

This scholarship is awarded annually to an excellent engineering student.

## **Department of Parks, Recreation, & Hospitality Administration**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

## **Hospitality Administration**

### **Bird's Hospitality Inn, Inc. / Huie Bird Memorial Scholarship**

This scholarship was established in memory of Huie Bird and will be awarded each year funds are sufficient. Applicants must be a citizen or permanent resident of the United States and a resident of Conway, Johnson, Logan, Perry, Pope or Yell County. The applicant must have a minimum cumulative grade point average of 2.5, and be enrolled or enrolling in the next semester in RP 4116 Internship or HA 4116 Internship to be eligible. A minimum of 2 letters of recommendation from professionals in the hospitality industry should be included with the application, as well as an official college transcript.

### **Chartwells Hospitality Scholarship**

To be considered for this scholarship, applicants must be a full-time, Hospitality major. Students must have successfully completed 30 credit hours with a cumulative grade point average of 2.75 or higher and have an interest in food service. A letter of recommendation from a faculty member or industry representative, a one page biography or resume, an unofficial transcript, and a letter detailing their candidacy and qualifications as they relate to this scholarship should be submitted by students wishing to be considered for this scholarship.

### **Feltner Kirkpatrick Scholarship**

This scholarship will be awarded each year that funds are sufficient to a student who is pursuing a course of study that has ties to the food service or hospitality industry, have a minimum cumulative grade point average of 3.0 or higher and have a minimum ACT score of 20 or higher.

### **Renee Walters/Julia Williams Memorial Scholarship**

Recipients will be selected each year that funds are sufficient. Preference will be given to students who have declared a major in Hospitality Administration, are currently enrolled in HA 4116, have successfully completed HA 4001, and have maintained a cumulative grade point average of 2.5 or higher. Students wishing to be considered must submit a letter of recommendation from a professional contact currently working in the field of Hospitality Administration and a letter of application of at least one page in length outlining their candidacy and qualifications as they relate to this scholarship.

## **Recreation and Parks**

### **Bird's Hospitality Inn, Inc. / Huie Bird Memorial Scholarship**

This scholarship was established in memory of Huie Bird and will be awarded each year funds are sufficient. Applicants must be a citizen or permanent resident of the United States and a resident of Conway, Johnson, Logan, Perry, Pope or Yell County. The applicant must be enrolled or enrolling in the next semester in RP 4116 Internship or HA 4116 Internship to be eligible. A minimum of 2 letters of recommendation from professionals in the hospitality industry should be included with the application, as well as an official college transcript.

### **Belinda Byrns Scholarship**

This annual scholarship was established in memory of Belinda Byrns and will be awarded each year funds are sufficient. Applicants must be a full-time Recreation and Parks major, have a cumulative grade point average of 2.75 or higher, submit a resume and an applicant letter explaining why he or she deserves the scholarship, educational and professional goals, and summarize professional experience. One letter of recommendation from a professional in the Recreation and Parks profession who is not a full-time or adjunct ATU Recreation and Parks faculty member is also required. Recipient must reapply each year for the scholarship.

### **Charles D. and Edna B. Labahn Scholarship**

This tuition, fees, and book scholarship will be awarded each year that funds are sufficient. Applicants should be an incoming freshman who has graduated from an Arkansas High School with a "B" grade point average or higher. Applicants must have demonstrated financial need, have declared a major in Accounting, pre-med, or Recreation and Parks Administration, and have full-time student status. Submit two letters of recommendation from high school teachers and/or counselors with the application. This scholarship is renewable for up to seven consecutive semesters, provided the recipient continues to maintain a 2.5 or higher cumulative grade point average, maintains full-time student status, and specifically requests such renewal.

### **TAKAHIK / Gary Hodges Memorial Scholarship**

This scholarship was established by the TAKAHIK hiking club in memory of Gary Hodges and will be awarded each year funds are available. Applicants must be a full-time junior or senior majoring in Recreation and Park Administration. Applicants must have a minimum 3.0 grade point average and demonstrate financial need. This scholarship is for one academic year and is not renewable for the subsequent year.

### **Yell County Wildlife Federation Scholarship**

A \$500 scholarship award will be granted each spring that funds are available. The recipient will be a second-semester freshman or higher in classification with a 2.5 or higher cumulative grade point average, majoring in Fisheries and Wildlife or Parks and Recreation and demonstrated financial need. Recipient selection in order of preference will be: (1) a Fisheries and Wildlife major from Yell County, (2) a Parks and Recreation major from Yell County, (3) any qualified Fisheries and Wildlife major, (4) any qualified Parks and Recreation major. If no qualified student is identified from the specific preference categories listed above, the scholarship funds will be carried forward to the following year. The recipient must attend the January Federation meeting to have a picture made receiving the scholarship.

## **College of Education**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **J.L. Adkins and Cora E. Adkins Scholarship**

Established at the bequest of J.L. and Cora E. Adkins, annual scholarship awards are made to students pursuing a degree in Education or Fine Arts. While preference will be given to Arkansas Tech students from the Missouri counties of Dunklin, Stoddard or New Madrid, any Education or Fine Arts major is eligible to apply. Awards will be made each year that funds are sufficient.

#### **Arthur P. and Daisy W. Callaway Scholarship**

This scholarship, established by Dr. Rebecca Callaway in honor of her parents, Arthur P. and Daisy W. Callaway, is to benefit a traditional undergraduate student who graduated from an Arkansas high school. Preference will be given to a first generation college student. The recipient must be a senior classification student seeking teacher certification in middle or secondary education and is completing his/her internship with the semester of the award. Recipient must demonstrate financial need, have a minimum cumulative grade point average of 3.0, and submit two letters of recommendation from professionals within the student's major content area.

#### **J. Louis and Florence C. Cooper Scholarship**

This scholarship was established by educators J. Louis and Florence C. Cooper for needy and deserving individuals with priority being given to students in teacher education. To be eligible for this award, the student must have reached the junior or senior level, have a cumulative grade point average of 3.0 or higher, demonstrated financial need and enroll in and successfully complete a minimum of 15 credit hours per semester.

#### **Denton-Wainright Endowed Scholarship**

This scholarship was established by Cheryl Denton in memory of Dr. John Wainright and Joan Wainright in recognition of the difference they made in the lives of Tech students through their support and guidance. Joan Wainright was on the music faculty from 1955 to 1982. Dr. John Wainright, at Tech from 1952-1981, was on the faculty in music and education. He was named Dean of Education in 1970 and served in that capacity until 1981. Scholarships and awards will be granted each fall that funds are sufficient in accordance with the following criteria: The recipient must be a junior or senior majoring in music education with the intent to teach elementary music or education: preference order (1) music education keyboard instrumental (2) music education-keyboard vocal (3) music education-vocal (4) English education or (5) education. In addition the recipient must maintain full-time student status, and have demonstrated financial need. The scholarship may be renewed for the spring semester provided the recipient continues to meet the scholarship criteria and funds are sufficient. Scholarship recipients from one year will be eligible to reapply for subsequent years.

#### **Junior Auxiliary of Russellville Education Scholarship**

An award will be made each year that funds are available to an Arkansas Tech student majoring in Education and have junior or senior status. Applicants must have a cumulative grade point average of 3.0 or higher and demonstrate financial need. Applications will be available for pick-up in the Office of Development, Administration Building room 209, the middle of February. A separate application must be completed for each scholarship for which you would like to be considered. Only the Junior Auxiliary of Russellville Scholarship Application will be considered. The application must be submitted to the address on the application.

#### **Junior Auxiliary of Russellville Marge Crabaugh**

An award will be granted each year that funds are available to a student majoring in a field pertaining to "Child Welfare." Applicants must have a cumulative grade point average of 3.0 or higher, be a Russellville or Pope County resident with junior or senior status. Applications will be available for pick-up in the Office of Development, Administration Building room 209, the middle of February. A separate application must be completed for each scholarship for which you would like to be considered. Only the Junior Auxiliary of Russellville Scholarship Application will be considered. The application must be submitted to the address on the application.

#### **John Paul Leonard Memorial Scholarship**

This scholarship will be awarded each fall that funds are sufficient. Preference will be given to a female student who is from Russellville, Arkansas, has reached junior or senior status in her undergraduate career, has demonstrated financial need, has declared a major in and is planning to pursue a career in teaching children with special educational needs, maintains a cumulative grade point average of 3.0 or higher, enrolls in and successfully completes a full-time academic class load. In addition, this scholarship is renewable for the spring if the recipient continues to meet the stated criteria.

### **College of Natural and Health Sciences - Multi-Department Scholarships**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **Dr. Robert Autry Brooks Scholarship**

Through the generosity of Dr. Robert Autry Brooks, scholarships will be granted each fall semester that funds are sufficient. Preference will be given to a traditional incoming freshman who is an Arkansas resident majoring in one of the Arts or Sciences (including, but not limited to English, Literature, Mathematics, and Chemistry). The recipient must have a high school cumulative grade point average of 3.0 or higher, maintain full-time student status and have demonstrated financial need. The scholarship may be renewable with the original recipient for three additional years if the recipient continues to remain in good academic standing, is making academic progress, and enrolls in and successfully completes a full-time academic course load.

#### **Reuben Dee Caudle Scholarship**

A partial-tuition scholarship will be provided for a student majoring in one of the physical science fields. The recipient must demonstrate a financial need, must meet and maintain satisfactory scholastic requirements. Preference will be given to Arkansas residents and those who have prior military service. This scholarship is to be re-awarded to the initial freshman recipient each of his/her subsequent three years while at Tech provided he/she continues to major in Physical Sciences and maintains good academic standing. Awards will be made each fall semester that funds are sufficient.

#### **First United Methodist Church Scholarship**

An endowed scholarship has been established by the First United Methodist Church in Russellville to assist Methodist students who are nursing, medical assistant, health information management, or medical technology majors at Arkansas Tech. Students majoring in nursing will receive first consideration. Students should be recommended by their home church pastor.

#### **Vann Kerns Memorial Scholarship**

This scholarship will be awarded each year that funds are sufficient. Preference will be given to students pursuing a degree in physics, mathematics, or a pre-medical school course of study. To be considered for this award, students must have a cumulative grade point average of 3.0 or higher, have demonstrated financial need and enroll in and successfully complete a minimum of fifteen hours each semester.

#### **Jack L. King Scholarship**

This partial-tuition scholarship will be awarded each semester that funds are available. To be eligible for this scholarship the student must be a graduate of Western Yell County High School, have an ACT composite score of 19 or above and an ACT Math and Science score of 22 or above, have declared a major in Engineering, Math, Science or a related field at Arkansas Tech University.

#### **Truman McEver Memorial Scholarship**

Recipient must be an entering freshman who is majoring in the Department of Physical and Life Sciences. Academic ability and financial need are considered.

#### **Professor Tom Palko Scholarship**

A partial tuition scholarship established in honor of Mr. Palko, Emeritus Professor of Allied Health Science, will be awarded each year that funds are available. Selection will be based on an ACT composite score of 21 or above, sophomore class standing, a minimum college-level grade point average of 2.75, a declared major in the College of Physical and Life Sciences with preference being given to Medical Assisting or Medical Technology majors, and demonstrated financial need.

#### **Pope County Farm Bureau**

Two \$500 scholarships will be awarded each fall semester that funds are available to Pope County students majoring in a degree program within the Department of Agriculture or Department of Nursing. Preference will be given to students whose parents or grandparents are members of Pope County Farm Bureau. Recipients will be full-time students, with sophomore classification or higher, and a cumulative grade point average of 2.5 or higher. The scholarship is renewable for the spring semester if the student maintains a 2.5 grade point average and successfully completes a 12 credit hour course load during the fall semester. The recipient is eligible to reapply in subsequent years.

#### **Louise Berkeley Turner Scholarship**

This partial-tuition scholarship will be awarded each fall semester that funds are available to a student majoring in math, science or a related field and may be renewed for one consecutive semester provided the recipient is making sufficient academic progress.

#### **Yell County Wildlife Federation Scholarship**

A \$500 scholarship award will be granted each spring that funds are available. The recipient will be a second-semester freshman or higher in classification with a 2.5 or higher cumulative grade point average, majoring in Fisheries and Wildlife or Parks and Recreation and demonstrated financial need. Recipient selection in order of preference will be: (1) Fisheries



and Wildlife major from Yell County, (2) a Parks and Recreation major from Yell County, (3) any qualified Fisheries and Wildlife major, (4) any qualified Parks and Recreation major. If no qualified student is identified from the specific preference categories listed above, the scholarship funds will be carried forward to the following year. The recipient must attend the January Federation meeting to have a picture made receiving the scholarship.

## **Department of Biological Sciences**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

## **Biology**

### **Linda Douthit Memorial Scholarship**

Awards will be granted on an annual basis as funds are available. Recipients will be chosen based on the following criteria: freshmen who have declared a major in Biology and maintained a minimum high school cumulative grade point average of 2.75; sophomores, juniors or seniors who have declared a major in Biology and have a minimum cumulative grade point average of 2.75.

### **E. E. Hudson Scholarship**

The applicant must be majoring in biology and enrolled in 12 semester credit hours if a first semester freshman or 15 semester credit hours if a second semester freshman or higher classification. An ACT composite score of 25 or above for freshmen, or an Arkansas Tech cumulative grade point average of 3.0 or higher for sophomores, juniors, or seniors. The applicant must have leadership potential demonstrated by extracurricular academic activities. Financial need will be considered. Preference will be given to graduates of Arkansas high schools. This scholarship may be renewed for one additional semester after the initial semester award if the student makes satisfactory academic progress by successfully completing 12 semester hours (first semester freshman) or 15 semester hours (second semester freshman or higher classification) with a grade point average of 3.0 or higher.

### **Vann Kerns Memorial Scholarship**

This scholarship will be awarded each year that funds are sufficient. Preference will be given to students pursuing a degree in physics, mathematics, or a pre-medical school course of study. To be considered for this award, students must have a cumulative grade point average of 3.0 or higher, have demonstrated financial need and enroll in and successfully complete a minimum of fifteen hours each semester.

### **Jack L. King Scholarship**

This partial-tuition scholarship will be awarded each semester that funds are available. To be eligible for this scholarship the student must be a graduate of Western Yell County High School, have an ACT composite score of 19 or above and an ACT Math and Science score of 22 or above, have declared a major in Engineering, Math, Science or a related field at Arkansas Tech University. This scholarship may be renewable for up to seven additional semesters, assuming that the recipient maintains a minimum 2.5 GPA, continues in one of the required fields of study, and enrolls in and completes a minimum of 12 credit hours per semester.

### **Charles D. and Edna B. Labahn Scholarship**

This tuition, fees, and book scholarship will be awarded each year that funds are sufficient. Applicants should be an incoming freshman who has graduated from an Arkansas High School with a "B" grade point average or higher. Applicants must have demonstrated financial need, have declared a major in Accounting, pre-med, or Recreation and Parks Administration, and have full-time student status. Submit two letters of recommendation from high school teachers and/or counselors with the application. This scholarship is renewable for up to seven consecutive semesters, provided the recipient continues to maintain a 2.5 or higher cumulative grade point average, maintains full-time student status, and specifically requests such renewal.

### **Dwight M. Moore Scholarship**

The scholarship was established by the late Dr. Moore, one-time head of the department, and by his wife Clemmie, a graduate of the department. Each spring, a book scholarship will be awarded to a student interested in and having potential in the field of botany.

### **B. G. and Anita Owen Textbook Scholarship**

A book scholarship awarded to a student with junior standing was initiated by B. G. Owen, Associate Professor of Biology. Following the expressed wishes of their daughter, friends may contribute funds to perpetuate this scholarship awarded



according to criteria determined by the late Professor Owen. The applicant must have junior or senior status, a minimum 2.5 cumulative grade point average, demonstrate financial need, preference will be given to students planning to teach biology at the secondary level.

#### **Greg A. Parks Memorial Scholarship**

A partial tuition scholarship will be granted each semester that funds are available to a junior or senior level student majoring in psychology or pre-med (biology or chemistry). Applicants must be enrolled in 15 credit hours or more, have a minimum cumulative 3.0 grade point average, and demonstrate financial need. The initial recipient shall be eligible to retain the scholarship for up to three additional consecutive semesters provided he/she enrolls in and successfully completes 15 credit hours and maintains a cumulative 3.0 grade point average.

#### **Doyle & Evelyn Sparks Scholarship**

Scholarships will be awarded each year funds are sufficient to a student who has reached the junior or senior level in their undergraduate education, maintains a cumulative grade point average of 3.5 or higher, exhibits and has a record of campus involvement and/or community service and is from Pope, Yell, Conway or Johnson counties. Each recipient may be chosen to receive this award only once.

### **Fisheries and Wildlife**

#### **Arkansas Fly Fishers Scholarship**

This scholarship, was established to provide scholarships for Arkansas Tech University students majoring in fisheries and wildlife science. Scholarships will be awarded each year that funds are sufficient to a full-time graduate or undergraduate student who is majoring in fisheries and wildlife science, maintains a minimum 3.0 cumulative GPA, demonstrates financial need, and is an Arkansas resident or resident of a state bordering Arkansas. Applicants must submit a short essay stating why he/she needs the scholarship and setting out career goals. Preference will be given to graduate students. This scholarship shall be awarded for one semester and is renewable for the subsequent semester as long as the recipient continues to meet the criteria.

#### **Markey Butterworth Scholarship**

An endowed scholarship in memory of Markey Butterworth is given annually to an out-of-state student majoring in Fisheries and Wildlife Biology.

#### **CADDIS Fly Fishing Club Annual Scholarship**

This annual scholarship will be awarded each year that funds are sufficient. Preference will be given to students who have achieved junior or senior status, have declared a major in Fisheries and Wildlife, and have maintained a minimum cumulative grade point average of 2.75 or higher. In addition financial need and/or research accomplishments may be considered.

#### **Rip Collins Memorial Scholarship**

Established by the Friends of the Little Red River to honor Mr. Rip Collins, the scholarship shall be used to make awards to full-time student(s) attending Arkansas Tech University. A recipient will be chosen annually and receive partial tuition for both the fall and spring semester of that academic year. Selection process will begin in the spring after recommendations are made by fisheries professors at Arkansas Tech. Applications and letters from the applicants expressing their thoughts, beliefs, and future plans concerning fisheries management are required. Preference will be given to a sophomore or junior fisheries student in good standing who is interested in either cold water fisheries biology, management, or stream/riverine fisheries biology or management.

#### **The Lake Dardanelle Big Bass Scholarship**

Through the generosity and support of local and area fishermen, the organizers of "The Lake Dardanelle Big Bass Classic," Wilkins Sporting Goods and the Russellville Advertising and Promotion, the Lake Dardanelle Big Bass Scholarship has been established for the purpose of providing scholarships for Fisheries and Wildlife students attending Arkansas Tech University. Applications should be submitted directly to the Director of the Fisheries and Wildlife program in early September. Scholarships will be granted each fall in accordance to the following criteria: a declared major in Fisheries and Wildlife, a junior or senior level student in good standing, attach a resume, copy of transcripts, and a letter of application that indicates the scholarship for which application is being made and that addresses financial need and career goals. Preference will be given to Arkansas residents and to students whose career goals focus on fisheries management. The scholarship is for the fall semester only and is not renewable.

#### **Quail Unlimited / Jim Ed McGee Scholarship**

Awards will be granted each fall that funds are sufficient to an Arkansas resident with a junior or senior class standing who has declared a major in Fisheries and Wildlife. The student must have a cumulative grade point average of 2.0 or higher, be enrolled in a minimum course load of 12 student semester credit hours, demonstrate financial need and submit a letter of application. The scholarship is renewable for the succeeding spring semester provided the student maintains a minimum 2.0 grade point on a minimum course load of 12 student semester credit hours. Students must re-apply each year.

## Department of Mathematics

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Harry T. Casner Memorial Scholarship**

This scholarship will be awarded each fall that funds are sufficient with preference being given to an incoming freshman who plans to major in Mathematics, is an Arkansas resident, has demonstrated financial need, has earned a high school cumulative grade point average of 2.5 or higher, submits a letter of recommendation and an applicant letter with the scholarship application. In addition, the scholarship may be renewable if the recipient enrolls in and successfully completes a full-time academic load of 15 hours per semester and maintains a cumulative grade point average of 2.5 or higher.

### **Maude Moore Geurian Memorial Scholarship**

This scholarship has been established to honor Maude Moore Geurian for her many years of dedication to Arkansas Tech University and devotion to her students. Applicants for this scholarship must have declared Math as a major course of study, maintain a minimum cumulative grade point average of 3.0, demonstrate financial need and have earned a minimum of 30 credit hours.

### **Jack L. King Scholarship**

This partial-tuition scholarship will be awarded each semester that funds are available. To be eligible for this scholarship the student must be a graduate of Western Yell County High School, have an ACT composite score of 19 or above and an ACT Math and Science score of 22 or above, have declared a major in Engineering, Math, Science or a related field at Arkansas Tech University. This scholarship may be renewable for up to seven additional semesters, assuming that the recipient maintains a minimum 2.5 GPA, continues in one of the required fields of study, and enrolls in and completes a minimum of 12 credit hours per semester.

## Department of Nursing

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Nell Teeter Balkman Nursing Scholarship**

This partial-tuition scholarship will be awarded to a junior or senior nursing student from Arkansas who demonstrates potential for nursing leadership such as was exemplified by Nell Teeter Balkman. Applicants must have at least a "C" average and must submit a letter of application and two letters of recommendation from Arkansas Tech University Nursing Department faculty. This scholarship is renewable provided funds are available; the student receives the recommendation of the Nursing Department, and continues to meet the scholarship criteria. Financial need will be a consideration in making this award.

### **First United Methodist Church Scholarship**

An endowed scholarship has been established by the First United Methodist Church in Russellville to assist Methodist students who are nursing, medical assistant, health information management, or medical technology majors at Arkansas Tech. Students majoring in nursing will receive first consideration. Students should be recommended by their home church pastor.

### **Junior Auxiliary of Russellville Nursing Award**

This fund has been established to provide a scholarship each year that funds are available to an Arkansas Tech University Nursing student in their junior or senior year of study. Applicants must have a cumulative grade point average of 3.0 or higher. Applications are available in the Development Office, Administration Building room 209 in early February. Applications will be available for pick-up in the Office of Development, Administration Building room 209, the middle of February. A separate application must be completed for each scholarship for which you would like to be considered. Only the Junior Auxiliary of Russellville Scholarship Application will be considered. The application must be submitted to the address on the application.

### **Eupha Sue Knox Scholarship for Nursing**

A scholarship will be awarded each semester that funds are sufficient to an upper division nursing student who is enrolled in a minimum of 15 credit hours. Preference will be given to Arkansas residents that have demonstrated financial need. Recipients may re-apply for further consideration in subsequent years.

### **Earlene Mullins Nursing Scholarship**

This scholarship will be awarded each semester that funds are sufficient to an upper division nursing student who is enrolled in 15 credit hours or more, and has demonstrated financial need. Preference will be given to applicants who are single parents. Each award will be for one semester but recipients may re-apply for further consideration.

### **St. Mary's Regional Medical Center Nursing Scholarship**

This scholarship will be awarded each semester that funds are sufficient. The recipient will be a junior or senior level student majoring in Nursing, enrolled in a minimum of 15 credit hours, with a cumulative GPA of 3.0 or higher, and must demonstrate financial need. Special consideration shall be given to students who are conversant in Spanish or taking Spanish courses and intend to stay in the Russellville area after graduation. The scholarship is renewable for up to three consecutive semesters as long as the student enrolls in and successfully completes course load of 15 credit hours and maintains a 3.0 or higher grade point average.

### **Hazel Thrasher Memorial Scholarship Fund**

Scholarships awarded to nursing majors based on need and the potential to meet the requirements of a professional nurse.

### **Penny L. Wheeler Memorial Scholarship**

A scholarship is awarded annually to the most deserving nursing student based upon high school record, need, and test scores.

### **Dr. Charles and Joyce Wilkins Nursing Scholarship**

This senior honors scholarship will be a one-semester partial tuition scholarship awarded to a full-time or part-time nursing student who has the highest grade point average prior to entering the first semester of the senior year. Since there are two nursing classes, a recipient will be selected from each class. Financial need is not a requirement.

### **Yell County Medical Society Scholarship**

A scholarship awarded each spring semester by the Yell County Medical Society to a Tech student from Yell County majoring in nursing.

## **Department of Physical Sciences**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Reuben Dee Caudle Scholarship**

A partial-tuition scholarship will be provided for a student majoring in one of the physical science fields. The recipient must demonstrate a financial need, must meet and maintain satisfactory scholastic requirements. Preference will be given to Arkansas residents and those who have prior military service. This scholarship is to be re-awarded to the initial freshman recipient each of his/her subsequent three years while at Tech provided he/she continues to major in Physical Sciences and maintains good academic standing. Awards will be made each fall semester that funds are sufficient.

### **C. L. Chiang and C.C. Yang Chemistry Scholarship**

An endowed scholarship established by Mr. C. L. Chiang of Singapore in honor of Dr. C.C. Yang, Professor Emeritus. The scholarship is awarded to an incoming freshman majoring in chemistry. The requirements for this award are a high school GPA of 3.0 or greater, and a composite ACT score of 24 or greater. This scholarship is renewable by request if the recipient makes satisfactory progress toward an ACS-accredited degree in chemistry.

### **Vann Kerns Memorial Scholarship**

This scholarship will be awarded each year that funds are sufficient. Preference will be given to students pursuing a degree in physics, mathematics, or a pre-medical school course of study. To be considered for this award, students must have a cumulative grade point average of 3.0 or higher, have demonstrated financial need and enroll in and successfully complete a minimum of fifteen hours each semester.

### **Jack L. King Scholarship**

This partial-tuition scholarship will be awarded each semester that funds are available. To be eligible for this scholarship the

student must be a graduate of Western Yell County High School, have an ACT composite score of 19 or above and an ACT Math and Science score of 22 or above, have declared a major in Engineering, Math, Science or a related field at Arkansas Tech University. This scholarship may be renewable for up to seven additional semesters, assuming that the recipient maintains a minimum 2.5 GPA, continues in one of the required fields of study, and enrolls in and completes a minimum of 12 credit hours per semester.

#### **Truman McEver Memorial Scholarship**

Recipient must be an entering freshman who is majoring in the Department of Physical and Life Sciences. Academic ability and financial need are considered.

#### **Greg A. Parks Memorial Scholarship**

A partial tuition scholarship will be granted each semester that funds are available to a junior or senior level student majoring in psychology or pre-med (biology or chemistry). Applicants must be enrolled in 15 credit hours or more, have a minimum cumulative 3.0 grade point average, and demonstrate financial need. The initial recipient shall be eligible to retain the scholarship for up to three additional consecutive semesters provided he/she enrolls in and successfully completes 15 credit hours and maintains a cumulative 3.0 grade point average.

#### **Louise Berkeley Turner Scholarship**

This partial-tuition scholarship will be awarded each fall semester that funds are available to a student majoring in math, science or a related field and may be renewed for one consecutive semester provided the recipient is making sufficient academic progress.

#### **Virgil Alvin Turner Book Scholarship**

A book scholarship established by Mr. and Mrs. Raymond B. Stroud which is awarded for the fall semester of the sophomore year to a major in chemistry. Recipients should be dedicated to obtaining a degree in chemistry and demonstrate this through scholastic achievements.

### **College of Arts and Humanities - Multi Department Scholarships**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **Dr. Robert Autry Brooks Scholarship**

Through the generosity of Dr. Robert Autry Brooks, scholarships will be granted each fall semester that funds are sufficient. Preference will be given to a traditional incoming freshman who is an Arkansas resident majoring in one of the Arts or Sciences (including, but not limited to English, Literature, Mathematics, and Chemistry). The recipient must have a high school cumulative grade point average of 3.0 or higher, maintain full-time student status and have demonstrated financial need. The scholarship may be renewable with the original recipient for three additional years if the recipient continues to remain in good academic standing, is making academic progress, and enrolls in and successfully completes a full-time academic course load.

### **Department of Art**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **J.L. Adkins and Cora E. Adkins Scholarship**

Established at the bequest of J.L. and Cora E. Adkins, annual scholarship awards are made to students pursuing a degree in Education or Fine Arts. While preference will be given to Arkansas Tech students from the Missouri counties of Dunklin, Stoddard or New Madrid, any Education or Fine Arts major is eligible to apply. Awards will be made each year that funds are sufficient.

#### **Glori Ann Perkins Scholarship**

The awarding of this scholarship will alternate between art/art education and engineering majors. The applicant must be a junior level student, enrolled in 15 semester hours or more, maintain a cumulative 3.2 or higher grade point average, have demonstrated financial need, and be a student legally present in the United States. This scholarship may be renewed three additional consecutive semesters provided the recipient enrolls in and successfully completes a 15 hour course load each semester, maintains a cumulative 3.2 grade point average, and is on track to graduate by the end of the fourth semester.

#### **Bill Preston Donnell Memorial Art Scholarship**

The family and friends of Bill Donnell, a 1993 Tech graduate in graphic design, have established a tuition scholarship as a tribute to his memory. Each year the funds from the Bill Donnell, Jr., Memorial Golf Tournament hosted by Chamberlyne Country Club will be contributed to the scholarship account. This scholarship will be awarded each fall term to an entering freshman or current student who is majoring in art. Preference will be given to students who demonstrate financial need, who are residents of Yell County, and/or who plan to study emphasis in graphic design.

#### **Russellville Kiwanis Ark River Valley Arts Center**

Scholarships will be granted each year that funds are sufficient. The applicant must be a full-time student who has graduated from high school in Pope or Yell County, Arkansas, have achieved sophomore status, majoring in Fine Arts, and maintains a cumulative grade point average of 2.5 or higher. Recipients of this scholarship will be required to volunteer at least two hours per week at the Arkansas River Valley Arts Center for each semester that they receive this award. This scholarship is automatically renewable for an additional two years if the recipient maintains the required criteria.

### **Department of Behavioral Sciences**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **Bob Adkison / ARVAC Addictions Research Scholarship**

To be eligible for this scholarship, applicant must be a full-time student enrolled in 12 credit hours per semester, major in Psychology, Sociology, or Rehabilitation Sciences, junior or senior level student with 75 earned semester credit hours, successful completion of Psy/Soc 2053, cumulative grade point average of 3.25 or higher, and submit a letter of application that expresses need for the scholarship and career goals. The scholarship may be renewed for the succeeding semester if the recipient continues to meet the criteria.

#### **Baiyan Chen Memorial Scholarship**

Dr. Qing Zeng has established a scholarship in memory of her mother, Ms. Baiyan Chen (陈白燕女士, January 3, 1918 - September 28, 2009), who was a high school teacher of language and literature in China. A scholarship will be awarded each fall based on the following criteria: preference will be given to a female student, junior or senior status, full-time student with preference given to a student seeking a degree within the Department of Behavioral Sciences, cumulative grade point average of 2.5, and must demonstrate financial need.

#### **Junior Auxiliary of Russellville Marge Crabaugh**

An award will be granted each year that funds are available to a student majoring in a field pertaining to "Child Welfare." Applicants must have a cumulative grade point average of 3.0 or higher, be a Russellville or Pope County resident with junior or senior status.

#### **P. K. Merrill Memorial Scholarship**

This scholarship is given to a junior or senior majoring in sociology or history.

#### **Odean Owens Criminal Justice Award**

One award will be granted each fall semester that funds are available based on the following criteria: A student with a major or minor in criminal justice and submission of a 500 word essay on a topic to be determined by the department head.

#### **Greg A. Parks Memorial Scholarship**

A partial tuition scholarship will be granted each semester that funds are available to a junior or senior level student majoring in psychology or pre-med (biology or chemistry). Applicants must be enrolled in 15 credit hours or more, have a minimum cumulative 3.0 grade point average, and demonstrate financial need. The initial recipient shall be eligible to retain the scholarship for up to three additional consecutive semesters provided he/she enrolls in and successfully completes 15 credit hours and maintains a cumulative 3.0 grade point average.



## Department of English and World Languages

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Dr. Robert Autry Brooks Scholarship**

Through the generosity of Dr. Robert Autry Brooks, scholarships will be granted each fall semester that funds are sufficient. Preference will be given to a traditional incoming freshman who is an Arkansas resident majoring in one of the Arts or Sciences (including, but not limited to English, Literature, Mathematics, and Chemistry). The recipient must have a high school cumulative grade point average of 3.0 or higher, maintain full-time student status and have demonstrated financial need. The scholarship may be renewable with the original recipient for three additional years if the recipient continues to remain in good academic standing, is making academic progress, and enrolls in and successfully completes a full-time academic course load.

### **Denton-Wainright Endowed Scholarship**

This scholarship was established by Cheryl Denton in memory of Dr. John Wainright and Joan Wainright in recognition of the difference they made in the lives of Tech students through their support and guidance. Joan Wainright was on the music faculty from 1955 to 1982. Dr. John Wainright, at Tech from 1952-1981, was on the faculty in music and education. He was named Dean of Education in 1970 and served in that capacity until 1981. Scholarships and awards will be granted each fall that funds are sufficient in accordance with the following criteria: The recipient must be a junior or senior majoring in music education with the intent to teach elementary music or education: preference order (1) music education keyboard instrumental (2) music education-keyboard vocal (3) music education-vocal (4) English education or (5) education. In addition the recipient must maintain full-time student status, and have demonstrated financial need. The scholarship may be renewed for the spring semester provided the recipient continues to meet the scholarship criteria and funds are sufficient. Scholarship recipients from one year will be eligible to reapply for subsequent years.

### **William C. (Bill) & Barbara Gund Scholarship**

Students majoring in English with a junior or senior standing are eligible for this partial-tuition scholarship provided that they maintain a grade point average of at least 3.0 and follow all established criteria. Preference will be given to non-traditional students.

### **Francis Gwaltney Memorial Scholarship**

An endowed scholarship awarded to an English or Creative Writing major with sophomore, junior, or senior standing in memory of Francis Gwaltney, former author and member of the English and Creative Writing faculty. The scholarship is awarded competitively based on original fiction submitted by applicants to the head of the English Department two weeks before the end of each spring semester.

### **Massie-Mobley Modern Foreign Language Scholarship**

Scholarship will be awarded to an upperclassman majoring in foreign language.

### **Lillian Massie Reed Modern Foreign Language Award**

A scholarship awarded annually to a student majoring in foreign language.

### **Rexann Oller English / Creative Writing Scholarship**

One Scholarship from each area will be awarded annually to a deserving student. Recipients must be, sophomore, junior or senior level student, be in good academic standing, and should submit the application by April 1 of each spring.

### **John Rollow Memorial Fund**

Established as a tribute to John Rollow to assist non-traditional students in English and Creative Writing with tuition expenses, this scholarship is open to any non-traditional undergraduate or graduate student with demonstrated financial need and a cumulative grade point average of 2.5 or higher.

## Department of Music

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222



### **Bridenthal Choir Scholarship**

This scholarship is named for Dorothy Bridenthal Bean and her twin sister, Deloris Bridenthal Prestridge, both of whom attended Arkansas Tech from 1940 until their graduation in 1942. While this award is designed for students whose studies concentrate on choir in their music education, a student who is majoring in choir or choral music is preferred. Each applicant must audition for the scholarship. The recipient must be in good academic standing and shall be chosen by a committee composed of three members of the Arkansas Tech University Music Department. This scholarship will be awarded each semester that funds are sufficient.

### **Bridenthal Piano Scholarship**

This scholarship is named for Dorothy Bridenthal Bean and her twin sister, Deloris Bridenthal Prestridge, both of whom attended Arkansas Tech from 1940 until their graduation in 1942. While this award is designed for students whose studies concentrate on piano in their music education, a student who is majoring in piano is preferred. Each applicant must audition for the scholarship. The recipient must be in good academic standing. This scholarship will be awarded each semester that funds are sufficient.

### **Connelly Music Fund**

This scholarship was established in honor of Ed Connelly a long-time professor of music at Arkansas Tech University.

### **Denton-Wainright Endowed Scholarship**

This scholarship was established by Cheryl Denton in memory of Dr. John Wainright and Joan Wainright in recognition of the difference they made in the lives of Tech students through their support and guidance. Joan Wainright was on the music faculty from 1955 to 1982. Dr. John Wainright, at Tech from 1952-1981, was on the faculty in music and education. He was named Dean of Education in 1970 and served in that capacity until 1981. Scholarships and awards will be granted each fall that funds are sufficient in accordance with the following criteria: The recipient must be a junior or senior majoring in music education with the intent to teach elementary music or education: preference order (1) music education keyboard instrumental (2) music education-keyboard vocal (3) music education-vocal (4) English education or (5) education. In addition the recipient must maintain full-time student status, and have demonstrated financial need. The scholarship may be renewed for the spring semester provided the recipient continues to meet the scholarship criteria and funds are sufficient. Scholarship recipients from one year will be eligible to reapply for subsequent years.

### **Nona Dirksmeyer Memorial Scholarship**

Awards will be granted each fall, that funds are sufficient, to a full-time student who majors in Music, is in good academic standing, and is enrolled in a minimum of 15 semester credit hours. The scholarship may be renewed for the spring semester provided the recipient continues to meet the scholarship criteria and funds are sufficient. Scholarship recipients from one year will be eligible to reapply for subsequent years.

### **Celia Drew Hollinger Memorial Scholarship**

Through the generosity of her family, this scholarship was established in memory of Celia Drew Hollinger. The scholarship will be awarded each year that funds are available to a full-time student pursuing a degree within the Department of Music. Applicants must demonstrate financial need and preference will be given to a student who plays the flute. The scholarship is renewable for the spring semester as long as the student continues to meet the above criteria.

### **Cheryl Childers Lewis Scholarship**

This scholarship was established in honor of Cheryl Childers Lewis by her family. It will be awarded each year that funds are available to a full-time student majoring in a degree program within the Department of Music.

### **Rexann Oller Music Scholarship**

An endowed scholarship awarded annually to a deserving student in music. The recipient must be in good academic standing.

### **William C. and Myonia Pinson Instrumental Music**

A scholarship will be provided each year that funds are available for an instrumental music major.

### **Russellville Symphony Guild Scholarship**

Through the generosity of the Russellville Symphony Guild and in memory of Christina Stinnett, the above named scholarship fund has been established through the Arkansas Tech University Foundation for the purpose of providing scholarships for students attending Arkansas Tech University. A scholarship award will be made each fall that funds are available based on the following criteria: Entering freshman with a declared major in music, enroll in and successfully complete 12 credit hours per semester, a high school cumulative grade point average 3.0 or higher and a 20 or higher ACT composite score, a letter of recommendation from high school guidance counselor, and a letter of application describing your goals and plans. This scholarship is renewable for the spring semester as long as the recipient continues to make academic progress and maintains full-time status.

### **Mary McDonald Shinn Scholarship**

An annual partial-tuition scholarship awarded to a vocal music major.

### **Carol Stewart Stark Scholarship**

The family of Carol Stewart Stark has established this award in her memory and honor. Awards will be made each year funds are sufficient. Preference will be given to an undergraduate student majoring in music who demonstrates financial need. A married or single parent student will be given first priority. If no one meets this qualification in any given year, then an undergraduate music student demonstrating need will be considered.

### **Christina Stinnett Memorial Scholarship**

Through the generosity of her friends and family, this scholarship was established in memory of Christina Stinnett. The scholarship will be awarded to a full-time freshman with a declared major in music. Recipient must have a high school cumulative grade point average of 3.0 or higher and a 20 or higher ACT composite. Applicant must submit a letter of recommendation from his/her high school counselor and a letter of application describing goals and plans. The scholarship is renewable for spring as long as the recipient continues to make academic progress and maintains full-time status.

### **Mary D. Turner Music Scholarship**

An endowed scholarship will be awarded annually to a music major in honor of Mary D. Turner.

### **Gene Witherspoon Memorial Scholarship**

A scholarship awarded each year that funds are sufficient to an instrumental music major by the Arkansas Tech Band Alumni in memory of Gene Witherspoon, director of bands at Arkansas Tech from 1950 to 1970.

### **Hallie Belle Witherspoon Memorial Scholarship**

A scholarship is awarded each year that funds are sufficient to an instrumental music major by the Arkansas Tech Band Alumni in memory of Hallie Belle Witherspoon.

## **Department of History and Political Science**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

### **Fay Bullock Scholarship Fund**

A scholarship awarded each semester to a student who is majoring, or one who intends to major, in the Department of Social Sciences and Philosophy. Academic achievement, financial need, and relevant extracurricular activities will be considered in making the award.

### **T. A. Dulaney Memorial Scholarship**

Awards will be granted annually if funds are sufficient. Recipients will be chosen based on the following criteria: a junior or senior student who has declared a major in history or political sciences, demonstrated financial need, and enrolled in a semester course load of 15 hours or more. Preference will be given to a student who plans to teach. The recipient may re-apply for the scholarship.

### **Lawrence M. Evans Memorial Political Science Fund**

A memorial scholarship established by Dr. Larry Evans, his family and his friends for a sophomore, junior or senior majoring in History and Political Science. Preference will be given to those emphasizing Political Science. Academic achievement and need will be considered in making the award.

### **Gene Farmer Memorial Award**

A grant is awarded to an Arkansas high school editor who plans to specialize in either journalism or political science at Arkansas Tech University. This award, to honor and encourage a student of outstanding ability, will be made to the high school editor whose academic and journalistic accomplishments indicate the greatest potential for distinguished service in either field. The award, from the income of the Gene Farmer Memorial Endowment, is in memory of one of Arkansas Tech's most distinguished graduates, who from a beginning as editor of Tech's student newspaper, achieved national and international prominence as a journalist. Mr. Farmer authored several books and worked for many years as a senior editor for Life Magazine.

### **International Relations Scholarship**

Awards will be made each year that funds are sufficient to a sophomore, junior, or senior level student majoring in History/Political Science with a cumulative 3.0 or higher grade point average. Preference will be given to a veteran, current active duty military, National Guard, or member of the Reserve Armed Forces. The student must have completed at least 6 credit hours (with a "B" or better) from the following courses or completed 3 credit hours (with a "B" or better) and enrolled in 3 or more credit hours in the following International Relations or Foreign Policy courses: POLS 3013, POLS 3403, POLS

3413, POLS 4963 (with an international focus), POLS 4983 (with an international focus).

#### **Neal and Melissa Jenkins Graduate History Scholarship**

Through a gift by Dr. Ellen J. Jenkins, the above named scholarship in memory of Neal and Melissa Jenkins has been established to provide scholarships for students accepted to the Arkansas Tech University Graduate Program. The recipient must be a graduate student in History, be enrolled in a minimum of six credit hours in History, academic achievement and need will be a consideration in selecting the recipient. Submit two letters of recommendation and an applicant letter detailing need and career goals. Preference will be given to a first year graduate student. The scholarship will be awarded each year that funds are sufficient and may be renewed for the succeeding spring semester provided the recipient completed the six-hour course load in the fall semester with a 3.0 grade point average and enrolls in six credit hours of graduate History courses in the spring semester. In the event a qualified first-year student has not applied, a third-semester or higher applicant may be selected on a one-semester basis for the fall or spring. Recipients are not eligible to re-apply in subsequent semesters or years.

#### **David Krueger Scholarship**

This scholarship was established in honor of David Krueger's dedicated service to Tech students and will be awarded each semester that funds are available. The recipient of the David Krueger Scholarship will be selected by the History and Political Science Department Scholarship Committee. Applicants should be majoring in Secondary Level Social Studies Education and student teaching in the semester of the award. Academic achievement and financial need will be a consideration in selecting the recipient. Applications should include two letters of recommendation and an applicant letter stating needs and goals. Recipients are not eligible to re-apply in subsequent semesters or years.

#### **P. K. Merrill Memorial Scholarship**

This scholarship is given to a junior or senior majoring in sociology or history.

### **Department of Speech, Theatre & Journalism**

Inquire or submit application packet to:

Development Office  
Christi Brown  
1509 N Boulder Avenue, ADM 209  
Russellville, AR 7280-2222  
(479) 968-0400

#### **Dana Coffman Journalism Scholarship**

This partial-tuition scholarship has been established in memory of Dana Coffman, a former Journalism student at Arkansas Tech University. Preference will be given to a female student majoring in the field of Journalism. Academic achievement and financial need will be reviewed before making the award.

#### **Alfred & Marge Crabaugh Scholarship Program**

This scholarship was established through the benevolence of Alfred J. & Marge W. Crabaugh, both of whom were prominent figures in the history of Arkansas Tech University and the River Valley community. This renewable scholarship will be awarded to outstanding full-time student(s) who have an ACT score of 21 or above, demonstrate leadership skills, and excel in Speech, Journalism or Communication. To be considered for this award, in addition to the above stated criteria, entering freshmen must submit two letters of recommendation from teachers, a scholarship application, and high school transcripts. The scholarship can be renewed with the original recipient provided he/she continues to meet the criteria, maintains a 3.0 grade point average, and has written renewal recommendations from two Arkansas Tech University faculty members in their field of study. Renewal recommendations must be made to the Journalism Department. Scholarship recipients will receive a partial tuition award and will be known as "Crabaugh Scholars." Financial need will be considered when making these awards.

#### **Gerald Edgar Scholarship**

A performance scholarship paying a semester's tuition is awarded each spring in honor of Gerald Edgar who was News Bureau Director, advisor of student publications, and journalism professor for twenty-nine years at Arkansas Tech University. It is to be awarded to a student who shows ability in and dedication to publications work. Financial need will be considered. The student will be required to work ten hours per week on student publications.

#### **Gene Farmer Memorial Award**

A grant is awarded to an Arkansas high school editor who plans to specialize in either journalism or political science at Arkansas Tech University. This award, to honor and encourage a student of outstanding ability, will be made to the high school editor whose academic and journalistic accomplishments indicate the greatest potential for distinguished service in either field. The award, from the income of the Gene Farmer Memorial Endowment, is in memory of one of Arkansas Tech's most distinguished graduates, who from a beginning as editor of Tech's student newspaper, achieved national and

international prominence as a journalist. Mr. Farmer authored several books and worked for many years as a senior editor for Life Magazine.

**Clifford & Mary Anne Franks Scholarship**

To be considered for this award, the student must be involved in the Arkansas Tech Theater Department and be in good academic standing.

**Dr. Hanna Norton Public Relations Scholarship**

This scholarship has been established to honor Dr. Hanna Norton and will benefit a student majoring in Public Relations. The recipient must be a junior or senior level Public Relations major with a minimum cumulative grade point average of 3.25. Applicants must demonstrate the mastering of public relations principles and skills through his or her coursework. Applicant must demonstrate financial need and submit three letters of recommendation: two from Tech faculty members (one must be a journalism professor) and one personal reference (i.e. former employer, pastor, etc.) who is familiar with the student's work ethic and personal background. Additionally, the applicant must include a letter stating the individual's interest in public relations and career goals. This scholarship is renewable for the spring semester as long as the recipient continues to meet the above criteria.

**Kathleen Tucker Hollabaugh Journalism**

This scholarship is funded by the Pope County Historical Association in honor of Kathleen Tucker Hollabaugh, the first woman editor of the Arka-Tech. The annual award will be made to a sophomore, junior or senior journalism major each year funds are sufficient and will be based on commitment to journalism and work in the field. A letter about commitment to journalism and samples of the applicant's work should accompany the scholarship application.

**Television Broadcasters of Arkansas Scholarship**

This scholarship was established through the generosity of the Television Broadcasters of Arkansas and will be awarded each year that funds are available. Applicant must be a full- or part-time student at Arkansas Tech majoring in Journalism/Broadcast Option with the goal of pursuing a career in broadcast television. Preference will be given to a junior or senior student who reflects academic accomplishment. Financial need will be strongly considered. A minimum GPA of 3.0 is required, with at least two semesters completed at Arkansas Tech University. Applicant must show participation in extra-curricular activities within the Department of Journalism.

## Regulations and Procedures

**All students must give prompt attention to communications from faculty and staff members of the University. Most communications will be sent through the United States mail or to your official Tech e-mail address.**

### Academic Dishonesty

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In addition to taking reasonable steps to discourage cheating, the faculty must accept a responsibility to clarify and interpret for the students matters of dishonesty, such as cheating or plagiarism.

If an occurrence of academic dishonesty is detected, the instructor should refer to the "Student Academic Conduct Policies" outlined in both the Student Handbook and the Faculty Handbook for the appropriate procedures. The policies also outline procedures to appeal a charge of academic dishonesty if the student feels the charge was inappropriate.

### Academic Misconduct

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Academic misconduct concerns the student's classroom behavior. This includes the manner of interacting with the professor and other students in the class. For example, students may disrupt the learning environment in a classroom through inappropriate behavior, such as, talking to students, unnecessary interruptions, attempting to monopolize the professor's attention, or being chronically late to class. Misconduct also covers verbal or nonverbal harassment and/or threats in relation to classes. Student behavior should not infringe on the rights of other students or faculty during a class.

### Academic Probation

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Students will be placed on academic probation whenever their semester grade point falls below 2.00 unless the cumulative grade point is 2.00 or higher. These criteria also apply to entering transfer students. Removal of probation will be accomplished by raising the cumulative grade point to 2.00 or higher.

Freshmen students who in a probationary semester fail to remove themselves will continue on probation for the following semester. Sophomore, junior, and senior students who in a probationary semester fail to remove themselves but achieve a 1.75 semester grade point will continue on probation for the following semester unless the academic suspension policy applies.

### Academic Suspension

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Suspension will be automatic for sophomore, junior and senior students who in a probationary semester fail to achieve a 1.75 semester grade point; or who fail to remove themselves from probation within three successive full semesters. Students may combine summer term grades at Arkansas Tech with those of the spring semester immediately preceding in order to establish eligibility for retention in college.

Suspension means that the student will not be allowed to attend Arkansas Tech the succeeding regular semester; after one regular semester the student may be eligible for readmission on academic probation. Students receiving a second academic suspension will be eligible to seek readmission one year from the date of suspension. Students who believe there are extenuating circumstances which would justify earlier readmission must contact the Registrar's Office for assistance in arranging an appeal hearing with the appropriate college dean. Students who meet the semester/year stipulation must file a request for readmission with the Registrar's Office. Readmission does not reestablish financial aid eligibility.

Students on academic suspension who wish to transfer to Arkansas Tech must meet the eligibility standards for readmission to the last college/university attended before being considered for admission to Tech.

### Adding/Dropping Courses

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The deadline for adding courses or changing courses or sections is given in the University calendar; thereafter, changing to audit or dropping a course are the only changes permissible. Courses officially dropped after the attendance date and through the thirteenth week of a fall or spring semester will be recorded as "W." Students may add, drop, or change sections of courses only by following the official procedure which requires that they obtain and return the necessary forms to the Registrar's Office after obtaining the formal approval of their academic advisor. Failure to complete this procedure can result in a grade of "F" being entered on the student's record. A fee of \$10 will be charged except for changes made for the convenience of the University. Please note: A student accumulating an excessive number of absences in a course may be dropped from the course by the instructor with a grade of "FE."

### Auditing Courses

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Auditing of courses requires official admission to the University, approval by the instructor involved, and payment of the regular fee for the course. Audit will be on a “space available” basis. Students auditing courses are subjected to the same regulations as other students with regard to registration and attendance, but they do not take examinations nor receive credit for the course. A student accumulating an excessive number of unjustifiable absences in an audited course may be administratively withdrawn at the request of the instructor. Students may change from taking a course for credit to audit during the first thirteen weeks of the semester. Students enrolled for audit who do not wish to complete the course(s) must complete official drop/withdrawal procedures stated in this section of the catalog.

## **Class Absence**

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Regular class attendance is considered essential if students are to receive maximum benefit from any course. Control of class attendance is vested in the teacher, who has the responsibility of defining early in each course his/her standards and procedures. A student accumulating an excessive number of unjustifiable absences in a course may be dropped from the course by the instructor with a grade of “FE.” A student who is dropped from three courses in a semester for unsatisfactory class attendance may be immediately suspended.

## **Class Load Policy**

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A student can expect to spend 2-3 hours outside the class (for studying, homework, preparation, etc.) for each hour in the class. This means that a student can expect to spend 24-36 hours in studying for a 12 semester credit hour load. It is therefore recommended that a full-time student enroll in no more than 18 hours per semester (7 hours per summer session). Students working full-time are encouraged to take no more than 12 hours per semester. Students readmitted after academic suspension cannot take more than 12 hours per semester (3 hours per summer session). Students on academic probation must obtain approval from their advisor to enroll in more than 15 hours per semester.

These totals include all courses for which students may enroll. Permission to take course loads above these maximums must be obtained in advance of registration from the dean of the college of the student's major.

## **Course Overload**

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Students who enroll above the maximum loads without securing permission from the dean will be dropped from their classes. To be considered for a course overload, the student must submit a petition to the dean and should meet the following criteria:

1. Have a 3.25 minimum grade point average in the preceding two summer sessions (minimum: 12 semester hours) or in the preceding fall or spring semester (minimum: 12 semester hours) at the university, or
2. Be in good academic standing in the college if in the last semester before graduation.

The maximum overload permitted in any college by an approved petition is a load totaling 24 hours for a fall or spring semester, nine hours in summer session I or II, and 15 hours for any combination of summer enrollments. Overloads over 21 hours will be subject to review by the Office of Academic Affairs.

## **Class Standing**

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Students with fewer than 30 semester hours are classified as freshmen, students with 30 through 59 semester hours as sophomores, students with 60 through 89 hours as juniors, and students with at least 90 hours as seniors.

## **Clemency**

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In accordance with Act 1000 of 1991, an undergraduate student who has previously attended Arkansas Tech University may apply to have the grades and credits earned for one or more consecutive terms or semesters removed from his/her grade point average provided the following criteria are met.

After re-entering Tech following a separation of at least three years, a student may request academic clemency at the Office of the Registrar. The student must specify the term or consecutive terms for which academic clemency is desired. The period of separation may be waived in the case of impending graduation. Academic clemency may be granted only one time and is irreversible. If the request is approved, Academic Clemency will cover all credits earned during the term or terms for which academic clemency is requested. The student's complete record will remain on the transcript with the added notation of “academic clemency granted” and the effective date.

Academic clemency does not restore eligibility for student financial aid, scholarships or athletic eligibility.

## **Conduct**

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Arkansas Tech University is dedicated to learning, the advancement of knowledge and the development of ethically sensitive and responsible persons. Achieving these goals through a sound educational program and by implementing student conduct policies that encourage independence and maturity is a priority. Each member of the Arkansas Tech University community assumes an obligation to obey all rules and regulations made by properly constituted authorities, preserve faithfully all property provided for his or her education, and fulfill his or her duties as a student with diligence, fidelity and honor.

Arkansas Tech University students are responsible for understanding all rules, regulations and policies that shape the structure of our campus community. Students should read, understand and follow the rules and regulations outlined in the Student Handbook and Student Code of Conduct as well as those outlined in the Undergraduate or Graduate Catalogs.

In compliance with the Constitution of the State of Arkansas, the Arkansas Tech University Board of Trustees is vested with authority to make regulations and policies, consistent with the laws of the land, for Arkansas Tech University. The Student Handbook is located online at [www.atu.edu/studenthandbook](http://www.atu.edu/studenthandbook). Students seeking interpretations of provisions within the Student Code of Conduct may contact Susie Nicholson, [snicholson@atu.edu](mailto:snicholson@atu.edu), Vice President for Student Services and University Relations or Amy N. Pennington, [apennington@atu.edu](mailto:apennington@atu.edu), Dean of Students/ Student Conduct Administrator.

## Dean's List

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Undergraduate students whose term grade point at the end of the fall or spring semester is 3.50 or better, based on a minimum of 12 earned semester credit hours of undergraduate work, will be placed on the Dean's List for outstanding scholarship. Recognition will be accorded these students through appropriate news media.

## Family Educational Rights and Privacy Act

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The Family Educational Rights and Privacy Act (FERPA) afford eligible students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution.) These rights include:

1. The right to inspect and review the student's education records within 45 days after the day Arkansas Tech University receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.

A student who wishes to ask the school to amend a record should write the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

If the school decides not to amend the record as requested, the school will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the university discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The school discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by Arkansas Tech University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of Arkansas Tech University who performs an institutional service of function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks. 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 responsibilities for Arkansas Tech University.

Upon request, the school also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Arkansas Tech University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA

is:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202

See the list below of the disclosures that Arkansas Tech University may make, without consent, under this federal law.

FERPA permits the disclosure of PII from student's education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A postsecondary institution may disclose PII from the education records without obtaining prior written consent of the student -

- To other school officials, including teachers, within Arkansas Tech University whom the school has determined to have legitimate educational interests. This includes contractors, consultants, volunteers, or other parties to whom the school has outsourced institutional services or functions, provided that the conditions listed in §99.31(a)(1)(i)(B)(7) - (a)(1)(i)(B)(2) are met. (§99.31(a)(1))
- To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer, subject to the requirements of §99.34. (§99.31(a)(2))
- To authorized representatives of the U. S. Comptroller General, the U. S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a State postsecondary authority that is responsible for supervising the university's State-supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf. (§§99.31(a)(3) and 99.35)
- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(a)(4))
- To organizations conducting studies for, or on behalf of, the school, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))
- To accrediting organizations to carry out their accrediting functions. §99.31(a)(7))
- To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(a)(8))
- To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))
- To appropriate officials in connection with a health or safety emergency, subject to §99.36. (§99.31(a)(10))
- Information the school has designated as "directory information" under §99.37. (§99.31(a)(11)).
- Directory information at Arkansas Tech University consists of the student's name, home town, electronic mail address, major field of study, enrollment status (undergraduate or graduate, full-time or part-time), dates of attendance, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees, honors and awards received.
- "Dates of attendance" as used above means the period of time during which a student attends or attended an educational agency or institution. Examples of dates of attendance include an academic year, a spring semester or a first quarter. The term does not include specific daily records of a student's attendance at an educational agency or institution.
- This information may be made available upon request to members of the general public.
  - **If a student on the Russellville campus wishes for this "directory" information to be regarded as confidential, according to the provisions of the Family Educational Rights and Privacy Act of 1974, he or she should notify Susie Nicholson, Vice President for Student Services and University Relations at [snicholson@atu.edu](mailto:snicholson@atu.edu) or 479-968-0238.**

- **If a student on the Ozark campus wishes for this "directory" information to be regarded as confidential, according to the provisions of the Family Educational Rights and Privacy Act of 1974, he or she should notify Richard Harris, Chief Student Officer at [rharris1@atu.edu](mailto:rharris1@atu.edu) 479-667-3433.**
- To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))
- To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the school's rules or policies with respect to the allegation made against him or her. (§99.31(a)(14))
- To parents of a student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

## Grading

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Final grades are reported to the Registrar's Office at the end of the semester. Midterm grades are reported for freshman and sophomore students only. A final grade of "I" may be recorded for a student who has not completed all the requirements of a course only in situations where the student has an illness or other circumstances beyond the student's control, and has completed seventy-five percent of the course requirements provided work already completed is of passing quality. If a grade of "I" is assigned, the instructor will set a reasonable time limit within the following semester in which the work must be completed. Beginning the first summer term, 1990, and thereafter, a grade of "I" will not be computed in the grade point average for the semester recorded; however, the "I" will be automatically changed to a grade of "F" for grade and grade point purposes at the end of the next regular semester (fall or spring) unless course requirements are completed and the final grade is reported before the end of the semester. A grade of "I" recorded prior to the first summer term, 1990, will be computed as an "F" for grade point purposes.

No grade other than "I" may be changed after it is recorded except if an instructor finds that a grade has been erroneously recorded. The instructor may correct the grade by submitting a written request and explanation of the error to the Vice President for Academic Affairs.

Grade points are awarded on the basis of: A, 4 points; B, 3 points; C, 2 points; D, 1 point; F, 0 points.

A grade of "Pass" for pass/fail courses is not calculated in the grade point average, but does count in earned hours. A grade of "Fail" for these courses is calculated in the grade point average as 0 points.

## Graduation

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Please refer to the section entitled "[Graduation Requirements](#)" for information pertaining to degree audit, application for graduation, and other graduation requirements.

## Late Registration

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For registration during the period stated in the University Calendar as late registration, a fee of \$25 is charged.

## Repeated Courses

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Students may repeat courses they have taken at Arkansas Tech University for the purpose of grade point adjustments (1) only by re-enrolling in the same courses at Arkansas Tech University and (2) subject to the following provisions. For repeated courses, only the grade from the best attempt of the repeated course is calculated into a student's cumulative grade point although all grades and all attempts are recorded on the student's academic record. Students may not repeat a course in which the highest grade possible has already been earned. Adjustments to cumulative grade points are not made for courses transferred from other colleges or universities.

## Student Records

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Student academic records are maintained in the Office of the Registrar. Unofficial copies of academic records are available for guidance purposes to students and their advisors. All student records are maintained in compliance with the standards and guidelines of The Family Educational Rights and Privacy Act of 1974, Federal Law 93-380.

## Traffic Regulations

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By authority of the Board of Trustees and in accordance with Legislative Act 328, 1967, Arkansas Tech University requires all members of the faculty, staff, student body and classified personnel to register motor vehicles which they own or operate on the Tech campus or on lands controlled by the University. All registrants shall abide by all traffic and parking regulations as outlined by a printed pamphlet available in the Doc Bryan Student Services Building, the Department of Public Safety office located at 1508 North Boulder Avenue, or online at <http://www.atu.edu/psafe/docs/ParkingMap2014.pdf>.

Registration of vehicles shall be accomplished at the time of regular registration for the fall, spring or summer semesters. Vehicles can be registered by following these steps:

- 1) Log in to OneTech (<http://onetech.atu.edu>).
- 2) Go to the "Personal Information" channel located on the welcome page.
- 3) Click on the link "Purchase Parking Permit," and follow the instructions to purchase a permit.

Individuals will need to know the make and model of their vehicle as well as their license plate number in order to complete the process listed above. Students may purchase permits with a credit card, a debit card or post the charge to their student account. Faculty and staff may purchase their permit online with a credit card or a debit card. Those purchasing their hangtags using a credit or debit card will receive an e-mail confirming their purchase. Once the parking permit is purchased, faculty, staff and students will have an opportunity to print a temporary parking permit to be displayed on their vehicle dashboard until the permanent one arrives in 7-to-10 business days.

All vehicles on Tech campus are required to register and display a current parking permit. Parameters for the operation and parking of motor vehicles may be viewed on the campus map available at the Department of Public Safety. Vehicles are defined as any self-propelled vehicle having two or more wheels.

Permits are valid from August 15th one year through August 15th of the next year. Permits must be displayed by hanging on the rear view mirror so the number can be read through the front windshield from the outside; they may not be taped on the vehicle or laid on the dash or seat. These permits can be moved from vehicle to vehicle. Permits are the responsibility of the purchaser and must be removed prior to sale or transfer of the vehicle, upon termination of employment or withdrawal from the University. Only one permit per individual can be purchased unless the prior permit was lost or stolen. The reported lost or stolen permit will be invalid. There is no refund for permit cost. The registration fee, penalties and fines are published in the ATU parking map.

Temporary permits are available at the Department of Public Safety for faculty, staff and students who have misplaced their permits.

## Withdrawals

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A student who wishes to withdraw from school during a semester is required to follow the official withdrawal procedure which requires submitting a written request to the Office of the Registrar. Students who withdraw without following this required procedure will have their grades recorded as "F." If a student withdraws officially, the procedure for recording grades is identical with that for dropping an individual course, as described in this section under the heading "Adding/Dropping Courses." If a student withdraws from school during the final two weeks of a semester, the Vice President for Academic Affairs may waive the requirement that grades of "F" be recorded if the circumstances forcing a withdrawal justify special consideration.

## University Policy

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While every effort will be made to conform to catalog announcements, the University reserves the right to adapt its program as may be necessary.

# Graduation Requirements

Major fields of study leading to a bachelor degree are offered in accounting, agriculture business, agriculture education, art education, biology, business data analytics, business education, chemistry, computer science, creative writing, creative writing education, economics and finance, elementary education, fine arts, electrical engineering, emergency management, engineering physics, English, English education, fisheries and wildlife science, foreign language, foreign language education, geology, graphic design, health and physical education, health information management, history, hospitality administration, information systems, information technology, international studies, journalism, life science for teacher licensure, management and marketing, mathematics, mathematics education, mechanical engineering, medical technology, middle level education, music, music education, nuclear physics, nursing, physical science, physical science for teacher licensure, physics, political science, professional studies, psychology, public history, recreation and park administration, rehabilitation science, social studies education, sociology, speech, and speech education.

Associate degrees are offered in criminal justice, culinary management, early childhood education, general education, information technology, nuclear technology and Ozark-Ouachita studies.

Students may graduate under the catalog in force when they first enroll in the University, or any subsequent catalog, subject to the approval of the appropriate department head and dean. Students should keep in mind that curricula change in order to maintain relevance, up-to-date knowledge, and, in some cases, accreditation standards. The University reserves the right to make effective immediately any change in graduation requirements for students whose studies have not advanced beyond the level at which the change becomes operative.

## Degree Audit and Application for Graduation

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Candidates for graduation must complete a degree audit and an application for graduation. Seniors completing graduation requirements at the end of the fall semester must submit to the Registrar's Office an application for graduation and complete a degree audit in consultation with their advisor on or before the end of the eighth week of the previous fall semester. Seniors completing graduation requirements at the end of the spring semester or either of the following summer sessions must submit an application for graduation and complete a degree audit in consultation with their advisor on or before the end of the eighth week of the previous spring semester.

Students who file an application for graduation but fail to complete all graduation requirements as planned must submit a new degree audit and new application for graduation.

## Financial Obligation

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Before any transcript is issued, the student must have paid any debt owed the University.

## Graduation Honors

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The bachelor's degree with honors will be conferred upon candidates who at graduation have earned a minimum grade point average on all courses taken at Arkansas Tech as follows: Summa Cum Laude-3.900 - 4.000, Magna Cum Laude-3.700 - 3.899, Cum Laude-3.500 - 3.699. Graduation honors will be determined by work taken at Arkansas Tech only. The associate degree with honors will be conferred upon candidates subject to the grade point average criteria listed above.

## Commencement Participation

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Students must complete all degree requirements prior to participating in the December, May, or August commencement ceremonies. Students completing all degree requirements in the fall semester will participate in the December commencement ceremony; spring semester will participate in the May commencement ceremony; and summer terms will participate in the commencement ceremony held in August. Students will not participate in the commencement ceremony if all degree requirements are not completed prior to the ceremony. Students not completing all requirements will participate in the next scheduled commencement ceremony providing all degree requirements are met. Students taking courses at other institutions must have official transcripts submitted to the Registrar's Office and have completed all degree requirements prior to the commencement ceremony to be allowed to participate.

Participation in commencement is expected of all candidates for degrees. Students who are unable to participate may officially petition the Vice President for Academic Affairs in writing for permission to have the degree awarded in absentia.

Students who do not have a minimum grade point of 2.00 in the major and overall will not be eligible to participate in the commencement ceremony.

Academic regalia shall be worn by the student during the graduation ceremony (see University Bookstore). The academic



regalia will consist only of the cap and gown. No decorations, writings, necklaces, braids, pins, cords, medallions or other items other than the Arkansas Tech University Honors cord and medallion shall be worn or placed on the academic regalia.

Diplomas are mailed to graduates six to eight weeks following commencement.

## Requirements for Baccalaureate Degrees

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In compliance with Act 1014 of 2005, Arkansas Tech University has developed guaranteed, eight-semester degree completion plans for most of the baccalaureate degree programs offered by the institution.

### A. General Requirements

1. A student must earn a minimum of 30 semester hours taken from Arkansas Tech, at least 6 semesters hours of which must be upper division work in the student's major. Certain programs may have more rigorous standards due to, for example, accreditation standards or licensure requirements.
2. No more than a total of 30 semester hours of correspondence, extension, military service, or credit by examination work may be applied as credit towards a degree.
3. At least 120 semester hours (excluding pre-college level courses) must be successfully completed.
4. The cumulative grade point average must not be less than 2.00 and not more than 25 percent of the semester hours may carry the "D" grade. Students must have a 2.00 grade point in their major and a 2.00 grade point in their minor, if applicable.
5. At least 40 semester hours must be in junior and senior courses, preferably more.
6. No more than four semester hours of activity credit may be counted toward graduation. The only exception is that a student may have the standard allowance of military credit (three hours of military science and three hours of PE credit) and four other hours of activity credit for a total of ten semester hours. A student registering for an activities course in excess of these limits receives no credit for the additional course and the grade is not included in the computation of grade point.
7. Only six hours of freshman English composition may be used to satisfy degree requirements.
8. For non-business majors, no more than 30 hours of courses offered by the College of Business may be counted towards completion of degree requirements.

### B. General Education Requirements

To meet the need for all students to have educational experiences which broaden their knowledge of the arts, humanities, and sciences, all curricula are designed to include basic courses in these areas. Students should refer to the curriculum in their major area of study for specific courses either recommended or required by the academic department to fulfill the [General Education Requirements](#).

### C. Competence in English, Mathematics, and Reading

Each candidate for a baccalaureate degree is required to demonstrate the ability to write English clearly and correctly by completing the freshman composition courses ([ENGL 1013 Composition I](#) or [ENGL 1043 Honors Composition I](#) and [ENGL 1023 Composition II](#) or [ENGL 1053 Honors Composition II](#)) with a grade of "C" or better. A student who receives a grade of "D" or "F" in [ENGL 0303 Foundational Composition](#), [ENGL 1013 Composition I](#), or [ENGL 1043 Honors Composition I](#) must repeat the course to earn a grade of "C" or better before enrolling in the next course of the English sequence. The same criteria apply to transfer students.

A student who is placed in [READ 0103 College Reading Skills](#) must earn a grade of "C" or better in the course or receive a departmental waiver to complete the reading requirement.

Students showing evidence of deficiency in mathematics will be counseled to enroll in appropriate remedial courses. All students must earn a grade of "C" or higher in the course used to satisfy the general education mathematics requirement.

### D. Examination for Education Majors or Teacher Candidates

Section 1 (b) of Act 5 of the first Special Extraordinary Session (1983) of the Arkansas General Assembly stipulates: "After July 1, 1984, all colleges and universities in this State shall require persons who are education majors or teacher candidates to take the examination prescribed by the State Board of Education for initial certification as a teacher in the public schools of this State and to report the results of the examination to the college or university prior to graduation. All colleges and universities in this State shall report the results of the examinations to the Department of Education upon request."

### E. An official record of any correspondence or transfer work completed at another institution must be on file in the Registrar's Office prior to the end of the semester or term in which graduation is planned.



## Requirements for a Minor

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Arkansas Tech University offers 41 minors with requirements varying from 16-22 semester hours. Only candidates for a bachelors degree are eligible for minors. In order for the minor to be awarded a student must earn a 2.0 grade point average in the courses used to complete the minor. A minimum of 6 semester hours must be taken in residence and the same catalog must be used to complete requirements for both the major and the minor. Specific requirements for each minor are stated in the respective sections of this catalog.

## Requirements for Associate Degrees

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The requirements for associate degrees in culinary management, information technology, and nuclear technology are outlined under the statements of the College of Engineering and Applied Sciences. Requirements for the associate degree in early childhood education are outlined under the statements of the College of Professional Studies and Community Outreach. The requirements for the associate degrees in criminal justice, general education, and Ozark-Ouachita studies are outlined under the statements of the College of Arts and Humanities. In addition to completing the necessary hours prescribed, candidates for associate degrees must meet the following requirements:

1. A student must earn a minimum of 30 semester hours taken from Arkansas Tech.
2. No more than a total of 30 semester hours of correspondence, extension, military service, or credit by examination work may be applied as credit towards a degree.
3. Refer to major field of study for semester hour requirements.
4. The cumulative grade point average must not be less than 2.00 and not more than 25 percent of the semester hours may carry the "D" grade. Students must have a 2.00 grade point in their major.
5. No more than four semester hours of activity credit may be counted toward graduation. The only exception is that a student may have the standard allowance of military credit (three hours of military science and three hours of PE credit) and four other hours of activity credit for a total of ten semester hours. A student registering for an activities course in excess of these limits receives no credit for the additional course and the grade is not included in the computation of grade point.
6. Only six hours of freshman English composition may be used to satisfy degree requirements.
7. An official record of any correspondence or transfer work completed at another institution must be on file in the Registrar's Office prior to the end of the semester or term in which graduation is planned.

## Requirements for Additional Degrees

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**For both baccalaureate and associate degrees, a student may not receive multiple degrees within a semester for a single approved degree program.** Students wishing to earn multiple degrees in different degree programs within the same semester may do so by completing all degree requirements for each degree, which typically takes more than 120 hours.

### Baccalaureate Degrees

Students who have already received a baccalaureate degree may earn an additional baccalaureate degree by completing a minimum of 30 additional semester hours from Arkansas Tech, at least 6 semester hours of which must be upper division work in the student's major. Certain programs may have more rigorous standards due to, for example, accreditation standards or licensure requirements. All degree requirements must be satisfied. Students pursuing a second baccalaureate degree must use the Arkansas Tech University catalog in effect at the time they first enroll subsequent to receiving the first degree or any subsequent Tech catalog provided they were enrolled at the University during the year the catalog was in effect.

### Associate Degrees

To complete an additional associate degree, whether the first degree is a bachelor or associate, the following must be completed: (a) a minimum of 30 semester hours at Arkansas Tech in addition to the hours for the first degree, (b) all University catalog requirements for the major field of study, (c) applicable requirements specified under "Requirements for Associate Degrees".

Students pursuing an associate degree must use the Arkansas Tech University catalog in effect at the time they first enroll subsequent to receiving the first degree or any subsequent Tech catalog provided they were enrolled at the University during the year the catalog was in effect.

## Assessment Program

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Arkansas Tech University (ATU) is dedicated to providing a wide range of traditional and innovative academic programs and is committed to the advancement of student learning and continuous improvement of academic programs and university services. Assessment is at the core of continuous improvement, therefore, students are responsible for participating in state

and institutional assessment activities.

## General Education Requirements

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The general education curriculum is designed to provide a foundation for knowledge common to educated people and to develop the capacity for an individual to expand that knowledge over his or her lifetime. Students who have completed the general education curriculum at Arkansas Tech University will be able to:

Communicate effectively

Think critically

Develop ethical perspectives

Apply scientific and quantitative reasoning

Demonstrate knowledge of the arts and humanities

Understand wellness concepts

To accomplish the above goals, Arkansas Tech requires the completion of the following general education curriculum. Students should refer to the curriculum in their major area of study for specific courses either recommended or required by the academic department to fulfill the general education requirements.

### English - 6 hours

(See Course Descriptions for minimum grade requirements)

Three hours from one of the following:

[ENGL 1013 Composition I](#)

[ENGL 1043 Honors Composition I](#)

Three additional hours from one of the following:

[ENGL 1023 Composition II](#)

[ENGL 1053 Honors Composition II](#)

### Mathematics - 3 hours

(See Course Descriptions for minimum grade requirements)

Three hours from one of the following:

[MATH 1003 College Mathematics](#)

[MATH 1113 College Algebra](#)

Any higher level mathematics course

### Science - 8 hours

Complete a total of eight hours of science with laboratory

### US History or Government - 3 hours

Three hours from one of the following:

[HIST 1903 Survey of American History](#)

[HIST 2003 United States History to 1877](#)

[HIST 2043 Honors United States History to 1877](#)

[HIST 2013 United States History since 1877](#)

[POLS 2003 American Government](#)

### Social Sciences, Fine Arts/Humanities, Speech Communications - 15 hours

(Complete one of the following 3 options):

Option 1:

[Social Sciences](#) - 6 hours

[Fine Arts and Humanities](#) - 6 hours

[Speech Communications](#) - 3 hours

Option 2:

[Social Sciences](#) - 6 hours

[Fine Arts and Humanities](#) - 9 hours

Option 3:

[Social Sciences](#) - 9 hours

[Fine Arts and Humanities](#) - 6 hours

## **Speech Communications**

[SPH 1003 Introduction to Speech Communication](#)

[SPH 2003 Public Speaking](#)

[SPH 2173 Business and Professional Speaking](#)

## **Social Sciences**

(Students majoring in engineering may substitute up to six hours of upper level humanities, social sciences, mathematics, or science)

[AGBU 2063 Principles of Agriculture Macroeconomics](#)

[AGBU 2073 Principles of Agriculture Microeconomics](#)

[AMST 2003 American Studies](#)

[ANTH 1213 Introduction to Anthropology](#)

[ANTH 2003 Cultural Anthropology](#)

[ECON 2003 Principles of Economics I](#)

[ECON 2013 Principles of Economics II](#)

[ECON 2103 Honors Principles of Economics I](#)

[GEOG 2013 Regional Geography of the World](#)

[HIST 1503 World History to 1500](#)

[HIST 1513 World History since 1500](#)

[HIST 1543 Honors World History to 1500](#)

[HIST 1903 Survey of American History](#)

[HIST 2003 United States History to 1877](#)

[HIST 2013 United States History since 1877](#)

[HIST 2043 Honors United States History to 1877](#)

[POLS 2003 American Government](#)

[PSY 2003 General Psychology](#)

[SOC 1003 Introductory Sociology](#)

## **Fine Arts and Humanities**

[ART 2123 Experiencing Art](#)

[ENGL 2003 Introduction to World Literature](#)

[ENGL 2013 Introduction to American Literature](#)

[ENGL 2023 Honors World Literature](#)

[ENGL 2173 Introduction to Film](#)

[JOUR 2173 Introduction to Film](#)

[MUS 2003 Introduction to Music](#)

[PHIL 2003 Introduction to Philosophy](#)

[PHIL 2043 Honors Introduction to Philosophy](#)

[TH 2273 Introduction to Theatre](#)

## **Arkansas Course Transfer System (ACTS)**

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Act 747 of 2011 establishes a statewide common course numbering system for postsecondary courses. The Arkansas Course Transfer System (ACTS) meets this requirement. Before you register for ATU general education courses, please see the [transfer table](#) located in the "Admissions" section of this catalog to verify whether you have courses that are transferable.

## Freshman Orientation

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Beginning fall, 2008, all entering freshmen are required to take an orientation course during their first semester of enrollment (fall or spring). A number of the academic majors have an orientation course designed specific to the major. Students whose declared major does not have an orientation course or who are undeclared will take [CSP 1013 Principles of Collegiate Success](#), or [TECH 1001 Orientation to the University](#).

All orientation courses are designed to introduce the beginning student to the Arkansas Tech University campus, its culture, and traditions, and will contain certain common topics. Important policies governing campus life will be explained, and campus resources will be identified. Topics covered in each course will answer many questions typical freshmen have, which will assist in the transition from a high school environment. Subject matter will include managing time, setting academic goals, exam preparation, study and note-taking skills, introduction to library resources, and choosing a major and career.

## State Minimum Core

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The courses that comprise Tech's general education curriculum also constitute the University's State Minimum Core, established in accordance with Act 98 of 1989, for implementation the fall semester of 1991. Act 98 requires colleges and universities to identify "a minimum core of courses which shall apply toward the general education core curriculum requirements for baccalaureate degrees at state supported institutions of higher education and which shall be fully transferable between state institutions."

## Credit By Examination

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Arkansas Tech University participates in programs that authorize credit by examination. Advanced credit through Advanced Placement (AP), International Baccalaureate (IB), or College Level Examination Program (CLEP), allows a student to earn credit toward graduation by attaining the qualifying score on either general and/or subject examinations.

Students who have already earned a grade in a course may not earn duplicate credit through advanced credit. Advanced credit is not used to calculate a student's grade point average, and therefore, cannot be used to retain scholarship awards.

Information concerning the following examinations may be obtained from the Arkansas Tech University Testing Center. For AP, IB, or CLEP credit to be awarded, the student must request a transcript of scores be sent to the Office of the Registrar. Following are the examinations that Tech will accept, the corresponding qualifying score, and credit awarded:

### IB (International Baccalaureate) Program

High school students who participated in the International Baccalaureate (IB) Program may receive college credit by attaining Tech's IB qualifying score. Credit earned through IB may satisfy general education requirements. Scores of 5, 6, or 7 on standard level exams will provide three units elective credit in the subject area and will satisfy Core Curriculum requirements, as appropriate to the subject area. Scores of 5, 6, or 7 on higher level exams will provide six units of elective credit in the subject area and will satisfy Core Curriculum requirements, as appropriate to the subject area. Advanced placement in major courses will be awarded in consultation with the Department Chair. Following are the IB examinations that Tech will accept, the corresponding qualifying score, and credit awarded.

IB Examination	Qualifying Score	Credit Awarded
Anthropology/Standard	5	<a href="#">ANTH 1213 Introduction to Anthropology</a>
Biology/Standard or Higher	5	<a href="#">BIOL 1014 Introduction to Biological Science</a> or <a href="#">BIOL 1114 Principles of Biology</a>
Chemistry/Standard	5	<a href="#">CHEM 2124 General Chemistry I</a>
Chemistry/Higher	5	<a href="#">CHEM 2124 General Chemistry I</a> & <a href="#">CHEM 2134 General Chemistry II</a>
Computer Science/Standard or Higher	5	<a href="#">COMS 2104 Foundations of Computer Programming I</a>
Economics/Standard	5	<a href="#">ECON 2003 Principles of Economics I</a>
Economics/Higher	5	<a href="#">ECON 2003 Principles of Economics I</a> & <a href="#">ECON 2013 Principles of Economics II</a>
English/Standard	5	<a href="#">ENGL 1013 Composition I</a>
English/Higher	5	<a href="#">ENGL 1013 Composition I</a> & <a href="#">ENGL 1023 Composition II</a>
Film Studies	5	<a href="#">ENGL 2173 Introduction to Film</a> or

History/Standard	5	<a href="#"><u>JOUR 2173 Introduction to Film</u></a> <a href="#"><u>HIST 1503 World History to 1500</u></a>
History/Higher	5	<a href="#"><u>HIST 1503 World History to 1500 &amp; HIST 1513 World History since 1500</u></a>
Math Studies/Standard or Higher	5	<a href="#"><u>MATH 1113 College Algebra</u></a>
Math/Standard	5	<a href="#"><u>MATH 2914 Calculus I</u></a>
Math/Higher	5	<a href="#"><u>MATH 2914 Calculus I &amp; MATH 2924 Calculus II</u></a>
Music/Standard	5	<a href="#"><u>MUS 1713 Theory I</u></a>
Music/Higher	5	<a href="#"><u>MUS 1713 Theory I &amp; MUS 1723 Theory II</u></a>
Philosophy/Higher	5	<a href="#"><u>PHIL 2003 Introduction to Philosophy</u></a>
Physics/Standard	5	<a href="#"><u>PHYS 2014 Physical Principles I</u></a>
Physics/Higher	5	<a href="#"><u>PHYS 2014 Physical Principles I &amp; PHYS 2024 Physical Principles II</u></a>
Psychology/Higher	5	<a href="#"><u>PSY 2003 General Psychology</u></a>
Social Anthropology/Higher	5	<a href="#"><u>ANTH 2003 Cultural Anthropology</u></a>

### AP (Advanced Placement) Program

High school students who participated in The College Board's AP Program may receive college credit by attaining Tech's AP qualifying score. Credit earned through AP may satisfy general education requirements. Following are the AP examinations that Tech will accept, the corresponding qualifying score required, and credit awarded.

AP Examination	Qualifying Score	Credit Awarded
Art History	4	<a href="#"><u>ART 2103 Art History I</u></a>
Art History	5	<a href="#"><u>ART 2103 Art History I &amp; ART 2113 Art History II</u></a>
Biology	4	<a href="#"><u>BIOL 1014 Introduction to Biological Science</u></a> or <a href="#"><u>BIOL 1114 Principles of Biology</u></a>
Calculus AB	3	<a href="#"><u>MATH 2914 Calculus I</u></a>
Calculus BC	3	<a href="#"><u>MATH 2914 Calculus I &amp; MATH 2924 Calculus II</u></a>
Chemistry	3	<a href="#"><u>CHEM 1113 A Survey of Chemistry,</u></a> <a href="#"><u>CHEM 1111 Survey of Chemistry Laboratory &amp;</u></a> <a href="#"><u>CHEM 2204 Organic Physiological Chemistry</u></a> or <a href="#"><u>CHEM 2124 General Chemistry I &amp;</u></a> <a href="#"><u>CHEM 2134 General Chemistry II</u></a>
Chinese Language & Culture	2	<a href="#"><u>CHIN 1013 Beginning Chinese I</u></a>
Chinese Language & Culture	4	<a href="#"><u>CHIN 1013 Beginning Chinese I &amp;</u></a> <a href="#"><u>CHIN 1023 Beginning Chinese II</u></a>
Computer Science A	3	<a href="#"><u>COMS 2104 Foundations of Computer Programming I</u></a>
Computer Science A	4	<a href="#"><u>COMS 2104 Foundations of Computer Programming I &amp;</u></a> <a href="#"><u>COMS 2203 Foundations of Computer Programming II</u></a>
English Lang/Comp or Lit/Comp	3	<a href="#"><u>ENGL 1013 Composition I</u></a>
English Lang/Comp or Lit/Comp	4	<a href="#"><u>ENGL 1013 Composition I &amp; ENGL 1023 Composition II</u></a>
Environmental Science	4	<a href="#"><u>BIOL 1004 Principles of Environmental Science</u></a> or <a href="#"><u>PHSC 1004 Principles of Environmental Science</u></a>
French Language	2	<a href="#"><u>FR 1013 Beginning French I</u></a>
French Language	4	<a href="#"><u>FR 1013 Beginning French I &amp; FR 1023 Beginning French II</u></a>
German Language	2	<a href="#"><u>GER 1013 Beginning German I</u></a>
German Language	4	<a href="#"><u>GER 1013 Beginning German I &amp;</u></a> <a href="#"><u>GER 1023 Beginning German II</u></a>
Government & Politics: Comparative	4	<a href="#"><u>POLS 2403 Comparative Government</u></a>
Government & Politics: US	3	<a href="#"><u>POLS 2003 American Government</u></a>
Human Geography	3	<a href="#"><u>GEOG 2023 Human Geography</u></a>
Japanese Language & Culture	2	<a href="#"><u>JPN 1013 Beginning Japanese I</u></a>
Japanese Language & Culture	4	<a href="#"><u>JPN 1013 Beginning Japanese I &amp; JPN 1023 Beginning Japanese II</u></a>



Latin/Vergil	2	<a href="#">LAT 1013 Beginning Latin I</a>
Latin/Vergil	4	<a href="#">LAT 1013 Beginning Latin I &amp; LAT 1023 Beginning Latin II</a>
Macroeconomics	4	<a href="#">ECON 2003 Principles of Economics I</a>
Music Theory	3	<a href="#">MUS 1713 Music Theory I, MUS 1723 Music Theory II, MUS 1731 Ear Training I &amp; MUS 1741 Ear Training II</a>
Physics B	3	<a href="#">PHYS 2014 Physical Principles I &amp; PHYS 2024 Physical Principles II</a>
Physics C: Electricity & Magnetism	3	<a href="#">PHYS 2124 General Physics II</a>
Physics C: Mechanics	3	<a href="#">PHYS 2114 General Physics I</a>
Psychology	3	<a href="#">PSY 2003 General Psychology</a>
Spanish Language	2	<a href="#">SPAN 1013 Beginning Spanish I</a>
Spanish Language	4	<a href="#">SPAN 1013 Beginning Spanish I &amp; SPAN 1023 Beginning Spanish II</a>
Spanish Literature	4	<a href="#">SPAN 4213 Spanish Literature</a>
Statistics	3	<a href="#">MATH 2163 Introduction to Statistical Methods</a>
Studio Art Design 2-D	4	<a href="#">ART 1403 Two-dimensional Design</a>
Studio Art Drawing	4	<a href="#">ART 1303 Introduction to Drawing</a>
United States/American History	3	<a href="#">HIST 2003 United States History to 1877 &amp; HIST 2013 United States History since 1877</a>
World History	3	<a href="#">HIST 1503 World History to 1500 &amp; HIST 1513 World History since 1500</a>

## College Level Examination Program (CLEP)

CLEP allows students to earn credit toward graduation by attaining Tech's qualifying score on either the general and/or subject examinations. Credit earned through CLEP may satisfy general education requirements. No more than one subject examination may be taken in a particular departmental area, and students must have prior approval from the department in which they are majoring to count the hours toward graduation.

It is recommended that an ACT sub-score of 24 or above or an SAT sub-score of 500 or above be used as a guideline for attempting to earn credit through CLEP. Following are the CLEP examinations that Tech will accept, the corresponding qualifying score required, and credit awarded.

CLEP Examination	Qualifying Score	Credit Awarded
American Government	50	<a href="#">POLS 2003 American Government</a>
American Literature	50	<a href="#">ENGL 2013 Introduction to American Literature</a>
Biology	50	<a href="#">BIOL 1014 Introduction to Biological Science</a> or <a href="#">BIOL 1114 Principles of Biology</a>
Calculus	50	<a href="#">MATH 2914 Calculus I</a>
Chemistry	50	<a href="#">CHEM 2124 General Chemistry I</a>
Chemistry	55	<a href="#">CHEM 2124 General Chemistry I &amp; CHEM 2134 General Chemistry II</a>
College Algebra	50	<a href="#">MATH 1113 College Algebra</a>
College Mathematics	50	<a href="#">MATH 1003 College Mathematics</a>
College Composition	50	<a href="#">ENGL 1013 Composition I</a>
College Composition	59	<a href="#">ENGL 1013 Composition I &amp; ENGL 1023 Composition II</a>
College Composition Modular	50	<a href="#">ENGL 1013 Composition I</a>
College Composition Modular	59	<a href="#">ENGL 1013 Composition I &amp; ENGL 1023 Composition II</a>
English Literature	50	<a href="#">ENGL 3413 British Literature to 1800</a>
English Literature	55	<a href="#">ENGL 3413 British Literature to 1800 &amp; ENGL 3423 British Literature since 1800</a>
French Language	42	<a href="#">FR 1013 Beginning French I</a>
French Language	50	<a href="#">FR 1013 Beginning French I &amp; FR 1023 Beginning French II</a>
German Language	43	<a href="#">GER 1013 Beginning German I</a>
German Language	55	<a href="#">GER 1013 Beginning German I &amp; GER 1023 Beginning German II</a>
History of the United States I	50	<a href="#">HIST 2003 United States History to 1877</a>
History of the United States II	50	<a href="#">HIST 2013 United States History since 1877</a>
Human Growth & Development	50	<a href="#">PSY 3813 Lifespan Development</a>
Humanities	50	<a href="#">HUM 2003 Topics in Arts and Humanities</a>



Information Systems & Computer Applications	52	<a href="#"><u>COMS 1003 Introduction to Computer Based Systems</u></a>
Natural Sciences	56	<a href="#"><u>BIOL 1014 Introduction to Biological Science, PHSC 1013 Introduction to Physical Science , &amp; PHSC 1021 Physical Science Laboratory</u></a>
Precalculus	50	<a href="#"><u>MATH 1914 Precalculus</u></a>
Principles of Macroeconomics	50	<a href="#"><u>ECON 2003 Principles of Economics I</u></a>
Psychology, Introductory	50	<a href="#"><u>PSY 2003 General Psychology</u></a>
Social Sciences & History	50	<a href="#"><u>HIST 1503 World History to 1500</u></a>
Social Sciences & History	56	<a href="#"><u>HIST 1503 World History to 1500 &amp; HIST 1513 World History since 1500</u></a>
Sociology, Introductory	50	<a href="#"><u>SOC 1003 Introductory Sociology</u></a>
Spanish Language	45	<a href="#"><u>SPAN 1013 Beginning Spanish I</u></a>
Spanish Language	55	<a href="#"><u>SPAN 1013 Beginning Spanish I &amp; SPAN 1023 Beginning Spanish II</u></a>

## Institutional Credit

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### Computer Science

Students with previous computer experience may petition the Department of Computer and Information Science for credit for [COMS 1003 Introduction to Computer Based Systems](#). Petitioners will be given written and/or oral examinations by a computer science faculty member.

### Engineering

Students who complete the appropriate Project Lead the Way (PLTW) course(s) with an average of “B” or better and score 70% or higher score on the corresponding PLTW college credit exam(s) may receive institutional credit for [MCEG 1002 Engineering Graphics](#), and/or [MCEG 1012/ELEG 1012 Introduction to Engineering](#).

### Foreign Language

Students with previous foreign language experience may petition the Department of English and World Languages for advanced placement and credit. A foreign language faculty member will recommend an appropriate foreign language placement level. This placement level will not exceed [FR 3013 Conversation and Composition II](#), [GER 3013 Conversation and Composition II](#), [JPN 3013 Conversation and Composition](#), [LAT 2023 Intermediate Latin II](#), or [SPAN 3013 Conversation and Composition II](#), and will be approved by the department head. Students who have omitted one or more courses in the basic language sequence will receive credit for omitted courses when they have validated their advanced placement by passing the course into which they are placed with a grade of “C” or better.

### Challenge Subject Examinations

Students who have had extensive experience in health care and industrial settings may elect to attempt to earn credit through an institutional challenge examination in the following subjects or technical programs:

[AHS 2013 Medical Terminology](#)

[HIM 3023 Introduction to Health Information Management](#)

[HIM 3033 Basic Coding Principles](#)

[HIM 3133 Alternative Health Records](#)

[HIM 3132 Health Data and Statistics](#)

### Nursing Examinations

Registered nurses, licensed practical nurses, and/or licensed psychiatric technician nurses seeking admission to Arkansas Tech University’s nursing program may elect to demonstrate and validate previous collegiate-quality nursing education. This may be accomplished by successfully completing certain ACT-PEP, CLEP, and National League for Nursing examinations. See the [Department of Nursing](#).

## **Internships**

Arkansas Tech University endorses the internship approach to learning and has adopted university-wide guidelines. This approach can help students understand the reality of certain careers and supplement academic instruction with practical, realistic implementation in a work environment. Academic credit can be earned for internships in several degree programs. Please see individual programs for availability of specific degree credit.

## University Honors

The University Honors program at Arkansas Tech University is designed to provide an enriched intellectual experience for students of outstanding educational talents and leadership potential. At Arkansas Tech University, the honors student will benefit from opportunities to interact with other highly-motivated students and outstanding professors in the challenging atmosphere of small, innovative honors classes specially designed to foster rational enquiry, critical thinking, and analytical skills.

Dr. Ellen J. Jenkins, Director  
Witherspoon Hall, Room 239B  
(479) 968-0456  
ejenkins@atu.edu

Application to University Honors should be made as early as possible during the senior year of the high school student. Honors students are selected through an application process which includes a written essay and a personal interview on our campus. To be eligible for University Honors, the high school student must have a minimum ACT Composite score of 28 and a cumulative grade point average of 3.5 or higher.

Students in the honors program take special General Education courses. Sophomores participate in on-campus volunteer projects, followed by participation as peer mentors during the junior year. The senior year requires completion of the Senior Honors Project, as well as presentation of project results at an annual Senior Honors Symposium.

Students selected for the University Honors program receive excellent scholarships as well as such privileges as the Advanced Scholar Stipend, preferred preregistration, opportunities for individual directed study with Tech professors, and special recognition at commencement. The prescribed curriculum for the University Honors program is provided below.

### HONORS CURRICULUM

#### Freshman Year

Fall Semester:	<a href="#">HONR 1003 Freshman Honors Seminar</a>	3 hours
	<a href="#">HIST 1543 Honors World History to 1500</a> OR	3 hours
	<a href="#">HIST 2043 Honors United States History to 1877</a>	
Spring Semester:	<a href="#">ENGL 2183 Honors Introduction to Film</a>	3 hours

#### Sophomore Year

Fall Semester:	<a href="#">ECON 2103 Honors Principles of Economics I</a> Campus Service Component	3 hours
Spring Semester:	<a href="#">PHIL 2043 Honors Introduction to Philosophy</a> OR	3 hours
	<a href="#">ENGL 2023 Honors World Literature</a> Campus Service Component	

#### Junior Year

Fall Semester:	Mentor incoming Honors Freshmen	
Spring Semester:	Write proposal for the Seniors Honors Project	
	<a href="#">ENGL 2023 Honors World Literature</a> OR	3 hours
	<a href="#">PHIL 2043 Honors Introduction to Philosophy</a>	

#### Senior Year

Fall Semester:	<a href="#">HONR 4093 Senior Honors Project</a>	3 hours
Spring Semester:	Honor students will present their Senior Honors Projects at the Senior Honors Symposium.	

Total Hours 21

# Center for Energy, eTECH, Military Science, and ATU Museum

## Arkansas Center for Energy, Natural Resources, and Environmental Studies

The Center, with the cooperation of various components of Arkansas Tech University, other state agencies and institutions, and professional staff, has the responsibility of planning and conducting competent research, investigations, demonstrations, and experiments of either a basic or applied nature, or both, in relation to energy, natural resources and the environment. The Center is committed to providing Arkansas Tech University students opportunities for involvement in these various projects.

Dr. Jason Patton, Director  
Arkansas Center for Energy,  
Natural Resources and  
Environmental Studies  
1701 N. Boulder Avenue  
Russellville, AR 72801  
(479) 968-0676

Additional information may be obtained by writing or calling Dr. Jason Patton at the Arkansas Center for Energy, Natural Resources and Environmental Studies, 1701 N. Boulder Avenue, Russellville, Arkansas 72801; telephone (479) 968-0676.

## eTech (The Distance and Online Learning Program of Arkansas Tech University)

The Arkansas Tech University distance and online learning program (eTech) offers courses and programs that are an integral part of the overall academic program at Arkansas Tech University. The goal of eTech is to provide a single focal point for online resources to extend the instructional programs of the university. Courses and, in some cases, an entire degree may be completed electronically without the need for visiting the campus. For more information about these opportunities, visit [www.atu.edu/etech](http://www.atu.edu/etech).

Undergraduate students who require remediation, as determined by ACT scores, must check with the Office of the Registrar (479-968-0272, <http://www.atu.edu/registrar/contact.php>) to determine eligibility to enroll in eTech courses.

Students interested in an electronic degree program may apply for admission at [www.atu.edu/admissions](http://www.atu.edu/admissions) or gain additional information by calling 1-800-582-6953.

## Military Science

Arkansas Tech University students may enroll in military science courses offered on the Arkansas Tech Campus. The objective of the department is to provide a basic military education and, in conjunction with the goals of Tech, to develop individual attributes essential to an Army officer. Instruction covers military fundamentals common to all branches of the military service.

Reserve Officers' Training Corps  
Adjunct Faculty  
Alumni House  
(479) 498-6066 (Tech)  
(501) 450-3145 (UCA)

Courses are open to all students. Requirements for enrollment in military science courses are as follows:

1. Student must be enrolled at Tech and remain at or above the University's probationary level.
2. When contracted by the Department of Military Science, students must have a cumulative grade point average of at least 2.00; ROTC scholarship recipients must maintain a 2.50 GPA or better. Registration for military science courses is accomplished at the same time and in the same manner as registration for other courses through Tech. Students interested in this program may obtain further information by contacting the ROTC Department at (479) 498-6069.

## Arkansas Tech University Museum

The mission of the Museum is to provide a center for collection, conservation, interpretation, and research concerned with the History of Arkansas Tech University and the stories of the people and partners that comprise that history. This knowledge and interpretation focus on the establishment, history, and development of Arkansas Tech University, seeking to tell a compelling story of the places, events, and individuals making up the University's history to the community served by Arkansas Tech University.

The museum officially opened in April 1992 and accepts visitors between the hours of 8:30 a.m. and 4:30 p.m., Tuesday through Thursday, as well as by special arrangement, for evening programming, and through events. Examples of events are Homecoming, and *Art and Architecture: A Student Exhibition* held each spring as a cooperative program with the Art Department. Each Spring semester, the Museum

Judith C. Stewart-Abemathy,  
Director  
1502 North El Paso Avenue  
Techionery - Museum  
(479) 964-0831 or  
(479) 964-0826 (reception)  
<http://www.atu.edu/museum>  
Online Research Site:  
<http://atmuseum.pastperfect-online.com>

offers a course entitled Interpretation/Education through Museum Methods as MUSM (ANTH, HIST) 4403 (5403). The retail aspect of the Museum is **The Museum Store**, which serves as a conservation supplies and resource center providing advice and archival storage materials to care for family keepsakes and serve area nonprofits with collections storage solutions. Publications about Tech History are also carried by the **Store**.

Theresa Jureka-Johnson, Curator  
(479) 964-0871



# College of Arts and Humanities

The College of Arts and Humanities comprises six departments which offer programs of study leading to baccalaureate and associate degrees as listed below:

Dr. Jeff Woods, Dean  
Witherspoon Hall, Room 240  
(479) 968-0274  
jwoods@atu.edu  
Fax: (479) 964-0812

## Associate of Arts

[General Education](#)

## Associate of Science

[Criminal Justice](#)

[Ozark-Ouachita Studies](#)

## Bachelor of Arts

[Art Education](#)

Communication with options in:

[Speech](#)

[Theatre](#)

[English](#)

[English Education](#)

[Fine Arts](#)

[Foreign Language](#)

[Foreign Language Education](#)

[Graphic Design](#)

[History](#)

International Studies with concentrations in:

[Cultural Affairs](#)

[Political Affairs](#)

Journalism with options in:

[Broadcast](#)

[Print](#)

[Public Relations](#)

[Music](#)

[Political Science](#)

[Psychology](#)

[Public History](#)

[Rehabilitation Science](#)

[Social Studies Education](#)

[Sociology](#)

[Speech Education](#)

## Bachelor of Fine Arts

[Creative Writing](#)

[Creative Writing Education](#)

## Bachelor of Music Education

Music Education with options in:

[Instrumental Music](#)

[Vocal Music](#)

[Keyboard Vocal Music](#)

[Keyboard Instrumental Music](#)

In addition to the degree programs offered, the College of Arts and Humanities also offers minors in anthropology, art, creative writing, criminal justice, English, French, geography, German, history, Japanese, journalism, Latin American studies, military science, philosophy, political science, psychology, public history, rehabilitation science, religious studies, sociology, Spanish, speech communication, strategic studies, teaching English as a second language, and theatre. The college also supervises pre-professional curriculum in law and is extensively involved in the general education program.

Through these degree and pre-professional curricula, the departments in the College of Arts and Humanities prepare graduates for a variety of challenging and rewarding careers, either directly or via continued graduate or professional

studies. These curricula are designed not only to develop theoretical and technical expertise in the fine arts, humanities, and social sciences, but also to nurture the ability to think clearly and express ideas persuasively. Through its general education commitment and elective offerings, the college's faculty contributes to the broadening of the knowledge and experience of all graduates of Arkansas Tech University by promoting basic competence in communication skills, by fostering an appreciation and understanding of our cultural heritage and current world affairs, and by developing problem-solving techniques.

## Transfer Students

---

Applicability of transfer credit to meet specific degree requirements depends on the major selected by the transfer student. The transfer student should review the Transfer Credit policy in the Admission section of this catalog and meet with their academic advisor to determine final transfer credit eligibility for the selected program of study.

## Associate of Arts

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### General Education

The associate of arts degree program in general education is designed primarily for continuing education students who enroll on a part-time basis in the University's evening school. This degree offers students the background, knowledge, and academic preparation necessary to pursue career opportunities not requiring the traditional four-year degree while at the same time providing the foundation for continued study toward a bachelor's degree. To qualify for the associate of arts in general education, the student must satisfy the associate degree requirements, see "Associate Degrees" and complete the following curriculum:

Curriculum	Hours
General Education courses <sup>1</sup>	35
<a href="#">TECH 1001 Orientation to the University</a>	1
Electives	24
<b>Total</b>	<b>60</b>

<sup>1</sup>See "[General Education Requirements](#)".

## Department of Art

The Art Department is committed to quality visual arts education consistent with high professional standards. To achieve its mission, the Art Department seeks to provide:

Dr. Dawn M. Ward, Head  
Norman Hall, Room 104  
(479) 968-0244  
dward23@atu.edu

**Professors:**  
Mudrinich, D.M. Ward  
**Associate Professors:**  
Brands, Brunson, Harrington  
**Assistant Professors:**  
Fisher, Greer

1. A strong core foundation in visual art concepts and vocabulary in combination with the techniques, skills, and art processes to accomplish advanced projects.
2. Substantive curriculum content that engages and challenges students to think critically about their intellectual response to art as well as their own creative process.
3. Historical perspectives necessary for student understanding of the role of art across time, as a form of communication, and in cultural contexts.
4. Opportunities for developing a portfolio consistent with areas of professional specialization.
5. Leadership in developing and providing access to visual arts programming for the university and community.
6. Internships that offer students opportunities to work with professionals in their fields of study.

The Department of Art offers a Bachelor of Art degree in three areas: Art Education, Fine Art, and Graphic Design. The degree in Art Education (curriculum also located in [Secondary Education](#)), provides a foundation of art skills, methodology, and advanced work through teaching internships necessary for teacher licensure. The degree Fine Arts, concentrates on drawing, painting, printmaking, ceramics, and sculpture and other special art interests. The Graphic Design program enables a student to develop the skills and techniques required to engage in the various fields of advertising art. The department also offers a service course required in the area of general education and an art minor which provides an opportunity to investigate a range of content and studio experiences.

All majors will enroll in a foundations core made up of [ART 1303 Introduction to Drawing](#); [ART 1403 Two-dimensional Design](#); [ART 2403 Color Design](#); and [ART 2413 Three-dimensional Design](#). These courses may be taken independently of one another, and more than one may be taken in a semester. All art majors are required to enroll in the [ART 1001 Introduction to Art](#) course which provides an orientation to the art program and to the university, and the [ART 3001 Sophomore Review](#) course which serves as a review of the student's skills in the four required foundation courses, [ART 1303 Introduction to Drawing](#), [ART 1403 Two-dimensional Design](#), [ART 2403 Color Design](#), and [ART 2413 Three-dimensional Design](#). All art students are also required to take twelve hours of art history. Fine Art and Graphic Design students are required to exhibit their work in a culminating Senior Exhibition in their Senior Year.

### Curriculum in Art for Teacher Licensure

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<a href="#">Mathematics</a> <sup>1,T</sup>	3 <a href="#">ART 1503 Introduction to Graphic Design</a>	3
<a href="#">ART 1001 Introduction to Art</a>	1 <a href="#">ART 2123 Experiencing Art</a> <sup>T</sup>	3
<a href="#">ART 1303 Introduction to Drawing</a> <sup>T</sup>	3 <a href="#">ART 2403 Color Design</a> <sup>T</sup>	3
<a href="#">ART 1403 Two-dimensional Design</a> <sup>T</sup>	3	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#">SPH 2003 Public Speaking</a>	3
<a href="#">SEED 2002 Introduction to Secondary Education</a>	2 <a href="#">ART/JOUR 1163 Basic Digital Photography</a>	3
<a href="#">ART 2103 Art History I</a> <sup>T</sup>	3 <a href="#">ART 2113 Art History II</a> <sup>T</sup>	3

<u>ART 2413 Three-dimensional Design</u> <sup>T</sup>	3	<u>ART 2303 Figure Drawing</u> <sup>T</sup>	3
		<u>ART 3001 Sophomore Review</u>	1
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

<b>Fall</b>
<u>Social Sciences</u> <sup>1,T</sup>
<u>ART 3003 Concepts in Art Education</u>
<u>ART 3073 Introduction to Sculpture</u>
<u>ART 3403 Introduction to Opaque Painting</u> or <u>ART 3533 Watercolor Painting</u>
Art Elective (3000-4000)
<b>Total Hours</b>

<b>Junior</b>	<b>Spring</b>	
3	<u>SEED 3552 Adolescent Development</u>	2
3	<u>SEED 3702 Introduction to Educational Technology</u>	2
3	<u>SEED 4052 Adolescent Exceptionalities</u>	2
3	<u>ART 3013 Art Education Practicum</u>	3
3	<u>ART 3603 Introduction to Ceramics</u>	3
	Art History (3000-4000) <sup>2</sup>	3
<b>15 Total Hours</b>		<b>15</b>

<b>Fall</b>
<u>SEED 4556 Classroom Application of Educational Psychology</u>
<u>ART 3803 Introduction to Printmaking</u>
<u>ART 4823 Art Criticism and Aesthetics</u>
Art Elective (3000-4000)
<b>Total Hours</b>

<b>Senior</b>	<b>Spring</b>	
6	<u>SEED 4503 Seminar in Secondary Education</u>	3
3	<u>SEED 4809 Teaching in the Elementary and Secondary School</u>	9
3		
3		
<b>15 Total Hours</b>		<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Art history electives ART 3113 Art History, American, ART 3123 Art History, Renaissance, ART 3133 Art History, Americas & Africa, ART 3143 Art History, Asia & Pacific, ART 4103 Art History, Modern 1789-1945, ART 4113 Art History, Art After 1945, ART 4723 Art History Seminar can be used toward this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Fine Arts

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>			
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
<u>Mathematics</u> <sup>1,T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>ART 1001 Introduction to Art</u>	1	<u>ART 2403 Color Design</u> <sup>T</sup>	3
<u>ART 1303 Introduction to Drawing</u> <sup>T</sup>	3	<u>ART 2413 Three-dimensional Design</u> <sup>T</sup>	3
<u>ART 1403 Two-dimensional Design</u> <sup>T</sup>	3		
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

<b>Sophomore</b>			
<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<u>ART 2113 Art History II</u> <sup>T</sup>	3

<u>ART 2103 Art History I</u> <sup>T</sup>	3	<u>ART 2303 Figure Drawing</u> <sup>T</sup>	3
Elective <sup>2,T</sup>		3 <u>ART 3001 Sophomore Review</u>	1
		Elective <sup>2,T</sup>	2
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>ART 3073 Introduction to Sculpture</u>	3	<u>ART 3603 Introduction to Ceramics</u>	3
<u>ART 3303 Drawing Studio I</u>	3	<u>ART 3803 Introduction to Printmaking</u>	3
<u>ART 3403 Introduction to Opaque Painting or</u> <u>ART 3533 Watercolor Painting</u>	3	Art History (3000-4000) <sup>3</sup>	3
Art History (3000-4000) <sup>3</sup>	3	Art Elective <sup>2</sup>	3
Elective <sup>2,T</sup>	3	Elective <sup>2,T</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
Art Elective <sup>2</sup>	6	<u>ART 4703 Senior Project and Exhibition</u>	3
Elective <sup>2,T</sup>	9	Art Elective <sup>2</sup>	6
		Elective <sup>2,T</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 upper level hours are required, electives can include art courses. Art Electives are all upper level hours.

<sup>3</sup>Art history electives ART 3113 Art History, American, ART 3123 Art History, Renaissance, ART 3133 Art History, Americas & Africa, ART 3143 Art History, Asia & Pacific, ART 4103 Art History, Modern 1789-1945, ART 4113 Art History, Art After 1945, ART 4723 Art History Seminar, ART 4823 Art Criticism and Aesthetics can be used toward this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Graphic Design

The matrix below is a sample plan for all coursework required for this program

### Freshman

<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
<u>Mathematics</u> <sup>1,T</sup>	3	<u>ART 1503 Introduction to Graphic Design</u>	3
<u>ART 1001 Introduction to Art</u>	1	<u>ART 2403 Color Design</u> <sup>T</sup>	3
<u>ART 1303 Introduction to Drawing</u> <sup>T</sup>	3	<u>ART 2413 Three-dimensional Design</u> <sup>T</sup>	3
<u>ART 1403 Two-dimensional Design</u> <sup>T</sup>	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>ART 2113 Art History II</u> <sup>T</sup>	3

<a href="#">ART 2103 Art History I</a> <sup>T</sup>	3	<a href="#">ART 3001 Sophomore Review</a>	1
<a href="#">ART 2213 Digital Skills for the Graphic Designer</a>	3	Art Elective <sup>2</sup>	3
		Elective <sup>2,T</sup>	2
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>15</b>

#### Fall

<a href="#">Social Sciences</a> <sup>1,T</sup>
<a href="#">ART 3203 Typography and Layout</a>
<a href="#">ART 3253 Digital Illustration</a>
<a href="#">ART 3303 Drawing Studio I</a> or <a href="#">ART 4233 Illustration Studio</a>
Art History <sup>3</sup> (3000-4000)
<b>Total Hours</b>

#### Junior

##### Spring

3	<a href="#">ART 3232 Production Design</a>	2
3	<a href="#">ART 3243 Web Design</a>	3
3	<a href="#">ART 3803 Introduction to Printmaking</a>	3
3	Art History <sup>3</sup> (3000-4000)	3
3	Elective <sup>2</sup>	3
<b>15 Total Hours</b>		<b>14</b>

#### Fall

<a href="#">ART 3223 Package Design</a>
<a href="#">ART 4623 Animation Techniques</a>
Elective <sup>2</sup>
<b>Total Hours</b>

#### Senior

##### Spring

3	<a href="#">ART 4231 Graphic Design Exhibition</a>	1
3	<a href="#">ART 4243 Professional Portfolio Preparation for Graphic Designers</a>	3
9	Elective <sup>2</sup>	9
<b>15 Total Hours</b>		<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 upper level hours are required, general electives can include art courses. Art electives are all upper level hours.

<sup>3</sup>Art history electives [ART 3113 Art History, American](#), [ART 3123 Art History, Renaissance](#), [ART 3133 Art History, Americas & Africa](#), [ART 3143 Art History, Asia & Pacific](#), [ART 4103 Art History, Modern 1789-1945](#), [ART 4113 Art History, Art After 1945](#), [ART 4723 Art History Seminar](#), [ART 4823 Art Criticism and Aesthetics](#) can be used toward this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Art

The minor program provides an opportunity to investigate a range of content and studio experiences. Students who wish to take advanced level coursework in any studio area must meet prerequisites. The minor in art requires 18 hours of courses:

[ART 1303 Introduction to Drawing](#)  
[ART 1403 Two-dimensional Design](#)  
 ART Electives (9 hours)

**AND**

3 hours selected from the following:

[ART 2103 Art History I](#)  
[ART 2113 Art History II](#)  
[ART 2123 Experiencing Art](#)



## Department of Behavioral Sciences

The Behavioral Sciences Department includes the allied disciplines of psychology, sociology, anthropology, criminal justice, and rehabilitation science. The student is offered the opportunity to develop an understanding of human behavior via the distinctive approach of each discipline as well as an integrated view of interpersonal, social, and cultural activities.

The department has several distinctive goals. It gives basic preparation which may lead to advanced study. It provides a career line for work in state and local agencies and programs. It provides practical experience and skills in human services. Finally, it offers electives to support other programs of study in the University.

The student may select a major in Psychology, Sociology, or Rehabilitation Science. A Professional Studies degree emphasizing Criminal Justice is also available. In addition, the student may select an Associate of Science in Criminal Justice or in Ozark-Ouachita Studies or a minor in Anthropology, Psychology, Sociology, Rehabilitation Science, or Criminal Justice.

While each area outlines a complete program below, one of the objectives of the department is to maintain maximum flexibility of planning with each student within the context of the broad range of offerings. Each student is encouraged to consult with a departmental advisor at the earliest opportunity to develop a program appropriate to his/her interests and goals.

### Psychology

The Psychology curriculum is designed to (1) prepare students for advanced study in psychology; (2) support, through electives, programs of study in other disciplines; (3) give a basis for entry into the job market; (4) arouse the curiosity of all students regarding human behavior; (5) provide opportunities for experiences outside the classroom by way of field programs and practical experiences.

The student majoring in psychology must, in addition to meeting the general education requirements:

Basic Core (12 hours):

1. [PSY 2003 General Psychology](#)
2. [PSY/SOC 2053 Statistics for the Behavioral Sciences](#)
3. [PSY/SOC 2063 Research Methods for the Behavioral Sciences](#)
4. [PSY 4003 Advanced Research Methods for Psychology](#)

Topical Core (12 hours must be chosen from these classes):

1. [PSY 3003 Abnormal Psychology](#)
2. [PSY 3053 Physiological Psychology](#)
3. [PSY 3063 Developmental Psychology I](#)
4. [PSY 3073 Psychology of Learning](#)
5. [PSY/SOC 4043 Social Psychology](#)
6. [PSY 4073 Cognitive Psychology](#)

Other:

1. Upper Division Elective, PSY 6 hours
2. [ANTH 2003 Cultural Anthropology](#) or [ANTH 1213 Introduction to Anthropology](#) and [SOC 1003 Introductory Sociology](#)
3. Minor or Second Major

Dr. Jeffrey Woods, Head  
Witherspoon Hall, Room 240  
(479) 968-0274  
jwoods@atu.edu

**Professor:**

Bowen, Ward, Willmering

**Associate Professors:**

Huss, Osburn, Schluterman,  
Ulsperger, Wamick

**Assistant Professors:**

Chapman, Hickerson, Lockyer,  
McHugh, Samson, Stobaugh,  
Wiewel, Wondolowski

**Instructor**

Willbanks

### Curriculum in Psychology

The matrix below is a sample plan for all coursework required for this program

Freshman  
Spring

Fall

<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	4
<a href="#">Mathematics</a> <sup>1,T</sup>	3	3
<a href="#">TECH 1001 Orientation to the University</a>	1	6
Elective <sup>3,T</sup>	6	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>16</b>

**Fall**

<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>		
Science with Lab <sup>1,T</sup>		
<a href="#">PSY/SOC 2053 Statistics for the Behavioral Sciences</a> <sup>T</sup>		

**Total Hours**

**Sophomore**

**Spring**

6 Second Field of Study <sup>2,T</sup>		3
4 <a href="#">PSY Topical Core</a> <sup>4</sup>		3
3 <a href="#">PSY/SOC 2063 Research Design for the Behavioral Sciences</a> <sup>T</sup>		3
Elective <sup>3,T</sup>		6
<b>13 Total Hours</b>		<b>15</b>

**Fall**

[SOC 1003 Introductory Sociology](#)<sup>T</sup>

Second Field of Study<sup>2</sup>

[PSY Topical Core](#)<sup>4</sup>

Elective<sup>3</sup>

**Total Hours**

**Junior**

**Spring**

3 <a href="#">ANTH 1213 Introduction to Anthropology</a> or <a href="#">ANTH 2003 Cultural Anthropology</a> <sup>T</sup>		3
3 Second Field of Study <sup>2</sup>		6
6 <a href="#">PSY Topical Core</a> <sup>4</sup>		3
3 Elective <sup>3</sup>		3
<b>15 Total Hours</b>		<b>15</b>

**Fall**

PSY (3000-4000 level)

Second Field of Study<sup>2</sup>

Elective<sup>3</sup>

**Total Hours**

**Senior**

**Spring**

6 <a href="#">PSY 4003 Advanced Research Method and Lab for Psychology</a>		3
3 Elective <sup>3</sup>		12
6		
<b>15 Total Hours</b>		<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>A minor or second major may be used to fulfill the 2nd field of study.

<sup>3</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>4</sup>See appropriate options in "[Topical Core](#)".

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Psychology

The psychology minor is designed for students of any major who want to pursue an understanding of human behavior through psychology. Many majors could benefit from the psychology minor, but majors that are especially compatible include biology, business education, nursing, pre-med, pre-law, rehabilitation science, and sociology. The minor in psychology requires 18 hours of courses:

[PSY 2003 General Psychology](#)

PSY Electives (3 hours)

PSY Electives (12 hours of 3000 or 4000 level)

## Rehabilitation Science

The Rehabilitation Science curriculum is designed to produce undergraduate rehabilitation generalists who have training and experience conducive to successful careers in various rehabilitation service programs. Within the Rehabilitation Science major six emphasis areas are offered: 1) Addictions, 2) Aging, 3) Child Welfare, 4) Corrections, 5) Social Services, and 6) Disabilities/Vocational Rehabilitation.

Dr. Penny Willmering, Director  
Witherspoon 336-D  
(479) 968-0461  
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The Rehabilitation Science Program is dedicated to nurturing the scholastic development, respect for diversity, ethical behavior, passion for advocacy, and professionalism of future rehabilitation practitioners. The graduates from the program will effectively serve the needs of the community, individuals with disabilities, and other human service populations. In order to accomplish this mission, the program has a primary objective to develop personnel for careers with state and private agencies that provide rehabilitation services to persons with disabilities. The program prepares scholars to enter the workforce immediately upon graduation or to pursue additional educational training in graduate school.

Upon graduation from the program students may work in a variety of roles such as case worker, case manager, parole officer, probation officer, juvenile intake officer, children and family service worker, addictions professional, or a number of rehabilitation service provider roles in direct service settings. Examples of these settings are state rehabilitation services, developmental disability centers, psychiatric treatment facilities, correctional settings, nursing homes, halfway houses, community based rehabilitation facilities, workforce centers, disability determination units, and occupational training schools.

Graduates from the program who elect to attend graduate school typically pursue degrees in rehabilitation counseling, other counseling specialties, psychology related fields, social work, occupational therapy, physical therapy, and other human service related fields of study.

The student majoring in rehabilitation science must, in addition to completing the general education requirements:

- complete the rehabilitation and related required core, including 12 hours of field placement or a 12-hour internship in rehabilitation science. If the field placements are taken instead of an internship, the student must take one placement course in the core rehabilitation area, one in the chosen primary emphasis area, and one in the chosen secondary emphasis area.
- complete a minimum of 12 non-field placement hours in a primary emphasis area and 6 hours of the indicated courses in a secondary emphasis area. Emphasis areas available are vocational rehabilitation, social services, aging, corrections, child welfare and addictions.

### Curriculum in Rehabilitation Science

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<u>SOC 1003 Introductory Sociology</u> <sup>T</sup>	3 <u>ANTH 1213 Introduction to Anthropology</u> or <u>ANTH 2003 Cultural Anthropology</u>	3
<u>TECH 1001 Orientation to the University</u>	1 <u>PSY 2003 General Psychology</u> <sup>T</sup>	3
<u>RS 2003 Introduction to Rehabilitation Services</u>	3 Elective <sup>T</sup>	2
Elective <sup>T</sup>	2	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Sophomore

Fall	Spring	
Science with Lab <sup>1,T</sup>	4 <u>PSY/SOC 2063 Research Design for the Behavioral Sciences</u>	3
<u>PSY/SOC 2053 Statistics for the Behavioral Sciences</u> <sup>T</sup>	3 <u>RS 3004 Medical and Psychosocial Aspects of Disability</u>	4
<u>PSY 3063 Developmental Psychology I</u> <sup>T</sup>	3 Elective or Emphasis Area <sup>2,T</sup>	8

<a href="#">RS 3013 The World of Work</a>	3		
Elective <sup>T</sup>	2		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>
<b>Junior</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">RS 3023 Principles and Techniques of Rehabilitation Services</a>	3	<a href="#">PSY 3003 Abnormal Psychology</a> <sup>T</sup>	3
<a href="#">RS 3073 Organization and Structure in the Rehabilitation-Human Services Setting</a>	3	<a href="#">RS 3123 Ethics in Human Services</a>	3
Elective or Emphasis Area <sup>2</sup>	6	RS 40_4 <sup>3</sup>	4
		Elective or Emphasis Area <sup>2</sup>	2
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>
<b>Senior</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">RS 3133 Multicultural Issues in Human Services</a>	3	<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
RS 40_4 <sup>3</sup>	4	RS 40_4 <sup>3</sup>	4
Elective or Emphasis Area <sup>2</sup>	8	Elective or Emphasis Area <sup>2</sup>	8
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>18 hours of emphasis area courses are required. 12 hours in a primary emphasis and 6 hours in a secondary emphasis.

<sup>3</sup>Students who choose to complete a 12 hour internship ([RS 4012](#)) will do so either their last or next to last semester and will not take the three field placements RS 40\_4.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Rehabilitation Science

The rehabilitation science minor is designed primarily for psychology and sociology majors who want to add an applied dimension to their degree and are interested in working in a human services setting after completing degree requirements. It may also be of interest to business majors interested in working in human resources, nursing majors, education majors, and other degree programs. The minor in rehabilitation science requires 18 hours of courses:

[RS 2003 Introduction to Rehabilitation Services](#)  
[RS 3023 Principles and Techniques of Rehabilitation Science](#)

\*RS Electives (12 hours)

\*Students who choose to complete a minor in rehabilitation science should consult with a rehabilitation science faculty member to discuss course selection and how they want their RS minor to supplement their major.

## Sociology

The Sociology curriculum is designed to prepare students for employment in a range of careers or for advanced study in sociology, law, criminology, criminal justice, counseling, education, research, population, social work or other related fields. Sociology prepares majors to deal with the constant social change that is today's world. In addition to understanding the organization of social groups and the human behaviors that comprise everyday social life, sociologists remain important contributors to the collection of data pertaining to these levels of human behavior. The undergraduate sociology major learns to identify problems, formulate appropriate questions, search for answers, analyze data, organize information, and express themselves in written and spoken communication. The undergraduate major provides a strong liberal arts degree for entry-level positions throughout the business, social service, and government worlds. In addition to the general education requirements, a student majoring in sociology must complete: (1) 30 hours of sociology including [SOC 1003 Introductory Sociology](#), [SOC/ PSY 2053 Statistics for the Behavioral Sciences](#), [SOC/PSY 2063 Research Design for the](#)

Behavioral Sciences, SOC 2073 History of Social Thought, SOC 2083 Sociological Thought, SOC 3163 Introduction to Social Research, SOC 4283 Sociology Capstone and 9 credit hours of 3000-4000 level Sociology courses; (2) Complete a minor or major in a second field of study; (3) PSY 2003 General Psychology; and (4) RS 2003 Introduction to Rehabilitation Services; and ANTH 1213 Introduction to Anthropology or ANTH 2003 Cultural Anthropology.

## Curriculum in Sociology

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>TECH 1001 Orientation to the University</u>	1 <u>ANTH 1213 Introduction to Anthropology</u> or <u>ANTH 2003 Cultural Anthropology</u> <sup>T</sup>	3
<u>SOC 1003 Introductory Sociology</u> <sup>T</sup>	3 <u>Mathematics</u> <sup>1,T</sup>	3
General Elective <sup>2</sup>	3 General Elective <sup>2</sup>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>15</b>

### Sophomore

Fall	Spring	
<u>PSY 2003 General Psychology</u> <sup>T</sup>	3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>PSY/SOC 2053 Statistics for the Behavioral Sciences</u> <sup>T</sup>	3 <u>SOC 2083 Sociological Thought</u> <sup>T</sup>	3
<u>PSY/SOC 2063 Research Design for the Behavioral Sciences</u> <sup>T</sup>	3 General Elective <sup>2</sup>	6
<u>SOC 2073 History of Social Thought</u> <sup>T</sup>	3	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

### Junior

Fall	Spring	
<u>RS 2003 Introduction to Rehabilitation Services</u> <sup>T</sup>	3 <u>SOC 3163 Introduction to Social Research</u>	3
SOC Elective (3000-4000 level)	3 SOC Elective (3000-4000 level)	3
Elective- Minor	6 Elective- Minor	3
General Elective <sup>2</sup>	3 General Elective <sup>2</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Senior

Fall	Spring	
SOC Elective (3000-4000 level)	3 <u>SOC 4283 Sociology Capstone</u>	3
Elective- Minor	6 Elective- Minor	3
General Elective <sup>2</sup>	6 General Elective <sup>2</sup>	9
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>To be chosen in consultation with advisor. Students are strongly encouraged to pursue a foreign language. At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Sociology

The sociology minor is designed to prepare students for employment in a range of careers that require an understanding of social processes and institutions. In addition, the sociology minor is provided for students whose major department requires a minor. The minor in sociology requires 18 hours of courses:

[SOC 1003 Introductory Sociology](#)

[SOC/PSY 3133 Self and Society](#) or [SOC/CJ 2033 Social Problems](#)

SOC Electives (12 hours)

## Associate of Science Criminal Justice

The Associate of Science degree program in criminal justice is designed primarily for students interested in police work at levels other than Federal. This degree will provide the basic, foundational, knowledge to supplement the police academy experience.

Completion of the requirement for the associate's degree will provide the necessary background for those continuing study towards a bachelor's degree. To qualify for the Associate of Arts in criminal justice, the student must satisfy the associate degree requirements, see "[General Education Requirements](#)" of this catalog and complete the following curriculum:

### Curriculum in Criminal Justice

The matrix below is a sample plan for all coursework required for this program

		Freshman	
		Fall	Spring
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
Science with Lab <sup>1</sup>	4	Science with Lab <sup>1</sup>	4
<a href="#">Mathematics</a> <sup>1,T</sup>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1</sup>	3
<a href="#">CJ/SOC 2003 Introduction to Criminal Justice</a>	3	<a href="#">CJ/SOC 2043 Crime and Delinquency</a>	3
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>16</b>
		Sophomore	
		Fall	Spring
<a href="#">U.S. History/Government</a> <sup>1</sup>	3	<a href="#">Social Sciences</a> <sup>1</sup>	6
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3	General Elective	6
<a href="#">CJ/SOC 2033 Social Problems</a>	3	CJ Elective	3
CJ Elective	6		
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

<sup>1</sup>See "[General Education Requirements](#)".

## Minor Criminal Justice

The criminal justice minor is designed to prepare students for a career in the field of criminal justice, e.g. police work, probation/parole or corrections. In addition, the criminal justice minor is provided for students whose major department requires a minor. The minor in criminal justice requires 18 hours of courses:

[CJ/SOC 2003 Introduction to Criminal Justice](#)

[CJ/SOC 2043 Crime and Delinquency](#)

CJ Electives (12 hours)

## MOU Between ATU and NSU

Arkansas Tech University (ATU) and Northwestern State University (NSU) have agreed to enter into a Memorandum of Understanding for a 2+2 program between the two institutions. The 2+2 program will allow students to complete the



Associate of Arts in Criminal Justice at ATU and transfer in to the Bachelor of Art Degree in Criminal Justice at NSU. More information may be obtained from the Department of Behavioral Sciences.

## Associate of Science Ozark-Ouachita Studies

This program is designed to enhance the educational experience of students wishing to remain in the state after graduation and was derived from student interest (across academic disciplines) in a variety of topics related to the Ozark-Ouachita region. This new Associate of Science program offers the opportunity for students from three separate colleges pursuing a diversity of majors to focus their academic energy on issues of importance to Arkansas and its citizens. One goal of the program is to foster academic collaboration between the University's colleges with the hope of developing long-term research projects that combine the theories and methodologies of both the natural and social sciences. Another goal of the program is to make students uniquely employable to Arkansas businesses and to federal and state agencies targeted at cultural preservation, natural resource protection, and social services.

To qualify for the Associate of Science in Ozark-Ouachita studies, the student must satisfy the [associate degree requirements](#) of this catalog and complete the following curriculum:

### Curriculum in Ozark-Ouachita Studies

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
Science with Lab <sup>1</sup>	4 Science with Lab <sup>1</sup>	4
<a href="#">Mathematics</a> <sup>1</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1 <a href="#">Social Sciences</a> <sup>1</sup>	3
<a href="#">ANTH 1213 Introduction to Anthropology</a> or <a href="#">ANTH 2003 Cultural Anthropology</a>	3 <a href="#">ANTH 2103 Ozark-Ouachita Studies</a>	3
<b>Total</b>	<b>14 Total</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3 <a href="#">Social Sciences</a> <sup>1</sup>	6
<a href="#">U.S. History/Government</a> <sup>1</sup>	3 Approved Electives <sup>2</sup>	9
<a href="#">HIST 2153 Introduction to Arkansas History</a> or <a href="#">HIST 4153 History of Arkansas</a>	3	
<a href="#">SOC 2023 Sociology of the Ozark-Ouachita Region</a>	3	
General Elective	3	
<b>Total</b>	<b>15 Total</b>	<b>15</b>

<sup>1</sup>See "[General Education Requirements](#)".

<sup>2</sup>Approved list of electives include: [ANTH 3103 Anthropology of Food](#), [ANTH 3303 Southeastern Archaeology](#), [ANTH 3313 Southeastern Indians](#), [ANTH/HIST/MUSM 4403 Interpretation/Education through Museum Methods](#), [BIOL 1004 Principles of Environmental Science](#), [ENGL 4213 American Folklore](#), [FW 2003 Elements of Fish and Wildlife Management](#), [GEOL 1014 Physical Geology](#), [GEOL 2024 Historical Geology](#), [RP 1002 Backpacking](#), [RP 1011 Sport Hunting](#), [RP 1013 Principles of Recreation and Park Administration](#), [SOC 3063 Communities](#), [SOC 4183 Social Gerontology](#).

## Minor Anthropology

The minor in anthropology concentrates on the areas of cultural anthropology. Within this subdivision, the emphasis concerns historic and contemporary cultures (ethnography) and prehistoric cultures (archeology). The Russellville Station of the Arkansas Archeological Survey is located on the Arkansas Tech University campus and offers traditional opportunities in the state for students interested in anthropology. The minor in anthropology requires 18 hours of courses:

ANTH 1213 Introduction to Anthropology

ANTH 2003 Cultural Anthropology

ANTH Electives (12 hours)

## Department of Communication and Journalism

The Communication and Journalism Department offers majors in communication (speech and theatre options) and in journalism. In addition, the department offers minors in journalism, communication, and theatre. Students are involved in both the theoretical and applied dimensions of human communication in these programs. Consequently, students interested in further study and those interested in immediate career opportunities are served. With faculty guidance on the proper selection of courses, students can prepare for: (1) graduate school, (2) public school teaching, (3) recreational or professional theatre, (4) print or broadcast journalism, (5) public relations, or (6) business or government employment requiring communication expertise.

Being able to speak effectively has been recognized as an indicator of the well-educated person throughout recorded history. The ancient Greeks studied the theory and practice of communication under the label of "rhetoric," which also has taken a central role in American education since Harvard was founded in 1636. Even in today's technologically sophisticated world, good human communication skills are vitally important for one's personal and professional life. The study of communication in its original form, speech, or its evolved stages of print and electronic communication can prepare the student for citizenship in a democratic society, for more satisfying relationships, and for occupational success.

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**Professors:**

Norton, A. Morris

**Associate Professors:**

Adkins, Caton, Eshelman,  
Hudkins, S. Lee, Mann, Vaughn

**Assistant Professors:**

V. Jones, Mumert, Reeder,  
Toland

**Instructor:**

Donnell

### Communication

The communication major offers a speech option and a theatre option. Both options require 30 semester hours selected from departmental course offerings. Eighteen hours of the 30-hour major must be upper division level. Students planning to teach in the public schools should refer to the suggested curriculum in Speech set forth in this catalog under teacher licensure curricula, [College of Education](#).

Those students choosing the speech option must take [SPH 1003 Introduction to Speech - Communication](#), [SPH 2003 Public Speaking](#), [SPH 2023 Communication Research and Writing](#), [SPH 3123 Argumentation](#), and [SPH 4003 Human Communication Theory](#). Students choosing the speech option, in consultation with an advisor, can design a program in one of the following areas of emphasis: (1) communication for the professions; (2) language and culture; (3) organizational communication; and (4) performance studies.

Those students choosing the theatre option must take [SPH 2013 Voice and Diction](#), [TH 2203 Play Analysis](#), [TH 2513 Introduction to Theatrical Design and Production](#), [TH 2703 Acting Theories and Technologies](#), [TH 3513 Stagecraft Techniques](#); 3 hours of Theatre History, [TH 4263 Theatre History I: Antiquity to 1564](#), [TH 4273 Theatre History II: 1564 to 1900](#), [TH 4313 Theatre History III: 1900 to 1960](#), or [TH 4323 Theatre History IV: 1960 to the Present](#).

### Curriculum in Communication with Speech Option

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup> 3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3 <a href="#">Social Sciences</a> <sup>1,2,T</sup> 3
Science with Lab <sup>1,T</sup>	4 <a href="#">Mathematics</a> <sup>1,T</sup> 3
<a href="#">SPH 1003 Introduction to Speech - Communication</a>	3 Elective 6
<a href="#">TECH 1001 Orientation to the University</a>	1
Elective	3
<b>Total Hours</b>	<b>17 Total Hours 15</b>

#### Sophomore

Fall	Spring
Science with Lab <sup>1,T</sup>	4 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup> 3
<a href="#">SPH 2003 Public Speaking</a> <sup>T</sup>	3 <a href="#">Social Sciences</a> <sup>1,2,T</sup> 3

<u>SPH 2023 Communication Research and Writing</u>	3	<u>SPH 3123 Argumentation</u>	3
SPH Elective	3	Elective	6
Elective	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
SPH Elective (3000-4000 level)	6	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
Elective	9	SPH Elective (3000-4000 level)	3
		Elective (3000-4000 level)	9
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
<u>SPH 4003 Human Communication Theory</u>	3	SPH Elective	3
Elective (3000-4000 level)	12	SPH Elective (3000-4000 level)	3
		Elective (3000-4000 level)	1
		Elective	5
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Certain electives and social sciences are recommended based on student's emphasis.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Communication

The minor in speech communication is designed for students with any major who recognize the need for communication skills in order to achieve their career goals. The minor in speech requires 18 hours of courses:

SPH 2003 Public Speaking  
SPH 3123 Argumentation  
 SPH Elective (12 hours of 3000 or 4000 level)

## Curriculum in Communication with Theatre Option

The matrix below is a sample plan for all coursework required for this program

### Freshman

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<u>Social Sciences</u> <sup>1,4,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Mathematics</u> <sup>1,T</sup>	3
<u>TH 2203 Play Analysis</u>	3	Elective <sup>4,T</sup>	6
<u>TH 2703 Acting Theories and Technologies</u>	3		
<u>TECH 1001 Orientation to the University</u>	1		
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>15</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,4,T</sup>	3	<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,4,T</sup>	3

Science with Lab <sup>1,T</sup>	4	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,4,T</sup>	3
<a href="#">TH 2513 Introduction to Theatrical Design and Production</a>	3	<a href="#">SPH 2013 Voice and Diction</a>	3
Theatre Practicum	1	Elective <sup>4,T</sup>	6
Elective <sup>4,T</sup>	6		
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,4,T</sup>		3 TH History <sup>2</sup>	3
<a href="#">TH 3513 Stagecraft Techniques</a>		3 TH Elective (3000-4000 level) <sup>3</sup>	3
TH Elective (3000-4000 level) <sup>3</sup>		3 Elective <sup>5</sup>	9
Elective <sup>5</sup>		6	
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
Theatre Practicum		1 Theatre Practicum	1
TH Elective (3000-4000 level) <sup>3</sup>		3 TH Elective (3000-4000 level) <sup>3</sup>	3
Elective <sup>5</sup>		11 Elective <sup>5</sup>	7
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>11</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Choose one: [TH 4263 Theatre History I: Antiquity to 1564](#), [TH 4273 Theatre History II: 1564 to 1900](#), [TH 4313 Theatre History III: 1900 to 1960](#), [TH 4323 Theatre History IV: 1960 to the Present](#).

<sup>3</sup>A maximum of seven hours of theatre practicum courses may be counted toward the thirty-hour major.

<sup>4</sup>Certain electives and social sciences are recommended based on student's emphasis.

<sup>5</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Theatre

The minor in theatre is designed for students with any major who wish to acquire a better knowledge and understanding of the theatrical arts in order to enrich cultural experiences in their life. The minor in theatre requires 18 hours of courses:

[TH 2203 Play Analysis](#)  
[TH 2513 Intro to Theatre Design and Production](#)  
[TH 2703 Acting Theories and Techniques](#)  
[TH 3513 Stagecraft Techniques](#)  
 TH Elective (3 hours)

and 3 hours selected from the following:

[TH 4263 Theatre History I: Antiquity to 1564](#)  
[TH 4273 Theatre History II: 1564 to 1900](#)  
[TH 4313 Theatre History III: 1900 to 1960](#)  
[TH 4323 Theatre History IV: 1960 to Present](#)

## Journalism

The journalism major requires 34-35 semester hours in Journalism: 12 hours of core requirements, 12-13 hours in one of three options (print, broadcast, or public relations), 6 hours of electives, and 4 hours of practicum. Students may take a total of eight hours of practicum coursework; however, only four will count toward the major. The 12 hours in any option must include the pertinent writing course. Recommended courses for each option are listed, with substitutions possible with the approval of the student's advisor and department head. Moreover, Journalism requires two semesters (6 hours) of one foreign language; and all majors must know how to type on a computer keyboard.

## Core Requirements

[JOUR 2133 Introduction to Mass Communication](#)  
[JOUR 2143 News Writing](#)  
[JOUR 2163 Introduction to Multimedia](#)  
[JOUR 4883 Mass Communication Theory](#)

## Broadcast Option:

[JOUR 2153 Introduction to Telecommunication](#)  
[JOUR 3183 Broadcast News Writing](#) (required for concentration)  
[JOUR 3193 New Media News Gathering](#)  
[JOUR 4133 Television Program Production](#)

## Print Option:

[JOUR 4114 News Editing](#)  
[JOUR 3143 News Reporting](#) (required for concentration)  
[JOUR 3153 Feature Writing](#)  
[JOUR 4143 Advanced Reporting](#)

## Public Relations Option:

[JOUR 3173 Public Relations Principles](#)  
[JOUR 3273 Public Relations Writing](#) (required for concentration)  
[JOUR 4073 Graphic Communication](#)  
[JOUR 4173 Public Relations Project](#)

## Curriculum in Journalism with Broadcast Option

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#">Mathematics</a> <sup>1,T</sup>	3
<a href="#">JOUR 2133 Introduction to Mass Communication</a>	3 <a href="#">JOUR 2163 Introduction to Multimedia</a>	3
<a href="#">TECH 1001 Orientation to the University</a>	1 Elective <sup>2,5,T</sup>	2
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>14</b>

### Sophomore

Fall	Spring	
Beginning Language I <sup>4,6,T</sup>	3 Beginning Language II <sup>4,6,T</sup>	3
<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">JOUR 2143 News Writing</a>	3 Broadcast Option Course <sup>3</sup>	3
Broadcast Practicum <sup>5</sup>	1 Broadcast Practicum <sup>5</sup>	1
Elective <sup>2,5,T</sup>	1 Elective <sup>2,5,T</sup>	2
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Junior

Fall	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3 Broadcast Option Course <sup>3</sup>	3
Broadcast Option Course <sup>3</sup>	3 Broadcast Practicum <sup>5</sup>	1



Broadcast Practicum <sup>5</sup>	1	Elective <sup>2,5,T</sup>	12
Elective <sup>2,5,T</sup>	9		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

#### Senior

<b>Fall</b>		<b>Spring</b>	
JOUR Elective <sup>5</sup>	3	<u>JOUR 4883 Mass Communication Theory</u>	3
Elective <sup>2,5,T</sup>	11	Broadcast Option Course <sup>3</sup>	3
		Elective <sup>2,5,T</sup>	10
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Recommended electives include [SPH 2003 Public Speaking](#), [SPH 2013 Voice and Diction](#), [SPH 3003 Interpersonal Communication](#), [SPH 3063 Oral Interpretation](#), [SPH 3073 Group Communication](#); [SOC 1003 Introductory Sociology](#); [PSY 2003 General Psychology](#); [ECON 2003 Principles of Economics I](#); [POLS 2003 American Government](#), [POLS 3033 American State and Local Government](#).

<sup>3</sup>Broadcast option courses include [JOUR 2153 Introduction to Telecommunication](#), [JOUR 3183 Broadcast News Writing](#), [JOUR 3193 New Media News Gathering](#) and [JOUR 4133 Television News Production](#).

<sup>4</sup>Must be same language.

<sup>5</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>6</sup>Students may waive three hours of language requirement for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Journalism with Print Option

The matrix below is a sample plan for all coursework required for this program

#### Freshman

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<u>Mathematics</u> <sup>1,T</sup>	3
<u>JOUR 2133 Introduction to Mass Communication</u>	3	<u>JOUR 2163 Introduction to Multimedia</u>	3
<u>TECH 1001 Orientation to the University</u>	1	Elective <sup>2,5,T</sup>	2
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>14</b>

#### Sophomore

<b>Fall</b>		<b>Spring</b>	
Beginning Language I <sup>4,6,T</sup>	3	Beginning Language II <sup>4,6,T</sup>	3
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>JOUR 2143 News Writing</u>	3	Print Option Course <sup>3</sup>	3
Journalism Practicum <sup>5</sup>	1	Journalism Practicum <sup>5</sup>	1
Elective <sup>2,5,T</sup>	1	Elective <sup>2,5,T</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16</b>

#### Junior

<b>Fall</b>		<b>Spring</b>
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<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	Print Option Course <sup>3</sup>	4
<u>JOUR 3143 News Reporting</u>	3	Journalism Practicum <sup>5</sup>	1
Journalism Practicum <sup>5</sup>	1	Elective <sup>2,5,T</sup>	11
Elective <sup>2,5,T</sup>	9		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
Print Option Course <sup>3</sup>		3 <u>JOUR 4883 Mass Communication Theory</u>	3
Elective <sup>2,5,T</sup>		11 JOUR Elective (3000-4000 level)	3
		Elective <sup>2,5,T</sup>	9
<b>Total Hours</b>		<b>14 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Recommended electives include [SOC 1003 Introductory Sociology](#), [PSY 2003 General Psychology](#), [ECON 2003 Principles of Economics I](#), [POLS 2003 American Government](#), [POLS 3033 American State and Local Government](#), [SPH 2003 Public Speaking](#), [SPH 3003 Interpersonal Communication](#).

<sup>3</sup>Print option courses include [JOUR 3153 Feature Writing](#), [JOUR 4114 News Editing](#), [JOUR 4143 Advanced Reporting](#).

<sup>4</sup>Must be same language.

<sup>5</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>6</sup>Students may waive three hours of language requirement for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum Journalism with Public Relations Option

The matrix below is a sample plan for all coursework required for this program

### Freshman

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>		3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>Social Sciences</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>		4 <u>Mathematics</u> <sup>1,T</sup>	3
<u>JOUR 2133 Introduction to Mass Communication</u>		3 <u>JOUR 2163 Introduction to Multimedia</u>	3
<u>TECH 1001 Orientation to the University</u>		1 Elective <sup>2,3,5,T</sup>	2
<b>Total Hours</b>		<b>14 Total Hours</b>	<b>14</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
Beginning Language I <sup>4,6,T</sup>		3 Beginning Language II <sup>4,6,T</sup>	3
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>		4 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>JOUR 2143 News Writing</u>		3 JOUR Elective(3000-4000 level)	3
Journalism Practicum		1 Journalism Practicum	1
Elective <sup>2,3,5,T</sup>		1 Elective <sup>2,3,5,T</sup>	4
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>17</b>

### Junior

<b>Fall</b>	<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>JOUR 3273 Public Relations Writing</u>	3
<u>JOUR 3173 Public Relations Principles</u>	3 Journalism Practicum	1
Journalism Practicum	1 Elective (3000-4000 level) <sup>2,3</sup>	1
Elective <sup>2,3,5,T</sup>	9 Elective <sup>2,3,5,T</sup>	9
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>

#### Senior

<b>Fall</b>	<b>Spring</b>	
<u>JOUR 4073 Graphic Communication</u>	3 <u>JOUR 4173 Public Relations Project</u>	3
Elective (3000-4000 level) <sup>2,3</sup>	12 <u>JOUR 4883 Mass Communication Theory</u>	3
Elective <sup>2,3,5,T</sup>	1 Elective(3000-4000 level) <sup>2,3</sup>	8
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Recommended PR electives: [POLS 3053 Introduction to Public Administration](#), [PSY 2023 Consumer Psychology](#), [SPH 3073 Group Communication](#), [SPH 4063 Organizational Communication](#), [SPH 4173 Internship in Speech Communication](#), an approved marketing class.

<sup>3</sup>Recommended JOUR electives: [SOC 1003 Introductory Sociology](#), [PSY 2003 General Psychology](#), [ECON 2003 Principles of Economics I](#), [POLS 2003 American Government](#), [POLS 3033 American State and Local Government](#), [SPH 2003 Public Speaking](#), [SPH 3003 Interpersonal Communication](#).

<sup>4</sup>Must be in the same language.

<sup>5</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>6</sup>Students may waive three hours of language requirement for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Journalism

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The minor in journalism is designed for students with any major who wish to better understand the role of media in a free society, and/or who anticipate dealing with media outlets in their future careers. The minor in journalism requires 18 hours of courses:

[JOUR 2133 Introduction to Mass Communication](#)

[JOUR 2143 News Writing](#)

[JOUR 4883 Mass Communication Theory](#)

JOUR Electives (9 hours of 3000 or 4000 level from the three Journalism Options listed above)

## Department of English and World Languages

The Department of English and World Languages offers majors and teacher licensure in creative writing, English, and Spanish. In addition, the department offers minors in creative writing, English, film studies, French, German, Japanese, Latin American/Latino studies with language proficiency, Latin American/Latino studies without language proficiency, Spanish, Spanish medical Interpretation and teaching English as a second language.

The program in English seeks to help students express themselves effectively, especially in writing; develop a respect for and an understanding of language; appreciate and profit from a study of our common literary heritage; increase their awareness of and empathy for diverse peoples and cultures; discover the relevance of ideas and values found in their reading; and learn to think critically and evaluate wisely.

English majors are prepared for a variety of careers in advertising, communications, education, government, management, personnel work, public relations, and sales. A degree in English also provides an excellent undergraduate preparation for the student planning to pursue graduate study of business, law, or the humanities.

The degree program in English requires 36 semester hours in English: [ENGL 2063 Advanced Composition: Practice and Theory](#); [ENGL 3013 Systems of Grammar](#) or [ENGL 3023 Introduction to Linguistics](#); [ENGL 3313 American Literature to 1900](#); [ENGL 3323 Modern American Literature](#); [ENGL 3413 British Literature to 1800](#); [ENGL 3423 British Literature since 1800](#) and six English electives. The English major must also complete two semesters of study in one foreign language or have completed two years of language study in high school with grades of "C" or better.

Students who plan to use an English degree as a preparation for law school are encouraged to complete some of the following electives in addition to their required courses: [BLAW 2033, Legal Environment of Business](#); [PHIL 3103, Logic](#); [CJ 4023, Law and the Legal System](#); [POLS/CJ 3023 Judicial Process](#); [POLS 4043, American Constitutional Law](#); [CJ 4053, Criminal Law and the Constitution](#); [SOC/CJ 2043, Crime and Delinquency](#); [PSY 2003, General Psychology](#); [SPH 2003, Public Speaking](#); [SPH 2111-SPH 2121, Debate Practicum](#); [SPH 4153, Persuasive Theory and Audience Analysis](#); [JOUR 4123, Laws of Communication](#).

The curriculum for teacher licensure in English is located in the catalog section for the [College of Education](#).

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(479) 968-0256  
cbrucker@atu.edu

**Professors:**

Brucker, Chandler, Gemme, Lake, Lombardo, Poznar, D. D. Ward, White, Wilson, Zakharian

**Associate Professors:**

Carballo, Enchelmayer, Ramirez, St. John, Shaman, Worley

**Assistant Professors:**

Clair, Garvin, Hoffman, McKeever, Stein

**Instructors:**

N. Cox, Greenwood, B. Hogan, Joselin, Swetnam, W. Taylor

### Curriculum in English (BA Degree)

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">Mathematics</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
Beginning Language I <sup>2,T</sup>	3 Beginning Language II <sup>2,T</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1 Elective <sup>4</sup>	1
Elective <sup>4</sup>	1	
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>14</b>

#### Sophomore

Fall	Spring	
<a href="#">ENGL 2063 Advanced Composition: Practice and Theory</a>	3 <a href="#">ENGL 3013 Systems of Grammar</a> or <a href="#">ENGL 3023 Introduction to Linguistics</a>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3 <a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3 English Elective <sup>3</sup>	3

English Elective <sup>3</sup>	3 Elective <sup>4</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>
<b>Junior</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">ENGL 3313 American Literature to 1900</a>	3 <a href="#">ENGL 3323 Modern American Literature</a>	3
<a href="#">ENGL 3413 British Literature to 1800</a>	3 <a href="#">ENGL 3423 British Literature since 1800</a>	3
English Elective <sup>3</sup>	3 English Elective <sup>3</sup>	3
Elective <sup>4,T</sup>	6 Elective <sup>4,T</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
<b>Senior</b>		
<b>Fall</b>	<b>Spring</b>	
English Elective (3000-4000 level)	3 English Elective (3000-4000 level)	3
Elective <sup>4</sup>	12 Elective <sup>4</sup>	13
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>All minimum college hours (at least two semesters) should be in one language. Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination. Students may waive three hours of language requirements for every one year of language study in high school with grades of "C" or better.

<sup>3</sup>Any 2-4000 level English courses excluding [ENGL 2003 Introduction to World Literature](#), [ENGL 2013 Introduction to American Literature](#), [ENGL/JOUR 2173 Introduction to Film](#), [ENGL 2881 Practicum-Literary Journal Publication](#), and [ENGL 4881-4 Practicum-Editing Literary Journal](#).

<sup>4</sup>At least 40 of the 120 hours required for graduation must be earned in 3000-4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor English

The English minor is an excellent complement to any major, allowing students to choose from a wide selection of courses in literature, advanced writing, and linguistics.

The minor in English requires 18 hours of English courses:

ENGL Electives (9 hours, excluding [ENGL 1013 Composition I](#), [ENGL 1023 Composition II](#), [ENGL 1043 Honors Composition I](#), and [ENGL 1053 Honors Composition II](#))

ENGL Electives (9 hours of 3000 or 4000 level)

## Minor Film Studies

The film studies minor requires 18 hours of course work selected from the following:

[ENGL/JOUR 2173 Introduction to Film](#)

[ENGL 3173 Studies in Film](#) (may be repeated)

[ENGL 3183 Studies in Television](#) (may be repeated)

[ENGL 4173 Seminar in Film Studies](#) (may be repeated)

[ENGL 4093 Seminar in Creative Writing: Screenwriting](#)

[HIST 4163 American History Through Film](#)

[SPAN 4803 Film Theory](#)

## Minor Teaching English as a Second Language

The minor in teaching English as a second language offers students an opportunity to add this useful specialization to their transcripts.

The minor in teaching English as a second language requires 18 hours of English and world languages courses:

[ENGL 4023 Second Language Acquisition](#)

[ENGL 4703 Teaching English as a Second Language](#)

[ENGL 4713 ESL Assessment](#)  
[ENGL 4723 Teaching People of Other Cultures](#)  
 and 6 hours selected from the following:  
[ENGL 3013 Systems of Grammar](#)  
[ENGL/FR/GER/SPAN/SPH 3023 Introduction to Linguistics](#)  
[ENGL 4733 Teaching English in the Secondary School](#)  
[FR/GER/SPAN 4703 Foreign Language Teaching Methods](#)

## Creative Writing

The program in creative writing seeks to help students develop their creative potential, especially in writing; explore the practical aspects of publishing and getting published; learn a respect for and an understanding of language; appreciate and profit from a study of our common literary heritage; increase their awareness of and empathy for diverse peoples and cultures; discover the relevance of ideas and values found in their reading; and learn to think critically and evaluate wisely.

Creative writing majors are prepared for a variety of careers in advertising, communications, education, government, management, personnel work, public relations, and sales. A degree in English also provides an excellent undergraduate preparation for the student planning to pursue graduate study of business, law, or the humanities.

The degree program in creative writing requires 45 hours in English: [ENGL 2043 Introduction to Creative Writing](#); [ENGL 2063 Advanced Composition: Practice and Theory](#); [ENGL 3043 Literary Editing and Publishing](#) [ENGL 3083 Fiction Workshop](#); [ENGL 3093 Poetry Workshop](#); [ENGL 3313 American Literature to 1900](#); [ENGL 3323 Modern American Literature](#); [ENGL 3413 British Literature to 1800](#); [ENGL 3423 British Literature since 1800](#); [ENGL 4093 Seminar in Creative Writing](#); [ENGL 4813 Senior Project in Creative Writing](#) and four English electives. The creative writing major must complete two semesters in one foreign language or have completed two years of language study in high school with grades of "C" or better.

Students who plan to use a creative writing degree as a preparation for law school are encouraged to complete some of the following electives in addition to their required courses:

[BLAW 2033 Legal Environment of Business](#);  
[CJ/SOC 2043 Crime and Delinquency](#);  
[CJ/POLS 3023 Judicial Process](#);  
[CJ 4023 Law and the Legal System](#);  
[CJ 4053 Criminal Law and the Constitution](#);  
[JOUR 4123 Laws of Communication](#);  
[PHIL 3103 Logic](#);  
[POLS 4043 American Constitutional Law](#);  
[PSY 2003 General Psychology](#);  
[SPH 2003 Public Speaking](#);  
[SPH 2111- SPH 2121 Debate Practicum](#);  
[SPH 4153 Persuasive Theory and Audience Analysis](#).

The curriculum for teacher licensure in creative writing is located in the catalog section for the [College of Education](#).

### Curriculum in Creative Writing (BFA Degree)

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	6 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">Mathematics</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
Beginning Language I <sup>4</sup>	3 Beginning Language II <sup>4</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1 Elective <sup>3,T</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring
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<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3	<a href="#">ENGL 3043 Literary Editing and Publishing</a>	3
Science with Lab <sup>1,T</sup>	4	English Elective <sup>2</sup>	6
<a href="#">ENGL 2043 Introduction to Creative Writing</a>	3	Elective <sup>3,T</sup>	3
<a href="#">ENGL 2063 Advanced Composition: Practice and Theory</a>	3		
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<a href="#">ENGL 3093 Poetry Workshop</a>	3	<a href="#">ENGL 3083 Fiction Workshop</a>	3
<a href="#">ENGL 3313 American Literature to 1900</a>	3	<a href="#">ENGL 3323 Modern American Literature</a>	3
<a href="#">ENGL 3413 British Literature to 1800</a>	3	<a href="#">ENGL 3423 British Literature since 1800</a>	3
Elective <sup>3,T</sup>	6	Elective <sup>3</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
<a href="#">ENGL 4093 Seminar in Creative Writing</a>	3	<a href="#">ENGL 4813 Senior Project in Creative Writing</a>	3
English Elective <sup>2</sup>	3	English Elective (3000-4000 level)	3
Elective <sup>3,T</sup>	9	Elective <sup>3</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Any 2-4000 level English courses excluding [ENGL 2003 Introduction to World Literature](#), [ENGL 2013 Introduction to American Literature](#), [ENGL/JOUR 2173 Introduction to Film](#), [ENGL 2881 Practicum-Literary Journal Publication](#), and [ENGL 4881-4 Practicum-Editing Literary Journal](#).

<sup>3</sup>At least 40 of the 120 hours required for graduation must be earned in 3000-4000 level courses.

<sup>4</sup>All minimum college hours (at least two semesters) should be in one language. Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination. Students may waive three hours of language requirements for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Creative Writing

The minor in creative writing provides students who cannot complete a full major with an opportunity to explore their interests in writing.

The minor in creative writing requires 18 hours of courses:

[ENGL 2043 Introduction to Creative Writing](#)

[ENGL 3083 Fiction Workshop](#)

[ENGL 3093 Poetry Workshop](#)

and 9 hours selected from the following:

[ENGL 2063 Advanced Composition](#)

[ENGL 2881 Practicum-Literary Journal Publication](#)

[ENGL 4881-4 Nebo Practicum](#)

[ENGL 3043 Literary Editing and Publishing](#)

[ENGL 4093 Seminar in Creative Writing](#)

ENGL Electives (any 3000 or 4000 level literature course)

## World Languages

The program in world languages helps students grow personally, socially, and professionally. The department works to develop students' learning skills in world languages; to teach students to communicate effectively; to foster cultural understanding, tolerance and world perspective; and to prepare students to live, study, or work in international settings. World languages students are prepared to pursue graduate degrees and a variety of careers in business and industry, communication, education, foreign service, government, and public relations.

Students may choose a degree program in Spanish; pursue studies in Latin,; or complete a minor in French, German, Japanese, Latin American/Latino studies with language proficiency, Latin American/Latino studies without language proficiency, Spanish, and Spanish Medical Interpretation.

The degree program in Spanish requires 39 hours.

Students with previous world languages experience may petition the Department of English and World Languages for advanced placement and credit. Petitioners will be given written and/or oral examinations by a world languages faculty member who will then recommend an appropriate language placement level. This placement level will not exceed [FR 3013 Conversation and Composition II](#), [GER 3013 Conversation and Composition II](#), [JPN 3013 Conversation and Composition II](#), or [SPAN 3013 Conversation and Composition II](#), and will be approved by the department head. Students who have omitted one or more courses in the basic language sequence will receive credit for omitted courses when they have validated their advanced placement by passing the course into which they are placed with a grade of "C" or better.

Students who want to improve their Japanese language skills and cultural knowledge may do so by studying for a semester or a year at Komazawa University in Tokyo. (see the catalog entry under Student Exchange Opportunities).

The curriculum for teacher licensure in Spanish is located in the catalog section of the [College of Education](#).

### Curriculum in World Languages (BA Degree with Concentration Spanish)

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">Mathematics</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<a href="#">SPAN 2013 Intermediate Spanish I</a> <sup>2,3,T</sup>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1 <a href="#">SPAN 2023 Intermediate Spanish II</a> <sup>2,3,T</sup>	3
<b>Total Hours</b>	<b>13 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>1, T</sup>	3 <a href="#">SPAN 3013 Conversation and Composition II</a>	3
Science with lab <sup>1,T</sup>	4 <a href="#">SPAN 3213 Advanced Grammar and Usage</a>	3
<a href="#">SPAN 3003 Conversation and Composition I</a>	3 Electives <sup>4,T</sup>	6
Electives <sup>4,T</sup>	3	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

#### Junior

Fall	Spring	
<a href="#">SPAN 3133 Spanish-American Civilization and Culture</a>	3 <a href="#">SPAN 3123 Spanish Civilization and Culture</a>	3
SPAN Elective (3000-4000 level)	3 <a href="#">SPAN 4023 Introduction to Spanish Linguistics</a>	3
Elective <sup>4,T</sup>	9 SPAN Elective (3000-4000 level)	3
	Elective <sup>4</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

		<b>Senior</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">SPAN 4213 Spanish Literature</a>		3 <a href="#">SPAN 4223 Spanish-American Literature</a>	3
SPAN Elective (3000-4000 level)		3 Elective <sup>4</sup>	12
Elective <sup>4</sup>		9	
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination.

<sup>3</sup>Lab attendance is required for the beginning and intermediate foreign language courses.

<sup>4</sup>At least 40 of the total hours required for graduation must be 3000-4000 level.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor French

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The minor in French is designed for foreign language majors who would like to study an additional language and for students who cannot complete a major in a foreign language, but for employment or other considerations, would like to obtain some basic foreign language competencies and be familiar with the culture of the target language. The minor in French requires 21 hours of courses (all course prerequisites must be met first):

[FR 1013 Beginning French I](#)

[FR 1023 Beginning French II](#)

[FR 2013 Intermediate French I](#)

[FR 2023 Intermediate French II](#)

[FR 3003 Conversation and Composition I](#)

[FR 3013 Conversation and Composition II](#)

[FR 3113 Culture and Civilization](#)

## Minor German

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The minor in German is designed for foreign language majors who would like to study an additional language and for students who cannot complete a major in a foreign language, but for employment or other considerations, would like to obtain some basic foreign language competencies and be familiar with the culture of the target language. The minor in German requires 21 hours of courses:

[GER 1013 Beginning German I](#)

[GER 1023 Beginning German II](#)

[GER 2013 Intermediate German I](#)

[GER 2023 Intermediate German II](#)

[GER 3003 Conversation and Composition I](#)

[GER 3013 Conversation and Composition II](#)

[GER 3113 Culture and Civilization](#)

## Minor Japanese

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The minor in Japanese is designed for foreign language majors who would like to study an additional language and for students who cannot complete a major in a foreign language, but for employment or other considerations, would like to obtain some basic foreign language competencies and be familiar with the culture of the target language. The minor in Japanese requires 21 hours of courses:

[JPN 1013 Beginning Japanese I](#)

[JPN 1023 Beginning Japanese II](#)

[JPN 2013 Intermediate Japanese I](#)

[JPN 2023 Intermediate Japanese II](#)

[JPN 3003 Conversation and Composition I](#)

[JPN 3013 Conversation and Composition II](#)

## **Minor Latin American/Latino Studies with language proficiency**

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The minor in Latin American and Latino Studies with language proficiency is designed for students who wish to obtain a sufficient background about the Spanish speaking populations in Arkansas and the United States. This minor will be particularly valuable to students who are already bilingual and who plan to work with native Spanish speakers in the health fields, law enforcement, education, and the service sectors. The minor in Latin American and Latino Studies with language proficiency requires 18 hours of courses (all course prerequisites must be met first):

[HIST 3313 Colonial Latin America](#)

[HIST 3323 Modern Latin America](#)

[HIST 4133 Latinos in the United States](#)

AND

9 hours selected from the following:

[SPAN 3123 Spanish Civilization and Culture](#)

[SPAN 3133 Spanish-American Civilization and Culture](#)

[SPAN 3143 Contemporary Hispanic Culture Immersion Experiences](#)

[SPAN 4213 Spanish Literature](#)

[SPAN 4223 Spanish-American Literature](#)

[SPAN 4803 Film Theory](#)

[SPAN 4991-3 Special Problems in Spanish](#)

## **Minor Latin American/Latino Studies without language proficiency**

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The minor in Latin American and Latino Studies without language proficiency is designed for students who wish to obtain a sufficient background about the Spanish speaking populations in Arkansas and the United States, but who do not wish to major in either history or Spanish. This minor will be particularly valuable to students who plan to work with native Spanish speakers in the health fields, law enforcement, education, and the service sectors. The minor in Latin American and Latino Studies without language proficiency requires 18 hours of courses (all course prerequisites must be met first):

[GEOG 3303 Geography of Latin America](#)

[HIST 3313 Colonial Latin America](#)

[HIST 3323 Modern Latin America](#)

[HIST 4133 Latinos in the United States](#)

[SPAN 1013 Beginning Spanish I](#)

[SPAN 1023 Beginning Spanish II](#)

## **Minor Spanish**

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The minor in Spanish is designed for students who cannot complete a major in a foreign language, but for employment or other considerations, would like to obtain some basic foreign language competencies and be familiar with the culture of the target language. The minor in Spanish requires 21 hours of courses:

[SPAN 1013 Beginning Spanish I](#)

[SPAN 1023 Beginning Spanish II](#)

[SPAN 2013 Intermediate Spanish I](#)

[SPAN 2023 Intermediate Spanish II](#)

[SPAN 3003 Conversation and Composition I](#)

[SPAN 3013 Conversation and Composition II](#) or [SPAN 3113 Business Spanish](#)

[SPAN 3123 Spanish Civilization and Culture](#) or [SPAN 3133 Spanish-American Civilization and Culture](#)

## **Minor Spanish Medical Interpretation**

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The minor in Spanish Medical Interpretation is designed for students who plan careers in medicine and would like to obtain some basic Spanish competencies and an introduction to medical interpretation theory and Spanish medical terminology. The minor in Spanish Medical Interpretations requires 20 hours of courses (all course prerequisites must be met first):

[SPAN 1063 Basic Spanish for Medical and Social Services](#)

[SPAN 2013 Intermediate Spanish I](#)

[SPAN 2023 Intermediate Spanish II](#)

[SPAN 3003 Conversation and Composition I](#)

[SPAN 3013 Conversation and Composition II](#)

[SPAN 3133 Spanish-American Civilization and Culture](#)



## Department of History and Political Science

Baccalaureate degrees in history, political science, and international studies offer excellent preparation for careers in government and education, further study in graduate school or law school, and careers in the private sector of the economy. The baccalaureate degree in public history prepares students for careers in historic preservation as well as museum and archive management. Students interested in becoming teachers may also elect to work toward social studies secondary teaching licensure. In addition, the department offers minors in geography, history, military science, philosophy, political science, religious studies, strategic studies and pre-law.

Students must complete 120 hours for graduation with a degree in history, political science international studies, public history or social studies education.

For the curriculum in [Social Studies for teacher licensure](#), see Curriculum in Secondary Education.

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**Professors:**

DeBlack, Dykema, Jenkins, Mitchell, Moses, Tarver, Woods

**Associate Professors:**

Gleason, Link, Rogers, Swain

**Assistant Professors:**

Hagge, Housenick, McArthur, Neel, Pearson, Toner

### History

In the General Education requirements, history majors are required to take the two-course sequence in world history, [HIST 1503 World History to 1500](#) and [HIST 1513 World History since 1500](#); and the two-course sequence in American history, [HIST 2003 United States History to 1877](#) and [HIST 2013 United States History since 1877](#). Additional courses required for the history degree include, [POLS 2003 American Government](#) and [ECON 2003 Principles of Economics I](#), [GEOG 2013 Regional Geography of the World](#), [ANTH 2003 Cultural Anthropology](#) or [SOC 1003 Introductory Sociology](#), [HIST 2513 Sources and Methods in History](#), [HIST 4153 History of Arkansas](#), and [HIST 4963 Senior Seminar](#). Fifteen additional semester hours must be 3000-4000 level history courses with at least six hours in U.S. History and six hours in world/European history. History majors are also required to take six hours of beginning language courses or obtain the appropriate waiver for high school language study.

### Curriculum in History

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<a href="#">Mathematics</a> <sup>1,T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">TECH 1001 Orientation of the University</a>	1 <a href="#">POLS 2003 American Government</a>	3
<a href="#">HIST 1503 World History to 1500</a> <sup>T</sup>	3 <a href="#">HIST 1513 World History since 1500</a> <sup>T</sup>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
Beginning Language I <sup>5</sup>	3 Beginning Language II <sup>5</sup>	3
<a href="#">ANTH 2003 Cultural Anthropology</a> or <a href="#">SOC 1003 Introductory Sociology</a>	3 <a href="#">HIST 2013 United States History since 1877</a> <sup>T</sup>	3
<a href="#">ECON 2003 Principles of Economics I</a>	3 <a href="#">HIST 2513 Sources and Methods in History</a>	3
<a href="#">GEOG 2013 Regional Geography of the World</a>	3 GEOG Elective (3000-4000 level)	3
<a href="#">HIST 2003 United States History to 1877</a> <sup>T</sup>	3 Elective <sup>T</sup>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Junior

Fall	Spring
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<b>Fine Arts &amp; Humanities</b> <sup>1,T</sup>	3 HIST Elective (3000-4000 level)	3
HIST Elective (3000-4000 level) <sup>3</sup>	3 Elective <sup>2</sup>	12
HIST Elective (3000-4000 level) <sup>4</sup>	3	
Elective <sup>2</sup>	6	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Senior

Fall	Spring	
HIST Elective (3000-4000 level) <sup>3</sup>	3 <a href="#">HIST 4153 History of Arkansas</a>	3
HIST Elective (3000-4000 level) <sup>4</sup>	3 <a href="#">HIST 4963 Senior Seminar</a>	3
Elective <sup>2</sup>	9 Elective <sup>2</sup>	9
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>3</sup>HIST class must be in the sub-field of United States History.

<sup>4</sup>HIST class must be in the sub-field of European or World History.

<sup>5</sup>Students may waive three hours of language requirement for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## International Studies

The International Studies program is interdisciplinary. The Degree Program in International Studies requires the completion of General Education coursework, foreign language coursework, coursework in the area of concentration, and sufficient electives to complete one hundred and twenty hours with a minimum of forty hours of upper division courses. Students will select either Political Affairs or Cultural Affairs as the area of concentration. Students must follow the established course sequence and prerequisite requirements already defined in the catalog.

International Studies majors must select a foreign language as part of the Common Core. For the Cultural Affairs concentration, students must complete twenty one hours in the language. For the Political Affairs concentration, students must complete twelve hours in the language. Students with previous foreign language experience may petition the Department of English and World Languages for advanced placement and credit. Petitioners will be given written and/or oral examinations by a foreign language faculty member who will then recommend an appropriate foreign language placement level based on university policy. The department head and dean must approve the determined placement level. Students who have omitted one or more courses in the basic language sequence will receive credit for omitted courses when they have validated their advanced placement by passing the course into which they are placed with a grade of "C" or better.

### Curriculum in Cultural Affairs Concentration

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,5,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,5,T</sup>	3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<a href="#">Mathematics</a> <sup>1,5,T</sup>	3 <a href="#">HIST 1513 World History since 1500</a> <sup>T</sup>	3
<a href="#">TECH 1001 Orientation of the University</a>	1 <a href="#">FR 1023 Beginning French II, GER 1023 Beginning German II, JPN 1023 Beginning Japanese II, or</a>	3
<a href="#">FR 1013 Beginning French I, GER 1013 Beginning</a>	<a href="#">SPAN 1023 Beginning Spanish II</a> <sup>2,3,T</sup>	

<u>German I</u> , <u>JPN 1013 Beginning Japanese I</u> or <u>SPAN 1013 Beginning Spanish I</u> <sup>2,3,T</sup>	3 Electives <sup>4</sup>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

### Sophomore

<b>Fall</b>	<b>Spring</b>	
<u>PHIL 2013 Religions of the World</u> <sup>T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>POLS 2403 Comparative Government</u> or <u>POLS 2413 International Relations</u> <sup>T</sup>	3 <u>GEOG 2013 Regional Geography of the World</u>	3
<u>FR 2013 Intermediate French I</u> , <u>GER 2013 Intermediate German I</u> , <u>JPN 2013 Intermediate Japanese I</u> or <u>SPAN 2013 Intermediate Spanish I</u> <sup>2,3,T</sup>	3 <u>POLS 2003 American Government</u> <sup>T</sup>	3
Electives <sup>4</sup>	6 <u>POLS 2403 Comparative Government</u> or <u>POLS 2413 International Relations</u> <sup>T</sup>	3
	<u>FR 2023 Intermediate French II</u> , <u>GER 2023 Intermediate German II</u> , <u>JPN 2023 Intermediate Japanese II</u> or <u>SPAN 2023 Intermediate Spanish II</u> <sup>2,3,T</sup>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>	<b>Spring</b>	
<u>HIST 3703 History of Modern Africa</u> or <u>HIST 3803 History of the Middle East</u>	3 <u>GEOG 3303 Geography of Latin America</u> or <u>GEOG 3413 Geography of Europe</u> or <u>GEOG 3703 Geography of Asia</u>	3
<u>POLS 3433 United Nations</u>	3 <u>HIST 4503 History of Christianity</u>	3
<u>FR 3003</u> , <u>GER 3003</u> , <u>JPN 3003</u> or <u>SPAN 3003 Conversation and Composition I</u> <sup>3</sup>	3 <u>FR 3013</u> , <u>GER 3013</u> , <u>JPN 3013</u> or <u>SPAN 3013 Conversation and Composition II</u>	3
Electives <sup>4</sup>	6 Electives <sup>4</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>	<b>Spring</b>	
<u>PHIL/POLS 3063 Modern Political Thought</u>	3 <u>ANTH 2003 Cultural Anthropology</u> <sup>T</sup>	3
<u>SOC 4073 Sociology of Religion</u>	3 <u>ENGL 2003 Introduction to World Literature</u> <sup>T</sup>	3
<u>FR 3113 Culture and Civilization</u> , <u>GER 3113 Culture and Civilization</u> , <u>SPAN 3123 Spanish Civilization and Culture</u> or <u>SPAN 3133 Spanish-American Civilization and Culture</u>	3 <u>ENGL 4283 Seminar: World Literature</u> or <u>MUS 4853 Music of the World's Peoples</u>	3
Electives <sup>4</sup>	6 <u>HIST 3603 History of Modern East Asia</u> or <u>HIST 3323 Modern Latin America</u>	3
	Electives <sup>4</sup>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination.

<sup>3</sup>Lab attendance is required for the beginning and intermediate foreign language courses.

<sup>4</sup>At least 40 of the total hours required for graduation must be 3000-4000 level.

<sup>5</sup>Students must complete course with a grade of C or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are



<u>PHIL/POLS 3063 Modern Political Thought</u>	3	<u>HIST 3323 Modern Latin America</u>	3
Electives <sup>4</sup>		9 <u>HIST 3603 History of Modern East Asia</u>	3
		Electives <sup>4</sup>	6
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination.

<sup>3</sup>Lab attendance is required for the beginning and intermediate foreign language courses.

<sup>4</sup>At least 40 of the total hours required for graduation must be 3000-4000 level.

<sup>5</sup>Students must complete course with a grade of C or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Political Science

The political science degree requires thirty nine additional semester hours beyond the General Education requirements and the College of Arts and Humanities foreign language requirement. In the General Education requirements, political science majors are required to take [HIST 2003 United States History to 1877](#), [HIST 2013 United States History since 1877](#), [HIST 1513 World History since 1500](#), and either [SOC 1003 Introductory Sociology](#), [PSY 2003 General Psychology](#), or [ECON 2003 Principles of Economics I](#). Political science majors are required to take six hours of beginning foreign language courses or obtain the appropriate waiver for high school language study. The thirty nine semester hours required for the political science degree include [POLS 2003 American Government](#), [POLS 2253 Survey of Western Political Thought](#), [POLS 2513 Research Design](#), and either [POLS 2403 Comparative Government](#) or [POLS 2413 International Relations](#). Majors also choose one course from three of the four political science blocks: Research Methods, Political Theory, and International Relations, and two courses from the fourth political science block: American Politics. Nine semester hours of electives, six of which must be 3000-4000 level, and [POLS 4963 Senior Seminar](#) complete the major requirements.

### Curriculum in Political Science

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<a href="#">Mathematics</a> <sup>1,T</sup>	3 <a href="#">HIST 2003 United States History to 1877</a>	3
<a href="#">HIST 1513 World History since 1500</a> <sup>T</sup>	3 <a href="#">POLS 2003 American Government</a>	3
<a href="#">SOC 1003 Introductory Sociology</a> , <a href="#">PSY 2003 General Psychology</a> , or <a href="#">ECON 2003 Principles of Economics I</a>	3 Elective <sup>2</sup>	3
<a href="#">TECH 1001 Orientation of the University</a>	1	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">HIST 2013 United States History since 1877</a> <sup>T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 Research Methods Block <sup>3</sup>	3
Beginning Language I <sup>7</sup>	3 Beginning Language II <sup>7</sup>	3
<a href="#">POLS 2253 Survey of Western Political Thought</a>	3 POLS Elective <sup>T</sup>	3
<a href="#">POLS 2513 Research Design</a>	3 Elective <sup>2,T</sup>	3

<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>
	<b>Junior</b>	
<b>Fall</b>	<b>Spring</b>	
Political Theory Block <sup>4</sup>	3 International Relations Block <sup>5</sup>	3
<a href="#">POLS 2403 Comparative Government</a> or <a href="#">POLS 2413 International Relations</a>	3 American Politics Block <sup>6</sup>	3
Elective <sup>2</sup>	9 Elective <sup>2</sup>	9
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
	<b>Senior</b>	
<b>Fall</b>	<b>Spring</b>	
American Politics Block <sup>6</sup>	3 <a href="#">POLS 4963 Senior Seminar</a>	3
POLS Elective (3000-4000 level)	6 Elective <sup>2</sup>	9
Elective <sup>2</sup>	6	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>3</sup>The Research Methods choices include: [POLS 3513 Research Methods](#); or grade of C or better in any FL 2023 course; or appropriate methodology course approved by Department Head.

<sup>4</sup>The Political Theory choices include [POLS 3063 Modern Political Thought](#); or [POLS 3253 Classical Political Thought](#); or appropriate political theory or philosophy course approved by Department Head.

<sup>5</sup>The International Relations choices include [POLS 3013 Recent American Foreign and Military Policy](#); or [POLS 3433 United Nations](#); or [POLS 3473 National Security Policy](#); or appropriate international relations or comparative government course approved by Department Head.

<sup>6</sup>The American Politics choices include [POLS 3023 Judicial Process](#); or [POLS 3033 American State and Local Government](#); or [POLS 3053 Introduction to Public Administration](#); or [POLS 3083 Political Parties and Interest Groups](#); or [POLS 3123 American Political Behavior](#); or [POLS 3133 United States Congress](#); or [POLS 3143 The United States Presidency](#); or [POLS 4043 American Constitutional Law](#); or appropriate American politics course approved by Department Head.

<sup>7</sup>Students may waive three hours of language requirement for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Public History

The public history degree requires fifty three additional semester hours beyond the General Education requirements and the College of Arts and Humanities foreign language requirement. In the General Education requirements, public history majors are required to take the two-course sequence in world history, [HIST 1503 World History to 1500](#) and [HIST 1513 World History since 1500](#); and the two-course sequence in American history, [HIST 2003 United States History to 1877](#) and [HIST 2013 United States History since 1877](#). Public history majors are required to take six hours of beginning foreign language courses or obtain the appropriate waiver for high school language study. The fifty three semester hours required for the public history degree include [GEOG 3803 Historical Geography](#) or [GEOG 4203 Place and Collective Memory](#), [POLS 2003 American Government](#), [ANTH 2003 Cultural Anthropology](#), [HIST 2203 Introduction to Public History](#), [HIST 2513 Sources and Methods in History](#), [HIST 3223 Local and Oral History](#), [HIST 3281 Grant Writing for Historians](#), [HIST 3243 Archive and Manuscript Management](#), [HIST 3283 Historical Editing](#), [HIST 4153 History of Arkansas](#), [HIST 4143 Native American History](#), [HIST 4293 Historic Preservation](#), [HIST/ANTH/MUSM 4403 Interpretation/Education through Museum Methods](#), [HIST 3291 Practicum in Public History](#), [HIST 4973 Internship](#), and twelve semester hours of 3000-4000 level history courses with six hours in U.S. History and six hours in world/European history.

## Curriculum in Public History

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall		Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
<u>Mathematics</u> <sup>1,T</sup>	3	<u>ANTH 2003 Cultural Anthropology</u>	3
<u>TECH 1001 Orientation of the University</u>	1	<u>POLS 2003 American Government</u>	3
<u>HIST 1503 World History to 1500</u> <sup>T</sup>	3	<u>HIST 1513 World History since 1500</u> <sup>T</sup>	3
Elective <sup>2</sup>	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

### Sophomore

Fall		Spring	
Beginning Language I <sup>5</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	Beginning Language II <sup>5</sup>	3
<u>HIST 2003 United States History to 1877</u>	3	<u>HIST 2013 United States History since 1877</u> <sup>T</sup>	3
Elective <sup>2</sup>	5	<u>HIST 2203 Introduction to Public History</u>	3
		<u>HIST 2513 Sources and Methods in History</u>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Junior

Fall		Spring	
<u>GEOG 3803 Historical Geography</u> OR <u>GEOG 4203 Place and Collective Memory</u>	3	<u>HIST 3283 Historical Editing</u>	3
<u>HIST 3223 Local and Oral History</u>	3	<u>HIST 3291 Practicum in Public History</u>	1
<u>HIST 4143 Native American History</u>	3	<u>HIST/ANTH/MUSM 4403 Interpretation/ Education through Museum Methods</u>	3
<u>HIST 4153 History of Arkansas</u>	3	HIST Elective <sup>3</sup>	3
HIST Electives <sup>4</sup>	3	HIST Electives <sup>4</sup>	3
		Elective	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16</b>

### Senior

Fall		Spring	
<u>HIST 3243 Archive and Manuscript Management</u>	3	<u>HIST 4973 Internship</u>	3
<u>HIST 3281 Grant Writing for Historians</u>	1	Electives <sup>2</sup>	9
<u>HIST 4293 Historic Preservation</u>	3		
HIST Elective <sup>3</sup>	3		
Electives	5		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>3</sup>HIST class must be in the sub-field of United States History.

<sup>4</sup>HIST class must be in the sub-field of European or World History.

<sup>5</sup>Students may waive three hours of language requirement for every one year of language study in high school with grades of "C" or better.



<sup>T</sup> Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Geography

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The minor in geography is designed to allow students who have successfully completed eighteen or more hours in geography the opportunity to have their transcripts noted with a statement certifying such accomplishment.

Students must have a minimum 2.00 grade point average in their geography courses to be eligible for a geography minor.

Students wishing to obtain a minor in geography must complete:

[GEOG 2013 Regional Geography of the World](#)

[GEOG 2023 Human Geography](#)

GEOG Electives (12 hours with no more than 3 hours in [GEOG 4993 Special Problems in Geography](#).)

## Minor History

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The minor in history is designed for those students majoring in other disciplines who wish to increase the breadth and depth of their knowledge of the human past. This minor is particularly well suited for students who are interested in criminal justice, international studies, and foreign languages. The discipline of history satisfies our shared desire to know more about ourselves, and students can tailor the curriculum of the minor to meet their specific interests. Students must have a minimum of 2.00 grade point average in history courses to be eligible for a history minor. The minor in history requires 18 hours of courses:

[HIST 1503 World History to 1500](#) or [HIST 1513 World History since 1500](#)

[HIST 2003 United States History to 1877](#) or [HIST 2013 United States History since 1877](#)

HIST Electives (12 hours of 3000 - 4000 level)

## Minor Military Science

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The minor in military science is awarded to students who complete the Reserve Officer's Training Corps (ROTC) Program at Arkansas Tech University. The objective of the program is to provide a basic military education and, in conjunction with the goals of the University, to develop individual attributes essential to an Army officer. Instruction covers military fundamentals common to all branches of the military service. Students must have a minimum of a 2.00 grade point average in the required 21 hours to be eligible for a military science minor. Students wishing to obtain a minor in military science must complete:

[MS 1101 Leadership I](#)

[MS 1111 Leadership II](#)

[MS 2312 Military Organization/Tactics I](#)

[MS 2402 Military Organization/Tactics II](#)

[MS 3503 Advanced Leadership and Tactics I](#)

[MS 3603 Advanced Leadership and Tactics II](#)

[MS 4703 Applied Leadership and Management I](#)

[MS 4803 Applied Leadership and Management II](#)

and

[MS 4013 United States Military History](#) or [HIST 4013 United States Military History](#)

## Minor Philosophy

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The minor in philosophy is designed for those students who wish to broaden their study of the nature of knowledge. This minor is particularly well suited for students who wish to prepare for graduate work or law school. In addition to the academic benefits, the study of philosophy can make an important contribution to the well-lived life. Students can tailor the curriculum of the minor to meet their specific interests. Students must have a minimum 2.00 grade point average in their philosophy courses to be eligible for a philosophy minor. The minor in philosophy requires 18 hours of courses:

[PHIL 3103 Logic](#)

and 6 hours selected from the following:

[PHIL 2013 Religions of the World](#)

[PHIL 3023 Ethics](#)

[PHIL 3033 Esthetics](#)  
[PHIL 3053 Philosophy of Religion](#)  
[PHIL 3063 Modern Political Thought](#)  
[PHIL 3253 Classical Political Thought](#)  
[PHIL 4103 Advanced Logic](#)

and 6 hours selected from the following:

[PHIL 3003 Ancient Philosophy](#)  
[PHIL 3013 Modern Philosophy](#)  
[PHIL 3113 Contemporary Philosophy](#)  
[PHIL 3203 Medieval Philosophy](#)  
[PHIL 4093 American Philosophy](#)

and 3 hours in any additional philosophy courses

## **Minor Political Science**

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The minor in political science is designed for anyone interested in politics, law, and government and is particularly well suited for students who are interested in criminal justice, international studies, journalism, business, and emergency management. Students can tailor the curriculum of the minor along either a national or international focus. Students must have a minimum 2.00 grade point average in their political science courses to be eligible for a political science minor. The minor in political science requires 18 hours of courses:

[POLS 2253 Survey of Western Political Thought](#)  
[POLS 2413 International Relations](#) or [POLS 2403 Comparative Government](#)  
[POLS 2513 Research Design](#)  
[POLS 3123 American Political Behavior](#) or [POLS 3133 United States Congress](#) or [POLS 3143 The United States Presidency](#)

6 hours in any 3000 or 4000 level political science courses

## **Minor Pre-Law**

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The pre-law minor program's objective is to prepare students for entrance to and advanced study at law school or alternative careers in the legal profession (e.g. legal aide, court reporter, paralegal, etc.) upon graduation through the development of writing, analytic and logical reasoning, and research skills key to the study and practice of law. The minor in pre-law requires 21 hours of courses:

[ENGL 2053 Technical Writing](#)  
[PHIL 3103 Logic](#)  
[POLS/CJ 3023 Judicial Process](#) or [POLS 3043 Judicial Politics](#)  
[POLS 4043 American Constitutional Law](#)  
[SPH 2003 Public Speaking](#)

and 3 hours selected from the following:

[HIST 3023 American Revolution and Founding Era](#)  
[HIST 4183 American Legal History](#)

and 3 hours selected from the following:

[BLAW 2033 Legal Environments of Business](#)  
[CJ 4023 Law and the Legal System](#)  
[MGMT 3123 Business Ethics](#)  
[PHIL 3023 Ethics](#)

## **Minor Religious Studies**

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The minor in religious studies is designed to provide students with the opportunity to learn about religion in cross-cultural and historical perspectives. The required courses are designed to provide a comparative perspective on world religions and to develop an appreciation of both the origins and contemporary expressions of different religions. This minor is particularly well suited for students in the humanities and social sciences as well as students in other disciplines who want to deepen their understanding of the role of religion in contemporary life. Students must have a minimum of 2.00 grade point average in the required 18 hours to be eligible for a religious studies minor.

[ANTH 2003 Cultural Anthropology](#)  
[HIST 1503 World History to 1500](#)  
[HIST 4503 History of Christianity](#)

[PHIL 2013 Religions of the World](#)  
[PHIL 3053 Philosophy of Religion](#)  
[SOC 4073 Sociology of Religion](#)

## Minor Strategic Studies

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The minor in strategic studies is designed for those students who wish to increase the breadth and depth of their knowledge of the principles that have played a major role in shaping our understanding of foreign and security policy. This minor is particularly well suited for students who are interested in international studies, emergency management, political science, diplomatic history, military science, and international law. Students wishing to obtain a minor in strategic studies must complete:

[POLS 2153 Introduction to Strategic Studies](#)  
[POLS 2413 International Relations](#)  
[POLS 3013 Recent American Foreign and Military Policy](#)  
[POLS 3473 National Security Policy](#)

and any two of the following courses:

[EAM 3013 Public Policy Issues in Emergency Management](#)  
[EAM 3243 Introduction to Terrorism and Anti-Terrorism](#)  
[ECON 4093 International Economics and Finance](#)  
[GEOG 4803 Seminar in Global Studies](#)  
[HIST 4013 American Military History](#)  
[HIST 4023 Vietnam War](#)  
[HIST 4083 American Diplomatic History, 1912 to the Present](#)  
[HIST 4813 World War II](#)

Students must have a minimum 2.00 grade point average in the required 18 hours to be eligible for a strategic studies minor.

## Pre-Law Pre-Professional Program

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Accredited law schools have not, in general, adopted specific requirements for pre-law courses. However, in most cases, courses of value to those planning the study of law include: history, economics, political science, philosophy, psychology, sociology, English composition, and literature, as well as courses in the natural sciences, mathematics, and accounting. A broad cultural background is of prime importance. Rather than attempt to prescribe the specific contents of courses to be taken by pre-law students, Arkansas Tech University considers the individual intellectual interests of students of prime importance, encouraging development of the ability to read and comprehend accurately, rapidly, and thoroughly; to think logically; to analyze and weigh situations and materials; to speak and write clearly; and to develop a critical approach and mature study habits.

Pre-Law Advisors  
Witherspoon Room 255

The pre-professional curriculum is not a major in itself. Pre-law students must declare a major for graduation selected from any degree currently offered at Arkansas Tech University. Among general electives in the chosen major, or in excess of the 120 hours required for graduation, pre-law students are urged to take the courses listed below to prepare them for the LSAT and law school. Many pre-law students choose to major in history or political science, and pre-law advisors are located in the Department of History and Political Science. Students should consult these listed pre-law advisors regardless of their chosen major, as these advisors specifically help students design a good pre-law curriculum.

### Suggested Curriculum in Pre-Law

[BLAW 2033 Legal Environment of Business](#)  
[CJ/SOC 2043 Crime and Delinquency](#)  
[CJ 4023 Law and the Legal System](#)  
[CJ 4053 Criminal Law and the Constitution](#)  
[ENGL 3043 Advanced Composition](#)  
[JOUR 4123 Laws of Communication](#)  
[PHIL 3023 Ethics](#)  
[PHIL/POLS 3063 Modern Political Thought](#)

[PHIL 3103 Logic](#)  
[POLS 2003 American Government](#)  
[POLS 3023/CJ 3023 Judicial Process](#)  
[POLS 4043 American Constitutional Law](#)  
[PSY 2003 General Psychology](#)  
[SPH 2003 Public Speaking](#)  
[SPH 2111-SPH 2121 Debate Practicum](#)  
[SPH 4153 Persuasive Theory and Audience Analysis](#)

## Department of Music

The mission of the Arkansas Tech University Music Department is to fully exercise its tradition of educational and cultural regional leadership to enhance the quality of life through the art form of music, providing undergraduate educational, artistic, and career opportunities for individuals and the greater society.

The music department has an established reputation for the superior quality of the music teacher preparation program and for high standards in musical performance. Arkansas Tech University is an accredited institutional member of the National Association of Schools of Music.

The goals of the music department are:

1. To provide excellence in music instruction;
2. To provide music instruction for students desiring to pursue music-related studies as a major, as preparation for graduate music studies, and as preparation for a career in music;
3. To provide music curricula leading to the Baccalaureate of Arts with a major in music;
4. To provide the necessary and desirable professional preparation for the training of accredited music teachers for public schools (Baccalaureate in Music Education);
5. To provide opportunities for meaningful professional growth through direct involvement in musical performance;
6. To provide educational and artistic service to students, the institution, the community, and the region;
7. To encourage creative work and research; and
8. To dedicate policies and resources for effectiveness in departmental programs.

An audition, demonstrating acceptable musical preparation, is required prior to enrollment as a major in music.

To meet the requirements for the baccalaureate degree in music, the student must complete 120 semester hours, including 8 hours of applied music and successful completion of the Sophomore Barrier and Keyboard Proficiency Exams, 4 hours in required ensembles (band or choir), 16 hours in music theory and ear training; and 8 hours of music history.

In order to meet the requirements for the baccalaureate degree in music education, students must complete 129 semester hours as indicated in the appropriate music education curriculum. Instrumental and keyboard music education majors must complete one semester of class voice. A senior recital is required.

All music majors must demonstrate acceptable piano proficiency or enroll in class or applied piano each semester until successful completion of the appropriate Piano Proficiency Exit Exam. The fee for class piano is \$10 per semester. All music majors are required to attend a prescribed number of campus concerts and recitals. Successful completion of 6 semesters of recital attendance is required.

Private instruction in the student's major performance area is required of all music majors. Such study involves one one-hour lesson and 12 hours of practice per week and carries two semester hours of credit. Students may elect enrollment as a non-major, subject to faculty availability. Such study involves one thirty-minute lesson, 6 hours of practice per week, and assigned ensemble participation. A fee of \$60 per semester credit hour is assessed for all applied music study.

Dr. Cynthia L. Hukill, Head  
Witherspoon Hall  
Room 107  
(479) 968-0368  
chukill@atu.edu

**Professor:**

Barrow, Parker, T. Smith

**Associate Professors:**

Barber, J. Clements, del Grazia,  
K.L. Futterer, K.T. Futterer, Gale,  
Hukill

**Assistant Professors:**

B. Clements, Reed, Todd

**Instructor:**

Conatser, G. Morris

### Curriculum in Music

The matrix below is a sample plan for all coursework required for this program

	Freshman	
Fall	Spring	
<a href="#"><u>ENGL 1013 Composition I</u></a> <sup>1,T</sup>	3	<a href="#"><u>ENGL 1023 Composition II</u></a> <sup>1,T</sup> 3
<a href="#"><u>Mathematics</u></a> <sup>1,T</sup>	3	<a href="#"><u>Social Sciences</u></a> <sup>1,T</sup> 3
<a href="#"><u>MUS 1000 Recital Attendance</u></a>	0	<a href="#"><u>MUS 1000 Recital Attendance</u></a> 0
MUS 1__2 <sup>5,7,10,T</sup>	2	MUS 1__2 <sup>5,7,10,T</sup> 2
<a href="#"><u>MUS 1441 Class Piano, I, II, III, and IV</u></a> or <a href="#"><u>MUS 1201 Applied Music - Piano</u></a> <sup>2,T</sup>	1	<a href="#"><u>MUS 1441 Class Piano, I, II, III, and IV</u></a> or <a href="#"><u>MUS 1201 Applied Music - Piano</u></a> <sup>2,T</sup> 1
<a href="#"><u>MUS 1501 Band, MUS 1571 University Choir</u></a> or <a href="#"><u>MUS 1681 Concert Chorale</u></a> <sup>3,T</sup>	1	<a href="#"><u>MUS 1501 Band, MUS 1571 University Choir</u></a> or <a href="#"><u>MUS 1681 Concert Chorale</u></a> <sup>3</sup> 1

<a href="#">MUS 1713 Theory I</a> <sup>T</sup>	3	<a href="#">MUS 1723 Theory II</a>	3
<a href="#">MUS 1731 Ear Training I</a> <sup>T</sup>	1	<a href="#">MUS 1741 Ear Training II</a> <sup>T</sup>	1
<a href="#">TECH 1001 Orientation to the University</a> <sup>1</sup>	1	Piano Exit Exam <sup>4</sup>	0
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>14</b>

<b>Fall</b>
Science with Lab <sup>1,T</sup>
Beginning Language I <sup>11</sup>
<a href="#">MUS 1000 Recital Attendance</a>
MUS 1__ <sup>2,5,7,10,T</sup>
<a href="#">MUS 1441 Class Piano, I, II, III, and IV</a> or <a href="#">MUS 1201 Applied Music - Piano</a> <sup>2,T</sup>
<a href="#">MUS 1501 Band, MUS 1571 University Choir</a> or <a href="#">MUS 1681 Concert Chorale</a> <sup>3,T</sup>
<a href="#">MUS 2713 Theory III</a>
<a href="#">MUS 2731 Ear Training III</a>
<b>Total Hours</b>

<b>Sophomore</b>			
<b>Spring</b>			
4 Science with Lab <sup>1,T</sup>	4		4
3 Beginning Language II <sup>11</sup>	3		3
0 <a href="#">MUS 1000 Recital Attendance</a>	0		0
2 MUS 1__ <sup>2,5,7,10,T</sup>	2		2
1 <a href="#">MUS 1441 Class Piano, I, II, III, and IV</a> or <a href="#">MUS 1201 Applied Music - Piano</a> <sup>2,T</sup>	1		1
1 <a href="#">MUS 1501 Band, MUS 1571 University Choir</a> or <a href="#">MUS 1681 Concert Chorale</a> <sup>3,T</sup>	1		1
3 <a href="#">MUS 2723 Theory IV</a>	3		3
1 <a href="#">MUS 2741 Ear Training IV</a>	1		1
Sophomore Barrier Jury <sup>6</sup>			0
<b>15 Total Hours</b>			<b>15</b>

<b>Fall</b>
<a href="#">Social Sciences</a> <sup>1,T</sup>
<a href="#">U.S. History/Government</a> <sup>1,T</sup>
<a href="#">MUS 3000 Recital Attendance</a>
<a href="#">MUS 3773 History of Music I</a>
Elective <sup>8,9,T</sup>
<b>Total Hours</b>

<b>Junior</b>			
<b>Spring</b>			
3 <a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3		3
3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3		3
0 <a href="#">MUS 3000 Recital Attendance</a>	0		0
3 <a href="#">MUS 3783 History of Music II</a>	3		3
7 Elective <sup>8,9,T</sup>	7		7
<b>16 Total Hours</b>			<b>16</b>

<b>Fall</b>
<a href="#">MUS 3692 History of Music III</a>
Elective <sup>8,9,T</sup>
<b>Total Hours</b>

<b>Senior</b>			
<b>Spring</b>			
2 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,3,T</sup>	2		3
14 Elective <sup>8,9,T</sup>	14		10
<b>16 Total Hours</b>			<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Piano ([MUS 1441 Class Piano, I, II, III, and IV](#) or [MUS 1201 Applied Music - Piano](#)) to be taken each semester until completion of Piano Exit Exam. Students completing the exam upon entrance may substitute music elective hours for the requirement.

<sup>3</sup>Enrollment in [MUS 1501 Band, MUS 1571 University Choir](#) or [MUS 1681 Concert Chorale](#) to be selected by advisor. Only one credit per semester may be used for completion of major ensemble requirement.

<sup>4</sup>Successful completion required for graduation.

<sup>5</sup>Vocal majors are encouraged to enroll in Vocal Diction ([MUS 1191 Vocal Diction I, MUS 2191 Vocal Diction II](#)) for elective credit.

<sup>6</sup>Successful completion required for enrollment in upper-level applied study for two hour credit and for completion of all music degrees.

<sup>7</sup>Concurrent enrollment is required for applied study in appropriate [MUS 1501 Band, MUS 1571 University Choir](#) or [MUS 1681 Concert Chorale](#).

<sup>8</sup>Elective courses to obtain a minimum of sixty-six non-music hours (21-23 in addition to General Education and Foreign Language hours).

<sup>9</sup>Elective courses to obtain a minimum of forty 3000/4000 level hours (32 in addition to music history hours).

<sup>10</sup>See course descriptions for the appropriate applied music course number.

<sup>11</sup>Students may waive three hours of language requirements for every one year of language study in high school with grades of "C" or better.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Music Education for Teacher Licensure

### Curriculum in Instrumental Music Option<sup>7</sup>

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<u>MUS 1000 Recital Attendance</u>	0 <u>MUS 1000 Recital Attendance</u>	0
MUS 1__2 <sup>8,T</sup>	2 MUS 1__2 <sup>8,T</sup>	2
<u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1 <u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1
<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	
<u>MUS 1501 Band</u> <sup>T</sup>	1 <u>MUS 1501 Band</u> <sup>T</sup>	1
<u>MUS 1713 Theory I</u> <sup>T</sup>	3 <u>MUS 1723 Theory II</u>	3
<u>MUS 1731 Ear Training I</u> <sup>T</sup>	1 <u>MUS 1741 Ear Training II</u>	1
<u>MUS 2441 Class Voice</u> <sup>T</sup>	1	
<u>TECH 1001 Orientation to the University</u>	1	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

#### Sophomore

Fall	Spring	
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>SEED 2002 Introduction to Secondary Education</u> <sup>T</sup>	2
<u>SPH 2003 Public Speaking</u> <sup>T</sup>	3 Science with Lab <sup>1,T</sup>	4
<u>MUS 1000 Recital Attendance</u>	0 <u>MUS 1000 Recital Attendance</u>	0
MUS 1__2 <sup>8</sup>	2 MUS 1__2 <sup>8,T</sup>	2
<u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1 <u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1
<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	
<u>MUS 1501 Band</u> <sup>T</sup>	1 <u>MUS 1501 Band</u> <sup>T</sup>	1
<u>MUS 2713 Theory III</u>	3 <u>MUS 2723 Theory IV</u>	3
<u>MUS 2731 Ear Training III</u>	1 <u>MUS 2741 Ear Training IV</u>	1
<u>MUS 3401 Brass Instruments</u>	1 <u>MUS 3481 Stringed Instruments</u>	1
	Sophomore Barrier Jury <sup>3</sup>	0
	Piano Exit Exam	0
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Junior

Fall	Spring	
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MUS 3000 Recital Attendance</u>	0 <u>MUS 3000 Recital Attendance</u>	0
MUS 3__2 <sup>8</sup>	2 MUS 3__2 <sup>8</sup>	2
<u>MUS 3421 Woodwind Instruments, Double Reeds</u>	1 <u>MUS 3281 Secondary Instrumental Methods and Materials I</u>	1
<u>MUS 3501 Band</u>	1 <u>MUS 3431 Woodwind Instruments, Single Reeds</u>	1



<u>MUS 3773 History of Music I</u>	3	<u>MUS 3501 Band</u>	1
<u>MUS 3802 Principles of Conducting</u>	2	<u>MUS 3702 Music Educational Technology</u>	2
<u>MUS 4461 Percussion Instruments</u>	1	<u>MUS 3762 Instrumental and Choral Arranging</u>	2
<u>MUS 4712 Form and Analysis</u>	2	<u>MUS 3783 History of Music II</u>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

**Fall**

<u>SEED 3552 Adolescent Development</u> <sup>5</sup>	
<u>SEED 4052 Adolescent Exceptionalities</u> <sup>5</sup>	
MUS 3__2 <sup>8</sup>	
<u>MUS 3501 Band</u>	
<u>MUS 3692 History of Music III</u>	
<u>MUS 3853 Music in the Elementary Classroom</u> <sup>4</sup>	
<u>MUS 4971 Marching Band Techniques</u>	
<b>Total Hours</b>	<b>13</b>

**Senior**

**Spring**

2	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	6
2	<u>SEED 4556 Classroom Application of Educational Psychology</u> <sup>5</sup>	6
2	<u>MUS 4001 Senior Recital</u>	1
1	<u>MUS 4281 Secondary Instrumental Methods and Materials II</u>	1
2		
3		
1		
<b>13</b>	<b>Total Hours</b>	<b>14</b>

**Senior 9th Semester**

**Fall**

<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4809 Teaching in the Elementary and Secondary School</u> <sup>6,7</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Piano (MUS 1441 Class Piano, I, II, III, and IV or MUS 1201 Applied Music - Piano) to be taken each semester until successful completion of Piano Exit Exam.

<sup>3</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion for all music degrees

<sup>4</sup>Prerequisite: successful completion of Piano Exit Exam.

<sup>5</sup>Prerequisite: admission to Stage II.

<sup>6</sup>See admission policy and procedure.

<sup>7</sup>For licensure, students must pass the Praxis II music specialty and Principles of Learning and Teaching exam.

<sup>8</sup>See course descriptions for the appropriate applied music course number.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

**Curriculum in Keyboard Instrumental Music Option<sup>4</sup>**

The matrix below is a sample plan for all coursework required for this program

**Freshman**

**Fall**

<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	
<u>Mathematics</u> <sup>1,T</sup>	
<u>MUS 1000 Recital Attendance</u>	
<u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	
<u>MUS 1501 Band</u> <sup>T</sup>	
<u>MUS 1713 Theory I</u> <sup>T</sup>	
<u>MUS 1731 Ear Training I</u> <sup>T</sup>	

**Spring**

3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
3	Science with Lab <sup>1,T</sup>	4
0	<u>MUS 1000 Recital Attendance</u>	0
2	<u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2
1	<u>MUS 1501 Band</u> <sup>T</sup>	1
3	<u>MUS 1723 Theory II</u> <sup>T</sup>	3
1	<u>MUS 1741 Ear Training II</u> <sup>T</sup>	1

<u>MUS 2441 Class Voice</u> <sup>T</sup>	1	<u>MUS 2201 Accompanying Seminar</u> <sup>T</sup>	1
<u>TECH 1001 Orientation to the University</u>	1		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

**Sophomore**

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>		4 <u>SEED 2002 Introduction to Secondary Education</u> <sup>T</sup>	2
<u>MUS 1000 Recital Attendance</u>		0 <u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>		2 <u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2
<u>MUS 1501 Band</u> <sup>T</sup>		1 <u>MUS 1501 Band</u> <sup>T</sup>	1
<u>MUS 2713 Theory III</u>		3 <u>MUS 2201 Accompanying Seminar</u>	1
<u>MUS 2731 Ear Training III</u>		1 <u>MUS 2723 Theory IV</u>	3
<u>MUS 3401 Brass Instruments</u>		1 <u>MUS 2741 Ear Training IV</u>	1
		<u>MUS 3481 Stringed Instruments</u>	1
		Sophomore. Barrier Jury <sup>2</sup>	0
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14</b>

**Junior**

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MUS 3000 Recital Attendance</u>		0 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MUS 3202 Applied Music - Piano</u>		2 <u>MUS 3000 Recital Attendance</u>	0
<u>MUS 3421 Woodwind Instruments, Double Reeds</u>		1 <u>MUS 3202 Applied Music - Piano</u>	2
		<u>MUS 3281 Secondary Instrumental Methods and Materials I</u>	1
<u>MUS 3501 Band</u>		2 <u>MUS 3431 Woodwind Instruments, Single Reeds</u>	1
<u>MUS 3702 Music Educational Technology</u>		3 <u>MUS 3501 Band</u>	1
<u>MUS 3773 History of Music I</u>		2 <u>MUS 3783 History of Music II</u>	3
<u>MUS 3802 Principles of Conducting</u>		2 <u>MUS 4461 Percussion Instruments</u>	1
<u>MUS 4712 Form and Analysis</u>			
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>

**Senior**

<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>		3 <u>SEED 4556 Classroom Application of Educational Psychology</u> <sup>3</sup>	6
<u>SEED 3552 Adolescent Development</u> <sup>3</sup>		2 <u>MUS 3442 Piano Pedagogy</u>	2
<u>SEED 4052 Adolescent Exceptionalities</u>		2 <u>MUS 3762 Instrumental and Choral Arranging</u>	2
<u>MUS 3202 Applied Music - Piano</u>		2 <u>MUS 4001 Senior Recital</u>	1
<u>MUS 3501 Band</u>		<u>MUS 4281 Secondary Instrumental Methods and Materials II</u>	1
<u>MUS 3692 History of Music III</u>		2 <u>MUS 4701 Special Methods in Music</u>	1
<u>MUS 3853 Music in the Elementary Classroom</u>		3	
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>

**Senior 9th Semester**

**Fall**

<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4809 Teaching in the Elementary and Secondary School</u> <sup>3,4</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion of all music degrees.

<sup>3</sup>See admission policy and procedure.

<sup>4</sup>For licensure, students must pass the Praxis II specialty and Principles of Learning and Teaching exam.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Keyboard Vocal Music Option<sup>5</sup>

The matrix below is a sample plan for all coursework required for this program

Freshman		
Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<u>MUS 1000 Recital Attendance</u>	0 <u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2 <u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2
<u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1 <u>MUS 1231 Applied Music - Voice</u>	1
<u>MUS 1713 Theory I</u> <sup>T</sup>	3 <u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1
<u>MUS 1731 Ear Training I</u> <sup>T</sup>	1 <u>MUS 1723 Theory II</u>	3
<u>MUS 2441 Class Voice</u> <sup>T</sup>	1 <u>MUS 1741 Ear Training II</u>	1
<u>TECH 1001 Orientation to the University</u>	1 <u>MUS 2201 Accompanying Seminar</u>	1
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>
Sophomore		
Fall	Spring	
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4 <u>SEED 2002 Introduction to Secondary Education</u> <sup>T</sup>	2
<u>MUS 1000 Recital Attendance</u>	0 <u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2 <u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2
<u>MUS 1231 Applied Music - Voice</u> <sup>T</sup>	1 <u>MUS 1231 Applied Music - Voice</u> <sup>T</sup>	1
<u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1 <u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1
<u>MUS 2713 Theory III</u>	3 <u>MUS 2201 Accompanying Seminar</u>	1
<u>MUS 2731 Ear Training III</u>	1 <u>MUS 2723 Theory IV</u>	3
	<u>MUS 2741 Ear Training IV</u>	1
	Sophomore Barrier Jury <sup>2</sup>	0
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>14</b>
Junior		

<b>Fall</b>	<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MUS 1231 Applied Music - Voice</u>	1 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MUS 3000 Recital Attendance</u>	0 <u>MUS 3000 Recital Attendance</u>	0
<u>MUS 3202 Applied Music - Piano</u>	2 <u>MUS 3202 Applied Music - Piano</u>	2
<u>MUS 3571 University Choir, MUS 3581 Chamber Choir</u> or	1 <u>MUS 3571 University Choir, MUS 3581 Chamber</u> <u>Choir</u> or	1
<u>MUS 3681 Concert Chorale</u>	<u>MUS 3681 Concert Chorale</u>	
<u>MUS 3773 History of Music I</u>	3 <u>MUS 3702 Music Educational Technology</u>	2
<u>MUS 3802 Principles of Conducting</u>	2 <u>MUS 3783 History of Music II</u>	3
<u>MUS 3821 Secondary Choral Methods and Materials</u>	1 <u>MUS 4821 Secondary Choral Methods and Materials</u> <u>II</u>	1
<u>MUS 4712 Form and Analysis</u>	2	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Senior

<b>Fall</b>	<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>SEED 4556 Classroom Application of Educational</u> <u>Psychology</u> <sup>4</sup>	6
<u>SEED 3552 Adolescent Development</u> <sup>4</sup>	2 <u>MUS 3442 Piano Pedagogy</u>	2
<u>SEED 4052 Adolescent Exceptionalities</u> <sup>4</sup>	2 <u>MUS 3762 Instrumental and Choral Arranging</u>	2
<u>MUS 3202 Applied Music - Piano</u>	2 <u>MUS 4001 Senior Recital</u>	1
<u>MUS 3441 Instrumental Concepts</u>	1 <u>MUS 4701 Special Methods in Music</u>	1
<u>MUS 3571 University Choir, MUS 3581 Chamber Choir</u> or	1	
<u>MUS 3681 Concert Chorale</u>	2	
<u>MUS 3692 History of Music III</u>	3	
<u>MUS 3853 Music in the Elementary Classroom</u>		
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>12</b>

#### Senior 9th Semester

<b>Fall</b>	
<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4809 Teaching in the Elementary and Secondary</u> <u>School</u> <sup>4,5</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion for all music degrees.

<sup>3</sup>Prerequisite: admission to Stage II.

<sup>4</sup>See admission policy and procedure.

<sup>5</sup>For licensure, students must pass the Praxis II specialty and Principles of Learning and Teaching exam.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Vocal Music Option<sup>7</sup>

The matrix below is a sample plan for all coursework required for this program

<b>Fall</b>	<b>Freshman</b>	<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>		3

<u>Mathematics</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>MUS 1000 Recital Attendance</u>	0	<u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2	<u>MUS 1191 Vocal Diction I</u>	1
<u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1	<u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2
<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1	<u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1
<u>MUS 1571 University Choir,</u>	3	<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1
<u>MUS 1581 Chamber Choir</u> or	3	<u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or	1
<u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1	<u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1
<u>MUS 1713 Theory I</u> <sup>T</sup>	1	<u>MUS 1723 Theory II</u> <sup>T</sup>	3
<u>MUS 1731 Ear Training I</u> <sup>T</sup>	1	<u>MUS 1741 Ear Training II</u>	1
<u>TECH 1001 Orientation to the University</u>	1	<b>15 Total Hours</b>	<b>15</b>
<b>Total Hours</b>			

**Fall**

Science with Lab <sup>1,T</sup>	
<u>MUS 1000 Recital Attendance</u>	
<u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	
<u>MUS 1441 Class Piano, I, II, III, and IV</u> or	
<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	
<u>MUS 1571 University Choir,</u>	
<u>MUS 1581 Chamber Choir</u> or	
<u>MUS 1681 Concert Chorale</u> <sup>T</sup>	
<u>MUS 2191 Vocal Diction II</u>	
<u>MUS 2713 Theory III</u>	
<u>MUS 2731 Ear Training III</u>	

**Total Hours**

**Fall**

<u>SPH 2003 Public Speaking</u> <sup>T</sup>	
<u>MUS 3000 Recital Attendance</u>	
<u>MUS 3232 Applied Music - Voice</u>	
<u>MUS 3571 University Choir,</u>	
<u>MUS 3581 Chamber Choir</u> or	
<u>MUS 3681 Concert Chorale</u>	
<u>MUS 3702 Music Educational Technology</u>	
<u>MUS 3773 History of Music I</u>	
<u>MUS 3802 Principles of Conducting</u>	
<u>MUS 3821 Secondary Choral Methods and Materials</u>	
<u>MUS 4712 Form and Analysis</u>	
<b>Total Hours</b>	

**Fall**

<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	
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**Sophomore**

**Spring**

4 Science with Lab <sup>1,T</sup>	4
0 <u>SEED 2002 Introduction to Secondary Education</u>	2
2 <u>MUS 1000 Recital Attendance</u>	0
1 <u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2
1 <u>MUS 1441 Class Piano, I, II, III, and IV</u> or	1
<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1
1 <u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or	1
<u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1
3 <u>MUS 2723 Theory IV</u>	3
1 <u>MUS 2741 Ear Training IV</u>	1
Sophomore Barrier Jury <sup>3</sup>	0
Piano Exit Exam	0
<b>13 Total Hours</b>	<b>14</b>

**Junior**

**Spring**

3 <u>Social Sciences</u> <sup>1,T</sup>	3
0 <u>U.S. History/Government</u> <sup>1,T</sup>	3
2 <u>MUS 3000 Recital Attendance</u>	0
1 <u>MUS 3191 Vocal Solo Literature</u>	1
2 <u>MUS 3232 Applied Music - Voice</u>	2
3 <u>MUS 3571 University Choir, MUS 3581 Chamber Choir</u> or	1
<u>MUS 3681 Concert Chorale</u>	1
2 <u>MUS 3762 Instrumental and Choral Arranging</u>	2
1 <u>MUS 3783 History of Music II</u>	3
2 <u>MUS 4821 Secondary Choral Methods and Materials II</u>	1
<b>16 Total Hours</b>	<b>16</b>

**Senior**

**Spring**

3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
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<u>SEED 3552 Adolescent Development</u> <sup>5</sup>	2	<u>SEED 4556 Classroom Application of Educational Psychology</u> <sup>5</sup>	6
<u>SEED 4052 Adolescent Exceptionalities</u> <sup>5</sup>	2	<u>MUS 4001 Senior Recital</u>	1
<u>MUS 3232 Applied Music - Voice</u>	2	<u>MUS 4701 Special Methods in Music</u>	1
<u>MUS 3441 Instrumental Concepts</u>	1	<u>MUS 4832 Vocal Pedagogy</u>	2
<u>MUS 3571 University Choir,</u> <u>MUS 3581 Chamber Choir</u> or <u>MUS 3681 Concert Chorale</u>	1		
<u>MUS 3692 History of Music III</u>	2		
<u>MUS 3853 Music in the Elementary Classroom</u> <sup>4</sup>	3		
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>13</b>

**Senior 9th Semester**

**Fall**

<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4809 Teaching in the Elementary and Secondary School</u> <sup>6,7</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Piano (MUS 1441 Class Piano, I, II, III, and IV or MUS 1201 Applied Music - Piano) to be taken each semester until successful completion of Piano Exit Exam.

<sup>3</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion for all music degrees.

<sup>4</sup>Prerequisite: successful completion of Piano Exit Exam.

<sup>5</sup>Prerequisite: admission to Stage II.

<sup>6</sup>See admission policy and procedure.

<sup>7</sup>For licensure, students must pass the Praxis II specialty and Principles of Learning and Teaching exam.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.



## College of Business

Arkansas Tech University has offered baccalaureate degrees with majors in business and accounting since 1950 and 1959 respectively. The degree programs were housed in the Division of Business and then in the School of Systems Science prior to the establishment of the School of Business in 1986. The School of Business became the College of Business in 2009. The College is comprised of a Department of Management and Marketing and a Department of Accounting and Economics. Business students may seek a Bachelor of Science in Business Administration with major fields of study in Accounting, Business Data Analytics, Economics & Finance, and Management & Marketing or a Bachelor of Science with a major in Business Education.

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The faculty believe that teaching excellence and the currency of subject matter are best maintained through ongoing professional interaction with peers and the business community. In support of its mission, the faculty participates in service and engages in scholarly activities oriented towards professional practice and pedagogical research.

College of Business faculty and students use current technology to equip students with the necessary business competency skills needed to be successful leaders in business. Students and faculty are encouraged to participate actively in the learning process. A high degree of faculty-student interaction is sought through the management of class sizes and individualized advising. The College adheres to high levels of ethical conduct and promotes this ideal to its students as they prepare for personal and professional success in an evolving global business environment.

### Our Vision

We will be known for the opportunities we create for our students. Keys to our success will be to help make our students career-ready by:

- proactively crafting relationships and experiences;
- guiding professionalism; and
- attracting appropriate resources that help make our students career-ready

### Our Mission

We produce quality business professionals prepared to meet the demands of our dynamic marketplace from among a campus population where business students are underrepresented.

### Our Guiding Principles

- We believe that a quality graduate possesses business competencies and intellectual foundations for lifelong learning.
- We believe that our students and graduates should behave ethically in both their personal and professional conduct.
- We believe that faculty, staff, and administrators, should encourage a welcoming, but respectful relationship with students in and out of the classroom.
- We believe that a quality graduate, in part, is the end product of quality faculty.
- We believe that quality faculty teach beyond the classroom.
- We believe that a quality faculty member is also a lifelong learner and contributes to the life of the profession, institution, and community.
- We believe that our faculty, staff, and students need to conduct themselves in an ethical, professional, and business-like manner.
- We believe that professionalism and quality will help us to protect our brand in a competitive marketplace.
- We believe that our program should always fulfill the highest of accreditation standards, holding students to consistently rigorous levels of academic quality.
- We believe that our quality is judged by our stakeholders: the business community, the state of Arkansas, and our past, present and future students.

The College is committed to:

- High-quality undergraduate learning and faculty development.
- Highest ethical standards of personal and professional conduct for faculty, students and administrators. Professionalism includes maintaining faculty intellectual qualifications and expertise at levels which support the college's mission.
- Cooperative interaction among students and faculty to achieve the college's mission.
- A systems approach to continuously improve all aspects of the learning process. This includes feedback from major stakeholders and a spirit of experimentation.

## Programs of Study

The College of Business offers programs of study leading to baccalaureate degrees as listed below:

### **Bachelor of Science**

[Business Education](#)

### **Bachelor of Science in Business Administration**

[Accounting](#)

[Business Data Analytics](#)

[Economics and Finance](#)

[Management and Marketing](#) with concentrations in:

[Entrepreneurship](#)

[International Business](#)

[Management](#)

[Marketing](#)

The College of Business is committed to preparing students for meaningful careers in business, industry, government or education; or for admission to and success in quality graduate programs. This commitment is founded on the belief that graduates from the College should have a strong background in the liberal arts as a basis for mature understanding of the problems of business leadership and management. The objective of the general education curriculum required of all College of Business majors is to ensure they acquire a knowledge and understanding of topics in the humanities, sciences, communications, social sciences and other related subjects to support a lifetime of continual learning.

## **Learning Goals**

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Students who major in any of the bachelor degree programs in the College of Business are required to complete a common core of business courses. The learning goals of the BSBA degree program are to develop students':

1. Ability to use technology to support business decisions.
2. Overall communication skills in a business context.
3. Ability to think critically and reason effectively about business problems.
4. Ethical awareness and ethical decision-making framework in a business context.
5. Foundation knowledge for conducting business in a diverse, global environment.

## **Accreditation**

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The Bachelor of Science in Business Administration degree programs offered by the College of Business are accredited by AACSB International - The Association to Advance Collegiate Schools of Business. AACSB International is the premier accrediting agency for business schools, stressing academic excellence and a commitment to continuous improvement. Approximately one third of the business schools in the United States and several selected schools internationally have earned AACSB International accreditation.

The Bachelor of Science with a major in Business Education is accredited by the National Council for Accreditation of Teacher Education (NCATE).

## **Transfer Students**

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In order to meet baccalaureate degree requirements, all transfer students must take in residence a minimum of fifty percent of the College of Business courses required for the degree. Of these courses, at least 24 hours must be 3000-4000 level, 12 hours must be in the student's major field, and 9 hours must be in the business core curriculum.

Business courses taken at other institutions at the 1000-2000 level which are offered by Tech at the 3000-4000 level will be transferred as free electives. Business courses taken at other institutions at the 3000-4000 level are subject to validation by the College of Business.

## **The Curriculum**

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A student who majors in one of the Bachelor of Science in Business Administration (B.S.B.A.) programs in the College of Business must complete:

1. The general education requirements as described in this catalog.
2. The following business core requirements:

[ACCT 2003 Accounting Principles I](#)

[ACCT 2013 Accounting Principles II](#)

[ECON 2003 Principles of Economics I](#)

[ECON 2013 Principles of Economics II](#)  
[BLAW 2033 Legal Environment of Business](#)  
[BUAD 1111 Introduction to Business](#)  
[BUAD 2003 Business Information Systems](#)  
[BUAD 2053 Business Statistics](#)  
[BUAD 3023 Business Communications](#)  
[ACCT 3063 Managerial Accounting](#) OR [ACCT 4023 Cost Accounting](#)  
[ECON 3003 Money and Banking](#)  
[FIN 3063 Business Finance](#)  
[MKT 3043 Principles of Marketing](#)  
[BDA 2003 Business Problem Solving](#)  
[MGMT 3003 Management and Organizational Behavior](#)  
[MGMT 3103 Operations Management](#)  
[MGMT 4013 Management Information Systems](#) OR [ACCT 3023 Accounting Information Systems](#)<sup>1</sup>  
[MGMT 4083 Business Policy](#)

3. The following courses in the quantitative area:

[MATH 1113 College Algebra](#)<sup>2</sup>  
[MATH 2223 Quantitative Business Analysis](#)

4. Requirements that are listed on the following pages under each major.
5. Sufficient elective hours to bring the student's total hours to 120 (the number required for graduation).

In order to enroll in 3000- and 4000-level courses offered by the College of Business, students majoring in business must have the proper course prerequisites and satisfy the following enrollment requirements:

1. **Must have completed a minimum of 54 hours.**
2. **Must have a cumulative grade point average of 2.00 or above.**
3. **Completion of the following eighteen hours of business foundation courses:**

[ACCT 2003 Accounting Principles I](#) and [ACCT 2013 Accounting Principles II](#)  
[ECON 2003 Principles of Economics I](#) and [ECON 2013 Principles of Economics II](#)  
Six hours from [BDA 2003 Business Problem Solving](#), [BLAW 2033 Legal Environment of Business](#),  
[BUAD 2053 Business Statistics](#)

**Business students who meet enrollment requirements (1) and (2) above and have only completed fifteen hours of the foundation courses, may enroll in upper division business courses, provided they have the proper course prerequisites and they enroll in the remaining required foundation courses in the same semester.**

**Students majoring in fields outside the College of Business may enroll in 3000- and 4000- level College of Business courses provided they have completed 54 credit hours, have a cumulative GPA of at least 2.0, and approval from the College of Business Dean.**

<sup>1</sup>Accounting majors must take [ACCT 3023 Accounting Information Systems](#). All other business majors must take [MGMT 4013 Management Information Systems](#).

<sup>2</sup>Students who have two years of high school Algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in [MATH 2223 Quantitative Business Analysis](#).

## Department of Accounting and Economics

The Department of Accounting and Economics offers two degree programs. The objective of both degree programs is to offer an academic base equipping students to be life-long learners who will then mature as professionals in the world of business. The accounting curriculum prepares graduates for a variety of careers in public, private and not-for-profit entities as well as entry into graduate programs. The department also provides a major program in economics and finance where graduates can enter professional careers as economic and financial analysts in business or government or continue in graduate studies.

Students who plan to pursue graduate studies should consider the entrance requirements of the graduate degree program which they desire to enter. Faculty advisors will work closely with these students to assist them in planning their course work to meet the graduate degree program requirements. Part of this planning will involve the student sitting for examinations such as the GMAT, GRE, or LSAT.

### Accounting

Since the inception of the program in 1959, accounting graduates have established careers in every segment of the business world. Employment opportunities range from national, regional, and local public accounting firms to corporations, sole proprietorships, and national state and local government entities. The accounting profession offers a promising future for men and women who are comfortable in meeting people, expressing themselves, working in changing environments, and who possess an inquiring and logical thought process.

#### Learning Goals for Accounting Major:

1. Students will be able to demonstrate knowledge of current accounting practices and theory and be conversant in the language of business.
2. Students will be able to demonstrate the ability to think critically about accounting topics.
3. Students will demonstrate the ability to communicate accounting information effectively, both orally and in writing.
4. Students will be able to demonstrate competency in current accounting information technology.
5. Students will be able to demonstrate competency in ethical business and accounting decision making.

Holding the licensure designation as a Certified Public Accountant is viewed as evidence of a professional quality in the discipline of accounting. CPAs are viewed by the business world as individuals who possess a professional knowledge of accounting principles and concepts and have the experiences necessary to make proper application of those principles and concepts. Students who desire to pursue this professional designation can complete the curriculum which will provide them with the necessary academic background to permit the graduate to sit for the uniform certified public accountant examination.

The goal of many students is a career in private accounting rather than public accounting. Professional designations such as Certified Management Accountant (CMA) and Certified Internal Auditor (CIA) are earned by completing examinations offered by their respective professional associations. Accounting majors who desire to complete those certification processes may complete a course of study which will enable them to be a candidate for those professional examinations.

### Professional Examination Requirements

All students who, upon graduation, plan to sit for a professional examination (CPA, CMA, CIA) should consult with an accounting faculty member concerning specific course requirements of the respective examination. The requirements should be considered in planning the student's course of study while completing the degree.

The following curriculum in accounting leads to a Bachelor of Science in Business Administration degree with a major in accounting.

#### Curriculum in Accounting

The matrix below is a sample plan for all coursework required for this program

Freshman

Dr. Stephen Jones, Associate  
Dean  
Rothwell Hall, Room 441  
(479) 968-0673  
sjones@atu.edu

**Professors:**

R. Brown, Carr, Pennington

**Associate Professors:**

Alexander, Benefield, Cole,  
Fusaro, Goza, Hunter

**Assistant Professors:**

Kuroki

**Instructor:**

Griffin

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>ENGL 1013 Composition I</u></a> <sup>1,T</sup>	3 <a href="#"><u>ENGL 1023 Composition II</u></a> <sup>1,T</sup>	3
<a href="#"><u>MATH 1113 College Algebra</u></a> <sup>2,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<a href="#"><u>BUAD 1111 Introduction to Business</u></a> <sup>T</sup>	1 <a href="#"><u>MATH 2223 Quantitative Business Analysis</u></a> <sup>2,T</sup>	3
<a href="#"><u>BUAD 2003 Business Information Systems</u></a> <sup>T</sup>	3 <a href="#"><u>SPH 2173 Business and Professional Speaking</u></a> <sup>T</sup>	3
Elective	5 Elective	2
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Sophomore

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>ECON 2003 Principles of Economics I</u></a> <sup>T</sup>	3 <a href="#"><u>ECON 2013 Principles of Economics II</u></a> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#"><u>Fine Arts &amp; Humanities</u></a> <sup>1,T</sup>	3
<a href="#"><u>BDA 2003 Business Problem Solving</u></a>	3 <a href="#"><u>U.S. History/Government</u></a> <sup>1,T</sup>	3
<a href="#"><u>BUAD 2053 Business Statistics</u></a> <sup>T</sup>	3 <a href="#"><u>BLAW 2033 Legal Environment of Business</u></a> <sup>T</sup>	3
<a href="#"><u>ACCT 2003 Accounting Principles I</u></a> <sup>T</sup>	3 <a href="#"><u>ACCT 2013 Accounting Principles II</u></a> <sup>T</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>Fine Arts &amp; Humanities</u></a> <sup>1,T</sup>	3 <a href="#"><u>ECON 3003 Money and Banking</u></a>	3
<a href="#"><u>MGMT 3003 Management and Organizational Behavior</u></a>	3 <a href="#"><u>MGMT 3103 Operations Management</u></a>	3
<a href="#"><u>BUAD 3023 Business Communication</u></a>	3 <a href="#"><u>ACCT 3013 Intermediate Accounting II</u></a>	3
<a href="#"><u>ACCT 3003 Intermediate Accounting I</u></a>	3 <a href="#"><u>ACCT 3023 Accounting Information Systems</u></a>	3
<a href="#"><u>ACCT 3043 Federal Taxes I</u></a>	3 <a href="#"><u>ACCT 3053 Federal Taxes II</u></a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>MKT 3043 Principles of Marketing</u></a>	3 <a href="#"><u>FIN 3063 Business Finance</u></a>	3
<a href="#"><u>ACCT 4003 Advanced Accounting I</u></a>	3 <a href="#"><u>MGMT 4083 Business Policy</u></a>	3
<a href="#"><u>ACCT 4033 Auditing</u></a>	3 <a href="#"><u>ACCT 4013 Advanced Accounting II</u></a>	3
Elective	5 <a href="#"><u>ACCT 4023 Cost Accounting</u></a>	3
	Elective	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in ["General Education Requirements"](#).

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in [MATH 2223 Quantitative Business Analysis](#), Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required. Students considering graduate school are advised to use free elective hours to take [MATH 2914 Calculus I](#).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Accounting

The minor in Accounting is available to students who wish to add to their knowledge of accounting for personal edification or for professional purposes. Please note that for non-business majors, no more than 30 hours of courses offered by the College of Business may be counted toward completion of degree requirements.

The minor in Accounting requires 21 hours of courses:

[BUAD 2003 Business Information Systems](#)



[ACCT 2003 Accounting Principles I](#)  
[ACCT 2013 Accounting Principles II](#)  
[ACCT 3003 Intermediate Accounting I\\*](#)  
[ACCT 3013 Intermediate Accounting II\\*](#)  
[ACCT 3043 Federal Taxes I\\*](#)

3 hours of either [ACCT 3053 Federal Taxes II](#) or [ACCT 4023 Cost Accounting\\*](#)

\*in order to take the upper division (3000-4000 level) ACCT courses, a non-business major must have completed 54 hours including all 2000 level courses listed above, have a cumulative GPA of at least 2.0 and permission from the Dean of Business.

## Economics and Finance

The study of economics and finance equips students to analyze a broad range of socioeconomic phenomena and policy alternatives. Regulation, environmental protection, economic growth and development, the distribution of income, resource allocation, international trade and finance, comparative economic systems, inflation, and the level of employment are some traditional topics of economics. The finance courses focus on financial definitions and concepts involving sources and uses of funds, personal investment strategy, and financial institutions.

The economics and finance course of study contains a theoretical core supporting the finance, accounting, marketing, and management fields. It is designed to prepare graduates for management or analytical careers in business or government. In addition, the major provides a foundation for graduate study in a variety of fields. Faculty advisors will work closely with students to assist them in planning their course work to achieve personal career objectives.

Students who complete the economics and finance program will be able to:

1. Understand economic concepts and relationships.
2. Understand financial decision making at the individual, corporate, and public policy levels.
3. Improve problem-solving skills through the application of economic and financial concepts.
4. Evaluate economic and financial issues in a global context.

### Curriculum in Economics and Finance

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<a href="#">MATH 1113 College Algebra</a> <sup>2,T</sup>	3 <a href="#">MATH 2223 Quantitative Business Analysis</a> <sup>2,T</sup>	3
<a href="#">BUAD 1111 Introduction to Business</a> <sup>T</sup>	1 <a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3
<a href="#">BUAD 2003 Business Information Systems</a> <sup>T</sup>	3 Elective	3
Elective	1	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>	3 <a href="#">ECON 2013 Principles of Economics II</a> <sup>T</sup>	3
<a href="#">BDA 2003 Business Problem Solving</a>	3 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">MATH 2243 Calculus for Business and Economics</a> <sup>3,T</sup>	3 <a href="#">BUAD 2053 Business Statistics</a> <sup>T</sup>	3
<a href="#">ACCT 2003 Accounting Principles I</a> <sup>T</sup>	3 <a href="#">ACCT 2013 Accounting Principles II</a> <sup>T</sup>	3
Elective	3 <a href="#">BLAW 2033 Legal Environment of Business</a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Junior

Fall	Spring	
<a href="#">ACCT 3063 Managerial Accounting</a> or	3	



### ACCT 4023 Cost Accounting

BUAD 3023 Business Communication

ECON 3003 Money and Banking

FIN 3043 Investments I

MGMT 3003 Management and Organizational Behavior

**Total Hours**

### Fine Arts & Humanities<sup>1,T</sup>

3 MGMT 4013 Management Information Systems 3

3 MKT 3043 Principles of Marketing 3

3 FIN 3063 Business Finance 3

3

**15 Total Hours** **15**

### Senior

#### Fall

ECON 3073 Intermediate Microeconomic Theory

MGMT 3103 Operations Management

FIN Elective (3000-4000 level)<sup>4</sup>

ECON/FIN Elective (3000-4000 level)<sup>4</sup>

Elective

**Total Hours**

#### Spring

3 MGMT 4083 Business Policy 3

3 ECON Elective (3000-4000 level)<sup>4</sup> 3

3 ECON/FIN Elective (3000-4000 level)<sup>4</sup> 3

3 Elective 5

3

**15 Total Hours** **14**

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in [MATH 2223 Quantitative Business Analysis](#), Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required.

<sup>3</sup>Students considering graduate school are advised to take [MATH 2914 Calculus I](#).

<sup>4</sup>Only three hours of economic/finance internship will apply to this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Economics

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The minor in Economics is available to students who wish to add to their knowledge of business for personal edification or for professional purposes, but not open to College of Business majors. **Please note that for non-business majors, no more than 30 hours of courses offered by the College of Business may be counted toward completion of degree requirements.**

The minor in Economics requires 18 hours of courses:

[ACCT 2003 Accounting Principles I](#)

[ECON 2003 Principles of Economics I](#)\*

[ECON 2013 Principles of Economics II](#)

[ECON 3003 Money and Banking](#)\*\*

6 hours of 3-4000 level Economics electives\*\*

\*for many majors [ECON 2003 Principles of Economics I](#) can be used to satisfy 3 hours of the general education social science requirement.

\*\*in order to take the upper division (3000-4000 level) ECON courses, a non-business major must have completed 54 hours including all 2000 level courses listed above, have a cumulative GPA of at least 2.0 and permission from the Dean of Business.

## Department of Management and Marketing

The Department of Management and Marketing offers majors in business data analytics, management and marketing and business education. Decision making as a process is stressed. Students are taught to search for and identify important facts and properly analyze them in developing sound alternative courses of action. Modern analytical techniques as well as the importance of the behavioral sciences are introduced.

The management and marketing major is designed generally to prepare students for careers as professional managers or as self-employed entrepreneurs in either profit-seeking or not-for-profit organizations. The curriculum emphasizes a comprehensive understanding of business principles and economic activities. The required course of study seeks to prepare the graduate not only for initial employment but for subsequent advancement in his/her chosen vocation. Effective education for business responsibility consists not only of the development of an understanding of the principles and methodologies which govern the organization and administration of the individual business enterprise, but also includes an understanding of larger problems and relationships of the economy as a whole.

Specific objectives of the program are to provide students who select the management and marketing major with the following abilities:

1. Effectively apply technology as a problem-solving tool in management and marketing contexts.
2. Critically evaluate management and marketing problems.
3. Identify and evaluate ethical issues related to management and marketing problems.
4. Effectively communicate.
5. Proficiency in the foundation principles of management and marketing.

Dr. Stephen Jones, Associate Dean  
Rothwell Hall, Room 441  
(479) 968-0673  
sjones@atu.edu

**Professors:**

Bashaw, Mason, Roach, Troboy, Tucci

**Associate Professors:**

Bean, Cochran, S. Jones, Walton

**Assistant Professors:**

Batch, Idemudia, Tao

## Business Data Analytics

### Curriculum in Business Data Analytics

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#"><u>ENGL 1013 Composition I</u></a> <sup>1,T</sup>	3 <a href="#"><u>ENGL 1023 Composition II</u></a> <sup>1,T</sup>	3
<a href="#"><u>BUAD 1111 Introduction to Business</u></a> <sup>T</sup>	1 <a href="#"><u>SPH 2173 Business and Professional Speaking</u></a> <sup>T</sup>	3
<a href="#"><u>BUAD 2003 Business Information Systems</u></a> <sup>T</sup>	3 <a href="#"><u>BLAW 2033 Legal Environment of Business</u></a> <sup>T</sup>	3
<a href="#"><u>MATH 2243 Calculus for Business and Economics</u></a>	3 <a href="#"><u>MATH 2223 Quantitative Business Analysis</u></a> <sup>T</sup>	3
Elective <sup>T</sup>	5 <a href="#"><u>BDA 2003 Business Problem Solving</u></a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Sophomore

Fall	Spring	
<a href="#"><u>ACCT 2003 Accounting Principles I</u></a> <sup>T</sup>	3 <a href="#"><u>ACCT 2013 Accounting Principles II</u></a> <sup>T</sup>	3
<a href="#"><u>ECON 2003 Principles of Economics I</u></a> <sup>T</sup>	3 <a href="#"><u>ECON 2013 Principles of Economics II</u></a> <sup>T</sup>	3
<a href="#"><u>BUAD 2053 Business Statistics</u></a> <sup>T</sup>	3 Science with Lab <sup>1,T</sup>	4
<a href="#"><u>BUAD 3023 Business Communications</u></a>	3 <a href="#"><u>U.S. History/Government</u></a> <sup>1,T</sup>	3
<a href="#"><u>BDA 2013 Business Spreadsheet Modeling</u></a>	3 <a href="#"><u>BDA 3053 Business Data Analysis</u></a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

#### Junior

Fall	Spring
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<u>MKT 3043 Principles of Marketing</u>	3	Science with Lab <sup>1,T</sup>	4
<u>ECON 3093 Econometrics</u>	3	<u>ACCT 3063 Managerial Accounting</u> or <u>ACCT 4023 Cost Accounting</u>	3
<u>MGMT 3003 Management and Organizational Behavior</u>	3	<u>MGMT 3103 Operations Management</u>	3
<u>BDA 3003 Data Analytics Apps Development</u>	3	BDA Elective <sup>2</sup>	6
<u>BDA 3033 Data Modeling and Management</u>	3		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

#### Senior

Fall	Spring		
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	6	<u>MKT 4153 Research Methods</u>	3
<u>ECON 3003 Money and Banking</u>	3	<u>MGMT 4083 Business Policy</u>	3
<u>MGMT 4013 Management Information Systems</u>	3	<u>MGMT 4203 Project Management</u>	3
<u>FIN 3063 Business Finance</u>	3	<u>BDA 4003 Business Intelligence</u>	3
		BDA Elective <sup>2</sup>	1
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>BDA Electives: MGMT 3113 Managerial Process Analysis, BDA 4031-3 Internship, BDA 4073 Special Topics.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Management and Marketing

### Curriculum in Management and Marketing

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring		
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>MATH 1113 College Algebra</u> <sup>2,T</sup>	3	<u>MATH 2223 Quantitative Business Analysis</u> <sup>T</sup>	3
<u>BUAD 1111 Introduction to Business</u> <sup>T</sup>	1	<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3
<u>BUAD 2003 Business Information Systems</u> <sup>T</sup>	3	Elective	6
Elective	5		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

#### Sophomore

Fall	Spring		
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>	3	<u>ACCT 2013 Accounting Principles II</u> <sup>T</sup>	3
<u>ECON 2003 Principles of Economics I</u> <sup>T</sup>	3	<u>ECON 2013 Principles of Economics II</u> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4	Science with Lab <sup>1,T</sup>	4
<u>BDA 2003 Business Problem Solving</u>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3	<u>BUAD 2053 Business Statistics</u> <sup>T</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

#### Junior

Fall	Spring		
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>ACCT 3063 Managerial Accounting</u> or <u>ACCT 4023 Cost Accounting</u>	3

<a href="#">BUAD 3023 Business Communications</a>	3	<a href="#">FIN 3063 Business Finance</a>	3
<a href="#">ECON 3003 Money and Banking</a>	3	<a href="#">MGMT 3103 Operations Management</a>	3
<a href="#">MGMT 3003 Management and Organizational Behavior</a>	3	MGMT/MKT Elective(3000-4000 level) <sup>3</sup>	3
<a href="#">MKT 3043 Principles of Marketing</a>	3	Elective	3
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

#### Senior

Fall	Spring		
<a href="#">MGMT 4013 Management Information Systems</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
MGMT/MKT Elective(3000-4000 level) <sup>3</sup>	6	<a href="#">MGMT 4083 Business Policy</a>	3
Elective	6	MGMT/MKT Elective (3000-4000 level) <sup>3</sup>	6
		Elective	1
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in [MATH 2223 Quantitative Business Analysis](#), Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required. Students considering graduate school are advised to use free elective hours to take [MATH 2914 Calculus I](#).

<sup>3</sup>The 15 hours of Management and Marketing electives must include six hours of Marketing electives, six hours of Management electives with the remaining three hours from either a management or a marketing elective. Only three hours of management/marketing internship will apply to this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Entrepreneurship Concentration

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring		
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>2,T</sup>	3	<a href="#">MATH 2223 Quantitative Business Analysis</a> <sup>2, T</sup>	3
<a href="#">BUAD 1111 Introduction to Business</a> <sup>T</sup>	1	<a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3
<a href="#">BUAD 2003 Business Information Systems</a> <sup>T</sup>	3	Elective	6
Elective	5		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

#### Sophomore

Fall	Spring		
<a href="#">ACCT 2003 Accounting Principles I</a> <sup>T</sup>	3	<a href="#">ACCT 2013 Accounting Principles II</a> <sup>T</sup>	3
<a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>	3	<a href="#">ECON 2013 Principles of Economics II</a> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4	Science with Lab <sup>1,T</sup>	4
<a href="#">BDA 2003 Business Problem Solving</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">BLAW 2033 Legal Environment of Business</a> <sup>T</sup>	3	<a href="#">BUAD 2053 Business Statistics</a> <sup>T</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

#### Junior

Fall	Spring
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<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>ACCT 3063 Managerial Accounting</u> or <u>ACCT 4023 Cost Accounting</u>	3
<u>BUAD 3023 Business Communications</u>	3	<u>FIN 3063 Business Finance</u>	3
<u>ECON 3003 Money and Banking</u>	3	<u>MGMT 3103 Operations Management</u>	3
<u>MGMT 3003 Management and Organizational Behavior</u>	3	<u>MKT 4153 Research Methods</u>	3
<u>MKT 3043 Principles of Marketing</u>	3	Elective	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Senior

Fall	Spring
<u>MGMT 4013 Management Information Systems</u>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>
<u>MGMT 4053 Small Business Management</u>	3 <u>MGMT 4063 Entrepreneurial Development</u>
Market Strategy elective <sup>3</sup>	3 <u>MGMT 4083 Business Policy</u>
Elective	6 Behavioral Elective <sup>4</sup>
	Elective
<b>Total Hours</b>	<b>15 Total Hours</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in MATH 2223 Quantitative Business Analysis, Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required. Students considering graduate school are advised to use free elective hours to take MATH 2914 Calculus I.

<sup>3</sup>Three hour Market Strategy elective must be taken from: MKT 3163 Consumer Behavior or MKT 4143 Marketing Management or MGMT 4113 Managerial Issues in Electronic Commerce.

<sup>4</sup>Three hour Behavioral elective must be taken from: MGMT 4023 Personnel/Human Resources Management or MGMT 4093 Human Behavior in Organizations or MGMT 4213 Business Leadership or MGMT 4223 Leadership: Ideas and Images in Art, Film, History, and Literature.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in International Business Concentration

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall	Spring
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>
<u>MATH 1113 College Algebra</u> <sup>2,T</sup>	3 <u>MATH 2223 Quantitative Business Analysis</u> <sup>2, T</sup>
<u>BUAD 1111 Introduction to Business</u> <sup>T</sup>	1 <u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>
<u>BUAD 2003 Business Information Systems</u> <sup>T</sup>	3 Elective
Elective	5
<b>Total Hours</b>	<b>15 Total Hours</b>

### Sophomore

Fall	Spring
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>	3 <u>ACCT 2013 Accounting Principles II</u> <sup>T</sup>
<u>ECON 2003 Principles of Economics I</u> <sup>T</sup>	3 <u>ECON 2013 Principles of Economics II</u> <sup>T</sup>
<u>BDA 2003 Business Problem Solving</u>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>
<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3 <u>BUAD 2053 Business Statistics</u> <sup>T</sup>
Foreign Lang	3 Foreign Lang

**Total Hours** **15 Total Hours** **15**

**Junior**

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>U.S. History/Government</u></a> <sup>1,T</sup>	3 <a href="#"><u>Science with Lab</u></a> <sup>1,T</sup>	4
<a href="#"><u>BUAD 3023 Business Communications</u></a>	3 <a href="#"><u>ACCT 3063 Managerial Accounting</u></a> or <a href="#"><u>ACCT 4023 Cost Accounting</u></a>	3
<a href="#"><u>ECON 3003 Money and Banking</u></a>	3 <a href="#"><u>ECON 4093 International Economics and Finance</u></a>	3
<a href="#"><u>MGMT 3003 Management and Organizational Behavior</u></a>	3 <a href="#"><u>FIN 3063 Business Finance</u></a>	3
<a href="#"><u>MKT 3043 Principles of Marketing</u></a>	3 <a href="#"><u>MGMT 3103 Operations Management</u></a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

**Senior**

<b>Fall</b>	<b>Spring</b>	
Science with Lab <sup>1,T</sup>	4 <a href="#"><u>Fine Arts &amp; Humanities</u></a> <sup>1,T</sup>	3
<a href="#"><u>MGMT 4013 Management Information Systems</u></a>	3 <a href="#"><u>MGMT 4083 Business Policy</u></a>	3
<a href="#"><u>MKT 4093 International Marketing</u></a>	3 <a href="#"><u>MKT 3163 Consumer Behavior</u></a> or <a href="#"><u>MKT 4153 Research Methods</u></a>	3
MGMT Elective (3000-4000 level)	3 MGMT Elective (3000-4000 level)	3
Elective	2 Elective	2
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>14</b>

<sup>1</sup>See appropriate alternatives or substitutions in [“General Education Requirements”](#).

<sup>2</sup>Students who have two years of high school algebra with a grade of “C” or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in [MATH 2223 Quantitative Business Analysis](#). If omitted, an additional 3 hours of electives will be required. Students considering graduate school are advised to use free elective hours to take [MATH 2914 Calculus I](#).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Management Concentration

**The matrix below is a sample plan for all coursework required for this program**

**Freshman**

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>ENGL 1013 Composition I</u></a> <sup>1,T</sup>	3 <a href="#"><u>ENGL 1023 Composition II</u></a> <sup>1,T</sup>	3
<a href="#"><u>MATH 1113 College Algebra</u></a> <sup>2,T</sup>	3 <a href="#"><u>MATH 2223 Quantitative Business Analysis</u></a> <sup>2, T</sup>	3
<a href="#"><u>BUAD 1111 Introduction to Business</u></a> <sup>T</sup>	1 <a href="#"><u>SPH 2173 Business and Professional Speaking</u></a> <sup>T</sup>	3
<a href="#"><u>BUAD 2003 Business Information Systems</u></a> <sup>T</sup>	3 Elective	6
Elective	5	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

**Sophomore**

<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>ACCT 2003 Accounting Principles I</u></a> <sup>T</sup>	3 <a href="#"><u>ACCT 2013 Accounting Principles II</u></a> <sup>T</sup>	3
<a href="#"><u>ECON 2003 Principles of Economics I</u></a> <sup>T</sup>	3 <a href="#"><u>ECON 2013 Principles of Economics II</u></a> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<a href="#"><u>BDA 2003 Business Problem Solving</u></a>	3 <a href="#"><u>Fine Arts &amp; Humanities</u></a> <sup>1,T</sup>	3



<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3	<u>BUAD 2053 Business Statistics</u> <sup>T</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

**Junior**

<b>Fall</b>		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>ACCT 3063 Managerial Accounting</u> or <u>ACCT 4023 Cost Accounting</u>	3
<u>BUAD 3023 Business Communications</u>	3	<u>FIN 3063 Business Finance</u>	3
<u>ECON 3003 Money and Banking</u>	3	<u>MGMT 3103 Operations Management</u>	3
<u>MGMT 3003 Management and Organizational Behavior</u>	3	<u>MGMT 3123 Business Ethics</u>	3
<u>MKT 3043 Principles of Marketing</u>	3	Elective	3
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

**Senior**

<b>Fall</b>		<b>Spring</b>	
<u>MGMT 4013 Management Information Systems</u>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
Behavioral Elective <sup>3</sup>	6	<u>MGMT 3113 Managerial Process Analysis</u> or <u>MGMT 4203 Project Management</u>	3
Elective	6	<u>MGMT 4083 Business Policy</u>	3
		Behavioral Elective <sup>3</sup>	3
		Elective	1
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in MATH 2223 Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required. Students considering graduate school are advised to use free elective hours to take MATH 2914 Calculus I.

<sup>3</sup>Nine hours Behavioral elective must be taken from: MGMT 4023 Personnel/Human Resources Management or MGMT 4093 Human Behavior in Organizations or MGMT 4213 Business Leadership or MGMT 4223 Leadership: Ideas and Images in Art, Film, History, and Literature.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

**Curriculum in Marketing Concentration**

The matrix below is a sample plan for all coursework required for this program

**Freshman**

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>MATH 1113 College Algebra</u> <sup>2,T</sup>	3	<u>MATH 2223 Quantitative Business Analysis</u> <sup>2,T</sup>	3
<u>BUAD 1111 Introduction to Business</u> <sup>T</sup>	1	<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3
<u>BUAD 2003 Business Information Systems</u> <sup>T</sup>	3	Elective	6
Elective	5		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

**Sophomore**

<b>Fall</b>		<b>Spring</b>	
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<a href="#">ACCT 2003 Accounting Principles I</a> <sup>T</sup>	3	<a href="#">ACCT 2013 Accounting Principles II</a> <sup>T</sup>	3
<a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>	3	<a href="#">ECON 2013 Principles of Economics II</a> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4	Science with Lab <sup>1,T</sup>	4
<a href="#">BDA 2003 Business Problem Solving</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">BLAW 2033 Legal Environment of Business</a> <sup>T</sup>	3	<a href="#">BUAD 2053 Business Statistics</a> <sup>T</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

#### Junior

<b>Fall</b>		<b>Spring</b>	
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	<a href="#">ACCT 3063 Managerial Accounting</a> or <a href="#">ACCT 4023 Cost Accounting</a>	3
<a href="#">BUAD 3023 Business Communications</a>	3	<a href="#">FIN 3063 Business Finance</a>	3
<a href="#">ECON 3003 Money and Banking</a>	3	<a href="#">MGMT 3103 Operations Management</a>	3
<a href="#">MGMT 3003 Management and Organizational Behavior</a>	3	<a href="#">MKT 3163 Consumer Behavior</a>	3
<a href="#">MKT 3043 Principles of Marketing</a>	3	Elective	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Senior

<b>Fall</b>		<b>Spring</b>	
<a href="#">MGMT 4013 Management Information Systems</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">MKT 4143 Marketing Management</a>	3	<a href="#">MGMT 4083 Business Policy</a>	3
<a href="#">MKT 4153 Research Methods</a>	3	MGMT or MKT Electives (3000-4000 level)	3
Elective	6	MKT Electives (3000-4000 level)	3
		Elective	1
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in [MATH 2223 Quantitative Business Analysis](#), Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required. Students considering graduate school are advised to use free elective hours to take [MATH 2914 Calculus I](#).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Business and Entrepreneurship

The minor in Business and Entrepreneurship is available to students who wish to add to their knowledge of business for personal edification or for professional purposes, but not open to College of Business majors. **Please note that for non-business majors, no more than 30 hours of courses offered by the College of Business may be counted toward completion of degree requirements.**

[ACCT 2003 Accounting Principles I](#)  
[ECON 2013 Principles of Economics II](#)\*  
[MGMT 3003 Management and Organizational Behavior](#)\*\*  
[MGMT 4053 Small Business Management](#)  
[MKT 3043 Principles of Marketing](#)\*\*

and one of the following:

[MGMT 4023 Personnel/Human Resource Management](#), [MGMT 4063 Entrepreneurial Development](#), [MGMT 4213 Business Leadership](#), [MKT 3163 Consumer Behavior](#), or [MKT 4053 Sport and Event Marketing](#)

\*for many majors [ECON 2013 Principles of Economics II](#) can be used to satisfy 3 hours of the general education social science requirement.

\*\*in order to take the upper division (3000-4000 level) MKT and MGMT courses, a non-business major must have completed 54 hours including all 2000 level courses listed above and have a cumulative GPA of at least 2.0.

## College of Education

The College of Education provides guidance and professional courses for the teacher candidate who plans to teach in elementary, middle level, and secondary schools. The teacher education program is accredited by the Council for the Accreditation of Educator Preparation (CAEP).

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Fax: (479) 964-0811

Teacher candidates who plan to teach physical education, elementary education, or middle level must enroll in the College of Education. Those who elect to prepare for teaching in other fields must enroll in schools appropriate to their interests in teaching.

For the freshman or sophomore teacher candidate who has not selected a major or specific teaching level or area, the College recommends enrollment in the undeclared program (see "Undecided Study"). In addition to taking the required general education courses, teacher candidates in this program are encouraged to take such electives as will provide them a good liberal education and help select a major field. Advisors in this program are selected to provide guidance to undecided teacher candidates.

In making a decision to enter the teaching profession, teacher candidates should seriously consider the demands which this choice entails. Among these are scholarship and intellectual curiosity; an interest in children and young people, and an understanding of their interests, problems, and development; a thorough understanding of the principles and skills employed by effective teachers; and an interest in and understanding of the role of the school in our society.

Teacher candidates who elect the professional program in teacher education will complete their study in at least two stages. See the appropriate catalog section for the requirements for specific programs. Some courses in the area of specialization should also be completed. **Admission to Arkansas Tech University is a prerequisite to, but separate from, admission to teacher education.** Declaration of a major in one of the University's teacher education programs is also a prerequisite to making formal application for admission to teacher education. Even though admission to Tech and declaration of a teaching major are necessary conditions for admission to teacher education, they are not the only requirements. Other criteria are listed in the section below.

### Admission & Retention in Teacher Education at Tech

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Professional programs are composed of courses and experiences designed to complete the undergraduate stage of professional preparation for teaching. Admission is by application to the Admission and Retention Committee of the Teacher Education Council. Before a teacher candidate may enroll in professional education courses at the upper division level (the required 3000 and 4000 level professional education courses), he or she must be formally admitted to teacher education at Tech. Application forms may be obtained from the office of the Dean of the College of Education (Crabaugh 204) or the office of the Director of Teacher Education Student Services (Crabaugh 109).

To be admitted to programs in secondary education, teacher candidates must have two assigned advisors, one from the College of Education and one from the department representing their teaching concentration, have the approval of both advisors, satisfactorily complete the pre-admission requirements, have a cumulative grade point average of 2.70 on all college work completed including transfer work, and submit a plan of study approved by both advisors. An early childhood education or middle level education major will have one advisor from the Department of Curriculum and Instruction. **Admission to teacher education will be recommended by the academic advisors and determined by the Admission and Retention Committee based on the following considerations: completion of English composition courses, an oral communication course, a college-level mathematics course, and the appropriate introductory education course with grades of "C" or higher, and completion of the Core Academic Skills Test with scores equal to or greater than the scores determined by the Arkansas Department of Education.** Other factors which reflect professional competence, including moral and emotional stability, physical and mental health, intellectual curiosity, use of English, social awareness, and professional interest will be considered by the Admission and Retention Committee. Formal screening and subsequent admission into teacher education and the monitoring of satisfactory progress in the teacher preparation program represent institutional obligations to the teaching profession, the schools served by and working with the University's programs, and the agencies that approve and accredit teacher education programs. Once admitted to teacher education, the teacher candidate must maintain satisfactory progress throughout the completion of the teacher education program according to the standards cited above and any additional program standards in effect or lose eligibility to continue in that program. Course sequences and prerequisites will be followed carefully.

### Admission Decision Appeals

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A formal appeal of a decision to deny admission to teacher education may be made to the Admission and Retention Committee of the Teacher Education Council. Instructions and forms for such appeals are available in the Office of the Dean of Education. **An appeal should be based upon exceptional or extenuating circumstances and/or other pertinent information not previously available or considered.** A formal appeal must be submitted in writing to the Dean

who will transmit it to the Committee. The Committee's decision may be appealed in writing to the Dean of the College of Education regarding admission to teacher education. If the appeal is not resolved at this level the teacher candidate may appeal to the Vice President for Academic Affairs whose decision will be final.

## Criteria for Internship

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Internship is normally expected to be the last requirement completed in teacher education programs. Internship requires a full-time academic and professional commitment. Internship requires the teacher candidate to devote one semester of the senior year to full-time internship in an approved school. The teacher candidate should plan the work of internship to provide one semester free of activities and responsibility which would interfere with the requirements of the professional semester. The teacher candidate is expected to follow the direction of the Field-Based Teacher, the School Principal, the Arkansas Tech University Supervisors, and the Arkansas Tech University Director of Teacher Education Student Services.

**Admission requirements for secondary education include completion of all professional education courses, a minimum grade of "C" in all courses required for the teaching field and professional education, and a 2.50 grade point average in the courses required for the teaching field with a cumulative grade point average of 2.50 on all work attempted, including transfer work.** Admission requirements for early childhood education and middle level education include no grade below "C" in any course work with a cumulative grade point average of 2.50 on all work attempted, including transfer work. Internship admission requires a Praxis II Specialty Area score which meets or exceeds the minimum scores established by the Arkansas Department of Education.

## Appeals of Internship Eligibility Decisions

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Decisions made regarding a teacher candidate's eligibility and readiness for placement or retention in internship may be appealed in writing to the Admission and Retention Committee of the Teacher Education Council. Such an appeal should be submitted to the Dean of the College of Education, who will transmit it to the Committee. The Committee's decision regarding an appeal may be appealed in writing to the Dean. If the appeal is not resolved at that level, the teacher candidate may appeal to the Vice President for Academic Affairs whose decision is final. Appeals should be based on exceptional or extenuating circumstances and/or pertinent information not previously available or considered.

## Internship Application Process

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TEACHER CANDIDATE MUST SUBMIT A FORMAL APPLICATION FOR ADMISSION TO INTERNSHIP. APPLICANTS FOR THE SPRING SEMESTER MUST SUBMIT THE APPLICATION PRIOR TO OCTOBER 1 OF THE FALL SEMESTER. APPLICANTS FOR THE FALL SEMESTER MUST SUBMIT THE APPLICATION PRIOR TO MARCH 1 OF THE SPRING SEMESTER. FAILURE TO MEET THESE DEADLINES COULD RESULT IN THE DELAY OF INTERNSHIP FOR A SEMESTER. PRIORITY IN INTERNSHIP PLACEMENT WILL BE GIVEN TO THOSE TEACHER CANDIDATES MEETING THE DEADLINES AND PREREGISTERING FOR INTERNSHIP FOR THE GIVEN SEMESTER.

Application forms for internship may be obtained during scheduled group meetings with the Director of Teacher Education Student Services.

Early Childhood candidates may accomplish internship by enrolling in [ECED 4915 Early Childhood Education Internship](#). Middle level candidates may accomplish internship by enrolling in [MLED 4912 Internship](#). Secondary candidates may accomplish internship by enrolling in [SEED 4809 Teaching in the Elementary and Secondary School](#) or [SEED 4909 Teaching in the Secondary School](#) and [SEED 4503 Seminar in Secondary Education](#), and any other courses required in their teaching concentration. **Assignment of the teacher candidate to an approved site for internship is the responsibility of the College of Education based on policies developed by the College of Education. Placements are chosen to provide the best educational experience for the teacher candidate.**

APPLICANTS FOR ADMISSION TO STAGE II OR INTERNSHIP MUST MEET THE REQUIREMENTS THAT ARE IN EFFECT AT THE TIME OF APPLICATION. THE REQUIREMENTS FOR ADMISSION AND RETENTION AS PUBLISHED IN THE POLICIES AND PROCEDURES HANDBOOK OF THE ARKANSAS TECH UNIVERSITY TEACHER EDUCATION PROGRAM WILL SUPERSEDE CATALOG INFORMATION.

The College of Education offers programs of study leading to baccalaureate degrees as listed below:

### **Bachelor of Science**

[Elementary Education](#)

[Middle Level Education](#)

[Health and Physical Education](#) including a [Wellness and Fitness Program](#) option

Secondary Education (teacher licensure programs in [agriculture, life science, business technology, mathematics, physical science](#))<sup>1</sup>

### **Bachelor of Arts**

Secondary Education (teacher licensure programs in [art, creative writing, English, foreign language, social studies, music,](#)

and [speech](#))<sup>1</sup>

<sup>1</sup>Teacher candidate preparing to teach in secondary schools must complete the courses required for specialization in a teaching concentration. These are listed in departmental sections of the catalog and recommended curricula patterns, including teacher licensure requirements, set forth in the College of Education section of this catalog.

## Transfer Students

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Applicability of transfer credit to meet specific degree requirements depends on the major selected by the transfer student. The transfer student should review the Transfer Credit policy in the Admission section of this catalog and meet with their academic advisor to determine final transfer credit eligibility for the selected program of study.

## Requirements for Teacher Licensure

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All candidates for licensure must successfully complete the Praxis II, *Principles of Learning and Teaching*, except those taking a Praxis II subject assessment that contains a pedagogy section. These are math, life science, physical science, Spanish and English. Teacher candidates must also successfully complete the appropriate specialty area exams of Praxis II. Scores must be sent directly from the Educational Testing Service to Arkansas Tech University.

## Praxis Series

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Please refer to Item E under the [“Requirements for Baccalaureate Degrees”](#).

The Congress of the United States, in its reauthorization of Title of the Higher Education Act of 1998, enacted accountability measures requiring institutions of higher education to report data to the public on the pass-rates of teacher candidates on assessments required for state licensure. The pass-rates for 2008-2009 for Arkansas Tech University teacher candidates were 100 percent on the assessments of basic skills, professional knowledge, and academic content knowledge. The average pass-rates for programs in the state were also 100 percent.

Teacher candidates spend an average of 405 hours in the classroom during internship; and the average faculty-teacher candidate ratio in supervised practice teaching is 5.0. All programs are approved by the Arkansas Department of Education. The teacher education program at Tech is not designated by the State of Arkansas as a low-performing program.



## Department of Curriculum and Instruction

The Department of Curriculum and Instruction offers programs leading to a degree and/or licensure in three areas: Elementary Education, Middle Level Education , (Grade Four-Grade Eight) and Secondary Education (Grade Seven-Grade Twelve).

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### Elementary Education

The Elementary Education program meets the needs of today’s children building on the common core of knowledge, performance, and dispositions needed for early childhood professional educators.

There are three stages in the Bachelor of Science Elementary Education Degree program. Teacher candidates begin the first stage by taking general education requirements and are introduced to basic concepts, theory and practices.

During the second stage teacher candidates complete general education requirements and take courses specifically designed to prepare them for the profession. Admission requires minimum scores as determined by the Arkansas State Board of Education on the Core Academic Skills Test; a minimum cumulative grade point average of 2.70 on all college work attempted with no grade below “C” (including work from other colleges and universities); and beginning the development of a portfolio which must include a philosophy and documented evidence of observations of children.

During the third stage of the elementary program, teacher candidates are placed in an appropriate environment for their internship. Admission to this stage requires a minimum grade point average of 2.70 with no grade below “C” in all courses and a satisfactory score on the licensure exam as established by the Arkansas Department of Education. Teacher candidates should make application for admission to the internship for the spring semester by October 1, or the fall semester by March 1.

Information regarding the [Associate Degree in Early Childhood Education](#) is listed under the College of Professional Studies and Community Outreach.

#### Professors:

Bell, Carter, Field, Paxton, Rollans, V. C. Smith, D. Underwood

#### Associate Professors:

Callaway, Costley, Hanna, Leggett, Walsh

#### Assistant Professors:

Ellison, Ibrahim, Lawson, Murphy, Pepper, Toland, Tyler, Watts

### Curriculum in Elementary Education

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">BIOL 1014 Introduction to Biological Science</a> <sup>T</sup>	4 <a href="#">HIST 1503 World History to 1500</a> <sup>T</sup>	3
<a href="#">MATH 1003 College Mathematics</a> <sup>T</sup>	3 <a href="#">MATH 1113 College Algebra</a> <sup>T</sup>	3
<a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3 <a href="#">PHSC 1013 Introduction to Physical Science</a> <sup>T</sup>	3
<a href="#">TECH 1001 Orientation to the University</a> <sup>T</sup>	1 <a href="#">PHSC 1021 Physical Science Laboratory</a> <sup>T</sup>	1
	<a href="#">POLS 2003 American Government</a> <sup>T</sup>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">EDMD 3013 Integrating Instructional Technology</a>	3 <a href="#">MUS 2003 Introduction to Music</a> <sup>T</sup>	3
<a href="#">HIST 1903 Survey of American History</a> <sup>T</sup>	3 <a href="#">PE 3593 Methods of Teaching Health and Physical Education for K-6 Teachers</a>	3
<a href="#">MATH 2033 Mathematical Concepts I</a> <sup>T</sup>	3 <a href="#">MATH 2043 Mathematical Concepts II</a>	3
<a href="#">GEOL 1004 Essentials of Earth Science</a> <sup>T</sup>	4 <a href="#">SPED 3023 Development &amp; Characteristics of Diverse Learners</a>	3
<a href="#">ELED 2003 Educational Research and the Teacher as a Lifelong Learner</a>	3 <a href="#">ELED 3113 Human Development and Learning Theories</a>	3



<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>
<b>Fall</b>	<b>Junior</b>	
<a href="#"><u>MATH 2163 Introduction to Statistical Methods</u></a> <sup>T</sup>	3 <a href="#"><u>BIOL/PHSC 3243 Integrating the Three Dimensions of Science</u></a>	3
<a href="#"><u>RDNG 3003 Teaching Literacy Foundations</u></a>	3 <a href="#"><u>HIST 2153 Introduction of Arkansas History</u></a>	3
<a href="#"><u>SPED 3033 Foundations of Special Education</u></a>	3 <a href="#"><u>RDNG 3163 Integrated Language Arts</u></a>	3
<a href="#"><u>ELED 3123 Diagnosis and Assessment of Elementary Students</u></a>	3 <a href="#"><u>SPED 3153 Planning, Instruction, and Assessment for Students with Disabilities</u></a>	3
<a href="#"><u>ELED 3133 Integrated Curriculum</u></a>	3 <a href="#"><u>ELED 3143 Teaching Methods K-6 Social Studies</u></a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
<b>Fall</b>	<b>Junior</b>	
<a href="#"><u>ART 2123 Experiencing Art</u></a> <sup>T</sup>	3 <a href="#"><u>RDNG 4023 Disciplinary Reading and Writing</u></a>	3
<a href="#"><u>BIOL /PHSC 3253 Teaching Methods for STEM</u></a>	3 <a href="#"><u>ELED 4912 Internship in Elementary Education</u></a>	12
<a href="#"><u>RDNG 4003 Literacy Assessment and Intervention</u></a>	3	
<a href="#"><u>RDNG 4013 Child and Adolescent Literature</u></a>	3	
<a href="#"><u>ELED 4033 Classroom and Behavior Management</u></a>	3	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Middle Level Education

The Middle Childhood/Early Adolescence degree exists to provide quality preservice educational programs and services in preparation for teaching grades 4-8. The program prepares and nurtures interdisciplinary teachers who reflect content knowledge as well as facilitate creative talents.

The program is designed around a conceptual framework which organizes learning expectations and experience into manageable discipline-specific strands including: professional and pedagogical knowledge, knowledge of the student, developmentally appropriate and effective practices, knowledge of integrated disciplines, global and cultural perspectives, technology, and a liberal arts and science background. The teaching candidate entering the middle-level program must complete two of the following concentrations: English/Language Arts, Math, Social Studies and Science.

The first stage of the middle level program is a pre-professional program and admission to this stage does not constitute approval for admission to the professional program in teacher education. Stage II is the professional stage of the preparation program. Teacher candidates must satisfactorily complete the requirements of the first stage, have a cumulative grade point average of 2.70 on all coursework, completion of English composition courses, an oral communication course, a college-level mathematics course, and completion of [MLED 2003 Introduction to Education](#) with grades of "C" or higher. Competence in oral and written grammar will be assessed. Teacher candidates must submit scores on Core Academic Skills Test that meet or exceed the levels established by the Arkansas Department of Education.

After satisfying all of the requirements at this level, the teacher candidate will apply for internship. Admission to internship requires completion of all professional education courses, senior standing, satisfactory completion of all prerequisites listed in the course descriptions, a minimum grade of "C" in all courses with a cumulative grade point average of 2.70, and the minimum score on the licensure examination as required by the Arkansas Department of Education.

Teacher candidates should make application for admission to the internship for the spring semester by October 1 or for the fall semester by March 1. Teacher candidates must present scores on the appropriate licensure examination as directed by the Arkansas Department of Education.

### Curriculum in Middle Level Education

The matrix below is a sample plan for all coursework required for this program

Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>HIST 1503 World History to 1500</u> <sup>T</sup>	3 <u>HIST 1513 World History since 1500</u> <sup>T</sup>	3
BIOL with Lab <sup>3,T</sup>	4 PHSC with Lab <sup>T</sup>	4
<u>MATH 1113 College Algebra</u> <sup>2,T</sup>	3 <u>MATH 2033 Mathematical Concepts I</u>	3
<u>TECH 1001 Orientation to the University</u> <sup>T</sup>	1 <u>MLED 2003 Introduction to Education</u>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

Sophomore

Fall	Spring	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>HIST 2003 United States History to 1877</u> <sup>T</sup>	3 <u>POLS 2003 American Government</u> <sup>T</sup>	3
<u>SPH 2003 Public Speaking</u> <sup>T</sup>	3 <u>EDMD 3013 Integrating Instructional Technology</u>	3
Concentration <sup>4</sup> /Elective <sup>4</sup>	8 Concentration <sup>4</sup> /Elective <sup>4</sup>	6
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>15</b>

Junior

Fall	Spring	
<u>ENGL 4703 Teaching English as a Second Language</u>	3 <u>MLED 3041 School to Home Communication</u>	1
<u>MLED 3012 Research Foundations</u>	2 <u>MLED 3062 Tests &amp; Educational Measurements</u>	2
<u>MLED 3024 Psychological Foundations for the Nature and Needs of Middle Level Students</u>	4 <u>MLED 3072 Diversity in the Classroom</u>	2
<u>MLED 3034 Literacy Development in the Middle Grades</u>	4 Concentration <sup>4</sup> /Elective <sup>4</sup>	10
<u>MLED 3102 Reading Through Literature in the Middle Ages</u>	2	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

Junior

Fall	Spring	
<u>HIST 2153 Introduction of Arkansas History</u>	3 <u>MLED 4912 Internship</u>	12
<u>MLED 4004 Middle Level Curriculum and Pedagogy</u>	4	
<u>MLED 4023 Guided Field Experiences</u>	3	
Concentration <sup>4</sup> /Elective <sup>4</sup>	6	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Any higher level Mathematics course may be substituted for MATH 1113 College Algebra.

<sup>3</sup>Science concentrations are required to take BIOL 1114 Principles of Biology

<sup>4</sup>Select two concentrations and take additional electives to achieve 120 total hours. <sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

**Concentrations (Select two):**

**English/Language Arts**

Take: ENGL 2043 Introduction to Creative Writing, ENGL

**Social Studies**

Take: ECON 2003 Principles of Economics I, GEOG 2013

[2063 Advanced Composition: Practice and Theory](#), [ENGL 3013 Systems of Grammar](#) and [ENGL 3323 Modern American Literature](#).

[Regional Geography of the World<sup>T</sup>](#), and [HIST 2013 United States History since 1877<sup>T</sup>](#).

**Math**

Take: [MATH 1203 Plane Trigonometry<sup>T</sup>](#), [MATH 2043 Mathematical Concepts II](#), [MATH 2163 Introduction to Statistical Methods](#) and [MATH 3033 Methods of Teaching Elementary Mathematics](#).

**Science**

Take: [BIOL 2004 Basic Human Anatomy and Physiology<sup>T</sup>](#), [GEOL 1004 Essentials of Earth Science<sup>T</sup>](#), [PHYS 1114 Applied Physics<sup>T</sup>](#) and [BIOL/PHSC 3223 Science Education in the Middle Level](#).

## Secondary Education

The secondary education curriculum is designed to prepare teacher candidates for teaching careers at the junior high school and senior high school levels. Teacher candidates completing the CAEP approved program in secondary education will qualify for licensure in an area appropriate to their major field. The program recognizes three important components in the education of a prospective teacher: a strong general education, an in-depth knowledge in a selected teaching field, and a knowledge of the school, adolescents, and the teaching-learning process.

The unit’s conceptual framework is Professionals of the 21st Century. The framework emphasizes the concepts of teacher as instructional leader, reflective decision-maker, and problem solver who has knowledge of the teacher candidate, a strong content and pedagogical knowledge, a commitment to their profession, and a desire to continue their development.

Teacher candidates preparing to teach in secondary schools must complete the courses required for specialization in the appropriate curriculum, see [“Curriculum in Secondary Education”](#).

Teacher candidates desiring entrance to the teacher education program in secondary education should apply for admission to Stage II during the second semester of their sophomore year. Teacher candidates who are admitted to Stage II of the teacher education program for secondary teachers enroll jointly in course work for their degree specialization and course work in the Department of Curriculum and Instruction. For example, teacher candidates planning to teach mathematics enroll in the math department and the Department of Curriculum and Instruction. The requirements of both departments must be satisfied.

Teacher candidates should make application for admission to internship for the spring semester by October 1 and for the fall semester by March 1. Teacher candidates must present scores on the Praxis II specialty area test equal to or greater than the state-established level in order to be approved for internship. Any questions concerning internship placement should be addressed to the Director of Teacher Education Student Services located in Crabaugh 109.

Professional requirements for the secondary education program include [SEED 2002 Introduction to Secondary Education](#); [SEED 3702 Introduction to Educational Technology](#), [SEED 4503 Seminar in Secondary Education](#), [SEED 4556 Classroom Application of Educational Psychology](#), and [SEED 4809 Teaching in the Elementary and Secondary School](#) or [SEED 4909 Teaching in the Secondary School](#). [SEED 2002 Introduction to Secondary Education](#), [SEED 3702 Introduction to Educational Technology](#) and [SEED 4556 Classroom Application of Educational Psychology](#) must be completed prior to internship. Secondary teacher education candidates enrolling in internship should register for [SEED 4503 Seminar in Secondary Education](#) and either [SEED 4809 Teaching in the Elementary and Secondary School](#) or [SEED 4909 Teaching in the Secondary School](#). In addition to the course requirements specified, the state also requires that the applicants for an Arkansas teaching license supply a copy of his/her score on the Praxis II (Principles of Learning and Teaching, if applicable and Specialty Area Tests) and the criminal background check as required by Act 1310. The Specialty Area Test is required for entry into internship. The Principles of Learning and Teaching, if applicable, may be completed during internship (see [“Requirements for Teacher Licensure”](#)).

### Curriculum in Agricultural Education For Teacher Licensure<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

Fall	Freshman	
	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup> 3
<a href="#">BIOL 1014 Introduction to Biological Science</a>	4	<a href="#">COMS 1003 Introduction to Computer Based Systems</a> 3
<a href="#">MATH 1113 College Algebra</a>	3	<a href="#">AGBU 1013 Principles of Agricultural Business</a> 3
<a href="#">AGAS 1014 Principles of Animal Science</a>	4	<a href="#">AGED 1013 Agricultural Youth Organizations</a> 3

<u>AGED 1001 Introduction to Agricultural Education</u>	1	<u>AGPS 1024 Principles of Plant Science</u>	4
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>16</b>
<b>Sophomore</b>			
<b>Fall</b>			
<u>Fine Arts &amp; Humanities</u> <sup>1</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1</sup>	3
<u>Social Sciences</u> <sup>1</sup>	3	<u>CHEM 1113 A Survey of Chemistry and CHEM 1111 Survey of Chemistry Laboratory</u>	4
<u>SEED 2002 Introduction to Secondary Education</u>	2	<u>U.S. History/Government</u> <sup>1</sup>	3
<u>SPH 2003 Public Speaking</u>	3	<u>AGED 2203 Applied Agricultural Systems Technology</u>	3
<u>AGED 2104 Introduction to Agricultural Systems Technology</u>	4	<u>AGEG 3203 Soil, Water and Forest Conservation</u>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>16</b>
<b>Junior</b>			
<b>Fall</b>			
<u>SEED 3552 Adolescent Development</u>	2	<u>SEED 3702 Introduction to Educational Technology</u>	2
<u>SEED 4052 Adolescent Exceptionalities</u>	2	<u>AGAS 2084 Feeds and Feeding</u>	4
<u>AGAS 3021 Livestock Selection and Evaluation</u>	1	<u>AGED 4033 Curriculum Design and Assessment</u>	3
<u>AGED 3033 Philosophy and Foundations of Program Development</u>	3	<u>AGLE 3013 Team Leadership and Organizational Change</u>	3
<u>AGLE 3003 Personal Leadership Theory and Development</u>	3	<u>AGPS 3093 Greenhouse Operation and Management</u>	3
<u>AGPS 3044 Plant Propagation</u>	4		
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>
<b>Junior</b>			
<b>Fall</b>			
<u>Social Sciences</u> <sup>1</sup>	3	<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4556 Classroom Application of Educational Psychology</u>	6	<u>SEED 4909 Teaching in the Secondary School</u>	9
<u>AGED 3013 Principles of Farm Management</u>	3		
<u>AGED 4044 Methods in Teaching Agriculture</u>	4		
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Art for Teacher Licensure

The matrix below is a sample plan for all coursework required for this program

#### Freshman

<b>Fall</b>		<b>Spring</b>	
3	<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>

<u>Social Sciences</u> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
<u>Mathematics</u> <sup>1,T</sup>	3	<u>ART 1503 Introduction to Graphic Design</u>	3
<u>ART 1001 Introduction to Art</u>	1	<u>ART 2123 Experiencing Art</u> <sup>T</sup>	3
<u>ART 1303 Introduction to Drawing</u> <sup>T</sup>	3	<u>ART 2403 Color Design</u> <sup>T</sup>	3
<u>ART 1403 Two-dimensional Design</u> <sup>T</sup>	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

<b>Fall</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	
Science with Lab <sup>1,T</sup>	
<u>SEED 2002 Introduction to Secondary Education</u>	
<u>ART 2103 Art History I</u> <sup>T</sup>	
<u>ART 2413 Three-dimensional Design</u> <sup>T</sup>	
<b>Total Hours</b>	

<b>Sophomore</b>	
<b>Spring</b>	
3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
4 <u>SPH 2003 Public Speaking</u>	3
2 <u>ART/JOUR 1163 Basic Digital Photography</u>	3
3 <u>ART 2113 Art History II</u> <sup>T</sup>	3
3 <u>ART 2303 Figure Drawing</u> <sup>T</sup>	3
<u>ART 3001 Sophomore Review</u>	1
<b>15 Total Hours</b>	<b>16</b>

<b>Fall</b>	
<u>Social Sciences</u> <sup>1,T</sup>	
<u>ART 3003 Concepts in Art Education</u>	
<u>ART 3073 Introduction to Sculpture</u>	
<u>ART 3403 Introduction to Opaque Painting</u> or	
<u>ART 3533 Watercolor Painting</u>	
Art Elective (3000-4000)	
<b>Total Hours</b>	

<b>Junior</b>	
<b>Spring</b>	
3 <u>SEED 3552 Adolescent Development</u>	2
3 <u>SEED 3702 Introduction to Educational Technology</u>	2
3 <u>SEED 4052 Adolescent Exceptionalities</u>	2
3 <u>ART 3013 Art Education Practicum</u>	3
3 <u>ART 3603 Introduction to Ceramics</u>	3
Art History (3000-4000) <sup>2</sup>	3
<b>15 Total Hours</b>	<b>15</b>

<b>Fall</b>	
<u>SEED 4556 Classroom Application of Educational Psychology</u>	
<u>ART 3803 Introduction to Printmaking</u>	
<u>ART 4823 Art Criticism and Aesthetics</u>	
Art Elective (3000-4000)	
<b>Total Hours</b>	

<b>Junior</b>	
<b>Spring</b>	
6 <u>SEED 4503 Seminar in Secondary Education</u>	3
3 <u>SEED 4809 Teaching in the Elementary and Secondary School</u>	9
3	
3	
<b>15 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Art history electives [ART 3113 Art History, American](#), [ART 3123 Art History, Renaissance](#), [ART 3133 Art History, Americas & Africa](#), [ART 3143 Art History, Asia & Pacific](#), [ART 4103 Art History, Modern 1789-1945](#), [ART 4113 Art History, Art After 1945](#), [ART 4723 Art History Seminar](#) can be used toward this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Business Education For Teacher Licensure<sup>3</sup>

The matrix below is a sample plan for all coursework required for this program

Freshman



<b>Fall</b>	<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>SPH 2003 Public Speaking</u> or <u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3 <u>HIST 1903 Survey of American History</u> <sup>1,T</sup>	3
<u>MATH 1113 College Algebra</u> <sup>2,T</sup>	3 <u>MATH 2223 Quantitative Business Analysis</u> <sup>T</sup>	3
<u>BUAD 1023 Keyboarding</u> <sup>T</sup>	3 <u>POLS 2003 American Government</u> <sup>T</sup>	3
<u>BUAD 1111 Introduction to Business</u> <sup>T</sup>	1 <u>BUAD 2043 Principles of Word Processing</u> <sup>T</sup>	3
<u>BUAD 2003 Business Information Systems</u> <sup>T</sup>	3	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

	<b>Sophomore</b>	
<b>Fall</b>	<b>Spring</b>	
Science with Lab <sup>1,T</sup>	4 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>	3 <u>ACCT 2013 Accounting Principles II</u> <sup>T</sup>	3
<u>BDA 2003 Business Problem Solving</u>	3 <u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3
<u>ECON 2003 Principles of Economics I</u> <sup>T</sup>	3 <u>ECON 2013 Principles of Economics II</u> <sup>T</sup>	3
<u>SEED 2002 Introduction to Secondary Education</u>	2 <u>BUAD 2053 Business Statistics</u> <sup>T</sup>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

	<b>Junior</b>	
<b>Fall</b>	<b>Spring</b>	
<u>ANTH 2003 Cultural Anthropology</u>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MGMT 3003 Management and Organizational Behavior</u>	3 <u>MGMT 3103 Operations Management</u>	3
<u>MKT 3043 Principles of Marketing</u>	3 <u>FIN 3063 Business Finance</u>	3
<u>SEED 3552 Adolescent Development</u>	2 <u>SEED 4052 Adolescent Exceptionalities</u>	2
<u>SEED 3702 Introduction to Educational Technology</u>	2 <u>VOBE 4023 Methods of Teaching Vocational Business</u>	3
<u>BUAD 3023 Business Communications</u>	3	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>

	<b>Junior</b>	
<b>Fall</b>	<b>Spring</b>	
Science with Lab <sup>1,T</sup>	4 <u>SEED 4503 Seminar in Secondary Education</u>	3
<u>MGMT 4013 Management Information Systems</u>	3 <u>SEED 4809 Teaching in the Elementary and Secondary School</u> or <u>SEED 4909 Teaching in the Secondary School</u>	9
<u>MGMT 4083 Business Policy</u>	3 <u>VOBE 4701 Special Methods in Vocational Business</u>	1
<u>SEED 4556 Classroom Application of Educational Psychology</u>	6	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students who have two years of high school algebra with a grade of "C" or better and a math ACT score of 22 or above may omit College Algebra and enroll directly in MATH 2223 Quantitative Business Analysis. If omitted, an additional 3 hours of electives will be required.

<sup>3</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.



<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Creative Writing For Teacher Licensure<sup>4</sup>

The matrix below is a sample plan for all coursework required for this program

### Freshman

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
<u>TECH 1001 Orientation to the University</u>	1	<u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
Beg. Foreign Lang I <sup>2,T</sup>	3	Beg. Foreign Lang II <sup>2,T</sup>	3
Elective	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<u>ENGL 2003 Introduction to World Literature</u> <sup>T</sup>	3
<u>ENGL 2043 Introduction to Creative Writing</u> <sup>T</sup>	3	<u>ENGL 3023 Introduction to Linguistics</u>	3
<u>ENGL 2063 Advanced Composition: Practice and Theory</u>	3	<u>ENGL 3043 Literary Editing and Publishing</u>	3
Elective <sup>T</sup>	3	<u>SEED 2002 Introduction to Secondary Education</u>	2
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>14</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 3093 Poetry Workshop</u>	3	<u>ENGL 3013 Systems of Grammar</u>	3
<u>ENGL 3313 American Literature to 1900</u> <sup>T</sup>	3	<u>ENGL 3083 Fiction Workshop</u>	3
<u>ENGL 3413 British Literature to 1800</u>	3	<u>ENGL 3323 Modern American Literature</u> <sup>T</sup>	3
<u>SEED 3552 Adolescent Development</u>	2	<u>ENGL 3423 British Literature since 1800</u>	3
<u>SEED 3702 Introduction to Educational Technology</u> or <u>EDMD 3013 Integrating Instructional Technology</u>	2-3	<u>ENGL 4813 Senior Project in Creative Writing</u>	3
<u>SEED 4052 Adolescent Exceptionalities</u>	2		
<b>Total Hours</b>	<b>15-16</b>	<b>Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 4093 Seminar in Creative Writing</u>	3	<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>ENGL 4733 Teaching English in the Secondary School</u>	3	<u>SEED 4909 Teaching in the Secondary School</u>	9
<u>SEED 4556 Classroom Application of Educational Psychology</u>	6		
ENGL Elective <sup>3</sup>	3		
Elective	0-1		

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>All minimum college hours (at least two semesters) should be in one language. Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination.

<sup>3</sup>Any 2-4000 level English courses excluding [ENGL 2003 Introduction to World Literature](#), [ENGL 2013 Introduction to American Literature](#), [ENGL/JOUR 2173 Introduction to Film](#), [ENGL 2881 Practicum-Literary Journal Publication](#), and [ENGL 4881-4 Practicum-Editing Literary Journal](#).

<sup>4</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

### Curriculum in English For Teacher Licensure<sup>5</sup>

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3	<a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">Mathematics</a> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
Beg. Foreign Lang I <sup>2,T</sup>	3	Beg. Foreign Lang.II <sup>2,T</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1	<a href="#">SPH 2003 Public Speaking</a> <sup>T</sup>	3
<b>Total Hours</b>	<b>13</b>	<b>Total Hours</b>	<b>16</b>

#### Sophomore

Fall		Spring	
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	<a href="#">SEED 2002 Introduction to Secondary Education</a>	2
<a href="#">ENGL 2003 Introduction to World Literature</a> <sup>T</sup>	3	<a href="#">ENGL 3023 Introduction to Linguistics</a>	3
<a href="#">ENGL 2063 Advanced Composition: Practice and Theory</a>	3	English Elective <sup>3</sup>	3
Elective <sup>4,T</sup>	3	Elective <sup>4,T</sup>	5
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

#### Junior

Fall		Spring	
<a href="#">ENGL 3313 American Literature to 1900</a> <sup>T</sup>	3	<a href="#">ENGL 3013 Systems of Grammar</a>	3
<a href="#">ENGL 3413 British Literature to 1800</a>	3	<a href="#">ENGL 3323 Modern American Literature</a> <sup>T</sup>	3
<a href="#">SEED 3702 Introduction to Educational Technology</a> or <a href="#">EDMD 3013 Integrating Instructional Technology</a>	2-3	<a href="#">ENGL 3423 British Literature since 1800</a>	3
English Elective <sup>3</sup>	6	<a href="#">SEED 3552 Adolescent Development</a>	2
Elective <sup>4</sup>	2-1	<a href="#">SEED 4052 Adolescent Exceptionalities</a>	2
		Elective <sup>4</sup>	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

#### Junior

Fall		Spring	
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<a href="#">ENGL 4013 History of the English Language</a>	3	<a href="#">SEED 4503 Seminar in Secondary Education</a>	3
<a href="#">ENGL 4733 Teaching English in the Secondary School</a>	3	<a href="#">SEED 4909 Teaching in the Secondary School</a>	9
<a href="#">SEED 4556 Classroom Application of Educational Psychology</a>	6		
ENGL (3000-4000)	3		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>All minimum college hours (at least two semesters) should be in one language. Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination

<sup>3</sup>Any 2-4000 level English courses excluding [ENGL 2003 Introduction to World Literature](#), [ENGL 2013 Introduction to American Literature](#), [ENGL/ JOUR 2173 Introduction to Film](#), [ENGL 2881 Practicum-Literary Journal Publication](#), and [ENGL 4881-4 Practicum-Editing Literary Journal](#).

<sup>4</sup>At least 40 of the 120 hours required for graduation must be earned in 3000-4000 level courses.

<sup>5</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

## Curriculum in Foreign Language with Concentration in Spanish For Teacher Licensure<sup>2,4,5</sup>

The matrix below is a sample plan for all coursework required for this program

Freshman			
Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
<a href="#">Social Sciences</a> <sup>1</sup>	3	<a href="#">Social Sciences</a> <sup>1</sup>	3
<a href="#">Mathematics</a> <sup>1</sup>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1	Science with Lab <sup>1</sup>	4
<a href="#">SPAN 2013 Intermediate Spanish</a> <sup>2,3</sup>	3	<a href="#">SPAN 2023 Intermediate Spanish II</a> <sup>2,3</sup>	3
<b>Total Hours</b>	<b>13 Total Hours</b>		<b>16</b>
Sophomore			
Fall		Spring	
<a href="#">SPH 2003 Public Speaking</a>	3	<a href="#">U.S. History/Government</a> <sup>1</sup>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3	<a href="#">SPAN 3013 Conversation and Composition II</a>	3
Science with Lab <sup>1</sup>	4	<a href="#">SPAN 3123 Spanish Civilization and Culture</a>	3
<a href="#">SPAN 3003 Conversation and Composition I</a>	3	<a href="#">SEED 2002 Introduction to Secondary Education</a>	2
		<a href="#">SEED 3702 Introduction to Educational Technology</a>	
Electives	3	or	2-3
		<a href="#">EDMD 3013 Integrating Instructional Technology</a>	
		Electives	2-3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>
Junior			
Fall		Spring	
<a href="#">SPAN 3133 Spanish-American Civilization and</a>	3	<a href="#">SPAN 4023 Introduction to Spanish Linguistics</a>	3

## Culture

<u>SPAN 3213 Advanced Grammar and Usage</u>	3	<u>SPAN 4223 Spanish-American Literature</u>	3
<u>SPAN 4213 Spanish Literature</u>	3	<u>SEED 4052 Adolescent Exceptionalities</u>	2
<u>SEED 3552 Adolescent Development</u>	2	SPAN Elective (3000-4000 level)	3
SPAN Elective (3000-4000 level)	3	Electives	5
Elective	1		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

## Junior

Fall		Spring	
<u>SPAN 4003 Oral Communication</u>	3	<u>SPAN 4701 Foreign Language Pedagogy</u>	1
<u>SPAN 4703 Foreign Language Teaching Methods</u>	3	<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4556 Classroom Application of Educational Psychology</u>	6	<u>SEED 4909 Teaching in the Secondary School</u>	9
Electives	3		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students with previous study in a foreign language should refer to Foreign Language Advanced Placement and Credit under Credit by Examination.

<sup>3</sup>Lab attendance is required for beginning and intermediate foreign language courses.

<sup>4</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>5</sup>An oral proficiency level of Advanced Low, as demonstrated by a score on the ACTFL Oral Proficiency Interview, will be required of all foreign language education majors for admission to the internship.

## Curriculum in Mathematics For Teacher Licensure<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall		Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>TECH 1001 Orientation to the University</u>	1	<u>HLED 1513 Personal Health and Wellness</u> <sup>T</sup>	3
<u>MATH 2914 Calculus I</u> <sup>T</sup>	4	<u>MATH 2703 Discrete Mathematics</u>	3
Elective <sup>T</sup>	4	<u>MATH 2924 Calculus II</u> <sup>T</sup>	4
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

### Sophomore

Fall		Spring	
<u>PHYS 2114 General Physics I</u> <sup>T</sup>	4	<u>PHYS 2124 General Physics II</u> <sup>T</sup>	4
<u>COMS 2803 Programming in C</u> <sup>T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MATH 2934 Calculus III</u> <sup>T</sup>	4	<u>ANTH 2003 Cultural Anthropology</u> <sup>T</sup>	3
<u>MATH 3003 Foundations of Number Systems</u>	3	<u>MATH 3123 College Geometry</u>	3
<u>SEED 2002 Introduction to Secondary Education</u>	2	<u>MATH 3243 Differential Equations I</u>	3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

<b>Fall</b>		<b>Junior</b>	
		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>		3	<a href="#">MATH 3203 Introduction to Analysis</a> 3
<a href="#">SPH 2003 Public Speaking</a> <sup>T</sup>		3	<a href="#">MATH 4123 Mathematical Modeling</a> 3
<a href="#">MATH 3153 Applied Statistics I</a>		3	<a href="#">MATH 4703 Special Methods in Mathematics</a> 3
<a href="#">MATH 4003 Linear Algebra I</a>		3	<a href="#">SEED 3702 Introduction to Educational Technology</a> 2
<a href="#">SEED 3552 Adolescent Development</a>		2	Elective <sup>T</sup> 3
 		2	
<a href="#">SEED 4052 Adolescent Exceptionalities</a>		2	
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>14</b>

<b>Fall</b>		<b>Junior</b>	
		<b>Spring</b>	
<a href="#">MATH 4033 Abstract Algebra I</a>		3	<a href="#">SEED 4503 Seminar in Secondary Education</a> 3
<a href="#">MATH 4113 History of Mathematics</a>		3	<a href="#">SEED 4909 Teaching in the Secondary School</a> 9
<a href="#">MATH 4772 Mathematics Teaching Practicum</a>		2	
<a href="#">MATH 4971 Mathematics Senior Seminar</a>		1	
<a href="#">SEED 4556 Classroom Application of Educational Psychology</a>		6	
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

### Curriculum in Music Education for Teacher Licensure<sup>7</sup> (Instrumental Music Option)

The matrix below is a sample plan for all coursework required for this program

<b>Fall</b>		<b>Freshman</b>	
		<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>		3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup> 3
<a href="#">Mathematics</a> <sup>1,T</sup>		3	Science with Lab <sup>1,T</sup> 4
<a href="#">MUS 1000 Recital Attendance</a>		0	<a href="#">MUS 1000 Recital Attendance</a> 0
MUS 1__2 <sup>8,T</sup>		2	MUS 1__2 <sup>8,T</sup> 2
<a href="#">MUS 1441 Class Piano I, II, III, and IV</a> or		1	<a href="#">MUS 1441 Class Piano I, II, III, and IV</a> or
<a href="#">MUS 1201 Applied Music - Piano</a> <sup>2,T</sup>		1	<a href="#">MUS 1201 Applied Music - Piano</a> <sup>2,T</sup> 1
<a href="#">MUS 1501 Band</a> <sup>T</sup>		1	<a href="#">MUS 1501 Band</a> <sup>T</sup> 1
<a href="#">MUS 1713 Theory I</a> <sup>T</sup>		3	<a href="#">MUS 1723 Theory II</a> 3
<a href="#">MUS 1731 Ear Training I</a> <sup>T</sup>		1	<a href="#">MUS 1741 Ear Training II</a> 1
<a href="#">MUS 2441 Class Voice</a> <sup>T</sup>		1	
<a href="#">TECH 1001 Orientation to the University</a>		1	
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>15</b>

**Sophomore**

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>SEED 2002 Introduction to Secondary Education</u> <sup>T</sup>	2
<u>SPH 2003 Public Speaking</u> <sup>T</sup>		3 Science with Lab <sup>1,T</sup>	4
<u>MUS 1000 Recital Attendance</u>		0 <u>MUS 1000 Recital Attendance</u>	0
MUS 1__2 <sup>8</sup>		2 MUS 1__2 <sup>8,T</sup>	2
<u>MUS 1441 Class Piano I, II, III, and IV</u> or		1 <u>MUS 1441 Class Piano I, II, III, and IV</u> or	1
<u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>		1 <u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1
<u>MUS 1501 Band</u> <sup>T</sup>		1 <u>MUS 1501 Band</u> <sup>T</sup>	1
<u>MUS 2713 Theory III</u>		3 <u>MUS 2723 Theory IV</u>	3
<u>MUS 2731 Ear Training III</u>		1 <u>MUS 2741 Ear Training IV</u>	1
<u>MUS 3401 Brass Instruments</u>		1 <u>MUS 3481 Stringed Instruments</u>	1
		Sophomore Barrier Jury <sup>3</sup>	0
		Piano Exit Exam	0
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MUS 3000 Recital Attendance</u>		0 <u>MUS 3000 Recital Attendance</u>	0
MUS 3__2 <sup>8</sup>		2 MUS 3__2 <sup>8</sup>	2
<u>MUS 3421 Woodwind Instruments, Double Reeds</u>		1 <u>MUS 3281 Secondary Instrumental Methods and Materials I</u>	1
<u>MUS 3501 Band</u>		1 <u>MUS 3431 Woodwind Instruments, Single Reeds</u>	1
<u>MUS 3773 History of Music I</u>		3 <u>MUS 3501 Band</u>	1
<u>MUS 3802 Principles of Conducting</u>		2 <u>MUS 3702 Music Educational Technology</u>	2
<u>MUS 4461 Percussion Instruments</u>		1 <u>MUS 3762 Instructional and Choral Arranging</u>	2
<u>MUS 4712 Form and Analysis</u>		2 <u>MUS 3783 History of Music II</u>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
<u>SEED 3552 Adolescent Development</u> <sup>5</sup>		2 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	6
<u>SEED 4052 Adolescent Excpetionalities</u> <sup>5</sup>		2 <u>SEED 4556 Classroom Application of Educational Psychology</u> <sup>5</sup>	6
MUS 3__2 <sup>8</sup>		2 <u>MUS 4001 Senior Recital</u>	1
<u>MUS 3501 Band</u>		1 <u>MUS 4281 Secondary Instrumental Methods and Materials II</u>	1
<u>MUS 3692 History of Music III</u>		2	
<u>MUS 3853 Music in the Elementary Classroom</u> <sup>4,3</sup>		3	
<u>MUS 4971 Marching Band Techniques</u>		1	
<b>Total Hours</b>		<b>13 Total Hours</b>	<b>14</b>

		<b>Senior 9th Semester</b>	
<b>Fall</b>			
<u>SEED 4503 Seminar in Secondary Education</u>	3		
<u>SEED 4809 Teaching in the Elementary and Secondary School</u> <sup>6,7</sup>	9		
<b>Total Hours</b>	<b>12</b>		

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"



<sup>2</sup>Piano ([MUS 1441 Class Piano I, II, III, and IV](#) or [MUS 1201 Applied Music - Piano](#)) to be taken each semester until successful completion of Piano Exit Exam.

<sup>3</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion for all music degrees

<sup>4</sup>Prerequisite: successful completion of Piano Exit Exam.

<sup>5</sup>Prerequisite: admission to Stage II.

<sup>6</sup>See admission policy and procedure.

<sup>7</sup>For licensure, students must pass the Praxis II music specialty and Principles of Learning and Teaching exam.

<sup>8</sup>See course descriptions for the appropriate applied music course number.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Music Education for Teacher Licensure<sup>4</sup> (Keyboard Instrumental Music Option)

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Mathematics</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
<a href="#">MUS 1000 Recital Attendance</a>	0 <a href="#">MUS 1000 Recital Attendance</a>	0
<a href="#">MUS 1202 Applied Music - Piano</a> <sup>T</sup>	2 <a href="#">MUS 1202 Applied Music - Piano</a> <sup>T</sup>	2
<a href="#">MUS 1501 Band</a> <sup>T</sup>	1 <a href="#">MUS 1501 Band</a> <sup>T</sup>	1
<a href="#">MUS 1713 Theory I</a> <sup>T</sup>	3 <a href="#">MUS 1723 Theory II</a> <sup>T</sup>	3
<a href="#">MUS 1731 Ear Training I</a> <sup>T</sup>	1 <a href="#">MUS 1741 Ear Training II</a> <sup>T</sup>	1
<a href="#">MUS 2441 Class Voice</a> <sup>T</sup>	1 <a href="#">MUS 2201 Accompanying Seminar</a> <sup>T</sup>	1
<a href="#">TECH 1001 Orientation to the University</a>	1	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
<b>Sophomore</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">SPH 2003 Public Speaking</a> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#">SEED 2002 Introduction to Secondary Education</a> <sup>T</sup>	2
<a href="#">MUS 1000 Recital Attendance</a>	0 <a href="#">MUS 1000 Recital Attendance</a>	0
<a href="#">MUS 1202 Applied Music - Piano</a> <sup>T</sup>	2 <a href="#">MUS 1202 Applied Music - Piano</a> <sup>T</sup>	2
<a href="#">MUS 1501 Band</a> <sup>T</sup>	1 <a href="#">MUS 1501 Band</a> <sup>T</sup>	1
<a href="#">MUS 2713 Theory III</a>	3 <a href="#">MUS 2201 Accompanying Seminar</a>	1
<a href="#">MUS 2731 Ear Training III</a>	1 <a href="#">MUS 2723 Theory IV</a>	3
<a href="#">MUS 3401 Brass Instruments</a>	1 <a href="#">MUS 2741 Ear Training IV</a>	1
	<a href="#">MUS 3481 Stringed Instruments</a>	1
	Sophomore. Barrier Jury <sup>2</sup>	0
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>14</b>
<b>Junior</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">MUS 3000 Recital Attendance</a>	0 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">MUS 3202 Applied Music - Piano</a>	2 <a href="#">MUS 3000 Recital Attendance</a>	0

<u>MUS 3421</u> <u>Woodwind Instruments, Double Reeds</u>	1	<u>MUS 3202</u> <u>Applied Music - Piano</u>	2
<u>MUS 3501</u> <u>Band</u>	1	<u>MUS 3281</u> <u>Secondary Instrumental Methods and Materials I</u>	1
<u>MUS 3702</u> <u>Music Educational Technology</u>	2	<u>MUS 3431</u> <u>Woodwind Instruments, Single Reeds</u>	1
<u>MUS 3773</u> <u>History of Music I</u>	3	<u>MUS 3501</u> <u>Band</u>	1
<u>MUS 3802</u> <u>Principles of Conducting</u>	2	<u>MUS 3783</u> <u>History of Music II</u>	3
<u>MUS 4712</u> <u>Form and Analysis</u>	2	<u>MUS 4461</u> <u>Percussion Instruments</u>	1
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>

**Junior**

<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>SEED 4556</u> <u>Classroom Application of Educational Psychology</u> <sup>3</sup>	6
<u>SEED 3552</u> <u>Adolescent Development</u> <sup>3</sup>	2	<u>MUS 3442</u> <u>Piano Pedagogy</u>	2
<u>SEED 4052</u> <u>Adolescent Exceptionalities</u>	2	<u>MUS 3762</u> <u>Instructional and Choral Arranging</u>	2
<u>MUS 3202</u> <u>Applied Music - Piano</u>	2	<u>MUS 4001</u> <u>Senior Recital</u>	1
<u>MUS 3501</u> <u>Band</u>	1	<u>MUS 4281</u> <u>Secondary Instrumental Methods and Materials II</u>	1
<u>MUS 3692</u> <u>History of Music III</u>	2	<u>MUS 4701</u> <u>Special Methods in Music</u>	1
<u>MUS 3853</u> <u>Music in the Elementary Classroom</u>	3		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>

**Senior 9th Semester**

<b>Fall</b>	
<u>SEED 4503</u> <u>Seminar in Secondary Education</u>	3
<u>SEED 4809</u> <u>Teaching in the Elementary and Secondary School</u> <sup>3,4</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion of all music degrees.

<sup>3</sup>See admission policy and procedure.

<sup>4</sup>For licensure, students must pass the Praxis II specialty and Principles of Learning and Teaching exam.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

**Curriculum in Music for Teacher Licensure<sup>5</sup>  
(Keyboard Vocal Music Option)**

**The matrix below is a sample plan for all coursework required for this program**

**Freshman**

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013</u> <u>Composition I</u> <sup>1,T</sup>		3 <u>ENGL 1023</u> <u>Composition II</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>		3 Science with Lab <sup>1,T</sup>	4
<u>MUS 1000</u> <u>Recital Attendance</u>		0 <u>MUS 1000</u> <u>Recital Attendance</u>	0
<u>MUS 1202</u> <u>Applied Music - Piano</u> <sup>T</sup>		2 <u>MUS 1202</u> <u>Applied Music - Piano</u> <sup>T</sup>	2
<u>MUS 1571</u> <u>University Choir</u> , <u>MUS 1581</u> <u>Chamber Choir</u> or <u>MUS 1681</u> <u>Concert Chorale</u> <sup>T</sup>	1	1 <u>MUS 1231</u> <u>Applied Music - Voice</u>	1
<u>MUS 1713</u> <u>Theory I</u> <sup>T</sup>	3	<u>MUS 1571</u> <u>University Choir</u> , <u>MUS 1581</u> <u>Chamber Choir</u> or <u>MUS 1681</u> <u>Concert Chorale</u> <sup>T</sup>	1
<u>MUS 1731</u> <u>Ear Training I</u> <sup>T</sup>	1	1 <u>MUS 1723</u> <u>Theory II</u>	3

<u>MUS 2441 Class Voice</u> <sup>T</sup>	1	<u>MUS 1741 Ear Training II</u>	1
<u>TECH 1001 Orientation to the University</u>	1	<u>MUS 2201 Accompanying Seminar</u>	1
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>16</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>		4 <u>SEED 2002 Introduction to Secondary Education</u> <sup>T</sup>	2
<u>MUS 1000 Recital Attendance</u>		0 <u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>		2 <u>MUS 1202 Applied Music - Piano</u> <sup>T</sup>	2
<u>MUS 1231 Applied Music - Voice</u> <sup>T</sup>		1 <u>MUS 1231 Applied Music - Voice</u> <sup>T</sup>	1
<u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1	<u>MUS 1571 University Choir, MUS 1581 Chamber</u> <u>Choir or MUS 1681 Concert Chorale</u> <sup>T</sup>	1
<u>MUS 2713 Theory III</u>		3 <u>MUS 2201 Accompanying Seminar</u>	1
<u>MUS 2731 Ear Training III</u>		1 <u>MUS 2723 Theory IV</u>	3
		<u>MUS 2741 Ear Training IV</u>	1
		Sophomore Barrier Jury <sup>2</sup>	0
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>14</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MUS 1231 Applied Music - Voice</u>		1 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MUS 3000 Recital Attendance</u>		0 <u>MUS 3000 Recital Attendance</u>	0
<u>MUS 3202 Applied Music - Piano</u>		2 <u>MUS 3202 Applied Music - Piano</u>	2
<u>MUS 3571 University Choir, MUS 3581 Chamber Choir</u> or <u>MUS 3681 Concert Chorale</u>	1	<u>MUS 3571 University Choir, MUS 3581 Chamber</u> <u>Choir or MUS 3681 Concert Chorale</u>	1
<u>MUS 3773 History of Music I</u>		3 <u>MUS 3702 Music Educational Technology</u>	2
<u>MUS 3802 Principles of Conducting</u>		2 <u>MUS 3783 History of Music II</u>	3
<u>MUS 3821 Secondary Choral Methods and Materials I</u>	1	1 <u>MUS 4821 Secondary Choral Methods and Materials II</u>	1
<u>MUS 4712 Form and Analysis</u>	2		
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>		3 <u>SEED 4556 Classroom Application of Educational</u> <u>Psychology</u> <sup>4</sup>	6
<u>SEED 3552 Adolescent Development</u> <sup>4</sup>		2 <u>MUS 3442 Piano Pedagogy</u>	2
<u>SEED 4052 Adolescent Excpetionalities</u> <sup>4</sup>		2 <u>MUS 3762 Instructional and Choral Arranging</u>	2
<u>MUS 3202 Applied Music - Piano</u>		2 <u>MUS 4001 Senior Recital</u>	1
<u>MUS 3441 Instrumental Concepts</u>		1 <u>MUS 4701 Special Methods in Music</u>	1
<u>MUS 3571 University Choir, MUS 3581 Chamber Choir</u> or <u>MUS 3681 Concert Chorale</u>	1		
<u>MUS 3692 History of Music III</u>	2		
<u>MUS 3853 Music in the Elementary Classroom</u>	3		
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>12</b>

### Senior 9th Semester

<b>Fall</b>	
<u>SEED 4503 Seminar in Secondary Education</u>	3

<u>SEED 4809 Teaching in the Elementary and Secondary School</u> <sup>4,5</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion for all music degrees.

<sup>3</sup>Prerequisite: admission to Stage II.

<sup>4</sup>See admission policy and procedure.

<sup>5</sup>For licensure, students must pass the Praxis II specialty and Principles of Learning and Teaching exam.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Music Education for Teacher Licensure<sup>7</sup> (Vocal Music Option)

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>	3 <u>Social Sciences</u> <sup>1,T</sup>	3
<u>MUS 1000 Recital Attendance</u>	0 <u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2 <u>MUS 1191 Vocal Diction I</u>	1
<u>MUS 1441 Class Piano I, II, III, and IV</u> or <u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1 <u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2
<u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1 <u>MUS 1441 Class Piano I, II, III, and IV</u> or <u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1
<u>MUS 1713 Theory I</u> <sup>T</sup>	3 <u>MUS 1571 University Choir, MUS 1581 Chamber</u> <u>Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1
<u>MUS 1731 Ear Training I</u> <sup>T</sup>	1 <u>MUS 1723 Theory II</u> <sup>T</sup>	3
<u>TECH 1001 Orientation to the University</u>	1 <u>MUS 1741 Ear Training II</u>	1
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Sophomore

Fall	Spring	
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<u>MUS 1000 Recital Attendance</u>	0 <u>SEED 2002 Introduction to Secondary Education</u>	2
<u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2 <u>MUS 1000 Recital Attendance</u>	0
<u>MUS 1441 Class Piano I, II, III, and IV</u> or <u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1 <u>MUS 1232 Applied Music - Voice</u> <sup>T</sup>	2
<u>MUS 1571 University Choir, MUS 1581 Chamber Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1 <u>MUS 1441 Class Piano I, II, III, and IV</u> or <u>MUS 1201 Applied Music - Piano</u> <sup>2,T</sup>	1
<u>MUS 2191 Vocal Diction II</u>	1 <u>MUS 1571 University Choir, MUS 1581 Chamber</u> <u>Choir</u> or <u>MUS 1681 Concert Chorale</u> <sup>T</sup>	1
<u>MUS 2713 Theory III</u>	3 <u>MUS 2723 Theory IV</u>	3
<u>MUS 2731 Ear Training III</u>	1 <u>MUS 2741 Ear Training IV</u>	1
	Sophomore Barrier Jury <sup>3</sup>	0
	Piano Exit Exam	0
<b>Total Hours</b>	<b>13 Total Hours</b>	<b>14</b>

#### Junior

<b>Fall</b>	<b>Spring</b>	
<u>SPH 2003 Public Speaking</u> <sup>T</sup>	3 <u>Social Sciences</u> <sup>1,T</sup>	3
<u>MUS 3000 Recital Attendance</u>	0 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MUS 3232 Applied Music - Voice</u>	2 <u>MUS 3000 Recital Attendance</u>	0
<u>MUS 3571 University Choir, MUS 3581 Chamber Choir or MUS 3681 Concert Chorale</u>	1 <u>MUS 3191 Vocal Solo Literature</u>	1
<u>MUS 3702 Music Educational Technology</u>	2 <u>MUS 3232 Applied Music - Voice</u>	2
<u>MUS 3773 History of Music I</u>	3 <u>MUS 3571 University Choir, MUS 3581 Chamber Choir or MUS 3681 Concert Chorale</u>	1
<u>MUS 3802 Principles of Conducting</u>	2 <u>MUS 3762 Instructional and Choral Arranging</u>	2
<u>MUS 3821 Secondary Choral Methods and Materials I</u>	1 <u>MUS 3783 History of Music II</u>	3
<u>MUS 4712 Form and Analysis</u>	2 <u>MUS 4821 Secondary Choral Methods and Materials II</u>	1
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>16</b>

<b>Fall</b>	<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>SEED 3552 Adolescent Development</u> <sup>5</sup>	2 <u>SEED 4556 Classroom Application of Educational Psychology</u> <sup>5</sup>	6
<u>SEED 4052 Adolescent Excpetionalities</u> <sup>5</sup>	2 <u>MUS 4001 Senior Recital</u>	1
<u>MUS 3232 Applied Music - Voice</u>	2 <u>MUS 4701 Special Methods in Music</u>	1
<u>MUS 3441 Instrumental Concepts</u>	1 <u>MUS 4832 Vocal Pedagogy</u>	2
<u>MUS 3571 University Choir, MUS 3581 Chamber Choir or MUS 3681 Concert Chorale</u>	1	
<u>MUS 3692 History of Music III</u>	2	
<u>MUS 3853 Music in the Elementary Classroom</u> <sup>4</sup>	3	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>13</b>

#### Senior 9th Semester

<b>Fall</b>	
<u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4809 Teaching in the Elementary and Secondary School</u> <sup>6,7</sup>	9
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)"

<sup>2</sup>Piano (MUS 1441 Class Piano I, II, III, and IV or MUS 1201 Applied Music - Piano) to be taken each semester until successful completion of Piano Exit Exam.

<sup>3</sup>Required for enrollment in upper-level applied study for two-hour credit and for completion for all music degrees.

<sup>4</sup>Prerequisite: successful completion of Piano Exit Exam.

<sup>5</sup>Prerequisite: admission to Stage II.

<sup>6</sup>See admission policy and procedure.

<sup>7</sup>For licensure, students must pass the Praxis II specialty and Principles of Learning and Teaching exam.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Life Science For Teacher Licensure<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>3</sup>	3	<a href="#">HIST 1903 Survey of American History</a>	3
<a href="#">BIOL 1011 Orientation to the Biological Sciences</a>	1	<a href="#">BIOL 2124 Principles of Zoology</a> or <a href="#">BIOL 2134 Principles of Botany</a>	4
<a href="#">BIOL 1114 Principles of Biology</a>	4	<a href="#">CHEM 2134 General Chemistry II</a>	4
<a href="#">CHEM 2124 General Chemistry I</a>	4		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14</b>

### Sophomore

Fall		Spring	
<a href="#">GEOL 1004 Essentials of Earth Science</a> or <a href="#">GEOL 1014 Physical Geology</a>	4	<a href="#">SPH 2003 Public Speaking</a>	3
<a href="#">MATH 2163 Introduction to Statistical Methods</a>	3	<a href="#">ANTH 2003 Cultural Anthropology</a>	3
<a href="#">BIOL 2124 Principles of Zoology</a> or <a href="#">BIOL 2134 Principles of Botany</a>	4	<a href="#">BIOL/FW 3114 Principles of Ecology</a>	4
<a href="#">PHYS 2014 Physical Principles I</a>	4	<a href="#">PHYS 2024 Physical Principles II</a>	4
<a href="#">SEED 2002 Introduction to Secondary Education</a>	2	<a href="#">POLS 2003 American Government</a>	3
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>17</b>

### Junior

Fall		Spring	
<a href="#">BIOL 2004 Basic Human Anatomy and Physiology</a>	4	<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>	4	<a href="#">BIOL 3034 Genetics</a>	4
<a href="#">MATH 2243 Calculus for Business and Economics</a>	3	<a href="#">BIOL 3054 Microbiology</a> or <a href="#">BIOL 4033 Cell Biology</a>	3-4
<a href="#">SEED 3702 Introduction to Educational Technology</a>	2	<a href="#">BIOL /PHSC 3252 The Nature and Context of Science</a>	2
		<a href="#">SEED 3552 Adolescent Development</a>	2
		<a href="#">SEED 4052 Adolescent Exceptionalities</a>	2
<b>Total Hours</b>	<b>13</b>	<b>Total Hours</b>	<b>16-17</b>

### Junior

Fall		Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	3	<a href="#">BIOL 4701 Special Methods in Biology</a>	1
<a href="#">BIOL/PHSC 3233 Science Education in the Secondary School</a>	3	<a href="#">SEED 4503 Seminar in Secondary Education</a>	3
<a href="#">BIOL 4891 Seminar in Biology</a>	1	<a href="#">SEED 4909 Teaching in the Secondary School</a>	9
<a href="#">SEED 4556 Classroom Application of Educational Psychology</a>	6		
Biology Elective	3-4		
<b>Total Hours</b>	<b>16-17</b>	<b>Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>3</sup>Any higher level Mathematics course may be substituted for [MATH 1113 College Algebra](#).



## Curriculum in Physical Science For Teacher Licensure<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
<a href="#">GEOL 1004 Essentials of Earth Science</a> or <a href="#">GEOL 1014 Physical Geology</a>	4 <a href="#">BIOL 1114 Principles of Biology</a>	4
<a href="#">MATH 1914 Precalculus</a>	4 <a href="#">MATH 2914 Calculus I</a>	4
<a href="#">CHEM 2124 General Chemistry I</a>	4 <a href="#">CHEM 2134 General Chemistry II</a>	4
<a href="#">PHSC 1001 Orientation to Physical Science</a>	1	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

### Sophomore

Fall	Spring	
<a href="#">HIST 2003 United States History to 1877</a> or <a href="#">HIST 2013 United States History since 1877</a>	3 <a href="#">SPH 2003 Public Speaking</a>	3
<a href="#">PHYS 2014 Physical Principles I</a> or <a href="#">PHYS 2114 General Physics I</a> and <a href="#">PHYS 2000 Physics Laboratory I</a>	4 <a href="#">PHYS 2024 Physical Principles II</a> or <a href="#">PHYS 2124 General Physics II</a> and <a href="#">PHYS 2010 Physics Laboratory II</a>	4
<a href="#">MATH 2924 Calculus II</a>	4 PHYS, PHSC, CHEM or MATH Elective	3
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>	4 <a href="#">CHEM 3313 Environmental Chemistry</a>	3
<a href="#">SEED 2002 Introduction to Secondary Education</a>	2	
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>13</b>

### Junior

Fall	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	6 <a href="#">POLS 2003 American Government</a>	3
<a href="#">CHEM 4993 Special Problems in Chemistry</a> or <a href="#">PHYS 4993 Special Problems in Physics and Astronomy</a>	3 <a href="#">COMS 2003 Microcomputer Applications</a> or <a href="#">COMS 2803 Programming in C</a>	3
<a href="#">PHSC 3053 Astronomy</a>	3 <a href="#">PHSC 3033 Meteorology</a>	3
<a href="#">PHYS 3213 Modern Physics</a>	3 <a href="#">PHSC 3252 The Nature and Context of Science</a>	2
	<a href="#">SEED 3702 Introduction to Educational Technology</a>	2
	Elective	2
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Junior

Fall	Spring	
<a href="#">ANTH 2003 Cultural Anthropology</a>	3 <a href="#">PHSC 4701 Special Methods in Physical Science</a>	1
<a href="#">PHSC/BIOL 3233 Science Education in the Secondary School</a>	3 <a href="#">SEED 4503 Seminar in Secondary Education</a>	3
<a href="#">SEED 3552 Adolescent Development</a>	2 <a href="#">SEED 4909 Teaching in the Secondary School</a>	9
<a href="#">SEED 4052 Adolescent Exceptionalities</a>	2	
<a href="#">SEED 4556 Classroom Application of Educational Psychology</a>	6	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

## Curriculum in Social Studies For Teacher Licensure<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

### Freshman

<b>Fall</b>	<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>HIST 1503 World History to 1500</u> <sup>T</sup>	3 <u>HIST 1513 World History since 1500</u> <sup>T</sup>	3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<u>Mathematics</u> <sup>1,T</sup>	3 <u>SOC 1003 Introductory Sociology</u> <sup>T</sup>	3
<u>SEED 2002 Introduction to Secondary Education</u>	2 Elective	1
<u>TECH 1001 Orientation to the University</u>	1	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>

### Sophomore

<b>Fall</b>	<b>Spring</b>	
<u>POLS 2003 American Government</u> <sup>T</sup>	3 <u>SPH 2003 Public Speaking</u> or <u>SPH 2173 Business and Professional Speaking</u>	3
<u>HIST 2003 United States History to 1877</u> <sup>T</sup>	3 <u>HIST 2013 United States History since 1877</u> <sup>T</sup>	3
<u>PSY 2003 General Psychology</u> <sup>T</sup>	3 <u>ECON 2003 Principles of Economics I</u> <sup>T</sup>	3
<u>ANTH 2003 Cultural Anthropology</u> <sup>T</sup>	3 <u>SEED 3702 Introduction to Educational Technology</u>	2
<u>GEOG 2013 Regional Geography of the World</u> <sup>T</sup>	3 GEOG Elective <sup>T</sup>	3
	HIST/POLS Elective	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>17</b>

### Junior

<b>Fall</b>	<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>HIST 4714 Social Studies Methods for Secondary Teachers</u>	4 <u>ECON 2013 Principles of Economics II</u> <sup>T</sup>	3
<u>POLS 3033 American State and Local Government</u>	3 <u>HIST 4153 History of Arkansas</u>	3
HIST/POLS Elective (3000-4000 level)	6 <u>SEED 3552 Adolescent Development</u>	2
	<u>SEED 4052 Adolescent Exceptionalities</u>	2
	HIST/POLS Elective (3000-4000 level)	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>16</b>

### Junior

<b>Fall</b>	<b>Spring</b>	
<u>HIST 4963/POLS 4963 Senior Seminar</u>	3 <u>SEED 4503 Seminar in Secondary Education</u>	3
<u>SEED 4556 Classroom Application of Educational Psychology</u>	6 <u>SEED 4909 Teaching in the Secondary School</u>	9
HIST/POLS Elective (3000-4000 level)	3	
Elective	2	
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

## Curriculum Speech For Teacher Licensure<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">Mathematics</a> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>	4
Science with Lab <sup>1,T</sup>	4 <a href="#">SPH 2003 Public Speaking</a> <sup>T</sup>	3
<a href="#">SPH 1003 Introduction to Speech - Communication</a>	3 Elective <sup>T</sup>	2
<a href="#">TECH 1001 Orientation to the University</a>	1	
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>15</b>
<b>Sophomore</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	6
<a href="#">TH 2703 Acting Theories and Techniques</a>	3 <a href="#">JOUR 2133 Introduction to Mass Communication</a>	3
<a href="#">SEED 2002 Introduction to Secondary Education</a>	2 <a href="#">SPH 2013 Voice and Diction</a>	3
<a href="#">SPH 2023 Communication Research and Writing</a>	3 <a href="#">SPH 3073 Group Communication</a>	3
Elective <sup>T</sup>	4	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
<b>Junior</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">TH 3803 Directing Theories and Techniques</a>	3
<a href="#">TH 3513 Stagecraft Techniques</a>	3 <a href="#">TH 4263 Theatre History I: Antiquity to 1564</a>	3
<a href="#">SPH 3063 Oral Interpretation</a>	3 <a href="#">SPH 3003 Interpersonal Communication</a>	3
<a href="#">SEED 3552 Adolescent Development</a>	2 Elective <sup>T</sup>	6
<a href="#">SEED 3702 Introduction to Educational Technology</a>	2	
<a href="#">SEED 4052 Adolescent Exceptionalities</a>	2	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
<b>Junior</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">TH 4273 Theatre History II: 1564 to 1900</a>	3 <a href="#">SPH 4701 Special Methods in Speech</a>	1
<a href="#">SPH 3123 Argumentation</a>	3 <a href="#">SEED 4503 Seminar in Secondary Education</a>	3
<a href="#">SEED 4556 Classroom Application of Educational Psychology</a>	6 <a href="#">SEED 4909 Teaching in the Secondary School</a>	9
Elective <sup>T</sup>	3	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>3</sup>Certain electives and social sciences are recommended based on student's emphasis.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

## **Internship**

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Internship is the capstone of the teacher preparation program. Placements are the responsibility of the College of Education and are selected on the basis of providing the best experience available for the teacher candidate.

The assignments require full day experiences for the semester. Teacher candidates should make plans with these requirements in mind.

## **Praxis II**

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All candidates for licensure must meet minimum scores as required by Arkansas Department of Education on the Principles of Learning and Teaching, if applicable and the appropriate specialty area test.

Please refer to "[Requirements for Baccalaureate Degrees](#)".

## Department of Health and Physical Education

The Department of Health and Physical Education has a nationally accredited (NASPE) program that is a part of the College of Education professional preparation program curricula designed to serve the students, faculty and staff of Arkansas Tech University.

Dr. M. Annette Holeyfield, Head  
J.W. Hull Physical Education  
Building, Room 110  
(479) 968-0344  
aholeyfield@atu.edu

Following are the NASPE standards:

**Professors:**  
Holeyfield, S. Jackson  
**Associate Professors:**  
Lyons, Mayo, Pederson  
**Assistant Professors:**  
Kirkpatrick, Walters  
**Instructors:**  
A. Davis, Dawson, Kelly, Kline,  
McSweeney, Milam, Monica, T.  
Norton, Tubner

1. Scientific and Theoretical Knowledge—Physical education teacher candidates know and apply discipline-specific scientific and theoretical concepts critical to the development of physically educated individuals.
2. Skill and Fitness Based Competence—Physical education teacher candidates are physically educated individuals with the knowledge and skills necessary to demonstrate competent movement performance and health enhancing fitness as delineated in the NASPE K-12 Standards.
3. Planning and Implementation—Physical education teacher candidates plan and implement a variety of developmentally appropriate learning experiences and content aligned with local, state, and national standards to develop physically educated individuals.
4. Instructional Delivery and Management—Physical education teacher candidates use effective communication and pedagogical skills and strategies to enhance student engagement and learning.
5. Impact on Student Learning—Physical education teacher candidates utilize assessments and reflection to foster student learning and inform instructional decisions.
6. Professionalism—Physical education teacher candidates demonstrate dispositions essential to becoming effective professionals.

The programs in the Department of Health and Physical Education are designed to prepare students for lifelong growth in the physical, intellectual, cultural, emotional and social dimensions. These goals and objectives are met through the qualified faculty's presentation of research-based information, utilizing the latest technology.

The Department of Health and Physical Education offers the following degree tracks:

1. Wellness/Fitness Programs: This track serves students who want to pursue professional preparation in the broad area of Wellness and Fitness Programs. This would include those students who desire to work in clinical based, commercial and/or corporate settings.
2. Health and Physical Education Teacher Licensure: This track serves students who want to teach K-12 Health and Physical Education, with a coaching license.

### Driver Education Program

The driver education program has been designed to serve individuals preparing to be driver and traffic education teachers. Additional information about this summer program may be obtained by calling 968-0344.

### Curriculum in Health and Physical Education (Including Teacher Licensure Requirements)<sup>2</sup>

The matrix below is a sample plan for all coursework required for this program

Freshman		
Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>MATH 1113 College Algebra</u> or higher <sup>T</sup>	3 <u>Social Sciences</u> <sup>1,T</sup>	3
<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4 Physical Science with Lab <sup>1,T</sup>	4
<u>HLED 1513 Personal Health and Wellness</u> <sup>T</sup>	3 <u>PE 2111 Methods of Teaching Individual Activities</u>	1
<u>WS 1002 Physical Wellness and Fitness</u> <sup>T</sup>	2 <u>PE 2513 First Aid</u> <sup>T</sup>	3
<u>PE 1201 Orientation to Health, Physical Education, and Wellness Science</u>	1	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>

	<b>Sophomore</b>	
<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>U.S. History/Government</u></a> <sup>1,T</sup>	3 <a href="#"><u>Fine Arts &amp; Humanities</u></a> <sup>1,T</sup>	6
<a href="#"><u>SPH 2003 Public Speaking</u></a> <sup>T</sup>	3 <a href="#"><u>Social Sciences</u></a> <sup>1,T</sup>	3
<a href="#"><u>PE 2101 Methods of Teaching Team Activities</u></a>	1 <a href="#"><u>SEED 2002 Introduction to Secondary Education</u></a> <sup>T</sup>	2
<a href="#"><u>PE 2523 Foundations in Health and Physical Education</u></a> <sup>T</sup>	3 <a href="#"><u>PE 3051 Methods of Teaching Fitness and Wellness Concepts</u></a>	1
<a href="#"><u>PE 2653 Anatomy and Physiology</u></a> <sup>T</sup>	3 <a href="#"><u>PE 3661 Laboratory Experiences in Anatomy/Physiology and Kinesiology</u></a>	1
<a href="#"><u>PE 3101 Methods of Teaching Rhythmic and Gymnastic Movements</u></a>	1 <a href="#"><u>PE 3663 Kinesiology</u></a>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>
	<b>Junior</b>	
<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>HLED 4403 Nutrition and Physical Fitness</u></a> <sup>T</sup>	3 <a href="#"><u>HLED 3203 Consumer Health Programs</u></a>	3
<a href="#"><u>SEED 3702 Introduction to Educational Technology</u></a>	2 <a href="#"><u>SEED 3552 Adolescent Development</u></a>	2
<a href="#"><u>PE 3103 Methods of Teaching Movement Patterns and Activities for Children</u></a>	3 <a href="#"><u>PE 3512 Coaching Strategies: Football &amp; Baseball, PE 3522 Coaching Strategies: Basketball &amp; Track and Field, or PE 3532 Coaching Strategies: Softball and Volleyball</u></a>	2
<a href="#"><u>PE 3413 Coaching Theory</u></a>	3 <a href="#"><u>PE 3583 Methods and Materials in Physical Education and Recreation for Kindergarten and Elementary Grades</u></a>	3
<a href="#"><u>PE 3573 Prevention and Care of Athletic Injuries</u></a>	3 <a href="#"><u>PE 3603 Methods and Materials in Physical Education for Secondary Schools</u></a>	3
<a href="#"><u>PE 4033 Basic Exercise Physiology</u></a>	3 <a href="#"><u>PE 4513 Organization and Administration of Health and Physical Education</u></a>	3
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>16</b>
	<b>Senior</b>	
<b>Fall</b>	<b>Spring</b>	
<a href="#"><u>HLED 4303 Methods and Materials in Health for Grades K-12</u></a>	3 <a href="#"><u>SEED 4503 Seminar in Secondary Education</u></a>	3
<a href="#"><u>SEED 4052 Adolescent Exceptionalities</u></a>	2 <a href="#"><u>SEED 4809 Teaching in the Elementary and Secondary School</u></a> <sup>3</sup>	9
<a href="#"><u>SEED 4556 Classroom Application of Educational Psychology</u></a>	6 <a href="#"><u>PE 4701 Special Methods in Health and Physical Education</u></a>	1
<a href="#"><u>PE 4203 Methods of Teaching Adapted Physical Education in the Schools</u></a>	3	
<a href="#"><u>PE 4523 Measurement and Evaluation in Health and Physical Education</u></a>	3	
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>For licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

<sup>3</sup>Three semester hours of the student teaching requirement must be completed at the elementary or middle school level, below the ninth grade, where the cooperative teacher is certified in Elementary Physical Education OR student must complete a three-semester-hour internship under direct supervision from the staff of the University's Physical Education Department.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.



## Selected Second Teaching Fields

Students are encouraged to meet at least minimal licensure requirements in a second field of teaching in addition to their major field of study.

Licensure requirements in Driver Education are as follows: Hold or be qualified to hold a standard secondary certificate; Driver Education I, two semester hours; Driver Education II, two semester hours; First Aid, two semester hours. Total of 6 semester hours.

## Wellness and Fitness Programs Option

There are three levels in the Wellness/Fitness program. Students begin the first level by taking general education requirements and are introduced to basic concepts of the wellness/fitness program in [PE 1201 Orientation to Health, Physical Education, and Wellness Science](#) and [WS 1002 Physical Wellness and Fitness](#).

During the second level, students complete general education requirements and take courses specific to the wellness profession. Admission to level two requires completion of [PE 1201 Orientation to Health, Physical Education, and Wellness Science](#), [WS 1002 Physical Wellness and Fitness](#), [ENGL 1013 Composition I](#), [ENGL 1023 Composition II](#), [MATH 1113 College Algebra](#), [BIOL 1014 Introduction to Biological Science](#), and [SPH 2173 Business and Professional Speaking](#) with a grade of C or better.

The third level is the internship stage of the program. Admission to this level requires completion of all content area courses (HLED, PE, & WS) with a grade of "C" or better and a cumulative GPA of 2.00 or better.

### Curriculum in Health and Physical Education (Wellness and Fitness Programs Option)

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> or higher <sup>T</sup>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">BIOL 1014 Introduction to Biological Science</a> <sup>T</sup>	4 Physical Science with Lab <sup>1,T</sup>	4
<a href="#">HLED 1513 Personal Health and Wellness</a> <sup>T</sup>	3 <a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3
<a href="#">PE 1201 Orientation to Health, Physical Education, and Wellness Science</a>	1 <a href="#">WS 1002 Physical Wellness and Fitness</a> <sup>T</sup>	2
Elective <sup>T</sup>	1	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

#### Sophomore

Fall	Spring	
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	6
<a href="#">COMS 1003 Introduction to Computer Based Systems</a> or equivalent <sup>T</sup>	3 <a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>	3
<a href="#">PE 2513 First Aid</a> <sup>T</sup>	3 <a href="#">PE 2861 Rhythmic Aerobic Activities</a>	1
<a href="#">PE 2653 Anatomy and Physiology</a> <sup>T</sup>	3 <a href="#">PE 3661 Laboratory Experiences in Anatomy/Physiology and Kinesiology</a>	1
<a href="#">WS 2003 Field-Based Experience in Wellness</a>	3 <a href="#">PE 3663 Kinesiology</a>	3
<a href="#">WS 2031 Directing Food, Exercise, and Body Composition Programs</a>	1	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>

#### Junior

Fall	Spring
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<u>AHS 2013 Medical Terminology</u>	3	<u>HLED 3203 Consumer Health Programs</u>	3
<u>MGMT 3003 Management and Organizational Behavior</u>	3	<u>PE 4103 Principles of Adapted Physical Education</u>	3
<u>PE 3573 Prevention and Care of Athletic Injuries</u>	3	<u>WS 2081 Directing Muscle Fitness Programs</u>	1
<u>PE 4033 Basic Exercise Physiology</u>	3	<u>WS 3003 Exercise Prescription</u>	3
<u>WS 2043 Applied Fitness Assessment and Development</u>	3	<u>WS 3023 Exercise Behavior and Adherence</u>	3
<u>WS 2091 Directing Fitness Walking/Jogging Programs</u>	1	<u>WS 4003 Advanced Professional Seminar</u>	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

**Senior**

**Fall**

<u>HLED 4403 Nutrition and Physical Fitness<sup>T</sup></u>	3
<u>MKT 3043 Principles of Marketing</u>	3
<u>WS 4013 Wellness Science Practicum</u>	3
<u>WS 4023 Principles of Strength and Conditioning</u>	3
<u>WS 4063 Wellness and Fitness Programming</u>	3
Elective <sup>T</sup>	1
<b>Total Hours</b>	<b>16</b>

**Spring**

<u>WS 4012 Wellness and Fitness Program Management Internship</u>	12
<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

# College of Engineering and Applied Sciences

## Mission

The mission of the College is to provide high quality opportunities for learning that prepare students for their chosen profession and provide a foundation for life-long learning.

Dr. William Hoefler, Dean  
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## Core Values

The College of Engineering and Applied Sciences values student learning. The College values scholarly activity, especially as it relates to the enhancement of teaching and its positive impact on student learning. The College values service to the University and to the local and professional communities. The College seeks to demonstrate to students, and instill in them, high ethical standards of personal and professional conduct. The College continually seeks to improve all its programs.

The College of Engineering and Applied Sciences seeks to equip students with the interdisciplinary, technical, and critical-thinking skills that are necessary to develop workable solutions to complex problems. The College is composed of six academic departments: Agriculture, Computer and Information Science, Electrical Engineering, Emergency Management, Mechanical Engineering, and Parks, Recreation and Hospitality Administration. These departments offer programs of study leading to the baccalaureate and associate degrees listed below.

## Bachelor of Science

[Agriculture Business](#) with options in:

[Animal Science](#)  
[Feed Mill Management](#)  
[Horticulture Business](#)  
[Public Relations](#)  
[Pre-Veterinary Medicine](#)

[Agriculture Education](#)  
[Computer Science](#)  
[Emergency Management](#)  
[Information Systems](#)  
[Information Technology](#)

Hospitality Administration with emphases in:

[Food and Beverage Management](#)  
[Lodging and Club Management](#)  
[Tourism and Event Management](#)

Recreation and Park Administration with emphases in:

[Interpretation](#)  
[Natural Resource](#)  
[Recreation Sport Management](#)  
[Therapeutic Recreation](#)

## Bachelor of Science in Electrical Engineering

[Electrical Engineering](#)  
[Computer Engineering](#)

## Bachelor of Science in Mechanical Engineering

[Mechanical Engineering](#)

## Associate of Applied Science

[Culinary Management](#)  
[Information Technology](#)

## Associate of Science in Nuclear Technology

[Nuclear Technology](#)

## Transfer Students

Applicability of transfer credit to meet specific degree requirements depends on the major selected by the transfer student. The transfer student should review the Transfer Credit policy in the Admission section of this catalog and meet with their academic advisor to determine final transfer credit eligibility for the selected program of study.

## Department of Agriculture

The Agriculture Department includes programs of study as follows:

1. A four-year curriculum in agriculture business, with animal science, feedmill management, horticulture, public relations, and pre-veterinary medicine options, leading to a bachelor of science degree.
2. Pre-veterinary medicine - Through proper advising and taking courses in proper sequence, students can meet the minimum course requirements for entrance into Louisiana State University, University of Missouri, Oklahoma State University, Tuskegee Institute, and other institutions offering the D.V.M degree in two years.
3. Agricultural Education - Students interested in teaching agriculture in secondary schools should follow the curriculum set forth in this catalog under the [agricultural education for teacher licensure](#) curricula in the College of Education.

Dr. Malcolm Rainey, Head  
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[mraineyjr@atu.edu](mailto:mraineyjr@atu.edu)

**Professors:**  
 Collins, Hoefler, Rainey  
**Associate Professor:**  
 Brant  
**Assistant Professors:**  
 Killingsworth, Maxwell, Renfro, Williams

The objectives of the department are to:

1. provide a balanced educational program with relatively broad interdisciplinary training as opposed to narrow specialization, thus preparing the student for success in his/her chosen field and in his/her citizenship responsibilities.
2. serve and assist the student in educational and personal problems through active faculty counseling.
3. assist the student in development and improvement of leadership abilities through encouragement of active participation in activities of the Ag Ambassadors, Agri Club, Collegiate FFA, FFA Day and Pre-Veterinary Club and other extracurricular activities.

The baccalaureate degree program in agri-business integrates the discipline of agriculture, business, accounting, economics, and finance. Emphasis is placed on management directed toward the farm business and agri-business firms.

Trends in occupations related to agriculture are shifting from production to agri-business services such as management, processing, distribution, and marketing. This creates a need for personnel with a broad background in these areas of training. Our systems concept is geared to integration of disciplines to better prepare graduates for present day needs.

Attractive career opportunities exist in agricultural business firms, banks and other financial agencies, marketing, food processing, extension, soil conservation, forestry, farm and agri-business management, and sales and distribution firms.

The curricula that follow represent the program of study for the four-year degree in agri-business, including the animal science, feed mill management, horticulture, public relations, and pre-veterinary medicine options. Students enrolled in programs other than agri-business may want to tailor their curriculum to best meet their individual needs.

### Agriculture Business

#### Curriculum in Agriculture Business

The matrix below is a sample plan for all coursework required for this program

Freshman	
Fall	Spring
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup> 3
<a href="#">CHEM 1113 A Survey of Chemistry</a> and <a href="#">CHEM 1111 Survey of Chemistry Laboratory</a> <sup>T</sup>	4 <a href="#">MATH 1113 College Algebra</a> <sup>T</sup> 3
<a href="#">COMS 1003 Introduction to Computer Based Systems</a> <sup>T</sup>	3 <a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup> 3
<a href="#">AGAS 1014 Principles of Animal Science</a>	4 <a href="#">AGBU 1013 Principles of Agriculture Business</a> 3
<a href="#">AGBU 1001 Agriculture Orientation</a>	1 <a href="#">AGPS 1024 Principles of Plant Science</a> 4
<b>Total Hours</b>	<b>15 Total Hours</b> 16
Sophomore	
Fall	Spring

<u>ENGL 2053 Technical Writing</u>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4	<u>MATH 2163 Introduction to Statistical Methods</u> <sup>T</sup>	3
<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3	<u>AGBU 2073 Principles of Agriculture Microeconomics</u>	3
<u>AGBU 2063 Principles of Agricultural Macroeconomics</u>	3	<u>AGSS 2014 Soils</u>	4
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

<b>Fall</b>
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>
<u>AGBU 3133 Intermediate Agricultural Macroeconomics</u>
<u>AGBU 3213 Career Development in Agriculture</u>
Agriculture Elective <sup>2</sup>
Elective <sup>3,T</sup>
<b>Total Hours</b>

<b>Junior</b>	
<b>Spring</b>	
3 <u>AGBU 4013 Agricultural Marketing</u>	3
3 <u>AGBU 4063 Agricultural Investments</u>	3
3 Agriculture Elective <sup>2</sup>	6
3 Elective <sup>3,T</sup>	2
3	
<b>15 Total Hours</b>	<b>14</b>

<b>Fall</b>
<u>AGBU 4003 Agri-Business Management</u>
<u>AGBU 4043 Appraisal of Farm Real Estate</u>
<u>AGBU 4153 Computers in Agriculture</u>
Agriculture Elective <sup>2</sup>
<b>Total Hours</b>

<b>Senior</b>	
<b>Spring</b>	
3 <u>AGBU 4023 Agricultural Finance</u>	3
3 <u>AGBU 4033 Agricultural Policy</u>	3
3 <u>AGBU 4073 Commodity Risk and Futures</u>	3
4 <u>AGBU 4973 Senior Seminar</u>	3
Elective <sup>3,T</sup>	3
<b>13 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>3</sup>Recommended electives are [SPAN 1013 Beginning Spanish I](#) and [SPAN 1023 Beginning Spanish II](#).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Animal Science Option

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>			
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4	<u>MATH 1113 College Algebra</u> <sup>T</sup>	3
<u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3	<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3
<u>AGAS 1014 Principles of Animal Science</u>	4	<u>AGBU 1013 Principles of Agriculture Business</u>	3
<u>AGBU 1001 Agriculture Orientation</u>	1	<u>AGPS 1024 Principles of Plant Science</u>	4
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16</b>

**Fall**

**Sophomore**  
**Spring**



<u>ENGL 2053 Technical Writing</u>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>	3	<u>MATH 2163 Introduction to Statistical Methods</u> <sup>T</sup>	3
<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3	<u>AGAS 2084 Feeds and Feeding</u>	4
<u>CHEM 1113 A Survey of Chemistry</u> and	4	<u>AGBU 2073 Principles of Agriculture</u>	3
<u>CHEM 1111 Survey of Chemistry Laboratory</u> <sup>T</sup>	4	<u>Microeconomics</u>	3
<u>AGBU 2063 Principles of Agricultural</u>	3	<u>AGSS 2014 Soils</u>	4
<u>Macroeconomics</u>			
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>17</b>

<b>Fall</b>
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>
<u>AGAS 3004 Reproduction in Farm Animals</u>
<u>AGBU 3213 Career Development in Agriculture</u>
Agriculture Elective <sup>2</sup>
Elective <sup>2,T</sup>
<b>Total Hours</b>

<b>Junior</b>	
<b>Spring</b>	
3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
4 <u>AGAS 3104 Swine Management</u>	4
3 Poultry Science <sup>3</sup>	3
3 Agriculture Elective <sup>2</sup>	3
2	
<b>15 Total Hours</b>	<b>13</b>

<b>Fall</b>
<u>AGAS 4203 Livestock and Poultry Nutrition</u>
<u>AGBU 4003 Agri-Business Management</u>
<u>AGBU 4013 Agricultural Marketing</u>
<u>AGPS 3023 Forage Crops and Pasture Management</u>
<b>Total Hours</b>

<b>Senior</b>	
<b>Spring</b>	
3 <u>AGAS 3014 Beef Cattle Management</u>	4
3 <u>AGAS 3933 Animal Breeding and Genetics</u>	3
3 <u>AGBU 4023 Agricultural Finance</u>	3
3 <u>AGBU 4033 Agricultural Policy</u>	3
<u>AGBU 4973 Senior Seminar</u>	3
<b>12 Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>3</sup>One of the following [AGAS 3303 Poultry Management](#), [AGAS 3343 Regulatory Affairs of the Food Industry](#), or [AGAS 4403](#).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Feed Mill Management Option

The matrix below is a sample plan for all coursework required for this program

### Freshman

<b>Fall</b>	<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4 <u>CHEM 1113 A Survey of Chemistry</u> and	4
	<u>CHEM 1111 Survey of Chemistry Laboratory</u> <sup>T</sup>	4
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3 <u>COMS 1003 Introduction to Computer Based</u>	3
	<u>Systems</u> <sup>T</sup>	3
<u>AGAS 1014 Principles of Animal Science</u>	4 <u>AGBU 1013 Principles of Agriculture Business</u>	3
<u>AGBU 1001 Agriculture Orientation</u>	1 <u>AGPS 1024 Principles of Plant Science</u>	4
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>17</b>

		<b>Sophomore</b>	
<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>		3 <u>MATH 2163 Introduction to Statistical Methods</u> <sup>T</sup>	3
<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>		3 <u>AGAS 2084 Feeds and Feeding</u>	4
<u>ENGL 2053 Technical Writing</u>		3 <u>AGAS 3303 Poultry Management</u>	3
<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>		3 <u>AGBU 2073 Principles of Agriculture Microeconomics</u>	3
<u>AGBU 2063 Principles of Agricultural Macroeconomics</u>		3	
<b>Total Hours</b>		<b>18 Total Hours</b>	<b>16</b>
<b>Fall</b>		<b>Junior</b>	
<b>Spring</b>		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>		3 <u>AGAS 3343 Regulatory Affairs of the Food Industry</u>	3
<u>AGBU 4053 Agricultural Price Analysis</u>		3 <u>AGBU 4013 Agricultural Marketing</u>	3
Agriculture Elective <sup>2</sup>		9 <u>AGBU 4023 Agricultural Finance</u>	3
		<u>AGBU 4033 Agricultural Policy</u>	3
		<u>AGBU 4063 Agricultural Investments</u>	3
		<u>AGBU 4073 Commodity Risk and Futures</u>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>18</b>
<b>Fall</b>		<b>Senior</b>	
<b>Spring</b>		<b>Spring</b>	
<u>AGAS 4203 Livestock and Poultry Nutrition</u>		3 <u>AGBU 3993 Internship I in Agriculture</u>	3
<u>AGBU 3213 Career Development in Agriculture</u>		3 <u>AGBU 4983 Internship II in Agriculture</u>	3
<u>AGBU 4003 Agri-Business Management</u>		3	
<u>AGBU 4973 Senior Seminar</u>		3	
Agriculture Elective <sup>2</sup>		3	
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>6</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup> At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>T</sup> Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Horticulture Option

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>	
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>		3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>		3 <u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3
<u>BIOL 1014 Introduction to Biological Science</u> or		4 <u>MATH 1113 College Algebra</u> <sup>T</sup>	3
<u>BIOL 2134 Principles of Biology</u> <sup>T</sup>		4 <u>AGBU 1013 Principles of Agriculture Business</u>	3
<u>AGAS 1014 Principles of Animal Science</u>		1 <u>AGPS 1024 Principles of Plant Science</u>	4
<u>AGBU 1001 Agriculture Orientation</u>			
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>16</b>

<b>Fall</b>		<b>Spring</b>	
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>		3 <u>ENGL 2053 Technical Writing</u>	3
<u>CHEM 1113 A Survey of Chemistry</u> and		4 <u>MATH 2163 Introduction to Statistical Methods</u> <sup>T</sup>	3
<u>CHEM 1111 Survey of Chemistry Laboratory</u> <sup>T</sup>		3 <u>AGBU 2073 Principles of Agriculture Microeconomics</u>	3
<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>		3 <u>AGSS 2014 Soils</u>	4
<u>AGBU 2063 Principles of Agricultural Macroeconomics</u>		<b>16 Total Hours</b>	<b>16</b>

<b>Fall</b>
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>
<u>AGBU 3213 Career Development in Agriculture</u>
<u>AGPS 3044 Plant Propagation</u>
<u>AGPS 3244 Plant Pathology</u>
Elective <sup>T</sup>
<b>Total Hours</b>

<b>Junior</b>		
<b>Spring</b>		
3 <u>AGPS 3064 Vegetable Growing</u>		4
3 <u>AGPS 3093 Greenhouse Operation and Management</u>		3
4 Agriculture Elective <sup>2</sup>		4
4 Elective <sup>T</sup>		2
2		
<b>16 Total Hours</b>		<b>13</b>

<b>Fall</b>
<u>AGBU 4003 Agri-Business Management</u>
<u>AGBU 4013 Agricultural Marketing</u>
<u>AGPS 3074 Floriculture</u>
Agriculture Elective <sup>2</sup>
<b>Total Hours</b>

<b>Senior</b>		
<b>Spring</b>		
3 <u>AGBU 4023 Agricultural Finance</u>		3
3 <u>AGBU 4033 Agricultural Policy</u>		3
4 <u>AGBU 4973 Senior Seminar</u>		3
3 <u>AGPS 3083 Small Fruit and Nut Culture</u>		3
<u>AGPS 4103 Crop and Garden Insects</u>		3
<b>13 Total Hours</b>		<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Curriculum in Public Relations Option

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>			
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>		3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>CHEM 1113 A Survey of Chemistry</u> and		4 <u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3
<u>CHEM 1111 Survey of Chemistry Laboratory</u> <sup>T</sup>		3 <u>JOUR 2133 Introduction to Mass Communication</u>	3
<u>MATH 1113 College Algebra</u> <sup>T</sup>		4 <u>AGBU 1013 Principles of Agriculture Business</u>	3
<u>AGAS 1014 Principles of Animal Science</u>		1 <u>AGPS 1024 Principles of Plant Science</u>	4
<u>AGBU 1001 Agriculture Orientation</u>		<b>15 Total Hours</b>	<b>16</b>

<b>Sophomore</b>			
<b>Fall</b>		<b>Spring</b>	
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3

<u>BLAW 2033 Legal Environment of Business</u> <sup>T</sup>	3	<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4
<u>JOUR 2143 News Writing</u>	3	<u>MATH 2163 Introduction to Statistical Methods</u> <sup>T</sup>	3
<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3	<u>AGBU 2073 Principles of Agriculture Microeconomics</u>	3
<u>AGBU 2063 Principles of Agricultural Macroeconomics</u>	3	<u>AGSS 2014 Soils</u>	4
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>17</b>

**Fall**

<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	
<u>U.S. History/Government</u> <sup>1,T</sup>	
<u>ENGL 2053 Technical Writing</u>	
<u>JOUR 3173 Public Relations Principle</u>	
Agriculture Elective <sup>2</sup>	
<b>Total Hours</b>	

**Junior**

**Spring**

3 <u>JOUR 3273 Public Relations Writing</u>	3
3 <u>JOUR 4033 Community Journalism</u>	3
3 Agriculture Elective <sup>2</sup>	3
3 Elective	6
3	
<b>15 Total Hours</b>	<b>15</b>

**Fall**

<u>JOUR 4073 Graphic Communication</u>	
<u>AGBU 3213 Career Development in Agriculture</u>	
<u>AGBU 4003 Agri-Business Management</u>	
<u>AGBU 4013 Agricultural Marketing</u>	
<u>AGBU 4973 Senior Seminar</u>	
<b>Total Hours</b>	

**Senior**

**Spring**

3 <u>JOUR 4173 Public Relations Project</u>	3
3 <u>JOUR 4883 Mass Communication Theory</u>	3
3 <u>AGBU 4023 Agricultural Finance</u>	3
3 <u>AGBU 4033 Agricultural Policy</u>	3
3	
<b>15 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Pre-Professional Programs

Arkansas Tech University offers a complete pre-professional training program in pre-veterinary medicine. Statements and curricula for this program are listed below.

Dr. Malcolm Rainey  
Coordinator  
Dean Hall, Suite 123

## Curriculum in Pre-Veterinary Medicine Option

The matrix below is a sample plan for all coursework required for this program

Freshman	
Fall	Spring
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>
<u>BIOL 1114 Principles of Biology</u> <sup>T</sup>	4 <u>BIOL 2124 Principles of Zoology</u> <sup>T</sup>
<u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3 <u>CHEM 2124 General Chemistry I</u> <sup>T</sup>
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3 <u>AGBU 1013 Principles of Agriculture Business</u>
<u>AGAS 1014 Principles of Animal Science</u>	4
<u>AGBU 1001 Agriculture Orientation</u>	1
<b>Total Hours</b>	<b>18 Total Hours</b>

Fall	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3 <a href="#">ACCT 2003 Accounting Principles I</a> <sup>T</sup>	3
<a href="#">CHEM 2134 General Chemistry II</a> <sup>T</sup>	4 <a href="#">BLAW 2033 Legal Environment of Business</a> <sup>T</sup>	3
<a href="#">PHYS 2014 Physical Principles I</a> <sup>T</sup>	4 <a href="#">PHYS 2024 Physical Principles II</a> <sup>T</sup>	4
<a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3 <a href="#">AGAS 2084 Feeds and Feeding</a>	4
<a href="#">AGBU 2063 Principles of Agricultural Macroeconomics</a>	3 <a href="#">AGBU 2073 Principles of Agriculture Microeconomics</a>	3
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>17</b>

Fall	Junior	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>		3 <a href="#">CHEM 3264 Mechanistic Organic Chemistry</a>	4
<a href="#">U.S. History/Government</a> <sup>1,T</sup>		3 <a href="#">ENGL 2053 Technical Writing</a>	3
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>		4 <a href="#">MATH 2163 Introduction to Statistical Methods</a> <sup>T</sup>	3
<a href="#">AGAS 4203 Livestock and Poultry Nutrition</a>		3 <a href="#">AGAS 3933 Animal Breeding and Genetics</a>	3
<a href="#">AGBU 3213 Career Development in Agriculture</a>		3	
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>13</b>

Fall	Senior	Spring	
<a href="#">AGAS 3004 Reproduction in Farm Animals</a>		4 <a href="#">BIOL 3054 Microbiology</a>	4
<a href="#">AGBU 4003 Agri-Business Management</a>		3 <a href="#">CHEM 3344 Principles of Biochemistry</a>	4
<a href="#">AGBU 4013 Agricultural Marketing</a>		3 <a href="#">AGBU 4023 Agricultural Finance</a>	3
<a href="#">AGBU 4973 Senior Seminar</a>		3 <a href="#">AGBU 4033 Agricultural Policy</a>	3
<b>Total Hours</b>	<b>13 Total Hours</b>		<b>14</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>At least 40 of the total hours required for graduation must be 3000 - 4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Agriculture

The minor in Agriculture is available to students who wish to add to their knowledge of Agriculture for personal improvement and/or for professional development but **not** open to Department of Agriculture majors. This minor may be of particular interest to those students who wish to work in the food or fiber industries after graduation. This minor may be well suited for students in Accounting, Economics, Business Administration, Engineering, Emergency Management, Hospitality Administration and Fisheries and Wildlife Sciences. The minor in Agriculture requires 21 hours of courses:

[AGAS 1014 Principles of Animal Science](#)  
[AGBU 1013 Principles of Agriculture Business](#)  
[AGPS 1024 Principles of Plant Science](#)  
[AGSS 2014 Soils](#)

\*AG Electives (6 hours of Agriculture academic courses at the 3000 or 4000 level, excluding: [AGBU 3213 Career Development in Agriculture](#), [AGBU 3993 Internship I in Agriculture](#), [AGBU 4983 Internship II in Agriculture](#), and [AGBU 4991-4 Special Problems in Agriculture](#))

\*In order to take the upper division (3000-4000 level) AG courses, the student must have completed 54 hours including all 1000 and 2000 level courses listed above as well as any prerequisites and have a cumulative GPA of at least 2.0.

## Department of Computer and Information Science

The Computer and Information Science Department offers four undergraduate programs: a Bachelor of Science in Computer Science, a Bachelor of Science in Information Systems, a Bachelor of Science in Information Technology, and an Associate of Applied Science in Information Technology.

The Bachelor of Science in Computer Science and the Bachelor of Science in Information Systems programs are both accredited by the Computing Accreditation Commission (CAC) of ABET, Inc., the national accrediting board for engineering and technology.

In order to ensure continued program quality, the department strives to achieve the following objectives for its graduates and alumni:

- Communicate effectively using terminology and processes that are appropriate for the field
- Work efficiently and effectively in a team environment to develop support tools and systems to satisfy stated requirements
- Solve complex computational problems using appropriate models, techniques, and abstractions
- Conduct themselves in a professional and ethically responsible manner
- Learn new trends and technology and willingly adapt to new systems and software environments

The program in computer science prepares students for careers as systems programmers in a scientific and/or engineering environment and for graduate work in computer science. Mathematics and engineering courses supplement a strong core of computer science courses, enabling students to design and implement software that requires complicated computations, data structures and interfaces.

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**Professor:**  
 Hoelzeman, Middleton, Morell  
**Associate Professors:**  
 M. Brown, Fang, Frye, J. Moody,  
 Nezu, R. Robison, S. Robison  
**Assistant Professor:**  
 Sharma, Wood  
**Instructor:**  
 Capehart, Park

### Computer Science

#### Curriculum in Computer Science

The matrix below is a sample plan for all coursework required for this program

##### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>T</sup>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3 <a href="#">MATH 2914 Calculus I</a> <sup>T</sup>	4
<a href="#">TECH 1001 Orientation to the University</a>	1 <a href="#">COMS 2003 Microcomputer Applications</a> <sup>T</sup>	3
<a href="#">COMS 1403 Orientation to Computing, Information, and Technology</a> <sup>T</sup>	3 <a href="#">COMS 2104 Foundations of Computer Programming I</a> <sup>T</sup>	4
<a href="#">COMS 1411 Computer and Information Science Lab</a> <sup>T</sup>	1	
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>17</b>

##### Sophomore

Fall	Spring	
<a href="#">ELEG 2130 Digital Logic Design Lab</a> <sup>T</sup>	0 <a href="#">ENGL 2053 Technical Writing</a> <sup>T</sup>	3
<a href="#">ELEG 2134 Digital Logic Design</a> <sup>T</sup>	4 Science Sequence I <sup>2,T</sup>	4
<a href="#">MATH 2924 Calculus II</a> <sup>T</sup>	4 <a href="#">COMS 2213 Data Structures</a> <sup>T</sup>	3
<a href="#">COMS 2203 Foundations of Computer Programming II</a> <sup>T</sup>	3 <a href="#">COMS 2223 Computer Organization and Programming</a> <sup>T</sup>	3
<a href="#">COMS 2903 Discrete Structures for Technical Majors</a> <sup>T</sup>	3 <a href="#">COMS 3913 Advanced Discrete Structures</a>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

##### Junior



<b>Fall</b>	<b>Spring</b>	
Science Sequence II <sup>2,T</sup>	4 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">MATH 3153 Applied Statistics I</a>	3 <a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3
<a href="#">COMS 2700 Networking and Architecture Laboratory</a> <sup>T</sup>	0 <a href="#">COMS 3703 Operating Systems</a>	3
<a href="#">COMS 2703 Computer Networks and Architecture</a> <sup>T</sup>	3 <a href="#">COMS 4163 Personal Software Engineering</a>	3
<a href="#">COMS 3213 Advanced Data Structures and Algorithm Design</a>	3 <a href="#">COMS 4700 Data Communications and Networking Lab</a>	0
<a href="#">COMS 3233 Data Design and Implementation</a>	3 <a href="#">COMS 4703 Data Communications and Networks</a>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>	<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">COMS 4043 Systems Analysis and Design II</a>	3
<a href="#">MATH 4003 Linear Algebra I</a>	3 <a href="#">COMS 4403 Compiler Design</a>	3
<a href="#">COMS 3053 Implications of Technology on Society</a>	3 Management Elective <sup>3</sup>	3
<a href="#">COMS 4033 Systems Analysis and Design I</a>	3 Elective (Math or Science)	2
<a href="#">COMS 4103 Organization of Programming Languages</a>	3 Elective (3000-4000 level)	2
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>May be satisfied by any 1-year science sequence that requires a lab in each course, excluding biological science courses.

<sup>3</sup>This management elective is to be selected from [COMS 4053 Information Systems Resource Management](#), [COMS 4063 IT Project Administration IT Project Administration](#), or MGMT course approved jointly by the Department of Management and Marketing and the Department of Computer and Information Science.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Information Systems

The program in information systems prepares students for careers as application programmers/analysts in a business environment and for further graduate work in information systems. Business courses supplement a strong core of technical courses to enable students to design and implement business processing systems that require programming, databases, web development, networking, and client-server processing.

### Curriculum in Information Systems

The matrix below is a sample plan for all coursework required for this program

<b>Fall</b>	<b>Freshman</b>	<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>		3
Science with Lab <sup>1,T</sup>	4 <a href="#">U.S. History/Government</a> <sup>1,T</sup>		3
<a href="#">MATH 2243 Calculus for Business and Economics</a> <sup>T</sup>	3 <a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>		3
<a href="#">TECH 1001 Orientation to the University</a>	1 <a href="#">COMS 2003 Microcomputer Applications</a> <sup>T</sup>		3
<a href="#">COMS 1403 Orientation to Computing, Information, and Technology</a> <sup>T</sup>	3 <a href="#">COMS 2104 Foundations of Computer Programming I</a> <sup>T</sup>		4
<a href="#">COMS 1411 Computer and Information Science Lab</a> <sup>T</sup>	1		1
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

## Sophomore

Fall		Spring	
<a href="#">ENGL 2053 Technical Writing<sup>T</sup></a>	3	<a href="#">Social Sciences<sup>1, T</sup></a>	3
<a href="#">ACCT 2003 Accounting Principles I<sup>T</sup></a>	3	<a href="#">BLAW 2033 Legal Environment of Business</a>	3
<a href="#">COMS 2203 Foundations of Computer Programming II<sup>T</sup></a>	3	<a href="#">BUAD 2053 Business Statistics<sup>T</sup></a>	3
<a href="#">COMS 2700 Networking and Architecture Laboratory<sup>T</sup></a>	0	<a href="#">COMS 2213 Data Structures<sup>T</sup></a>	3
<a href="#">COMS 2703 Computer Networks and Architecture<sup>T</sup></a>	3	<a href="#">COMS 3233 Database Design and Implementation</a>	3
<a href="#">COMS 2903 Discrete Structures for Technical Majors<sup>T</sup></a>	3		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

## Junior

Fall		Spring	
<a href="#">SPH 2173 Business and Professional Speaking<sup>T</sup></a>	3	Science with Lab <sup>1, T</sup>	4
<a href="#">COMS 3243 Data Mining</a>	3	<a href="#">MGMT 3003 Management and Organizational Behavior</a>	3
<a href="#">COMS 3513 Administering and Using the IBM Platform</a>	3	<a href="#">COMS 3503 Visual Programming</a>	3
<a href="#">COMS 3903 Systems Software and Architecture</a>	3	<a href="#">COMS 4700 Data Communications and Networking Lab</a>	0
Elective 2000 <sup>2</sup> -4000	3	<a href="#">COMS 4703 Data Communications and Networks</a>	3
		Elective 3000-4000 level	1
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14</b>

## Senior

Fall		Spring	
<a href="#">Fine Arts &amp; Humanities<sup>1, T</sup></a>	3	<a href="#">Fine Arts &amp; Humanities<sup>1, T</sup></a>	3
<a href="#">COMS 3053 Implications of Technology on Society</a>	3	<a href="#">MKT 3043 Principles of Marketing</a>	3
<a href="#">COMS 3163 Web Programming</a>	3	<a href="#">COMS 4043 Systems Analysis and Design II</a>	3
<a href="#">COMS 4033 Systems Analysis and Design I</a>	3	<a href="#">COMS 4053 Information Systems Resource Management</a>	3
<a href="#">COMS 4133 Application Program Development</a>	3	COMS Elective <sup>2</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>1000-level courses may only be taken to satisfy this requirement with the explicit permission of the Computer and Information Science Department Head.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Information Technology

The program in information technology prepares students for careers in administering and supporting the computing infrastructures of an organization. The curriculum consists of an integrated set of courses in networking, web development and administration, database development and administration, systems administration, and computer forensics.

### Curriculum in Information Technology

**The matrix below is a sample plan for all coursework required for this program**

#### Freshman

Fall		Spring	
<a href="#">ENGL 1013 Composition I<sup>1, T</sup></a>	3	<a href="#">ENGL 1023 Composition II<sup>1, T</sup></a>	3
Science with Lab <sup>1, T</sup>	4	<a href="#">U.S. History/Government<sup>1, T</sup></a>	3

<u>MATH 2243 Calculus for Business and Economics</u> <sup>T</sup>	3	<u>ECON 2003 Principles of Economics I</u> <sup>T</sup>	3
<u>TECH 1001 Orientation to the University</u>	1	<u>COMS 1333 Web Publishing I</u> <sup>T</sup>	3
<u>COMS 1403 Orientation to Computing, Information, and Technology</u> <sup>T</sup>	3	<u>COMS 2104 Foundations of Computer Programming I</u> <sup>T</sup>	4
<u>COMS 1411 Computer and Information Science Lab</u> <sup>T</sup>	1		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

**Fall**

<u>ENGL 2053 Technical Writing</u> <sup>T</sup>	3
<u>COMS 2203 Foundations of Computer Programming II</u> <sup>T</sup>	3
<u>COMS 2333 Web Publishing II</u> <sup>T</sup>	3
<u>COMS 2700 Networking and Architecture Laboratory</u> <sup>T</sup>	0
<u>COMS 2703 Computer Networks and Architecture</u> <sup>T</sup>	3
<u>COMS 2903 Discrete Structures for Technical Majors</u> <sup>T</sup>	3
<b>Total Hours</b>	<b>15 Total Hours</b>

**Sophomore**

**Spring**

3 <u>BUAD 2053 Business Statistics</u> <sup>T</sup>	3
3 <u>COMS 2003 Microcomputer Applications</u> <sup>T</sup>	3
3 <u>COMS 2213 Data Structures</u>	3
0 <u>COMS 2713 Survey of Operating Systems</u> <sup>T</sup>	3
3 <u>COMS 2733 Introduction to Computer Forensics and Security</u> <sup>T</sup>	3
3	
<b>15 Total Hours</b>	<b>15</b>

**Fall**

<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3
<u>COMS 3233 Database Design and Implementation</u>	3
<u>COMS 3903 Systems Software and Architecture</u>	3
<u>COMS 4313 Server Administration</u>	3
<b>Total Hours</b>	<b>15 Total Hours</b>

**Junior**

**Spring**

3 Science with Lab <sup>1,T</sup>	4
3 <u>COMS 2163 Scripting Languages</u>	3
3 <u>COMS 3523 Human Factors in Information Technology</u>	3
3 <u>COMS 4700 Data Communications and Networking Lab</u>	0
3 <u>COMS 4703 Data Communications and Networks</u>	3
Elective (3000-4000 level)	1
<b>15 Total Hours</b>	<b>14</b>

**Fall**

<u>Social Sciences</u> <sup>1,T</sup>	3
<u>COMS 4033 Systems Analysis and Design I</u>	3
<u>COMS 4213 Database Administration</u>	3
<u>COMS 4710 Heterogeneous Networks Lab</u>	0
<u>COMS 4713 Heterogeneous Networks</u>	3
COMS (3000-4000)Elective	3
<b>Total Hours</b>	<b>15 Total Hours</b>

**Senior**

**Spring**

3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
3 <u>COMS 3053 Implications of Technology on Society</u>	3
3 <u>COMS 4043 Systems Analysis and Design II</u>	3
0 <u>COMS 4063 IT Project Administration</u>	3
3 Elective (3000-4000 level)	3
3	
<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

The Associate of Applied Science in Information Technology program enables students to develop skills in the areas of web processing, databases, networking, programming, and various operating systems. These skills enable students to seek positions within the information technology industry.

## Curriculum in Information Technology Associate of Applied Science Degree

The matrix below is a sample plan for all coursework required for this program

### Freshman

Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3	<a href="#">COMS 1333 Web Publishing I</a> <sup>T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>2,T</sup>	3	<a href="#">COMS 2104 Foundations of Computer Programming I</a> <sup>T</sup>	4
<a href="#">TECH 1001 Orientation to the University</a>	1	<a href="#">COMS 2233 Introduction to Databases</a> <sup>T</sup>	3
<a href="#">COMS 1403 Orientation to Computing, Information, and Technology</a> <sup>T</sup>	3	Elective	2
<a href="#">COMS 1411 Computer and Information Science Lab</a> <sup>T</sup>	1		
<a href="#">COMS 2003 Microcomputer Applications</a> <sup>T</sup>	3		
<b>Total Hours</b>	<b>17 Total Hours</b>		<b>15</b>

### Sophomore

Fall		Spring	
<a href="#">ENGL 2053 Technical Writing</a> <sup>T</sup>	3	<a href="#">SPH 2173 Business and Professional Speaking</a> <sup>T</sup>	3
<a href="#">PHSC 1013 Introduction to Physical Science</a> <sup>T</sup>	3	COMS Elective <sup>3,T</sup>	9
<a href="#">PHSC 1021 Physical Science Laboratory</a> <sup>T</sup>	1		
<a href="#">COMS 2203 Foundations of Computer Programming II</a> <sup>T</sup>	3		
<a href="#">COMS 2700 Networking and Architecture Laboratory</a> <sup>T</sup>	0		
<a href="#">COMS 2703 Computer Networks and Architecture</a> <sup>T</sup>	3		
COMS Elective <sup>3,T</sup>	3		
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>The mathematics requirement may be fulfilled by taking [MATH 1113 College Algebra](#) or any higher level mathematics course.

<sup>3</sup>1000-level courses may not be used to satisfy this requirement.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Department of Electrical Engineering

The Department of Electrical Engineering offers a four-year degree program leading to the degree Bachelor of Science in Electrical Engineering (BSEE). This program is accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc., the national accrediting board for engineering and technology. The degree program includes both traditional electrical engineering as well as a computer engineering option.

The mission of the Department of Electrical Engineering at Arkansas Tech University is to maintain an accredited program leading to the Bachelor of Science degree. The Department is committed to providing its students with a positive atmosphere in which to learn the fundamentals of engineering practice including engineering science and design. In order to fulfill its mission, the Department has established the following educational objectives.

Engineers who graduate from Arkansas Tech University with a BSEE degree will be:

1. Intellectuals - with a commitment to ethics, social and environmental responsibility, and lifelong learning.
2. Team Players - communicating, planning, coordinating, and managing projects and personnel with efficiency and effectiveness.
3. Problem solvers - learning new concepts, techniques, skills, and tools to aid in analyzing and designing electrical engineering systems.
4. Professionals - trained and competent in the fundamentals of engineering science, applied mathematics, laboratory practice, and principles of electrical and computer engineering.

The first two years of curriculum contain the needed science, mathematics, engineering, and computer science basics to prepare the student for the upper level courses. The junior and senior years of the traditional electrical engineering path include 9 hours of electives which allow students to concentrate their studies in an area of specialization such as electric power, controls and robotics, or communications.

The following curriculum represents the program of study and a suggested sequence for the Bachelor of Science in Electrical Engineering degree. The student should be aware that not all courses are offered each semester and that the ordering of courses is subject to change. In order to minimize scheduling difficulties, each student should schedule a special session with their advisor at the beginning of their junior year to plan the remaining coursework.

### Bachelor of Science in Electrical Engineering (BSEE)

The matrix below is a sample plan for all coursework required for this program

	Freshman	
Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">CHEM 2124 General Chemistry I</a> <sup>T</sup>	4 <a href="#">COMS 2104 Foundations of Computer Programming I</a> <sup>T</sup>	4
<a href="#">MATH 2914 Calculus I</a> <sup>T</sup>	4 <a href="#">MATH 2924 Calculus II</a> <sup>T</sup>	4
<a href="#">ELEG 1012 Introduction to Electrical Engineering</a> <sup>T</sup>	2 <a href="#">ELEG 2130 Digital Logic Design Lab</a>	0
	<a href="#">ELEG 2134 Digital Logic Design</a>	4
<b>Total Hours</b>	<b>13 Total Hours</b>	<b>15</b>

	Sophomore	
Fall	Spring	
<a href="#">MCEG 2023 Engineering Materials</a>	3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">PHYS 2114 General Physics I</a> <sup>T</sup>	4 <a href="#">PHYS 2124 General Physics II</a> <sup>T</sup>	4
<a href="#">MATH 3243 Differential Equations I</a>	3 <a href="#">MATH 2934 Calculus III</a> <sup>T</sup>	4
<a href="#">ELEG 2103 Electric Circuits I</a>	3 <a href="#">ELEG 2111 Electric Circuits Laboratory</a>	1
<a href="#">ELEG 3133 Microprocessor Systems Design</a>	3 <a href="#">ELEG 2113 Electric Circuits II</a>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

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**Professors:**  
 Buford, Greco  
**Associate Professor:**  
 Bullock  
**Assistant Professors:**  
 Badawy, Z. Chen, Y. Lee  
**Instructor:**  
 Reasoner

Fall		Junior	
		Spring	
<u>MCEG 2013 Statics</u>		3 <u>MCEG 2033 Dynamics</u>	3
<u>ELEG/MCEG 3003 Engineering Modeling and Design</u>	3	3 <u>ELEG 3123 Signals and Systems</u>	3
<u>ELEG 3103 Electronics I</u>		3 <u>ELEG 3143 Electromagnetics</u>	3
<u>ELEG 3153 Electrical Machines</u>		3 <u>ELEG/MATH 3173 Math Methods for Engineers</u>	3
Engineering Elective <sup>2</sup>		3 <u>ELEG 4103 Electronics II</u>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

Fall		Senior	
		Spring	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>		3 <u>ELEG 4122 Electrical Systems Lab</u>	2
<u>ELEG 4113 Digital Signal Processing</u>		3 <u>ELEG 4193 Electrical Design Project</u>	3
<u>ELEG 4143 Communication Systems I</u>		3 Technical Elective <sup>3</sup>	3
<u>ELEG/MCEG 4202 Engineering Design</u>		2 Engineering Elective <sup>2</sup>	3
<u>ELEG 4303 Control Systems</u>		3	
<b>Total Hours</b>		<b>17 Total Hours</b>	<b>14</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Engineering Elective must be a 3000 or 4000 level Electrical Engineering course.

<sup>3</sup>Technical Elective must be a course from Engineering, [MGMT 4203 Project Management](#), Math or the Sciences (excluding courses intended for Education Majors). All electives must have approval of the Department.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Bachelor of Science in Electrical Engineering Computer Engineering Option

The matrix below is a sample plan for all coursework required for this program

Freshman	
Fall	Spring
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>COMS 2104 Foundations of Computer Programming I</u> <sup>T</sup>
<u>MATH 2914 Calculus I</u> <sup>T</sup>	4 <u>MATH 2924 Calculus II</u> <sup>T</sup>
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4 <u>ELEG 2130 Digital Logic Design Lab</u>
<u>ELEG 1012 Introduction to Electrical Engineering</u>	2 <u>ELEG 2134 Digital Logic Design</u>
<b>Total Hours</b>	<b>16 Total Hours</b>

Sophomore	
Fall	Spring
<u>PHYS 2114 General Physics I</u> <sup>T</sup>	4 <u>PHYS 2124 General Physics II</u> <sup>T</sup>
<u>COMS 2203 Foundations of Computer Programming II</u> <sup>T</sup>	3 <u>MATH 2934 Calculus III</u> <sup>T</sup>
<u>MATH 3243 Differential Equations I</u>	3 <u>MATH/ELEG 3173 Math Methods for Engineers</u> <sup>T</sup>
<u>ELEG 2103 Electric Circuits I</u>	3 <u>ELEG 2111 Electric Circuits Laboratory</u>
<u>ELEG 3133 Microprocessor Systems Design</u>	3 <u>ELEG 2113 Electric Circuits II</u>



<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>
	<b>Junior</b>	
<b>Fall</b>	<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>COMS 2213 Data Structures</u> <sup>T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>COMS 2223 Computer Organization and Programming</u> <sup>T</sup>	3
<u>COMS 2903 Discrete Structures for Technical Majors</u> <sup>T</sup>	3 <u>ELEG 3123 Signals and Systems</u>	3
<u>ELEG/MCEG 3003 Engineering Modeling and Design</u>	3 <u>ELEG 3143 Electromagnetics</u>	3
<u>ELEG 3103 Electronics I</u>	3 <u>ELEG 4103 Electronics II</u>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
	<b>Senior</b>	
<b>Fall</b>	<b>Spring</b>	
<u>ELEG 4113 Digital Signal Processing</u>	3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>ELEG 4133 Advanced Digital Design</u>	3 <u>COMS 3703 Operating Systems</u>	3
<u>ELEG 4143 Communication Systems I</u>	3 <u>ELEG 4122 Electrical Systems Lab</u>	2
<u>ELEG/ MCEG 4202 Engineering Design</u>	2 <u>ELEG 4193 Electrical Design Project</u>	3
<u>ELEG 4303 Control Systems</u>	3 Engineering Elective <sup>2</sup>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>14</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Engineering Elective must be a 3000 or 4000 level Electrical Engineering course.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Department of Emergency Management

The bachelor of science degree in Emergency Management (EAM) was established in 1997. Arkansas Tech University was one of the first institutions to offer a baccalaureate degree in this specialized and rapidly growing academic discipline. In 2006, the program became the first degree program to receive accreditation on a national as well as international level from the Foundation for Higher Education Accreditation in Emergency Management (now known as the Council for the Accreditation of Emergency Management Education). In view of the interest in this degree from a wide geographic area including foreign countries, the degree is also available online as an electronic degree that was approved by the Higher Learning Commission in 2005. The program offers a master of science degree in Emergency Management and Homeland Security for students seeking an advanced degree in the discipline.

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**Associate Professor:**  
 Gray, Smith

**Assistant Professors:**  
 X. Chen, Earls, Kallberg, Kremers

The Department of Emergency Management at Arkansas Tech University is dedicated to:

1. Increasing learning and knowledge by providing outstanding teaching, scholarship, and service for the university and community.
2. Sustaining a department that supports faculty and students in their professional and intellectual growth.
3. Educating students to become leaders in the emergency management discipline and to make a positive contribution to the field.

Interest in emergency management and its importance from the global perspective have increased following recent events related to natural and technological hazards, terrorism, and other Homeland Security issues. The degree supports advancement opportunities for career professionals in a broad range of discipline areas as well as appealing to students seeking careers in emergency management in both the private and public sectors.

The curriculum in the EAM degree is based on the following core competencies for emergency managers:

Management skills  
 Communication skills  
 Leadership and decision making skills within a team environment  
 Technical skills, systems and standards  
 Political and legal contexts  
 Comprehensive emergency management contexts  
 Ethical and social contexts  
 Practical applications, Theory, and Research

The curriculum requires all students to complete 42 hours of EAM core courses which include 12 hours of credit for externship/internship experiences. This focus of the program is designed to build a solid foundation in emergency management concepts, competencies, and demonstrated applications. Additionally, students are required to complete 15 hours in an administrative core and 21 hours in an interdisciplinary core, which can include courses in both the natural and social sciences. Students have the option of addressing the interdisciplinary core by completing a minor in an area approved by the advisor as long as the total coursework equals 21 hours.

### Curriculum in Emergency Management

The matrix below is a sample plan for all coursework required for this program

	Freshman		
Fall	Spring		
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>		3
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>Social Sciences</u> <sup>1,T</sup>		3
<u>Mathematics</u> <sup>1,T</sup>	3 Science with Lab <sup>1,T</sup>		4
<u>TECH 1001 Orientation to the University</u>	1 Interdisciplinary Core <sup>2,T</sup>		3
Interdisciplinary Core <sup>2,T</sup>	3 <u>EAM 1013 Aim and Scope of Emergency Management</u>		3
<u>EAM 1003 Living in a Hazardous Environment</u>	3		3
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>16</b>

		<b>Sophomore</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>		3 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>		3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>		4 Administrative <sup>3</sup>	3
<a href="#">ENGL 2053 Technical Writing</a>		3 Interdisciplinary Core <sup>2,T</sup>	3
EAM Core <sup>4</sup>		3 EAM Core <sup>4</sup>	3
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>15</b>

		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
Administrative <sup>3,T</sup>		3 Administrative <sup>3,T</sup>	3
EAM Core <sup>4</sup>		3 EAM Core <sup>4</sup>	3
Interdisciplinary Core <sup>2,T</sup>		3 Interdisciplinary Core <sup>2,T</sup>	3
<a href="#">EAM 4023 Information Technology and Emergency Management</a>		3 <a href="#">EAM 4033 Emergency Management Research Methods/Analysis</a>	3
Elective <sup>T</sup>		3 Elective <sup>T</sup>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

		<b>Senior</b>	
<b>Fall</b>		<b>Spring</b>	
Administrative <sup>3,T</sup>		3 <a href="#">EAM 3206 Externship</a>	6
EAM Core <sup>4</sup>		6 <a href="#">EAM 4106 Practicum/Internship</a>	6
Interdisciplinary Core <sup>2,T</sup>		6	
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions ["General Education Requirements"](#).

<sup>2</sup>See Appropriate alternatives in ["Interdisciplinary Core"](#)

<sup>3</sup>See appropriate alternatives in ["Required Administrative Core"](#).

<sup>4</sup>See appropriate substitutions in ["EAM Core"](#)

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## **EAM Core (30 hours)**

The student will select with the advisor's recommendation 30 hours of credit from the EAM Core courses. [EAM 1003 Living in a Hazardous Environment](#), [EAM 1013 Aim and Scope of Emergency Management](#), [EAM 4023 Information Technology and Emergency Management](#) and [EAM 4033 Emergency Management Research Methods/Analysis](#) are required classes for all students. In addition, all students must take 12 hours ([EAM 3206 Externship](#) and [EAM 4106 Practicum/Internship](#)) from the Practical Applications in addition to the 30 hours. Courses used in other categories, i.e. EAM Core, Administrative, or Interdisciplinary may not be counted in another category.

[EAM 1003 Living in a Hazardous Environment](#)

[EAM 1013 Aim and Scope of Emergency Management](#)

[EAM 2033 Citizen/Family/Community Disaster Preparedness Education](#)

[EAM 3003 Developing Emergency Management Skills](#)

[EAM 3013 Public Policy Issues in Emergency Management](#)

[EAM 3023 Principles and Practice of Disaster Planning and Response Operations](#)

[EAM 3033 The Social Dimensions of Disaster](#)

[EAM 3123 Public Information Skills for Emergency Managers](#)

[EAM 3143 The Economics of Hazards and Disaster](#)

[EAM 3243 Introduction to Terrorism and Anti-Terrorism](#)

[EAM 4003 Principles and Practice of Disaster Relief and Recovery](#)

[EAM 4013 Business and Industry Crisis Management](#)  
[EAM 4023 Information Technology and Emergency Management](#)  
[EAM 4033 Emergency Management Research Methods/Analysis](#)  
[EAM 4043 Disaster and Emergency Management Ethics](#)  
[EAM 4053 Community Management of Hazardous Materials](#)  
[EAM 4083 Introduction to Legal Issues in Emergency Management](#)  
[EAM 4991-3 Special Problems and Topics](#)

## Practical Applications (12 hours)

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[EAM 3206 Externship](#)  
[EAM 4106 Practicum/Internship](#)

## Administrative Core<sup>1</sup> (15 hours)

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The student will take [ENGL 2053 Technical Writing](#)<sup>T</sup> and select with the advisor's recommendation 12 hours of credit from the following courses which are currently offered within each departmental area:

[HA/RP 4113 Personnel Management in Parks, Recreation, and Hospitality Administration](#)  
[PS 3023 Professional Communications](#)  
[PS 3133 Applied Principles of Personnel Management](#)  
[SOC/ PSY 2053 Statistics for the Behavioral Sciences](#)

Any course from the College of Business (ACCT, BDA, BLAW, BUAD, ECON, and FIN)  
Any COMS, JOUR, MATH, or SPH course

<sup>1</sup>Students must address any prerequisites for these courses

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

## Interdisciplinary Core<sup>1,2</sup> (21 hours)

---

The student will select with the advisor's recommendation 21 hours of credit from the following courses which are currently offered within each departmental area.

[AHS 1023 Basic Pharmacology with an Overview of Microbiology](#)  
[AHS 2013 Medical Terminology](#)  
[ART/JOUR 1163 Basic Digital Photography](#)  
[ART 1503 Introduction to Graphic Design](#)  
[ART 2213 Digital Skills for the Graphic Designer](#)  
[BIOL 2004 Basic Human Anatomy and Physiology](#)  
[BIOL 2014 Human Anatomy](#)  
[BIOL 3074 Human Physiology](#)  
[ELEG 1012 Introduction to Electrical Engineering](#)  
[FW 2003 Elements of Fish and Wildlife Management](#)  
[GEOL 3174 Computer Applications in Geology](#)  
[NUR 2023 Introduction to Professional Nursing](#)  
[NUR 2303 Nutrition](#)  
[PHIL 2013 Religions of the World](#)  
[PHIL 3023 Ethics](#)  
[PHIL 3053 Philosophy of Religion](#)  
[PHIL 3103 Logic](#)  
[WS 1091 Fitness Walking/Jogging](#)  
Any CJ, SOC, or PSY course

<sup>1</sup>Students must address any prerequisites for these courses

<sup>2</sup>Students can complete the Interdisciplinary Core by minoring in one of the following subjects. If the minor doesn't total 21 hours, they can take an additional course from the above list.

Anthropology, Biology, Chemistry, Criminal Justice, Engineering Physics, Geography, Geology, History, Hospitality Administration, Journalism, Military Science/ROTC, Physical Science, Political Science, Psychology, Recreation and Park Administration, Sociology, Speech.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

## Minor Emergency Management

The minor in Emergency Management is designed to provide additional breadth for students majoring in related programs in the field of crisis and disaster management. The minor will require 18 hours of coursework emphasizing content in areas of human and physical consequences of natural and technological disasters along with mitigation procedures.

[EAM 1003 Living in a Hazardous Environment](#)

[EAM 1013 Aim and Scope of Emergency Management](#)

Twelve hours of upper division EAM Core Classes

## Department of Mechanical Engineering

The Department of Mechanical Engineering offers a four-year degree program leading to the Bachelor of Science in Mechanical Engineering (BSME) and a two-year degree program in Nuclear Technology. The program leading to the Bachelor of Science in Mechanical Engineering (BSME) degree is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

The mission of the Department of Mechanical Engineering at Arkansas Tech University is to develop and maintain accredited programs leading to the Bachelor of Science degree. The department is committed to providing its students with a positive atmosphere in which to learn the fundamentals of engineering practice including engineering science and design. In order to meet its mission, the department has established educational objectives for its program.

The educational objectives of the engineering program of the Department of Mechanical Engineering at Arkansas Tech University are:

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**Professors:**  
Helmer, Krohn  
**Associate Professors:**  
Fithen, Frasier, Steuber  
**Assistant Professor:**  
M. Smith  
**Instructor:**  
Apple

1. To produce graduates who use the engineering skills and technical ability gained through the program to embark upon successful careers in mechanical engineering.
2. To produce graduates who engage in life-long learning.
3. To produce graduates who employ engineering analysis, experimental methods, and design techniques to solve engineering problems.
4. To produce graduates who demonstrate skills pertinent to the design process including the ability to formulate problems, to think creatively, to communicate effectively, to synthesize information and to work collaboratively.
5. To produce graduates who understand their professional and ethical responsibilities.

### Mechanical Engineering

Mechanical engineering is the profession which designs, develops, and manufactures machines that produce, transmit, or use power. Mechanical engineers are involved in the design, development, and production of virtually every product one can imagine. The range of job possibilities for mechanical engineers, both in location and function, is limitless. The mechanical engineering program at Arkansas Tech is designed to give its students a solid grounding in the machine design and thermal systems areas and to help satisfy the engineering manpower needs of industry in Arkansas and the mid-south region. The required courses provide a basic foundation in mechanical engineering with a strong cross-disciplinary component and an emphasis on engineering design.

Most graduates of the engineering program go directly into the work force as practicing engineers. Many are employed by manufacturing companies in the Arkansas River Valley area, while others have obtained positions with large national and multinational corporations. A number of graduates have elected to attend one of many different graduate schools specializing in disciplines such as engineering (electrical, mechanical, industrial, or nuclear), mathematics, physics, or business.

The first two years of the curriculum contain the needed mathematics, science, and engineering science basics to prepare the student for the upper-level mechanical engineering courses. The junior and senior years include 12 hours of engineering electives which allows the student to concentrate in one of the available areas of specialization which include machine design, nuclear systems, or thermal systems.

### Transfer of Credit

Students wishing to transfer into one of the programs offered by the Department of Mechanical Engineering are urged to contact the Department Head as soon as possible to reduce the possibility of taking non-transferable courses. Course work taken at another institution must meet the requirements of the Arkansas Tech University transfer policies and, in addition, are subject to the department's current transfer policy. Contact the Department of Mechanical Engineering for the latest course transfer information and policy.

Students planning to transfer to another university can, in most cases, complete the first two years of work at Arkansas Tech University. Students who plan to transfer should consult with the school to which they plan to transfer to coordinate details.

The following curriculum represents the program of study and a suggested sequence for the Bachelor of Science in Mechanical Engineering degree. The student should be aware that not all courses are offered each semester and that the ordering of courses is subject to change. In order to minimize scheduling difficulties, each student should schedule a



special session with their advisor at the beginning of their junior year to plan the remaining coursework.

## Bachelor of Science in Mechanical Engineering (BSME)

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>			
		<b>Spring</b>	
<b>Fall</b>			
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>PHYS 2114 General Physics I</u> <sup>T</sup>	4
<u>MATH 2914 Calculus I</u> <sup>T</sup>	4	<u>MATH 2924 Calculus II</u> <sup>T</sup>	4
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4	<u>MCEG 1002 Engineering Graphics</u> <sup>T</sup>	2
<u>MCEG 1012 Introduction to Mechanical Engineering</u>	2	<u>MCEG 2203 Computational Methods in Engineering</u>	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>Sophomore</b>			
		<b>Spring</b>	
<b>Fall</b>			
<u>CHEM 2134 General Chemistry II</u> or <u>PHYS 2124 General Physics II</u> <sup>T</sup>	4	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>MATH 2934 Calculus III</u> <sup>T</sup>	4	<u>ELEG 2103 Electric Circuits I</u>	3
<u>MCEG 2013 Statics</u>	3	<u>MATH 3243 Differential Equations I</u>	3
<u>MCEG 2023 Engineering Materials</u>	3	<u>MCEG 2033 Dynamics</u>	3
		<u>MCEG 3013 Mechanics of Materials</u>	3
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>15</b>
<b>Junior</b>			
		<b>Spring</b>	
<b>Fall</b>			
<u>ELEG 2113 Electric Circuits II</u>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MCEG 3313 Thermodynamics I</u>	3	MATH Elective <sup>5,T</sup>	3
<u>MCEG 3413 Fundamentals of Mechanical Design</u>	3	<u>MCEG 4403 Mechanics of Fluids and Hydraulics</u>	3
<u>MCEG 3442 Mechanical Laboratory I</u>	2	<u>MCEG 4423 Machine Component Design</u>	3
ENGR Electives <sup>3</sup>	3	ENGR Electives <sup>3</sup>	3
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>15</b>
<b>Senior</b>			
		<b>Spring</b>	
<b>Fall</b>			
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>ELEG 4303 Control Systems</u>	3
<u>MCEG/ELEG 3003 Engineering Modeling and Design</u>	3	<u>MCEG 4442 Mechanical Laboratory II</u>	2
<u>MCEG/ELEG 4202 Engineering Design</u>	2	<u>MCEG 4443 Heat Transfer</u>	3
<u>MCEG 4433 Thermodynamics II</u>	3	<u>MCEG 4493 Mechanical Design Project</u>	3
Technical Elective <sup>4</sup>	3	ENGR Lab Elective <sup>2</sup>	2
		ENGR Electives <sup>3</sup>	3
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>3000-level or above ELEG or MCEG laboratory class.

<sup>3</sup>3000-level or above ELEG or MCEG course with minimum of three (3) hours at the 4000-level and approval of advisor.

<sup>4</sup>Technical elective course to be chosen with approval of advisor from list of eligible courses maintained in the departmental office.

<sup>5</sup>Mathematics elective course to be chosen with approval of advisor from list of eligible courses maintained in the departmental office.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Nuclear Technology

The department also offers a two-year program leading to the Associate of Science in Nuclear Technology (ASNT) degree. This degree is designed to allow the student to obtain the knowledge base and training necessary to work in one of the many areas in the nuclear field. While many technology degrees, especially at the associate's level, are seen as less rigorous paths, the ASNT program at Arkansas Tech University includes most of the same courses as the first two years of the engineering programs.

Graduates of the program leading to the Associate of Science Degree in Nuclear Technology may find employment in many areas of the nuclear industry. Many past ASNT graduates have continued their studies to obtain bachelor's degrees in engineering or the physical sciences either at Arkansas Tech University or at other institutions.

### Associate of Science in Nuclear Technology (ASNT)

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall		Spring	
<u>ENGL 1013 Composition I</u> <sup>1</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1</sup>	3
<u>Social Sciences</u> <sup>1</sup>	3	<u>PHYS 2114 General Physics I</u>	4
<u>MATH 2914 Calculus I</u>	4	<u>MATH 2924 Calculus II</u>	4
<u>CHEM 2124 General Chemistry I</u>	4	<u>MCEG 2023 Engineering Materials</u>	3
<u>MCEG 1012 Introduction to Mechanical Engineering</u> or <u>ELEG 1012 Introduction to Electrical Engineering</u>	2		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>14</b>

#### Sophomore

Fall		Spring	
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1</sup>	3	<u>Social Sciences</u> <sup>1</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1</sup>	3
<u>U.S. History/Government</u> <sup>1</sup>	3	<u>MCEG 3313 Thermodynamics I</u>	3
<u>MCEG 2013 Statics</u>	3	<u>MCEG 3512 Radiation Detection Laboratory</u>	2
<u>MCEG 3503 Basic Nuclear Engineering</u>	3	<u>MCEG 3523 Radiation Health Physics</u>	3
		Elective	1
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

# Department of Parks, Recreation and Hospitality Administration

The Department of Parks, Recreation and Hospitality Administration offers two Bachelor of Science degrees, one in *Recreation and Park Administration* and one in *Hospitality Administration*, plus an Associate of Applied Science in *Culinary Management* and minors in *Recreation and Park Administration* and *Hospitality Administration*.

The *Recreation and Park Administration* major provides specialized education that prepares students for supervisory and administrative positions in federal, state, and local recreation and park agencies as well as commercial recreation and tourism organizations. This program is accredited by the Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT), sponsored by the National Recreation and Park Association.

Dr. Cathi McMahan, Head  
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**Professor:**

T. Herrick

**Associate Professors:**

McMahan, Bishop, S.S. Lee

**Assistant Professors:**

D. Lee, McDowall, West

## Vision

The program will produce leaders in Recreation and Park Administration.

## Core Values

The Recreation and Park Administration Program is committed to:

- Lifelong learning
- Service to community
- Personal and professional development
- Diversity of experience
- Environmental stewardship
- Interpersonal communication
- Healthy lifestyles

## Mission

The mission of the Recreation and Park Administration Program is to educate Recreation and Park professionals for self, community and society.

## Recreation and Park Administration

This program is designed to prepare students for management careers in private and public recreation agencies or park systems. A broad background in the behavioral and natural sciences is required with major emphasis on resource management and the delivery of leisure services to diverse populations. Specialized course work in biological sciences and business management aid in natural resource decision making. This provides a base for professional courses in planning, design, and operation of park and recreation facilities. A career in recreation sport management, park administration, therapeutic recreation, or interpretation requires a basic understanding of human behavior and the challenges of contemporary society. Due to the multidisciplinary nature of the career field, a student is required to choose courses from several related fields, based on professional interest. A comprehensive general education is complemented with a core of professional courses. The Bachelor of Science in Recreation and Park Administration offers four emphases of professional preparation:

## Interpretation Emphasis

The Interpretation Emphasis offers a curriculum that utilizes communication skills and interpretive methods courses for those wanting to find employment with various interpretive programs of private, state and federal agencies operating cultural and natural history oriented sites. Students are required to minor in Anthropology, Biology, or History.

### Curriculum in Interpretation Emphasis

The matrix below is a sample plan for all coursework required for this program

	Freshman
Fall	Spring

<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Mathematics</u> <sup>1,T</sup>	3
<u>GEOL 1014 Physical Geology</u> <sup>T</sup>	4	<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4
<u>RP 1001 Orientation to Recreation and Park Administration</u>	1	<u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3
<u>RP 1013 Principles of Recreation and Park Administration</u>	3		
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>13</b>

<b>Fall</b>		<b>Sophomore</b>	
<u>PSY 2003 General Psychology</u> <sup>T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>SPH 2003 Public Speaking</u> <sup>T</sup>	3	<u>LBMD 2001 Introduction to Library Resources</u>	1
<u>RP 2003 Recreation Programming</u>	3	<u>RP 2013 Landscape Planning and Design</u>	3
Elective <sup>T</sup>	3	<u>RP 2033 Recreation Leadership</u>	3
		Elective in Minor <sup>2</sup>	3
<b>Total Hours</b>	<b>12</b>	<b>Total Hours</b>	<b>13</b>

<b>Fall</b>		<b>Junior</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>RP 3043 Work Experience</u>	3
<u>RP 3013 Recreation for Special Populations</u>	3	<u>RP 3063 Outdoor Education</u>	3
<u>RP 3033 Commercial Recreation</u>	3	<u>RP 3403 Financing Recreation and Parks</u>	3
<u>RP 3034 Site Planning and Design</u>	4	Elective in Minor <sup>2</sup>	7
<u>RP 3093 Interpretive Methods</u>	3		
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

<b>Fall</b>		<b>Junior</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>ANTH/HIST/MUSM 4403 Interpretation/Education through Museum Methods</u>	3
<u>RP 4013 Recreation and Park Administration</u>	3	<u>RP/HA 4001 Internship Preparation</u>	1
<u>RP 4103 Recreation Law and Policy</u>	3	<u>RP 4023 Research Methods</u>	3
<u>RP/HA 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3	RP Major Elective <sup>3</sup>	3
Elective in Minor <sup>2</sup>	3	Elective in Minor <sup>2</sup>	5
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

<b>Fall</b>		<b>Senior 9th Semester</b>	
<u>RP 4116 Internship</u> <sup>4</sup>	6		
<b>Total Hours</b>	<b>6</b>		

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Students must minor in Anthropology, History or Biology. See Departmental Advisor.

<sup>3</sup>Students must select from the following list of RP courses: RP 1993 Basic Forest Firefighting, RP 3023 Camp Administration, RP 3053 Natural Resource Management and Planning, RP/ HA 3133 Tourism Planning, RP 3993 Wildland Fire Practices in Natural Resource Management, RP 4042 Field Seminar in Interpretive Methods, RP 4053 Water Resources Development, RP/HA 4093 Resort Management, RP 4951-4 Undergraduate Research in Recreation and Park Administration, RP 4991-3 Special Problems and Topics.

<sup>4</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are

taken at another college or university.

## Natural Resource Emphasis

The Natural Resource Emphasis prepares students to manage large parks, resource areas and visitor facilities. Planning and management of land and water resources within private and public park and natural resource management organizations to provide outdoor recreation opportunities for constituents are emphasized.

### Curriculum in Natural Resource Emphasis

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>	3 <u>Social Sciences</u> <sup>1,T</sup>	3
<u>CHEM 1113 Survey of Chemistry</u> and <u>CHEM 1111 Survey of Chemistry Laboratory</u> or <u>GEOL 1014 Physical Geology</u> <sup>T</sup>	4 <u>Mathematics</u> <sup>1,T</sup>	3
<u>RP 1001 Orientation to Recreation and Park Administration</u>	1 <u>BIOL 2124 Principles of Zoology</u> or <u>BIOL 2134 Principles of Botany</u> <sup>T</sup>	4
<u>RP 1013 Principles of Recreation and Park Administration</u>	3 <u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<u>PSY 2003 General Psychology</u> <sup>T</sup>	3 <u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>RP 2013 Landscape Planning and Design</u>	3
<u>LBMD 2001 Introduction to Library Resources</u>	1 <u>RP 2033 Recreation Leadership</u>	3
<u>RP 2003 Recreation Programming</u>	3 Approved Elective <sup>2</sup>	4
RP Major Elective <sup>3</sup>	4	
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>13</b>

#### Junior

Fall	Spring	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>RP 3043 Work Experience</u>	3
<u>RP 3013 Recreation for Special Populations</u>	3 <u>RP 3053 Natural Resource Management and Planning</u>	3
<u>RP 3033 Commercial Recreation</u>	3 <u>RP 3063 Outdoor Education</u>	3
<u>RP 3034 Site Planning and Design</u>	4 <u>RP 3403 Financing Recreation and Parks</u>	3
<u>RP 3093 Interpretive Methods</u>	3 Approved Elective <sup>2</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>15</b>

#### Junior

Fall	Spring	
<u>HA 4013 Hospitality Marketing and Sales</u>	3 <u>RP/HA 4001 Internship Preparation</u>	1
<u>RP 4013 Recreation and Park Administration</u>	3 <u>RP 4023 Research Methods</u>	3
<u>RP 4063 Park Operations</u>	3 <u>RP 4053 Water Resources Development</u>	3
<u>RP 4103 Recreation Law and Policy</u>	3 <u>RP/HA 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3
	RP Major Elective <sup>3</sup>	1

	Approved Elective <sup>2</sup>	3
<b>Total Hours</b>	<b>12 Total Hours</b>	<b>14</b>

### Senior 9th Semester

#### Fall

<u>RP 4116 Internship</u> <sup>4</sup>	6	
<b>Total Hours</b>	<b>6</b>	

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>See Departmental Advisor or select from the following list:

[BIOL 1014 Introduction to Biological Science](#), [BIOL 1114 Principles of Biology](#), [BIOL 2124 Principles of Zoology](#), [BIOL 2134 Principles of Botany](#), or any 3000 or 4000 level BIOL course

[FW 2003 Elements of Fish and Wildlife Management](#), or any 3000 or 4000 level FW course

[GEOL 1014 Physical Geology](#) or [GEOL 3153 Environmental Geology](#), [AGEG 3203 Soil, Water and Forest Conservation](#)

[AGPS 1024 Principles of Plant Science](#), [AGPS 1033 Introduction to Forestry](#) or [AGPS 3244 Plant Pathology](#), [AGSS 2014 Soils](#)

[FW/GEOG 2833 Introduction to Geographic Information Systems](#)

<sup>3</sup>Choose from the following RP courses: [RP 1993 Basic Forest Firefighting](#) or [RP 3993 Wildland Fire Practices in Natural Resource Management](#)

<sup>4</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Recreation Sport Management Emphasis

The Recreation Sport Management Emphasis prepares students to work in community and campus organizations, as well as recreation businesses, developing and managing recreation and sport programs and venues. Students in this emphasis gain knowledge in administration, turfgrass and facilities management, recreation programming and leadership.

### Curriculum in Recreation Sport Management Emphasis

The matrix below is a sample plan for all coursework required for this program

	Freshman	
Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>	3 <u>Mathematics</u> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>	4
<u>RP 1001 Orientation to Recreation and Park Administration</u>	1 <u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3
<u>RP 1013 Principles of Recreation and Park Administration</u>	3	
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>13</b>
	<b>Sophomore</b>	
<b>Fall</b>	<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
<u>PSY 2003 General Psychology</u> <sup>T</sup>	3 <u>RP 2013 Landscape Planning and Design</u>	3
<u>LBMD 2001 Introduction to Library Resources</u>	1 <u>RP 2033 Recreation Leadership</u>	3
<u>RP 2003 Recreation Programming</u>	3 <u>RP 3023 Camp Administration</u>	3
<b>Total Hours</b>	<b>13 Total Hours</b>	<b>15</b>



		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
<u>RP 3013 Recreation for Special Populations</u>	3	<u>RP 3043 Work Experience</u>	3
<u>RP 3033 Commercial Recreation</u>	3	<u>RP 3063 Outdoor Education</u>	3
<u>RP 3034 Site Planning and Design</u>	4	<u>RP 3403 Financing Recreation and Parks</u>	3
<u>RP 3763 Introduction to Turfgrass Management</u>	3	<u>RP 3503 Recreational Sport Management</u>	3
Approved Elective <sup>2</sup>	3	<u>RP 3793 Turfgrass Pest Control</u>	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>15</b>

		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
<u>HA 4013 Hospitality Marketing and Sales</u>	3	<u>RP/HA 4001 Internship Preparation</u>	1
<u>RP 4013 Recreation and Park Administration</u>	3	<u>RP 4023 Research Methods</u>	3
<u>RP 4063 Park Operations</u>	3	<u>RP/HA 4093 Resort Management</u>	3
<u>RP 4103 Recreation Law and Policy</u>	3	<u>RP 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3
Approved Elective <sup>2</sup>	3	<u>RP 4753 Sports Field Management and Design</u>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>

		<b>Senior 9th Semester</b>	
<b>Fall</b>			
<u>RP 4116 Internship</u> <sup>3</sup>	6		
<b>Total Hours</b>	<b>6</b>		

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>See Departmental Advisor.

<sup>3</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Therapeutic Recreation Emphasis

The Therapeutic Recreation Emphasis prepares students for a career as a Certified Therapeutic Recreation Specialist (CTRS) working with special populations in clinical and community recreation environments. The specialized TR emphasis prepares students for national certification under guidelines established by the National Council for Therapeutic Recreation Certification.

### Curriculum in Therapeutic Recreation Emphasis

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>	
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>Mathematics</u> <sup>1,T</sup>	3
<u>U.S. History/Government</u> <sup>1,T</sup>	3	Science with Lab <sup>1,T</sup>	4
<u>RP 1001 Orientation to Recreation and Park Administration</u>	1	<u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3
<u>RP 1013 Principles of Recreation and Park Administration</u>	3		
<b>Total Hours</b>	<b>13</b>	<b>Total Hours</b>	<b>13</b>

**Sophomore**

<b>Fall</b>		<b>Spring</b>	
<a href="#">PSY 2003 General Psychology</a> <sup>T</sup>		3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">SPH 2003 Public Speaking</a> <sup>T</sup>		3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">BIOL 2004 Basic Human Anatomy and Physiology</a> <sup>T</sup>		4 <a href="#">LBMD 2001 Introduction to Library Resources</a>	1
<a href="#">RS 2003 Introduction to Rehabilitation Services</a>		3 <a href="#">PSY 3813 Lifespan Development</a>	3
<a href="#">RP 2003 Recreation Programming</a>		3 <a href="#">RP 2033 Recreation Leadership</a>	3
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>13</b>

#### Junior

<b>Fall</b>		<b>Spring</b>	
<a href="#">RP 3013 Recreation for Special Populations</a>		3 <a href="#">PSY 3003 Abnormal Psychology</a>	3
<a href="#">RP 3033 Commercial Recreation</a>		3 <a href="#">RP 3023 Camp Administration</a>	3
<a href="#">RP 3034 Site Planning and Design</a>		4 <a href="#">RP 3043 Work Experience</a>	3
<a href="#">RP 3403 Financing Recreation and Parks</a>		3 <a href="#">RP 3063 Outdoor Education</a>	3
<a href="#">RP 4073 Principles and Techniques of Therapeutic Recreation</a>		3 <a href="#">RP 4173 Therapeutic Recreation Assessment and Documentation</a>	3
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>15</b>

#### Junior

<b>Fall</b>		<b>Spring</b>	
<a href="#">AHS 2013 Medical Terminology</a> <sup>T</sup>		3 <a href="#">RP/HA 4001 Internship Preparation</a>	1
<a href="#">PE 4103 Principles of Adapted Physical Education</a>		3 <a href="#">RP 4023 Research Methods</a>	3
<a href="#">RP 4013 Recreation and Park Administration</a>		3 <a href="#">RP/HA 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</a>	3
<a href="#">RP 4103 Recreation Law and Policy</a>		3 <a href="#">RP 4373 Interventions in Therapeutic Recreation</a>	3
<a href="#">RP 4273 Administration and Operation of Therapeutic Recreation Programs</a>		3 <a href="#">RP 4473 Issues and Trends in Therapeutic Recreation</a>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>13</b>

#### Senior 9th Semester

<b>Fall</b>	
<a href="#">RP 4116 Internship</a> <sup>2</sup>	6
<b>Total Hours</b>	<b>6</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Recreation and Park Administration

The minor in Recreation and Park Administration is designed for those students majoring in other disciplines who wish to develop specialized knowledge in the area of Recreation and Park Administration. This minor may be of particular interest to those students who wish to work for a recreation and park oriented agency after graduation. This minor may be well-suited for Emergency Management, Fisheries and Wildlife Science, and Hospitality Administration majors. Flexibility in the minor allows students to choose courses to match their particular needs and interests. The minor in Recreation and Park Administration requires 18 hours of courses:

- [RP 1013 Principles of Recreation and Park Administration](#)
- [RP 2003 Recreation Programming](#)

RP Electives (12 hours of RP academic courses including 9 hours at the 3000

or 4000 level, excluding [RP 3043 Work Experience](#), [RP/HA 4001 Internship Preparation](#), and [RP 4116 Internship](#))

## Hospitality Administration

The Hospitality Administration degree program is designed to prepare students for management positions within the hospitality industry such as lodging, resorts, conference, convention and visitor centers, restaurants, contract services, theme parks and travel and tourism related operations.

The course work concentrates on general business, management, finance, marketing, accounting, law, computer science, and specific courses related to hospitality management. The entire curriculum features numerous opportunities for the practical application of problem-solving skills and creativity. The Hospitality Administration Program is accredited by the Accreditation Commission for Programs in Hospitality Administration.

## Vision

The program will develop leaders in the Hospitality profession.

## Core Values

- Community Service
- Commitment to personal and professional development
- Embrace diversity
- Lifelong learning
- Work hard/Play hard
- Communication
- Harmony

## Mission

The mission of the Hospitality Administration Program is to provide quality education in hospitality administration, build a foundation for professional growth and development and encourage lifelong learning.

## Food and Beverage Management Emphasis

The Food and Beverage Management Emphasis prepares students for management careers in the food and beverage industries as well as managed foodservice. This emphasis will provide the knowledge and skills necessary for a comprehensive management background in this dynamic and ever-changing hospitality industry. Restaurants are the nation's largest private-sector employer.

### Curriculum in Food and Beverage Management Emphasis

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4 <a href="#">CHEM 1113 Survey of Chemistry</a> and <a href="#">CHEM 1111 Survey of Chemistry Laboratory</a> <sup>T</sup>	4
<a href="#">COMS 1003 Introduction to Computer Based Systems</a> <sup>T</sup>	3 <a href="#">MATH 1113 College Algebra</a> <sup>T</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1 <a href="#">HA/CUL 1013 Sanitation Safety</a>	3
<a href="#">HA 1043 Introduction to Hospitality Management</a>	3 <a href="#">HA 1063 Hospitality Technology</a>	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

#### Sophomore

Fall	Spring	
<a href="#">ACCT 2003 Accounting Principles I</a> <sup>T</sup>	3 <a href="#">ACCT 2013 Accounting Principles II</a> <sup>T</sup>	3
<a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>	3 <a href="#">PSY 2003 General Psychology</a> <sup>T</sup>	3
<a href="#">HA/ CUL 1923 Introduction to Food and</a>		

<u>Beverage Management</u>	3	<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3
<u>HA 2003 Cost Controls</u>	3	<u>HA/CUL 2023 Hospitality Supervision and Leadership</u>	3
<u>HA/CUL 2063 Guest Service Management</u>	3	<u>HA/CUL 2053 Work Experience</u>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

**Fall**

<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	
<u>U.S. History/Government</u> <sup>1,T</sup>	
<u>BUAD 3023 Business Communications</u>	
<u>HA/CUL 2813 Basic Human Nutrition in Hospitality Administration</u>	
<u>HA/CUL 2913 Principles of Food Preparations</u>	
<b>Total Hours</b>	

**Junior**

**Spring**

3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
3	<u>MGMT 3003 Management and Organizational Behavior</u>	3
3	Approved Electives <sup>2,T</sup>	5
3	Approved Electives (3000-4000 level)	3
3		
<b>15</b>	<b>Total Hours</b>	<b>14</b>

**Fall**

<u>HA 4013 Hospitality Marketing and Sales</u>
<u>HA 4063 Beverage Management</u>
<u>HA 4073 Hospitality Financial Analysis</u>
<u>HA 4983 Advanced Food Production</u>
<b>Total Hours</b>

**Senior**

**Spring**

3	<u>HA/RP 4001 Internship Preparation</u>	1
3	<u>HA 4023 Hospitality Facilities Management and Design</u>	3
3	<u>HA 4033 Legal Aspects of Hospitality Administration</u>	3
3	<u>HA/RP 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3
	<u>HA 4203 Hospitality Operational Problem Solving</u>	3
<b>12</b>	<b>Total Hours</b>	<b>13</b>

**Senior 9th Semester**

**Fall**

<u>HA/RP4116 Internship</u> <sup>3</sup>	6
<b>Total Hours</b>	<b>6</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>See Departmental Advisor.

<sup>3</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Lodging and Club Management Emphasis

The Lodging and Club Management Emphasis prepares students for management careers in hotels, lodging, resorts, and public and private clubs. This emphasis will analyze competitive strategies, leadership styles, teamwork, and technology in this dynamic and ever-changing hospitality industry.

### Curriculum in Lodging and Club Management Emphasis

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>	
<b>Fall</b>	<b>Spring</b>
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>
Science with Lab <sup>1,T</sup>	4 <u>CHEM 1113 Survey of Chemistry</u> and 4 <u>CHEM 1111 Survey of Chemistry Laboratory</u> <sup>T</sup>

<u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3	<u>MATH 1113 College Algebra</u> <sup>T</sup>	3
<u>TECH 1001 Orientation to the University</u>	1	<u>HA 1063 Hospitality Technology</u>	3
<u>HA 1043 Introduction to Hospitality Management</u>	3	Approved Electives <sup>2</sup>	2
<b>Total Hours</b>	<b>14 Total Hours</b>		<b>15</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>		3 <u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>		3 <u>ACCT 2013 Accounting Principles II</u> <sup>T</sup>	3
<u>ECON 2003 Principles of Economics I</u> <sup>T</sup>		3 <u>PSY 2003 General Psychology</u> <sup>T</sup>	3
<u>HA 2003 Cost Controls</u>		3 <u>HA/CUL 2023 Hospitality Supervision and Leadership</u>	3
<u>HA/CUL 2063 Guest Service Management</u>		3 <u>HA 2043 Front Office Management</u>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>BUAD 3023 Business Communications</u>		3 <u>MGMT 3003 Management and Organizational Behavior</u>	3
<u>HA/CUL 2053 Work Experience</u>		3 <u>HA 4203 Hospitality Operational Problem Solving</u>	3
<u>HA 3143 Executive Housekeeping</u>		3 <u>HA/RP 4093 Resort Management</u>	3
Approved Electives <sup>2</sup>		3 <u>HA/RP 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>15</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
<u>HA 4013 Hospitality Marketing and Sales</u>		3 <u>HA/RP 4001 Internship Preparation</u>	1
<u>HA 4063 Beverage Management</u>		3 <u>HA 4023 Hospitality Facilities Management and Design</u>	3
<u>HA 4073 Hospitality Financial Analysis</u>		3 <u>HA 4033 Legal Aspects of Hospitality Administration</u>	3
<u>HA 4243 Advanced Lodging Operations Management</u>		3 <u>HA 4253 Club Management</u>	3
		Approved Electives <sup>2</sup>	3
<b>Total Hours</b>		<b>12 Total Hours</b>	<b>13</b>

### Senior 9th Semester

<b>Fall</b>	
<u>HA/RP 4116 Internship</u> <sup>3</sup>	6
<b>Total Hours</b>	<b>6</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>See Departmental Advisor.

<sup>3</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Tourism and Event Management Emphasis

The Tourism and Event Management Emphasis prepares students for careers in tourism, convention and visitors bureaus and sport and event management. This emphasis will provide a background in commercial recreation, recreational sport and

event management in Arkansas' second leading industry and the world's largest industry. Tourism and Event Management is a collection of industries under the larger umbrella of hospitality management.

### Curriculum in Tourism and Event Management Emphasis

The matrix below is a sample plan for all coursework required for this program

	<b>Freshman</b>		
<b>Fall</b>	<b>Spring</b>		
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>		3
Science with Lab <sup>1,T</sup>	4 Science with Lab <sup>1,T</sup>		4
<u>COMS 1003 Introduction to Computer Based Systems</u> <sup>T</sup>	3 <u>MATH 1113 College Algebra</u> <sup>T</sup>		3
<u>TECH 1001 Orientation to the University</u>	1 <u>HA 1063 Hospitality Technology</u>		3
<u>HA 1043 Introduction to Hospitality Management</u>	3 Approved Electives <sup>2</sup>		3
<b>Total Hours</b>	<b>14 Total Hours</b>		<b>16</b>
	<b>Sophomore</b>		
<b>Fall</b>	<b>Spring</b>		
<u>ACCT 2003 Accounting Principles I</u> <sup>T</sup>	3 <u>ACCT 2013 Accounting Principles II</u> <sup>T</sup>		3
<u>ECON 2003 Principles of Economics I</u> <sup>T</sup>	3 <u>PSY 2003 General Psychology</u> <sup>T</sup>		3
<u>HA 2003 Cost Controls</u>	3 <u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>		3
<u>HA/CUL 2063 Guest Service Management</u>	3 <u>HA/CUL 2023 Hospitality Supervision and Leadership</u>		3
<u>HA/RP 2133 Introduction to Travel and Tourism</u>	3 <u>HA/RP 3133 Tourism Planning</u>		3
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>
	<b>Junior</b>		
<b>Fall</b>	<b>Spring</b>		
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>		3
<u>U.S. History/Government</u> <sup>1,T</sup>	3 <u>MGMT 3003 Management and Organizational Behavior</u>		3
<u>BUAD 3023 Business Communications</u>	3 <u>RP 3503 Recreational Sport Management</u>		3
<u>RP 3033 Commercial Recreation</u>	3 <u>HA 4033 Legal Aspects of Hospitality Administration</u>		3
<u>HA/CUL 2053 Work Experience</u>	3		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>12</b>
	<b>Senior</b>		
<b>Fall</b>	<b>Spring</b>		
<u>HA 4013 Hospitality Marketing and Sales</u>	3 <u>HA/RP 4001 Internship Preparation</u>		1
<u>HA 4073 Hospitality Financial Analysis</u>	3 <u>HA 4023 Hospitality Facilities Management and Design</u>		3
<u>HA/RP 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3 <u>HA 4053 Meetings and Conventions Management</u>		3
Approved Elective <sup>2</sup>	5 <u>HA/RP 4093 Resort Management</u>		3
	<u>HA 4203 Hospitality Operational Problem Solving</u>		3
<b>Total Hours</b>	<b>14 Total Hours</b>		<b>13</b>
	<b>Senior 9th Semester</b>		
<b>Fall</b>			
<u>HA/RP 4116 Internship</u> <sup>3</sup>	6		
<b>Total Hours</b>	<b>6</b>		



<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>See Departmental Advisor.

<sup>3</sup>Internship must be completed in last semester after all coursework has been completed.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Hospitality Administration

The Hospitality Administration minor is designed for students of any major who want to learn about the hospitality profession. The minor in Hospitality Administration consists of 18 hours of coursework:

[HA 1043 Introduction to Hospitality Management](#)

[HA/CUL 2053 Work Experience](#)

[HA/RP 4093 Resort Management](#)

HA Elective (3 hours)

HA Elective (6 hours of 3000 or 4000 level)

## Associate of Applied Science in Culinary Management

### Curriculum in Culinary Management

The matrix below is a sample plan for all coursework required for this program

		Freshman	
		Fall	Spring
	<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup> 3
	<a href="#">MATH 1003 College Mathematics</a>	3	<a href="#">CHEM 1113 Survey of Chemistry</a> and <a href="#">CHEM 1111 Survey of Chemistry Laboratory</a> 4
	<a href="#">TECH 1001 Orientation to the University</a>	1	<a href="#">CUL/HA 2813 Basic Human Nutrition in Hospitality Administration</a> 3
	<a href="#">CUL/HA 1013 Sanitation Safety</a>	3	<a href="#">CUL/HA 2913 Principles of Food Preparations</a> 3
	<a href="#">CUL/HA 1923 Introduction to Food and Beverage Management</a>	3	
	<b>Total Hours</b>	<b>13 Total Hours</b>	<b>13</b>
		Sophomore	
		Fall	Spring
	<a href="#">SPH 2173 Business and Professional Speaking</a>	3	<a href="#">COMS 1003 Introduction to Computer Based Systems</a> 3
	<a href="#">CUL 2003 Cost Controls</a>	3	<a href="#">CUL/HA 2023 Hospitality Supervision and Leadership</a> 3
	<a href="#">CUL/HA 2053 Work Experience</a>	3	<a href="#">CUL/HA 2063 Guest Service Management</a> 3
	<a href="#">CUL 2903 Introduction to Garde Manger</a>	3	<a href="#">CUL 2933 Advanced Food Preparations</a> 3
	<b>Total Hours</b>	<b>12 Total Hours</b>	<b>12</b>
		Summer Between 1 <sup>st</sup> and 2 <sup>nd</sup> year	
	<a href="#">CUL 2923 Stock, Sauces, and Soups</a>	3	
	<a href="#">CUL 2943 Introduction to Baking &amp; Pastry</a>	3	
	<b>Total Hours</b>	<b>6</b>	
		Summer After 2 <sup>nd</sup> Spring	
	<a href="#">CUL 2996 Externship</a>	6	
	<b>Total Hours</b>	<b>6</b>	

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

## College of Natural and Health Sciences

The College of Natural and Health Sciences is subdivided into four administrative units: the Departments of [Biological Sciences](#), [Mathematics](#), [Nursing](#), and [Physical Sciences](#). These departments offer a variety of major programs leading to masters and baccalaureate degrees. The College also serves a special role in providing the principal curricular needs of students seeking to enter professional schools of medicine, dentistry, medical technology, optometry, pharmacy, chiropractic, and others. A secondary service is that of contributing to the general education of those students majoring outside of the College of Natural and Health Sciences.

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Students earning degrees in the College of Natural and Health Sciences are in a particularly enviable position. Their undergraduate education makes them eligible to compete for employment in a variety of careers positions or for entry into graduate or professional school. The College of Natural and Health Sciences offers programs of study leading to baccalaureate degrees as listed below:

### **Bachelor of Science**

Biology with options in:

[Biomedical](#)  
[Environmental](#)  
[General](#)

Chemistry with A.C.S. approved options in:

[Biochemistry](#)  
[Environmental](#)  
[General](#)  
[Professional](#)  
[Engineering Physics](#)  
[Fisheries and Wildlife Science](#)

Geology with options in:

[Environmental](#)  
[Petroleum](#)  
[Professional](#)  
[Health Information Management](#)  
[Mathematics](#)  
[Medical Technology](#)  
[Nuclear Physics](#)  
[Physical Science](#)  
[Physics](#)

Secondary Teacher Licensure in:

[Life Science](#)  
[Mathematics](#)  
[Physical Science](#)

### **Bachelor of Science in Nursing**

[Nursing](#)

## Environmental Science Options

Three environmental science degree options are available as follows: B.S. in [biology-environmental option](#), B.S. in [chemistry-environmental option](#), and B.S. in [geology-environmental option](#). The student interested in environmental science should choose the program that best suits his or her interest based on background, competencies, and career objectives. Arkansas Tech University's location in the Arkansas River Valley between the Ouachita and Ozark mountains is ideally suited to environmental programs. With the diversity of ecosystems and geological formations found, the area serves as an outdoor laboratory encompassing habitats that range from wetland and riparian ecosystems to upland coniferous and mountaintop deciduous forests. Swamps, streams, rivers, and lakes dot the landscape. Geological formations ranging in age from Ordovician to Pennsylvanian are within easy field trip distance from the University. Crop farming, hog and poultry production, a nuclear-powered electricity generating plant, coal strip mining, urban centers, and a multi-use national forest provide ample opportunities for studying the impact of modern society on ecosystems and the natural environment.

The employment opportunities in environmental science are projected to continue to increase. Graduates may find employment with environmental consulting companies, local, state, or federal governmental agencies, and private companies that have significant environmental impact. Environmental scientists are involved in the following types of studies: environmental impact analysis, pollution assessment and control, solid waste landfill location and management, ecosystem analysis, surface and groundwater resources, air quality, and many others. The student interested in a specific environmental science curriculum should refer to the appropriate section of this book. For example, the B.S. in biology-

environmental science option is listed with the other biology curricula.

## Pre-Professional Options

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Arkansas Tech University offers complete pre-professional education for students interested in medicine, dentistry, physical therapy, and pharmacy. Students who study at Arkansas Tech University are very successful at gaining entrance into these professional schools. Although the entrance requirements for medical schools reserve the ability to accept students meeting the minimum core courses, in practice students gaining admission will usually have completed a B.S. degree. Most of these students major either in biology or chemistry, but any field is acceptable as long as they complete specific courses required by their chosen professional school. The [Biochemical Option](#) of the Chemistry major and the [Biomedical Option](#) of the Biology major were specifically developed to serve these "Pre-med" students in addition to others with plans for post-graduate education. Faculty advisors in chemistry and biology are also available to guide students targeting a wide variety of other allied health sciences including optometry, radiology, dental hygiene, pharmacy technician, and others. Course schedules can be customized to meet pre-requisites specified by any professional school of the student's choice.

## Transfer Students

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Applicability of transfer credit to meet specific degree requirements depends on the major selected by the transfer student. The transfer student should review the Transfer Credit policy in the Admission section of this catalog and meet with their academic advisor to determine final transfer credit eligibility for the selected program of study.

## Department of Biological Sciences

The Department of Biological Sciences offers baccalaureate degrees in a wide variety of majors and options. We also offer one minor. These different aspects of biological science and associated faculty are organized in the following program areas:

Biology Program:

[Biology major Biomedical option](#)  
[Biology major Environmental option](#)  
[Biology major General option](#)  
[Biology minor](#)

Fisheries and Wildlife Science Program:

[Fisheries and Wildlife Science major](#)

Allied Health Sciences Programs:

[Health Information Management major](#)  
[Medical Technology major](#)

Students interested in teaching biology at the secondary level should follow the suggested curriculum in [Life Science for Teacher Licensure](#) as outlined under the teacher licensure curricula in the College of Education.

Each of the bachelor of science degree programs offered by the department, with the exception of the teacher licensure curricula, requires a total of 120 hours for graduation. Except for Allied Health Science programs (AHS), which adhere to grade policies recommended by certifying associations, no more than 12 hours of "D's" may be applied toward the baccalaureate degrees listed above. Students in the Department of Biological Sciences, except for AHS program majors, are required to take a common core consisting of: an orientation course; [BIOL 1114 Principles of Biology](#); [BIOL 2124 Zoology](#); [BIOL 2134 Principles of Botany](#); an ecology course; a physiology course; and a seminar course. These same students are required to take [MATH 1113 College Algebra](#), plus two additional math oriented courses above that level. Courses in computer science, chemistry, and physics are also required. The following descriptions of individual degree programs include specific descriptions and requirements.

Graduating seniors, except those in AHS programs, will be required to take the Major Field Assessment Test (MFAT) in Biology as part of the assessment plan for the department. Students will take the test during the last few weeks of the semester of planned graduation.

### Biology Program

The baccalaureate degree program in biology is designed to prepare students for a wide range of career opportunities. It also provides a solid foundation for those wanting to pursue specialization at the graduate level. Specific course requirements are outlined in the following curricula; whereas, more general guidelines are in the previous section.

Arkansas Tech University is affiliated with the Gulf Coast Research Laboratory (GCRL) at Ocean Springs, Mississippi. With prior departmental approval, Arkansas Tech University students may enroll in marine biology courses at GCRL, with the credits applied toward the biology degree at Arkansas Tech. This affiliation makes possible a concentration in marine biology.

### Biomedical Option

The Biomedical Option is designed for students wishing to study medicine, dentistry, physical therapy, and related fields of specialization. Thus, graduates typically apply to a medical school of some type or a graduate program such as physical therapy. However, while the specified curriculum is well-suited to these studies, professional schools do not specify that entering students have particular majors or options. Graduates who complete the degree option yet do not enter a medical or graduate school program should be prepared for a variety of employment opportunities especially in biomedical or biotechnology-related laboratories.

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**Professors:**

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Kellner, Kirkconnell, Nupp,  
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**Associate Professors:**

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Sparacino, Tedford

**Assistant Professors:**

Burk, Chaney, Daniel, Still,  
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**Instructors:**

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### Curriculum in Biology Biomedical Option

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
<a href="#">MATH 1113 College Algebra</a> or <a href="#">MATH 1914 Precalculus</a>	3-4	<a href="#">CHEM 2134 General Chemistry II</a>	4
<a href="#">CHEM 2124 General Chemistry I</a>	4	<a href="#">BIOL 2124 Principles of Zoology</a>	4
<a href="#">BIOL 1011 Orientation to the Biological Sciences</a>	1	COMS Elective	3
<a href="#">BIOL 1114 Principles of Biology</a>	4		
<b>Total Hours</b>		<b>15-16 Total Hours</b>	<b>14</b>
 <b>Sophomore</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">Speech</a>	3	<a href="#">SOC 1003 Introductory Sociology</a> or <a href="#">PSY 2003 General Psychology</a>	3
<a href="#">Social Sciences</a> <sup>1</sup>	3	<a href="#">MATH 2914 Calculus I</a> or other MATH higher than <a href="#">MATH 1113 College Algebra</a>	3-4
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>	4	<a href="#">CHEM 3264 Mechanistic Organic Chemistry</a>	4
<a href="#">BIOL 2014 Human Anatomy</a>	4	<a href="#">BIOL 3074 Human Physiology</a>	4
<a href="#">BIOL 2134 Principles of Botany</a>	4		
<b>Total Hours</b>	<b>18</b>	<b>Total Hours</b>	<b>14-15</b>
 <b>Junior</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	6	<a href="#">U.S. History/Government</a> <sup>1</sup>	3
<a href="#">PHYS 2014 Physical Principles I</a>	4	<a href="#">PHYS 2024 Physical Principles II</a>	4
<a href="#">BIOL 3034 Genetics</a>	4	<a href="#">BIOL 3114 Principles of Ecology</a> or <a href="#">BIOL 4094 Coastal Ecology</a>	4
Cellular Elective <sup>2</sup>	3-4	Statistics <sup>3</sup>	3
<b>Total Hours</b>		<b>17-18 Total Hours</b>	<b>14</b>
 <b>Senior</b>			
<b>Fall</b>		<b>Spring</b>	
Elective <sup>6</sup>	3	<a href="#">BIOL 4891 Seminar in Biology</a>	1
* Elective (see advisor to select two courses from each column below)	12-16	Electives <sup>5</sup> (as needed to reach a total of 120 hours for graduation)	5-12
<b>Total Hours</b>		<b>15-19 Total Hours</b>	<b>6-13</b>
<b>*Select<sup>4</sup> six to eight hours from:</b>		<b>*Select<sup>4</sup> six to eight hours from</b>	
<a href="#">BIOL 3054 Microbiology</a>	4	<a href="#">BIOL 3024 Embryology</a>	4
<a href="#">BIOL 4023 Immunology</a>	3	<a href="#">BIOL 3064 Parasitology</a>	4
<a href="#">BIOL 4033 Cell Biology</a>	3	<a href="#">BIOL 3803 Applied Pathophysiology</a>	3
<a href="#">BIOL 4074 Molecular Genetics</a>	4	<a href="#">BIOL 4054 Vertebrate Histology</a>	4
<a href="#">BIOL 4951-4 Undergraduate Research in Biology</a>	1-4	<a href="#">BIOL 4083 Cancer Biology</a>	3
<a href="#">CHEM 3344 Principles of Biochemistry</a>	4	<a href="#">BIOL 4951-4 Undergraduate Research in Biology</a>	1-4
<a href="#">CHEM 3363 Metabolic Biochemistry</a>	3	<a href="#">NUR 2303 Nutrition</a>	3

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Cellular electives include the first four courses listed in the left-hand column above..

<sup>3</sup>See advisor for alternatives.

<sup>4</sup>See catalog to assure pre-requisites are met.

<sup>5</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>6</sup>Select from [AHS 2013 Medical Terminology](#), [PE 2513 First Aid](#), [PHIL 3103 Logic](#), [PSY 3063 Developmental Psychology I](#), [SOC 4053 Sociology of Health and Illness](#) or [SOC 4183 Social Gerontology](#).

## Environmental Option

The Environmental Option is designed to cover the aspects of biology, chemistry, and earth science most applicable to employment, consultation, or graduate studies in environmental protection and remediation. Consequently, the overall curriculum and many of the individual courses are interdisciplinary. Furthermore, the program specifically provides opportunities for students to interact with others who are following the Environmental Option associated with Chemistry and Geology majors.

### Curriculum in Biology Environmental Option

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>2,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>T</sup>	3	<a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">BIOL/PHSC 1004 Principles of Environmental Science</a>	4	<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">BIOL 1011 Orientation to the Biological Sciences</a>	1	<a href="#">BIOL 2124 Principles of Zoology</a>	4
<a href="#">BIOL 1114 Principles of Biology</a> <sup>T</sup>	4	Statistics <sup>5,T</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16</b>

#### Sophomore

Fall		Spring	
<a href="#">ENGL 2053 Technical Writing</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">CHEM 2124 General Chemistry I</a>	4	<a href="#">CHEM 2134 General Chemistry II</a>	4
<a href="#">BIOL 2134 Principles of Botany</a>	4	<a href="#">BIOL /CHEM/GEOL 2111 Environmental Seminar</a>	1
		Elective <sup>3</sup>	3
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>14</b>

#### Junior

Fall		Spring	
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>	4	<a href="#">CHEM 3264 Mechanistic Organic Chemistry</a>	4
<a href="#">PHYS 2014 Physical Principles I</a> <sup>T</sup>	4	<a href="#">PHYS 2024 Physical Principles II</a>	4
<a href="#">BIOL 3043 Conservation</a>	3	<a href="#">BIOL/CHEM /GEOL 3111 Environmental Seminar</a>	1
<a href="#">BIOL 3124 General Physiology</a> or <a href="#">BIOL 3174 Physiological Ecology</a>	4	<a href="#">BIOL /FW 3114 Principles of Ecology</a> or <a href="#">BIOL 4094 Coastal Ecology</a> <sup>2</sup>	4
		Electives <sup>3</sup>	3-4
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16-17</b>

#### Senior

Fall		Spring	
<a href="#">CHEM 3353 Fundamentals of Toxicology</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">BIOL 3034 Genetics</a>	4	<a href="#">CHEM 3313 Environmental Chemistry</a>	3
<a href="#">BIOL 3054 Microbiology</a>	4	<a href="#">BIOL 4024 Limnology</a>	4



Math Elective <sup>4</sup>	3-4	<a href="#">BIOL/CHEM /GEOL 4111 Environmental Seminar</a>	1
		BIOL Elective (3000-4000 level)	4
<b>Total Hours</b>	<b>14-15</b>	<b>Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". [ECON 2003 Principles of Economics I](#) and [SOC 1003 Introductory Sociology](#) are recommended for Social Science courses.

<sup>2</sup>[BIOL 4094 Coastal Ecology](#) which is offered during the May mini-term can serve as an alternative to [BIOL 3114 Principles of Ecology](#).

<sup>3</sup>Recommended electives include: [AGSS 2014 Soils](#), [ANTH 2103 Ozark-Ouachita Studies](#), [FW 4014 Forest Ecology and Management](#), [FW 4034 Geographic Information Systems in Natural Resources](#), [GEOL 1014 Physical Geology](#) and [GEOL 3153 Environmental Geology](#), [POLS 2013 Introduction to Political Science](#), [SPH 2003 Public Speaking](#), [SOC 3033 Environment and Society](#), or [SOC 3113 Social Movements and Social Change](#) (but also see the following footnote, relative to calculus).

<sup>4</sup>[FW 3173 Biostatistics](#) or [MATH 2914 Calculus I](#) is recommended if you are considering graduate school in this field. Furthermore, [MATH 2924 Calculus II](#) should be considered for a general elective. Otherwise [MATH 2243 Calculus for Business and Economics](#) is recommended.

<sup>5</sup>[MATH 2163 Introduction to Statistical Methods](#), [PSY 2053 Statistics for the Behavioral Sciences](#), or [SOC 2053 Statistics for the Behavioral Sciences](#).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## General Option

The biology general option is designed for students who wish to pursue a broadly defined degree program that emphasizes the major areas of biology and provides a solid foundation for further study in any graduate or professional program associated with the life sciences. With guidance from their academic advisor, the general biology student can create a personalized biology degree tailored for their career goals and interests. The biology general option also encourages undergraduate research and internship opportunities to foster skills needed in a biology-oriented career. Graduates of this option have entered professional programs such as medical and pharmacy school as well as diverse graduate programs.

### Curriculum in Biology General Option

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>	3	<a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>T</sup>	3	Physical Activity <sup>T</sup>	2
<a href="#">BIOL 1011 Orientation to the Biological Sciences</a>	1	<a href="#">BIOL 2124 Principles of Zoology</a> or <a href="#">BIOL 2134 Principles of Botany</a>	4
<a href="#">BIOL 1114 Principles of Biology</a>	4	Any COMS <sup>T</sup>	3
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>15</b>

#### Sophomore

Fall		Spring	
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	<a href="#">SPH 2003 Public Speaking</a>	3
<a href="#">CHEM 2124 General Chemistry I</a> <sup>T</sup>	4	<a href="#">CHEM 2134 General Chemistry II</a> <sup>T</sup>	4
<a href="#">BIOL 2124 Principles of Zoology</a> or <a href="#">BIOL 2134 Principles of Botany</a>	4	<a href="#">BIOL 3034 Genetics</a>	4
Math Elective <sup>2</sup>	3	Biology Elective <sup>T</sup>	4

Elective <sup>5,T</sup>	3	
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>15</b>

### Junior

Fall		Spring	
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>	4	<a href="#">CHEM 3264 Mechanistic Organic Chemistry</a>	4
<a href="#">PHYS 2014 Physical Principles I</a>	4	<a href="#">PHYS 2024 Physical Principles II</a>	4
<a href="#">BIOL 3114 Principles of Ecology</a> <sup>3</sup>	4	Biology Elective (3000-4000 level)	4
Math Elective <sup>2</sup>	3	Elective <sup>5,T</sup>	4
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

### Senior

Fall		Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
Physiology or Cellular Elective <sup>4</sup>	3-4	Physiology or Cellular Elective <sup>4</sup>	3-4
Biology Elective <sup>4</sup>	3-4	<a href="#">BIOL 4891 Seminar in Biology</a>	1
Elective <sup>5,T</sup>	5	Biology Elective <sup>4</sup>	3-4
		Elective <sup>5,T</sup>	2
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Six hours of mathematics above [MATH 1113 College Algebra](#). Courses in the areas of statistics, biostatistics, and/or calculus are recommended (e.g. [MATH 2163 Introduction to Statistical Methods](#), [PSY/SOC 2053 Statistics for the Behavioral Sciences](#), [FW 3173 Biostatistics](#), [MATH 2243 Calculus for Business and Economics](#) and/or [MATH 2914 Calculus I](#)).

<sup>3</sup>[BIOL 4094 Coastal Ecology](#) which is offered during the May mini-term can serve as an alternative to [BIOL 3114 Principles of Ecology](#) in the Biology major.

<sup>4</sup>The physiology choices include: [BIOL 3074 Human Physiology](#), [BIOL 3124 General Physiology](#), [BIOL 3174 Physiological Ecology](#), [BIOL 4014 Endocrinology](#); whereas, choices in the area of cell or molecular biology include: [BIOL 4033 Cell Biology](#), [BIOL 4074 Molecular Genetics](#), [BIOL 3054 Microbiology](#), [BIOL 4023 Immunology](#). One in each area is required. Other alternatives must be approved by your advisor and Department Head. Each 3-hour selection in one of these areas must be balanced by 4-hours (rather than 3-hours) of biology electives.

<sup>5</sup>Sufficient courses at 3000-4000 level to constitute a total of 40 hours. At least 2 credit-hours of biology research or internship is recommended ([BIOL 4112-4 Biology Internship](#) or [BIOL 4951-4 Undergraduate Research in Biology](#)).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Biology

The minor in biology is available to students who wish to add to their knowledge of this increasingly important field for personal edification or for professional purposes, but choose not to complete a major in biology. The minor in biology requires 20 hours of courses:

[BIOL 1014 Introduction to Biological Sciences](#) or [BIOL 1114 Principles of Biology](#)  
[BIOL 2124 Principles of Zoology](#)  
[BIOL 2134 Principles of Botany](#)

\*BIOL Electives (8 hours of 3000 or 4000 level)

\*No more than one credit hour can be a seminar course

## Fisheries and Wildlife Science

The fisheries and wildlife science program is a professional program designed to prepare qualified field and research biologists, as well as to provide a sound foundation for those students who intend to pursue graduate studies in wildlife biology, fisheries biology or field ecology. Through selection of elective courses, graduates are required to meet certification requirements of The Wildlife Society or the American Fisheries Society.

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Field biologists are employed by various state and federal agencies concerned with natural resources management including the Arkansas Game and Fish Commission, U.S. Fish and Wildlife Service, U.S. Forest Service, Arkansas Department of Environmental Quality, National Park Service, and the U.S. Army Corps of Engineers. Employment opportunities in the private sector are also available. Timber, mining, and utility companies hire field biologists for advice and management of industrial lands. Environmental consulting firms, commercial fish and game farms, and nature centers require qualified researchers, technicians, and educators.

Majors in fisheries and wildlife science must complete a minimum of 120 semester hours as specified in the following curriculum outline and no more than 12 hours of "D's" may be applied toward the degree. Note, this set of courses will also satisfy requirements for a minor in biology, but students should see their advisor to complete the associated degree audit form for the minor. Candidates for graduation are expected to complete a comprehensive series of practical and technical exams to assess mastery of program objectives.

### Curriculum in Fisheries and Wildlife Science

The matrix below is a sample plan for all coursework required for this program

Freshman			
Fall		Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3	<u>CHEM 1113 A Survey of Chemistry and CHEM 1111 Survey of Chemistry Laboratory</u> or <u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4
<u>BIOL 1114 Principles of Biology</u>	4	<u>BIOL 2124 Principles of Zoology</u>	4
<u>FW 1001 Orientation to Fisheries and Wildlife Science</u>	1		
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>14</b>
Sophomore			
Fall		Spring	
<u>Speech</u>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>BIOL 2134 Principles of Botany</u>	4	<u>FW /GEOG 2833 Introduction to Geographic Information Systems</u>	3
<u>CHEM 2204 Organic Physiological Chemistry</u> or <u>CHEM 3254 Fundamentals of Organic Chemistry</u> <sup>T</sup>	4	<u>FW 2013 Natural Resources Communications</u>	3
Statistics <sup>2</sup> , <u>FW 3084 Ichthyology</u> , <sup>3,F</sup> or <u>FW 3154 Mammalogy</u> <sup>3,W</sup>	3-4	<u>FW 3114 Principles of Ecology</u>	4
		Statistics, <sup>2</sup> or <u>FW 3144 Ornithology</u> <sup>3,W</sup>	3-4
<b>Total Hours</b>	<b>14- 15</b>	<b>Total Hours</b>	<b>16-17</b>
Junior			
Fall		Spring	
<u>BIOL 4044 Dendrology</u> <sup>W</sup> or electives <sup>4</sup>	4	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>FW 3173 Biostatistics</u> or Calculus	3	<u>BIOL 3004 Plant Taxonomy</u> <sup>3,W</sup> or Electives <sup>4</sup>	4
<u>FW 4014 Forest Ecology and Management</u> <sup>3,W</sup> , <u>FW 4064 Wetland Ecology and Management</u> <sup>3,W</sup> or	4	<u>FW 3053 Fisheries and Wildlife Administration</u>	3

Electives <sup>4</sup>			
Electives <sup>4</sup>	3	<a href="#">FW 4024 Limnology</a> <sup>3,F</sup> or Electives <sup>4</sup>	4
		Electives <sup>4</sup>	3
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>17</b>

#### Senior

Fall		Spring	
<a href="#">FW 4013 Wildlife Techniques</a> <sup>3,W</sup> or <a href="#">FW 4043 Fisheries Techniques</a> <sup>3,F</sup>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">FW 4103 Human Dimensions of Fisheries and Wildlife Management</a>	3	<a href="#">FW 4001 Senior Seminar in Fisheries and Wildlife Biology</a>	1
Electives <sup>4</sup>	9	<a href="#">FW 4003 Principles of Wildlife Management</a>	3
		<a href="#">FW 4083 Principles of Fisheries Management</a>	3
		Electives <sup>4</sup>	5
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". One of the social sciences must be [ECON 2003 Principles of Economics I](#).

<sup>2</sup>Statistics must be taken either fall or spring term.

<sup>3</sup>F and W superscripts designate courses required for certification in fisheries and wildlife, respectively. Students can choose between [FW 3154 Mammalogy](#) and [FW 3144 Ornithology](#), [FW 4014 Forest Ecology and Management](#) and [FW 4064 Wetland Ecology and Management](#), and [BIOL 3004 Plant Taxonomy](#) and [BIOL 4044 Dendrology](#) for wildlife certification. Meeting requirements for fisheries or wildlife certification is a requirement for graduation.

<sup>4</sup>Must include at least two courses from the biology group ([BIOL 3174 Physiological Ecology](#), [BIOL 3034 Genetics](#), [BIOL 4064 Evolutionary Biology](#), [BIOL 3064 Parasitology](#), [AGPM 3104 Introduction to Entomology](#), [BIOL 3184 Animal Behavior](#), [BIOL 3004 Plant Taxonomy](#)<sup>F</sup>, [BIOL 4044 Dendrology](#)<sup>F</sup>, [BIOL 4094 Coastal Ecology](#)) one<sup>W</sup> or two

<sup>F</sup> courses from the physical science group (any physics course, [AGSS 2014 Soils](#), [GEOL 1014 Physical Geology](#), [GEOL 3083 Hydrogeology](#)), and three 3000-4000 level fisheries and wildlife courses. Sufficient additional electives to produce 120 total credit hours are required for graduation.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Allied Health Science Programs

The allied health science programs include a four-year curricula in health information management and in medical technology. Statements and curricula for these programs are listed below.

### Health Information Management

The degree program in health information management prepares the student for a professional career as an active member of the modern health-care team. In this age of increased computerization and data analysis, the health information management field is an exciting new area with virtually unlimited possibilities. The health information management administrator is an expert in the world of health record systems. He/she is responsible for obtaining complete health records for use in research; for gathering statistical information on which to base long-range health planning goals; for determining the legitimacy of requests for confidential medical information; for controlling the circulation and integrity of health records; and, as department head, is responsible for efficiency of the health information department employees in the performance of daily activities.

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The health information department in a medical facility has in its care all the documentation regarding patient-care, physician as well as ancillary information. Responsibility for data validity and integrity play a major role in the health information profession. He/she must be progressive, conscientious, tactful, and knowledgeable, as much work is accomplished in cooperation with other allied health professionals. Above all, the health information professional must adhere to the Code of Ethics of the American Health Information Management Association and to the appropriate institutional behavioral codes

that apply.

Professional practice is scheduled at affiliated hospitals in nearby cities for a period of six hours per week during the fall and spring semesters for senior HIM majors. The management affiliation may be assigned to a hospital in a distant city for four weeks (40 hours per week) and normally occurs in the summer immediately following the senior year. Students are responsible for all transportation and lodging expenses during these assignments; however, every effort will be made to minimize such costs.

Students must make at least a “C” in each of the professional courses and demonstrate their proficiency in professional practice and management-affiliation. Upon successful completion of the program, the student is granted a Bachelor of Science degree in health information management and becomes eligible to write the national certification examination. The student already holding a baccalaureate degree may apply for the HIM program as specified in the Application Guidelines and work toward another baccalaureate degree provided the pre-professional course of study has been completed to establish eligibility to write the national certification examination. Registered health information technicians are urged to contact the Program Director for information regarding RHIA progression. The national certification examination is offered year-round by the American Health Information Management Association.

Special instructions for transfer students: transfer of courses to meet specific Health Information Management Program requirements have a grade of at Least C. Lower-level courses (numbered in the 1000's and 2000's) from other institutions cannot be transferred to meet upper-level (3000-4000) HIM course requirements; however, they may be used as general electives. Transfer of upper-level courses to meet HIM requirements is subject to validation by the HIM Program.

The application process for the Health Information Management Program is as follows:

### Program Application Guidelines

1. Application for upper level professional HIM courses must be on file with the HIM Program Director by March 15th prior to the year you wish to take HIM courses.
2. To be eligible for application interview, the following must be on file: Application, current copy of all applicable transcripts, including a cumulative GPA of 2.5 on a 4.0 scale, and COMPASS/ACT scores.
3. Applicants may be required to complete an interview with an interview team. Consideration will be given to areas such as:
  - o Dedication and perseverance
  - o Aptitude
  - o Knowledge of HIM profession
  - o Professional appearance
  - o Flexibility
  - o Realistic career goals
  - o True desire to enter HIM profession
  - o Ability to finish HIM program within prescribed time
4. Candidates will be ranked based on GPA and number of prerequisite courses completed. The top twenty will be selected. A ranked order waiting list will be maintained by the HIM Program Director.
5. Candidates will be notified prior to pre-registration for the fall semester. If accepted, candidates must return a signed statement acknowledging acceptance. Candidates must register for courses indicated on the degree plan. Any change in degree plan requires approval of the student's HIM faculty advisor. Candidates must notify the program director of change in degree choice.
6. A late application deadline of August 15th will be observed if positions are available. Late applicants will be notified as soon as possible or during the week of late registration.
7. If a candidate fails a course that would preclude graduation, or does not earn at least a “C” in HIM courses, reapplication to the HIM Program will be required.

The Health Information Management Program is accredited by the Commission on the Accreditation for Health Informatics and Information Management Education (CAHIIM) in cooperation with the American Health Information Management Association's Council on Accreditation

## Curriculum in Health Information Management

The matrix below is a sample plan for all coursework required for this program

Freshman	
Fall	Spring
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup> 3
<u>Social Sciences</u> <sup>1,T</sup>	3 Science with Lab <sup>T</sup> 4
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3 <u>BUAD 2003 Business Information Systems</u> <sup>T</sup> 3



<u>TECH 1001 Orientation to the University</u>	1	<u>SPH 2003 Public Speaking</u> <sup>T</sup>	3
<u>AHS 1023 Basic Pharmacology with an Overview of Microbiology</u>	3		
<b>Total Hours</b>	<b>13 Total Hours</b>		<b>13</b>

### Sophomore

Fall		Spring	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>BDA 2003 Business Problem Solving</u> <sup>T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	6
<u>BIOL 2004 Basic Human Anatomy and Physiology</u> <sup>T</sup>	4	<u>COMS 2233 Introduction to Databases</u> <sup>T</sup>	3
<u>AHS 2013 Medical Terminology</u> or Elective	3	<u>AHS 2013 Medical Terminology</u> or Elective	3
		Elective	1
<b>Total Hours</b>	<b>13 Total Hours</b>		<b>16</b>

### Junior

Fall		Spring	
<u>MGMT 3003 Management and Organizational Behavior</u>	3	<u>MGMT 4023 Personnel/ Human Resources Management</u> or <u>HA /RP 4113 Personnel Management in Parks, Recreation, and Hospitality Administration</u>	3
<u>PSY/SOC 2053 Statistics for the Behavioral Sciences</u> <sup>T</sup>	3	<u>HIM 3033 Basic Coding Principles</u>	3
<u>HIM 3023 Introduction to Health Information Management</u>	3	<u>HIM 3043 Advanced Concepts in Health Information</u>	3
<u>HIM 3153 Current Issues in Health Information Management</u>	3	<u>HIM 3132 Health Data and Statistics</u>	2
<u>HIM 4153 Principles of Disease</u>	3	<u>HIM 3133 Alternative Health Records</u>	3
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>14</b>

### Senior

Fall		Spring	
<u>HIM 4034 Advanced Coding Principles</u>	4	<u>MGMT 4013 Management Information Systems</u>	3
<u>HIM 4063 Organization and Administration</u>	3	<u>HIM 4073 Legal Concepts for the Health Fields</u>	3
<u>HIM 4093 Research in Health Information Management</u>	3	<u>HIM 4083 Health Organization Trends</u>	3
<u>HIM 4182 Professional Practice Experience I</u>	2	<u>HIM 4203 Healthcare Reimbursement</u>	3
<u>HIM 4983 Systems Analysis for Health Information Management</u>	3	<u>HIM 4292 Professional Practice Experience II</u>	2
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>14</b>

### Junior

Summer	
<u>HIM 4892 Seminar in Health Information</u>	2
<u>HIM 4895 Affiliation</u>	5
<b>Total Hours</b>	<b>7</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Medical Technology



technology, offers a four-year program leading to the bachelor of science degree and to certification as a medical technologist. The affiliated schools of medical technology are accredited by the Council on Medical Education and Hospitals of the American Medical Association.

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The first three years of the curriculum are taught on the Tech campus and the fourth (professional) year is taught at one of the affiliated schools of medical technology. Admission to the professional year is on a competitive basis, and students must meet the admission standards of the medical technology school.

### Personnel with Medical Technology Affiliated Institutions

*Baptist Health College, Little Rock, Arkansas:* John E. Slaven, M.D., Medical Director, School of Medical Laboratory Science; Jennie Kyle, M.P.H., MT (ASCP) S.H., Program Director, School of Medical Laboratory Science.

*St. John's Regional Medical Center, Joplin, Missouri:* Susan O. Pintado, M.D., Medical Director, School of Medical Technology. Karen Adkins, MA ED, MT (ASCP), Program Director, School of Medical Technology.

To qualify for the bachelor of science degree, the student must satisfactorily complete at least 82 credit-hours specified in the curriculum below and be accepted by one of our affiliated schools of medical technology, listed above, for the senior year. During their senior (professional) year of residency (52 weeks of class) at one of the affiliated schools of medical technology, successful candidates will complete 38 to 40 credit hours for a total of at least 120 credit hours. This experience is an all or nothing situation where the student must satisfactorily complete the entire program to bring any of the credit toward this degree.

Tuition and fees for courses taken the senior year at one of the affiliated medical technology schools will be assessed at the current rate charged by the affiliated school and are payable to Arkansas Tech University. Financial aid and scholarship arrangements are also made by Tech; however students are also encouraged to contact the affiliated medical technology schools for possible additional opportunities.

Upon successful completion of the final year at an affiliated medical technology school, a student is eligible for a bachelor of science degree, as well as being eligible to write the National Board Examination for licensure. This examination is given at various times throughout the year by the Board of Registry of the American Society of Clinical Pathologists.

### Curriculum in Medical Technology

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall		Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>BIOL 1011 Orientation to the Biological Sciences</u> <sup>T</sup>	1	<u>BIOL 2004 Basic Human Anatomy and Physiology</u> <sup>T</sup>	4
<u>BIOL 1114 Principles of Biology</u> or <u>BIOL 2124 Principles of Zoology</u> <sup>T</sup>	4	<u>CHEM 2134 General Chemistry II</u> <sup>T</sup>	4
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4	<u>MATH 1203 Plane Trigonometry</u> <sup>T</sup>	3
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>14</b>

#### Sophomore

Fall		Spring	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	6
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>BIOL 2022 Medical Laboratory Orientation and Instrumentation, Laboratory</u>	2	<u>PSY 2003 General Psychology</u>	3
<u>BIOL 2023 Medical Laboratory Orientation and Instrumentation</u>	3		
<u>AHS 2013 Medical Terminology</u>	3		
<b>Total Hours</b>	<b>14</b>	<b>Total Hours</b>	<b>12</b>

**Junior**

<u>BIOL 3054 Microbiology</u> <sup>T</sup>	4
<u>BIOL 3034 Genetics, BIOL 3064 Parasitology, BIOL 4023 Immunology or BIOL 4033 Cell Biology</u> <sup>2</sup>	7-8
<u>CHEM 2204 Organic Physiological Chemistry, CHEM 3245 Quantitative Analysis, CHEM 3254 Fundamentals of Organic Chemistry, CHEM 3264 Mechanistic Organic Chemistry, CHEM 3344 Principles of Biochemistry, or CHEM 4414 Instrumental Analysis</u> <sup>2</sup>	12-13
Electives	2-4
<b>Total Hours</b>	<b>25-27</b>

**Senior**

Condensed course category - final year completed off-campus at one of our affiliated schools of medical technology	
<u>MEDT 4001-9 Medical Technology Professional Coursework</u>	38-40
Professional coursework meeting all requirements of the affiliated medical technology school	
<b>Total Hours</b>	<b>38-40</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Must have a total of 12-13 hours of upper-level chemistry, 7-8 hours of upper-level biology, and a total of 25 to 27 hours in the junior year to reach the total 80-82 hours required before entering the senior year off-campus. The senior year consists of 38-40 hours depending on which affiliate school program the candidate completes. Thus, a minimum of 120 hours for on and off-campus hours is required.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Department of Mathematics

The Department of Mathematics offers a four-year program in mathematics that leads to the bachelor of science degree and curriculum that leads to a minor in mathematics. The curriculum is designed to meet the needs of three groups of students: (1) those who plan to seek employment in business, industry, or government, (2) those who plan to attend graduate school to continue their study of mathematics or a related field, and (3) those who plan to be secondary school teachers.

Students majoring in mathematics are encouraged to use their elective hours to complete a second major, or at least a concentration of 18 hours or more, in the field of their choice. For example, students interested in computer science are advised to complete the following courses: [COMS 1403 Orientation to Computing, Information, and Technology](#), [COMS 2003 Microcomputer Applications](#), [COMS 2104 Foundations of Computer Programming I](#), [COMS 2203 Foundations of Computer Programming II](#), [COMS 2213 Data Structures](#), and two additional courses selected from [COMS 3213 Advanced Data Structures and Algorithm Design](#), [COMS 3503 Visual Programming](#), [COMS 3803 Computer Applications in Accounting and Business](#), and [COMS 4203 Database Concepts](#). Students interested in business electives are advised to complete [BUAD 2003 Business Information Systems](#), [BLAW 2033 Legal Environment of Business](#), [ACCT 2003 Accounting Principles I](#), [ACCT 2013 Accounting Principles II](#), and [ECON 2003 Principles of Economics I](#) and [ECON 2013 Principles of Economics II](#). For other areas of interest, students should consult their advisor to arrange a plan of study.

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**Professors:**

Finan, Keisler, Watson

**Associate Professors:**

Amirkhanian, Enoch, S. Jordan, Limperis, Shores

**Assistant Professor:**

Pearson

**Instructors:**

K. Brown, Carman, Felkins, Hogan, Horton, S.M. Jordan, Ketkar, King, Sherrill, Taylor

Students who plan to attend graduate school in mathematics or a related field are advised to complete additional upper-level mathematics courses beyond the minimal degree requirements. The curriculum in [mathematics for teacher licensure](#) is found in the College of Education section of this catalog.

### Curriculum in Mathematics

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>		
	<b>Fall</b>		<b>Spring</b>	
	<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
	<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	<a href="#">Social Sciences</a> <sup>1,T</sup>	3
	<a href="#">TECH 1001 Orientation to the University</a>	1	<a href="#">MATH 2703 Discrete Mathematics</a>	3
	<a href="#">MATH 2914 Calculus I</a> <sup>T</sup>	4	<a href="#">MATH 2924 Calculus II</a> <sup>T</sup>	4
	Elective <sup>3,T</sup>	4	Elective <sup>3,T</sup>	2
	<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
		<b>Sophomore</b>		
	<b>Fall</b>		<b>Spring</b>	
	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3	<a href="#">Social Sciences</a> <sup>1,T</sup>	3
	<a href="#">PHYS 2114 General Physics I</a> <sup>T</sup>	4	<a href="#">COMS 2803 Programming in C</a> <sup>T</sup>	3
	<a href="#">MATH 2934 Calculus III</a> <sup>T</sup>	4	<a href="#">PHYS 2124 General Physics II</a> <sup>T</sup>	4
	<a href="#">MATH 3003 Foundations of Number Systems</a>	3	<a href="#">MATH 3243 Differential Equations I</a>	3
	Elective <sup>3,T</sup>	1	Elective <sup>3,T</sup>	2
	<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
		<b>Junior</b>		
	<b>Fall</b>		<b>Spring</b>	
	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
	<a href="#">MATH 3153 Applied Statistics I</a>	3	<a href="#">MATH 3203 Introduction to Analysis</a>	3
	<a href="#">MATH 4003 Linear Algebra I</a>	3	<a href="#">MATH 4123 Mathematical Modeling</a>	3

Elective <sup>3,T</sup>	6 Elective <sup>3,T</sup>	6
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>
<b>Senior</b>		
<b>Fall</b>	<b>Spring</b>	
<a href="#">MATH 4033 Abstract Algebra</a>	3 <a href="#">MATH 4971 Mathematics Senior Seminar</a>	1
MATH Elective <sup>2</sup>	3 MATH Elective <sup>2</sup>	3
Elective <sup>3,T</sup>	9 Elective <sup>3,T</sup>	11
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>3000 - 4000 level math elective. [MATH 3033 Methods of Teaching Elementary Mathematics](#), [MATH/ELEG 3173 Math Methods for Engineers](#), [MATH 4703 Special Methods in Mathematics](#), and [MATH 4772 Mathematics Teaching Practicum](#) may not be used to satisfy this requirement. [MATH 4993 Special Problems in Mathematics](#) may not be used without prior approval of the department head.

<sup>3</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university

## Minor Mathematics

For several majors, a minor in mathematics is a natural and popular acquisition. The minor in mathematics requires 20 hours of courses:

[MATH 2703 Discrete Mathematics](#)  
[MATH 2914 Calculus I](#)  
[MATH 2924 Calculus II](#)

and 9 hours selected from the following:

[MATH 2934 Calculus III](#)  
[MATH 3003 Foundations of Number Systems](#)  
[MATH 3123 College Geometry](#)  
[MATH 3153 Applied Statistics I](#)  
[MATH 3203 Introduction to Analysis](#)  
[MATH 3243 Differential Equations I](#)  
[MATH 4003 Linear Algebra I](#)  
[MATH 4033 Abstract Algebra I](#)  
[MATH 4103 Linear Algebra II](#)  
[MATH 4113 History of Mathematics](#)  
[MATH 4123 Mathematical Modeling](#)  
[MATH 4133 Abstract Algebra II](#)  
[MATH 4153 Applied Statistics II](#)  
[MATH 4173 Advanced Biostatistics](#)  
[MATH 4243 Differential Equations II](#)  
[MATH 4263 Mathematical Statistics](#)  
[MATH 4273 Complex Variables](#)

## Department of Nursing

Arkansas Tech University's nursing curriculum is designed to prepare students for beginning professional responsibilities in a variety of health-care settings and to provide the necessary foundations for graduate study.

The Bachelor of Science in Nursing program is approved by the Arkansas State Board of Nursing and the Arkansas Department of Higher Education. The program is accredited by the Accreditation Commission for Education in Nursing, Telephone: 404-975-5000.

The Department of Nursing offers undergraduate study in nursing to qualified high school graduates, graduates of diploma and associate degree programs in nursing, licensed psychiatric technician nurses, and licensed practical nurses. The baccalaureate program leads to the degree of Bachelor of Science in Nursing. Satisfactory completion of eight semesters of general education, course prerequisites, and upper-division professional nursing courses is required.

Upon completion of degree requirements, the student may be eligible to take the national examination (NCLEX-RN) for licensure as a registered nurse. All nursing students should be aware that the State Board of Nursing requires all applicants for the NCLEX-RN to have a criminal background check performed. If the applicant has ever been convicted of a crime, the Board will review the application and make a decision as to whether the applicant is eligible to take the NCLEX-RN exam and to practice nursing in the State of Arkansas. Any student who has been convicted of a crime should notify his or her advisor before taking the prerequisite courses. This information will be kept strictly confidential. The student will be advised of the method of petitioning the Board and counseled regarding the process. A registered nurse may be subject to losing his or her license if the conviction is discovered after the license is granted.

The Department of Nursing reserves the right to make changes, without prior notice, in the curriculum and program requirements. Changes are made in keeping with the changing health needs of society and/or the best interests of the students and the department to maintain quality professional nursing education.

The Department of Nursing utilizes the clinical facilities and services of the Arkansas River Valley area; however, in order to meet the objectives of certain courses, the student should be prepared to travel out of this area. Students are required to provide their own transportation.

In addition to the on-campus program, ATU offers an RN to BSN completion program on the Web.

### Admission

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Admission into lower division foundation courses is open to any Arkansas Tech University student who meets the prerequisites for each course.

Admission to the upper division nursing courses is competitive and subject to evaluation by the Nursing Department's Admission and Progression Committee. Students are considered for admission the spring and fall preceding the semesters they plan to enter upper division nursing courses. All transcripts and/or credentials along with an Application to Upper Division must be submitted to the Department of Nursing by March 1 for fall admission or by October 1 for spring admission. Eligible repeating students applying for readmission must submit all materials by June 30 or January 5.

Minimum requirements for acceptance into the upper division (Level 0) nursing courses are:

1. Prerequisite grade point average of 3.0 on a 4.0 scale. Students will be admitted according to the criteria for selection of upper division students.
2. Completion of the following courses with a grade of "C" or better in each: [ENGL 1013 Composition I](#), [ENGL 1023 Composition II](#), [MATH 1113 College Algebra](#), [BIOL 2014 Human Anatomy](#) or [BIOL 2404 Human Anatomy and Physiology I](#), [BIOL 3054 Microbiology](#), [BIOL 3074 Human Physiology](#) or [BIOL 2414 Human Anatomy and Physiology II](#), [CHEM 1113 A Survey of Chemistry](#) and [CHEM 1111 Survey of Chemistry Laboratory](#), [PSY 2003 General Psychology](#), [SOC1003 Introductory Sociology](#), and [NUR 2303 Nutrition](#).
3. Completion of the following courses: American History or Government - 3 hours, [Social Sciences](#) 0-3 hours, [Fine Arts & Humanities](#) - 6-9 hours; [Speech](#) 0- 3 hours, Elective - 1 hour, Physical Education - 1 hour, [TECH 1001 Orientation to the University](#). (See [General Education Requirements](#) for specific course alternatives.)
4. Criminal background check.
5. Students who have not attended Arkansas Tech University during the past year must apply for readmission to the University.
6. The nursing program must be completed within four years of entry into level one of the nursing curriculum.

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**Professors:**

Burris, Helms, C. Smith

**Associate Professors:**

Bosold, K. Cox, Daily, C. Jones,  
McKown

**Assistant Professors:**

Buckholtz, Christie, Coleman,  
Darnell, Harless, Jobe, Kennedy,  
Randall, Ricono



Applicants will be ranked according to admission criteria for selection of upper division students. Criteria are as follows:

For students desiring entry to spring Upper Division (Level 0-preclinical nursing):

1. GPA $\geq$ 3.0 at the time of application and at the end of the fall semester.
2. Do not admit at this time.

For students desiring entry to fall Upper Division (Level 0-preclinical nursing):

1. GPA $\geq$ 3.0 at the time of application and at the end of the spring semester.
2. Do not admit at this time.

The student must have completed a minimum of 48 hours of required general education and prerequisite courses (see curriculum plan) with a GPA  $\geq$ 3.0 before entering level 0-preclinical nursing courses.

Applications will be ranked according to GPA with preference given to ATU students. Admission will be determined by the resulting rank order.

Applicants completing prerequisite requirements at an institution other than ATU must submit a written note from the course instructor(s) verifying the grade(s) earned in the course(s). These students will sign a form agreeing to have official transcripts on file in the registrar's office within one month from the first day of the semester.

A student position may be filled in a discretionary manner for exceptional reasons as determined by the committee and approved by the faculty.

Minimum requirements for continuation into Level 1

1. Acquisition of professional/student liability insurance, criminal background check and current certification of Basic CPR for adults, children, and infants as taught by the American Heart Association, or persons currently certified in CPR instruction. These must be renewed each year with the exception of CPR certification that is valid for two years.
2. Two of the three injections in the Hepatitis B Vaccine series.

## Progression Policy

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Students must achieve a "C" or better in all nursing courses.

A student in the upper division nursing courses may only repeat one nursing course. Following a second failure in any upper division nursing course the student will be dismissed from the program. Upper division nursing courses: 66 hours of course work allotted to the nursing major, inclusive of [NUR 2023 Introduction to Professional Nursing](#), all 3000 level nursing courses (with the exception of 3803) and all 4000 level nursing courses (with the exception of 4903).

Students who make less than a "C" in any upper division nursing course may not progress into courses for which that course(s) is a prerequisite until the course(s) has been repeated and the required minimum grade attained.

The following Upper Division required non-clinical courses ([NUR 2023 Introduction to Professional Nursing](#), [NUR 3103 Nursing Skills I](#), [NUR 3204 Theories and Concepts in Nursing I](#), [NUR 3213 Care of the Older Adult](#), [NUR 3303 Health Assessment](#), [NUR 3402 Pharmacology I](#), [NUR 3513 Nursing Skills II](#), [NUR 3606 Theories and Concepts in Nursing II](#), [NUR 3802 Pharmacology II](#), [NUR 4206 Theories and Concepts in Nursing III](#), [NUR 4303 Nursing Research](#), [NUR 4606 Theories and Concepts in Nursing IV](#)) must be completed with a grade of "C" or better to graduate. Any students who attempts any one of these courses twice (2 times) and does not achieve a final grade of "C" or better in the course, will be automatically be withdrawn from the Arkansas Tech University Nursing Program and will not be eligible for readmission. An attempt is defined as "any enrollment in any course and dropping it (or changing it to an audit) after the first day of the 10th week of the semester during the Fall or Spring semester, or after the third week of either Summer session for any reason, or failure (grade of "D", "F", or "FE") of the course."

Readmission will not be considered for any student dismissed from the nursing department who obtained a "D" or "F" in two (2) upper division nursing courses. The Department Head will consider exceptions on an individual basis .

Any student who withdraws from a clinical nursing course ([NUR 3404 Practicum in Nursing I - Nursing the Individual Client](#), [NUR 3805 Practicum in Nursing II - Nursing the Family](#), [NUR 4405 Practicum in Nursing III - Nursing Clients in Crisis](#), [NUR 4804 Practicum in Nursing IV - Nursing in the Community](#)) after the fifth (5th) day of clinicals must have a passing grade at the time of withdrawal in order to withdraw passing. Students failing ("D" or "F") at the time of withdrawal will receive an "F" after the 5th day of clinicals. A grade of "F" will count as a failure ("F") for progression purposes.

All seniors are required to pass the NCLEX Review Exam as part of [NUR 4903 Synthesis of Clinical and Theoretical](#)



**Nursing** requirements. The student must complete the non-proctored exam with a passing score of 80% prior to sitting for the proctored examinations. The student is allowed five attempts to pass the NCLEX Review exam (two ATI, and three HESI). Any student not achieving a passing score on the 1st attempt must complete a review prior to a 2nd attempt on the exam. This review includes completion of the ATI/HESI non-proctored exams, review of material available from the resource drawer, and/or completion of NCLEX review chapters. If a passing score is not achieved on the 2nd attempt the student must meet with faculty to discuss requirements of review course prior to subsequent attempts. The student must wait at least three weeks between the 2nd and 3rd attempts. If a passing score is not achieved on the 5th attempt the student will receive a "0" for that 30% of the grade, a failing grade for the course and must repeat all components of the course, including the preceptorship. If a student desires to take an official review course such as Kaplan, the student may do so and if successfully completes the course, may forego further testing after the first ATI and first HESI attempts are completed.

Students must achieve a passing grade "C" in both the Theories and corresponding Practicum courses in order to progress within the program. Students who repeat a Theories course are required to show clinical competency in order to progress. Students who repeat Practicum are required to show theoretical competency in order to progress.

Clinical competence can be attained by:

1. Taking for credit the corresponding practicum course
2. Completing [NUR 3892 Clinical Competency I](#) or [NUR 4892 Clinical Competency II](#) with a grade of "C" or better.

Theoretical competence can be attained by:

1. Taking for credit the corresponding theory course.
2. Completing [NUR 3792 Theoretical Competency I](#) or [NUR 4792 Theoretical Competency II](#) with a grade of "C" or better.

## Readmit Policy

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Any student that fails an Upper Division nursing course (with the exception of nursing electives), withdraws, or has a break in enrollment must reapply for progression in the nursing program by June 30, for readmission to the fall semester, or January 5, for readmission to the spring semester. To reapply, the student must complete "Reapplication to Upper Division" form and submit a letter of intent addressing reasons for past failure and a plan of action to enhance future success within the nursing program. The reapplicant must also submit a letter of recommendation from a nursing faculty member. Reapplication will be based on the availability of positions within the repeating level, letter of intent and current GPA. Should several students reapply for the same level and there are a limited number of positions, GPA ranking, in conjunction with their letter of intent will guide the committee decision-making process.

Students who have not attended Arkansas Tech University during the past year must apply for readmission to the University.

The nursing program must be completed within four years of entry into level one of the nursing curriculum.

## Advanced Placement

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The different types of nursing education programs and vocational-technical school programs give rise to unique transfer problems. Each student's past education is evaluated individually. In addition, the University and the Department of Nursing have established the following policies:

1. Arkansas Tech University offers a baccalaureate degree program in nursing. Licensed registered nurses, licensed practical nurses and licensed psychiatric technical nurses may challenge, validate, or receive credit for general education and nursing courses that are included in the nursing curriculum. CLEP examinations can be used to challenge or validate the general education courses. The institution's general policy for awarding CLEP credit is followed in determining the successful challenge of courses by these examinations. Transfer credit will be given for prior challenge or validation tests of nursing content credited on official transcripts from other nursing programs. RNs are permitted to receive transfer credit for [NUR 3303 Health Assessment](#).
2. Licensed practical nurses (LPNs) and licensed psychiatric technical nurses (LPTNs) who have met all the lower division nursing curriculum requirements and graduated from an approved Arkansas PN or PTN program or an out-of-state ACEN accredited program may receive credit for 17 hours of nursing courses ([NUR 3103 Nursing Skills I](#), [NUR 3204 Theories and Concepts in Nursing I](#), [NUR 3213 Care of the Older Adult](#), [NUR 3404 Practicum in Nursing I - Nursing the Individual Client](#), [NUR 3513 Nursing Skills II](#)) if they meet the following specific requirements:
  - a. Have a current LPN or LPTN license in Arkansas.
  - b. Graduated less than 12 months prior to entry into the upper division of nursing.
  - c. Have graduated within more than 12 months prior to entry into the upper division of nursing and have 1000 hours of nursing employment during the 24 months immediately prior to entry into the upper division of nursing.

nursing.

- d. Have completed all nursing prerequisite courses, [NUR 2023 Introduction to Professional Nursing](#), [NUR 3303 Health Assessment](#), and [NUR 3402 Pharmacology I](#) with a "C" or better prior to entry into level II nursing (see Curriculum Plan for LPNs).

NURSING CREDITS WILL BE HELD IN ESCROW PENDING COMPLETION OF THE PROGRAM.

Licensed practical nurses (LPNs) and licensed psychiatric technical nurses (LPTNs) who do not meet the above criteria can challenge or validate 17 hours of nursing courses that are included in the nursing curriculum. LPNs and LPTNs may challenge or validate nursing courses [NUR 3204 Theories and Concepts in Nursing I](#) and [NUR 3404 Practicum in Nursing I - Nursing the Individual Client](#) by taking the National League for Nursing ACE I with a decision score of 75 (eight credit hours); [NUR 2303 Nutrition](#) by taking the National League for Nursing Normal Nutrition examination with a decision score of 50 (three credit hours); and [NUR 3103 Nursing Skills I](#) and [NUR 3513 Nursing Skills II](#) by taking a written and demonstration skills test developed by the Department of Nursing faculty with a decision score of 75 (six credit hours). Students must enter upper division within two academic years after passing the challenge examination or the examination will be invalid.

3. Licensed registered nurses have two options:

- a. Complete the generic curriculum in baccalaureate nursing, or;
- b. Complete the curriculum in baccalaureate nursing for registered nurses.

Those who have met all the lower division nursing curriculum requirements and graduated from an associate degree or diploma program that was Arkansas State Board approved or ACEN accredited at the time of graduation may receive credit for 38 hours of nursing courses ([NUR 2023 Introduction to Professional Nursing](#), [NUR 2303 Nutrition](#), [NUR 3103 Nursing Skills I](#), [NUR 3204 Theories and Concepts in Nursing I](#), [NUR 3213 Care of the Older Adult](#), [NUR 3402 Pharmacology I](#), [NUR 3404 Practicum in Nursing I - Nursing the Individual Client](#), [NUR 3513 Nursing Skills II](#), [NUR 3606 Theories and Concepts in Nursing II](#), [NUR 3802 Pharmacology II](#) and [NUR 3805 Practicum in Nursing II - Nursing the Family](#)) if they meet the following specific requirements:

- a. Have a current RN license in the state where they are practicing.
- b. Have graduated less than 12 months prior to entry into the upper division.
- c. Have graduated within more than 12 months prior to entry into the upper division of nursing and have 1000 hours of nursing employment during the 24 months immediately prior to entry into the upper division of nursing.
- d. All nursing major prerequisite courses must be completed prior to entry into the program. Up to 6 hours of General Education courses may be outstanding. These courses must come from the following: Fine Arts, Humanities, History, or electives (see Curriculum Plan for Registered Nurses).

NURSING CREDITS WILL BE HELD IN ESCROW PENDING COMPLETION OF THE PROGRAM.

Registered nurses (RNs) who do not meet the above criteria can challenge or validate 38 hours of nursing that are included in the nursing curriculum.

RNs can challenge or validate nursing courses by taking the National League for Nursing ACE II Examination with a decision score of 100 or 50th percentile for Nursing [NUR 2023 Introduction to Professional Nursing](#), [NUR 3103 Nursing Skills I](#), [NUR 3204 Theories and Concepts in Nursing I](#), [NUR 3213 Care of the Older Adult](#), [NUR 3402 Pharmacology I](#), [NUR 3404 Practicum in Nursing I - Nursing the Individual Client](#), [NUR 3513 Nursing Skills II](#), [NUR 3606 Theories and Concepts in Nursing II](#), [NUR 3802 Pharmacology II](#) and [NUR 3805 Practicum in Nursing II - Nursing the Family](#) for 35 credit hours; and by the National League for Nursing Normal Nutrition Examination with a decision score of 50 for Nursing 2303 for three credit hours; all of which total 38 credit hours. Students must enter the senior-level nursing courses within two academic years after passing the challenge examination or the examination will be considered invalid.

4. Students who have had health-care education or experience but are not licensed health-care professionals will be evaluated individually by the Admission and Progression Committee for advanced placement.
5. Students transferring from another nursing program must submit a letter of good standing to the Admission and Progression Committee with the upper division application.
6. Nursing students other than Registered Nurses must comply with the general institutional provisos; i.e., at least 30 semester hours of work toward a degree must be done at ATU. See all [Requirements for Baccalaureate Degree](#).
7. Transfer students from senior colleges and universities must comply with the provisions in Item 3 above but are not subject to any credit hour limitations from those institutions.

## Curriculum in Baccalaureate Nursing

The matrix below is a sample plan for all coursework required for this program

	Freshman	Spring	
Fall			
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>4, T</sup>	3	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">CHEM 1113 A Survey of Chemistry</a> and <a href="#">CHEM 1111 Survey of Chemistry Laboratory</a> <sup>T</sup>	4	<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3

<a href="#">SOC1003 Introductory Sociology</a> <sup>T</sup>	3	<a href="#">BIOL 2014 Human Anatomy</a> or <a href="#">BIOL 2404 Human Anatomy and Physiology I</a> <sup>1,2,T</sup>	4
Physical Activity <sup>T</sup>	1	<a href="#">PSY 2003 General Psychology</a> <sup>T</sup>	3
<a href="#">TECH 1001 Orientation to the University</a>	1		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>		6 <a href="#">BIOL /NUR 3803 Applied Pathophysiology</a> <sup>T</sup>	3
<a href="#">BIOL 3054 Microbiology</a> <sup>T</sup>		4 <a href="#">PSY 3813 Lifespan Development</a> <sup>T</sup>	3
<a href="#">BIOL 3074 Human Physiology</a> or <a href="#">BIOL 2414 Human Anatomy and Physiology II</a> <sup>T</sup>	4	4 <a href="#">NUR 2023 Introduction to Professional Nursing</a> <sup>T</sup>	3
<a href="#">NUR 2303 Nutrition</a> <sup>T</sup>	3	3 <a href="#">NUR 3103 Nursing Skills I</a>	3
		<a href="#">NUR 3303 Health Assessment</a>	3
<b>Total Hours</b>	<b>17 Total Hours</b>		<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<a href="#">NUR 3204 Theories and Concepts in Nursing I</a>	4	4 <a href="#">NUR 3606 Theories and Concepts in Nursing II</a>	6
<a href="#">NUR 3213 Care of the Older Adult</a>		3 <a href="#">NUR 3802 Pharmacology II</a>	2
<a href="#">NUR 3402 Pharmacology I</a>		2 <a href="#">NUR 3805 Practicum in Nursing II - Nursing the Family</a> <sup>3</sup>	5
<a href="#">NUR 3404 Practicum in Nursing I - Nursing the Individual Client</a> <sup>3</sup>	4		
<a href="#">NUR 3513 Nursing Skills II</a>	3		
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>13</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
<a href="#">NUR 4206 Theories and Concepts in Nursing III</a>	6	6 <a href="#">NUR 4606 Theories and Concepts in Nursing IV</a>	6
<a href="#">NUR 4303 Nursing Research</a>	3	3 <a href="#">NUR 4804 Practicum in Nursing IV - Nursing in the Community</a>	4
<a href="#">NUR 4405 Practicum in Nursing III - Nursing Clients in Crisis</a>	5	5 <a href="#">NUR 4903 Synthesis of Clinical and Theoretical Nursing</a>	3
Elective	1		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Depending on previous preparation, student should recognize that prerequisites may be required before enrolling in [BIOL 2014 Human Anatomy](#) or [BIOL 2404 Human Anatomy and Physiology I](#).

<sup>3</sup>One credit hour equals 3 contact hours.

<sup>4</sup>[MATH 1113 College Algebra](#) or higher level MATH course (excluding [MATH 2033 Mathematical Concepts I](#), [MATH 2043 Mathematical Concepts II](#), and [MATH 2163 Introduction to Statistical Methods](#)).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Nursing Curriculum for Licensed Practical Nurses

### Arkansas Nursing Education Progression Model

[NUR 3103 Nursing Skills I](#)  
[NUR 3204 Theories and Concepts in Nursing I](#)

## Curriculum in Baccalaureate Nursing for LPNs

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>4</sup>	3	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1</sup>	3
<a href="#">CHEM 1113 A Survey of Chemistry</a> and <a href="#">CHEM 1111 Survey of Chemistry Laboratory</a>	4	<a href="#">U.S. History/Government</a> <sup>1</sup>	3
<a href="#">SOC1003 Introductory Sociology</a>	3	<a href="#">BIOL 2014 Human Anatomy</a> or <a href="#">BIOL 2404 Human Anatomy and Physiology</a> <sup>2</sup>	4
Physical Activity	1	<a href="#">PSY 2003 General Psychology</a>	3
<a href="#">TECH 1001 Orientation to the University</a>	1		
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>16</b>
<b>Sophomore</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1</sup>	6	<a href="#">BIOL/NUR 3803 Applied Pathophysiology</a>	3
<a href="#">BIOL 3054 Microbiology</a> <sup>5</sup>	4	<a href="#">PSY 3813 Lifespan Development</a>	3
<a href="#">BIOL 3074 Human Physiology</a> <sup>5</sup> or <a href="#">BIOL 2414 Human Anatomy and Physiology II</a>	4	<a href="#">NUR 2023 Introduction to Professional Nursing</a>	3
<a href="#">NUR 2303 Nutrition</a>	3	<a href="#">NUR 3303 Health Assessment</a>	3
		<a href="#">NUR 3402 Pharmacology I</a>	2
<b>Total Hours</b>	<b>17 Total Hours</b>		<b>14</b>
<b>Junior</b>			
<b>Fall</b>		<b>Spring</b>	
<a href="#">NUR 3606 Theories and Concepts in Nursing II</a>	6	<a href="#">NUR 4206 Theories and Concepts in Nursing III</a>	6
<a href="#">NUR 3802 Pharmacology II</a>	2	<a href="#">NUR 4303 Nursing Research</a>	3
<a href="#">NUR 3805 Practicum in Nursing II - Nursing the Family</a> <sup>3</sup>	5	<a href="#">NUR 4405 Practicum in Nursing III - Nursing Clients in Crisis</a> <sup>3</sup>	5
		Elective	1
<b>Total Hours</b>	<b>13 Total Hours</b>		<b>15</b>
<b>Senior</b>			
<b>Fall</b>			
<a href="#">NUR 4606 Theories and Concepts in Nursing IV</a>	6		
<a href="#">NUR 4804 Practicum in Nursing IV - Nursing in the Community</a>	4		
<a href="#">NUR 4903 Synthesis of Clinical and Theoretical Nursing</a> <sup>3</sup>	3		
<b>Total Hours</b>	<b>13</b>		

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Depending on previous preparation, student should recognize that prerequisites may be required before enrolling in [BIOL 2014 Human Anatomy](#).

<sup>3</sup>One credit hour equals 3 contact hours.

<sup>4</sup>[MATH 1113 College Algebra](#) or higher level MATH course (excluding [MATH 2033 Mathematical Concepts I](#), [MATH 2043 Mathematical Concepts II](#), and [MATH 2163 Introduction to Statistical Methods](#)).

<sup>5</sup>If course is repeated, grades will be averaged when compiling GPA for upper division application.

## Nursing Curriculum for Registered Nurses

### General Education Requirements

[ENGL 1013 Composition I](#), [ENGL 1023 Composition II](#)<sup>1</sup>

[MATH 1113 College Algebra](#) or higher level MATH course (excluding [MATH 2033 Mathematical Concepts I](#), [MATH 2043 Mathematical Concepts II](#), and [MATH 2163 Introduction to Statistical Methods](#)).

Science with Lab (4 hours)

[BIOL 2014 Human Anatomy](#) or [BIOL 2404 Human Anatomy and Physiology I](#)

[PSY 2003 General Psychology](#)

[SOC1003 Introductory Sociology](#)

[Social Sciences](#)<sup>1</sup> (3 hours)

[Fine Arts & Humanities](#)<sup>1</sup> (6 hours)

[U.S. History/Government](#)<sup>1</sup> (3 hours)

### Additional Nursing Major Requirements

[BIOL 3054 Microbiology](#)

[BIOL 3074 Human Physiology](#) or [BIOL 2414 Human Anatomy and Physiology II](#)

[PSY 3813 Lifespan Development](#)

[NUR 3303 Health Assessment](#)

[NUR/BIOL 3803 Applied Pathophysiology](#)

### Arkansas Nursing Education Progression Model<sup>2</sup>

[NUR 2023 Introduction to Professional Nursing](#)

[NUR 2303 Nutrition](#)

[NUR 3103 Nursing Skills I](#)<sup>1</sup>

[NUR 3204 Theories and Concepts in Nursing I](#)

[NUR 3213 Care of the Older Adult](#)

[NUR 3402 Pharmacology I](#)

[NUR 3404 Practicum in Nursing I - Nursing the Individual Client](#)

[NUR 3513 Nursing Skills II](#)

[NUR 3606 Theories and Concepts in Nursing II](#)

[NUR 3802 Pharmacology II](#)

[NUR 3805 Practicum in Nursing II - Nursing the Family](#)

### Senior Level Nursing for Registered Nurses Courses<sup>4</sup>

#### Arkansas Tech University Nursing Courses Specific to Curriculum in Baccalaureate Nursing for Registered Nurses

##### Spring Start - Junior

##### Spring

<a href="#">NURN 4002 Nursing Informatics</a>	2
<a href="#">NURN 4003 Scope of Professional Practice</a>	3
<a href="#">NURN 4013 Laws, Ethics, and Issues in Professional Nursing Practice</a>	3
<a href="#">NURN 4303 Nursing Research</a>	3
<b>Total Hours</b>	<b>11</b>

##### Senior

##### Summer I, II

<a href="#">NURN 4024 Community Health Nursing</a>	4	<a href="#">NURN 4034 Leadership and Management in Professional Practice</a>	4
Elective <sup>3</sup>	3	<a href="#">NURN 4045 Professional Practicum Synthesis</a>	5

	Elective <sup>3</sup>	3
<b>Total Hours</b>	<b>7 Total Hours</b>	<b>12</b>
<b>Summer Start - Junior</b>		
<b>Summer I, II</b>	<b>Fall</b>	
<u>NURN 4002 Nursing Informatics</u>	2 <u>NURN 4013 Laws, Ethics, and Issues in Professional Nursing Practice</u>	3
<u>NURN 4003 Scope of Professional Practice</u>	3 <u>NURN 4024 Community Health Nursing</u>	4
Elective <sup>3</sup>	3 <u>NURN 4303 Nursing Research</u>	3
<b>Total Hours</b>	<b>8 Total Hours</b>	<b>10</b>
<b>Senior</b>		
<b>Spring</b>		
<u>NURN 4034 Leadership and Management in Professional Practice</u>	4	
<u>NURN 4045 Professional Practicum Synthesis</u>	5	
Elective <sup>3</sup>	3	
<b>Total Hours</b>	<b>12</b>	

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Licensed registered nurses who have met all of the lower division nursing curriculum requirements and graduated from an associate degree or diploma program that was ACEN accredited at the time of graduation may receive credit for 38 hours of nursing courses if they meet specific requirements.

<sup>3</sup>Electives to be approved by Nursing advisor.

<sup>4</sup>All general education requirements must be completed before enrolling in Senior Level Nursing for Registered Nurses courses unless granted an exception by the department head. All additional nursing major requirements must be completed with a GPA.  $\geq 2.75$  prior to enrolling in Senior Level Nursing for Registered Nurses courses.



## Department of Physical Sciences

The Department of Physical Sciences offers majors and minors in chemistry, engineering physics, geology, physical science, nuclear physics, and physics. Students interested in teaching science in secondary schools should follow the curriculum in science set forth in this catalog under the [physical science for teacher licensure](#) curricula, College of Education.

The description and curricula for each of the various degree programs in the physical sciences are listed below. Note that for every degree program in this department, there is a non-course requirement involving an exit interview with the Department Head as part of the formal process for graduation.

### Chemistry

The program and all of the degrees are certified by the American Chemical Society. The chemists of today are involved in the development of a multitude of new materials such as plastics, drugs, and agricultural products. Research chemists are conducting studies of the fundamental nature of matter which lead to expanded knowledge in medicine and biology. Each course in chemistry stresses laws, theories, and applications in the lecture portion and offers students the opportunity to gain experience in well equipped laboratories.

Chemistry is one of the highly recommended courses of study for students interested in pursuing careers in a variety of professional endeavors such as the health sciences: medicine, pharmacy, dentistry, and para-medical fields.

Chemistry majors must earn a grade of "C" or better in all chemistry courses (CHEM), including transfer credits, in order to satisfy graduation requirements.

### Biochemistry Option

The Biochemistry option is designed to provide the background needed for students seeking entrance into professional medical or dental schools. It will also greatly benefit students seeking technical jobs that require multidisciplinary training in biology and chemistry as well as an abundance of science laboratory skills.

Dr. James Musser, Head  
McEver Hall, Room 109  
(479) 968-0361  
jmusser@atu.edu  
Fax: (479) 964-0837

**Professors:**

Baker, Bhuiyan, Hardcastle, Hemmati, Robertson

**Associate Professors:**

Hilliard, Kondrick, Lasey, Mebi, Musser, Patton, Shojaei

**Assistant Professors:**

Duke, Gajewski, Harris, Hart, Sierra, Stringle, Young

**Instructors:**

Fulmer, Lauffart

### Curriculum in Chemistry Biochemistry Option

The matrix below is a sample plan for all coursework required for this program

#### Freshman

Fall	Spring		
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3	
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">BIOL 1114 Principles of Biology</a> <sup>T</sup>	4	
<a href="#">MATH 2914 Calculus I</a> <sup>T</sup>	4 <a href="#">MATH 2924 Calculus II</a> <sup>T</sup>	4	
<a href="#">PHSC 1001 Orientation to Physical Science</a>	1 <a href="#">PHSC 1011 Orientation to Physical Science II</a>	1	
<a href="#">CHEM 2124 General Chemistry I</a> <sup>T</sup>	4 <a href="#">CHEM 2134 General Chemistry II</a> <sup>T</sup>	4	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>	

#### Sophomore

Fall	Spring		
<a href="#">Social Sciences</a> <sup>1,T</sup>	3 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	
<a href="#">PHYS 2014 Physical Principles I</a> or <a href="#">PHYS 2114 General Physics I</a> <sup>T</sup>	4 <a href="#">PHYS 2024 Physical Principles II</a> or <a href="#">PHYS 2124 General Physics II</a> <sup>T</sup>	4	
<a href="#">COMS 2003 Microcomputer Applications</a> or <a href="#">COMS 2803 Programming in C</a> <sup>T</sup>	3 <a href="#">CHEM 3245 Quantitative Analysis</a>	5	
<a href="#">CHEM 3254 Fundamentals of Organic Chemistry</a>	4 <a href="#">CHEM 3264 Mechanistic Organic Chemistry</a>	4	

<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>
	<b>Junior</b>	
<b>Fall</b>	Spring	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3 <a href="#">BIOL 2014 Human Anatomy</a>	4
<a href="#">BIOL 2124 Principles of Zoology</a>	4 <a href="#">BIOL 3034 Genetics</a>	4
<a href="#">CHEM 3301 Chemistry Seminar</a>	1 <a href="#">CHEM 3423 Descriptive Inorganic Chemistry</a>	3
<a href="#">CHEM 3344 Principles of Biochemistry</a>	4 <a href="#">CHEM 3363 Metabolic Biochemistry</a>	3
Elective <sup>2,T</sup>	4	
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>14</b>
	<b>Senior</b>	
<b>Fall</b>	Spring	
<a href="#">BIOL 3074 Human Physiology</a> or <a href="#">BIOL 3174 Physiological Ecology</a>	4 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">CHEM 3324 Physical Chemistry I</a>	4 <a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">CHEM 4414 Instrumental Analysis</a>	4 <a href="#">BIOL 4033 Cell Biology</a>	3
Elective <sup>2</sup>	4 <a href="#">CHEM 4401 Chemistry Seminar</a>	1
	Elective <sup>2</sup>	3
<b>Total Hours</b>	<b>16 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>German, Statistics, and Technical Communications are encouraged. (Electives must include sufficient upper-division courses to result in 40 upper division hours) (upper division = 3000-4000 level).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Environmental Option

Chemistry also offers an Environmental option. The objective of this curriculum is to bring together the disciplines of chemistry, biology, and geology as applied to the environment. Emphasis will be on interdisciplinary approaches to environmental studies.

### Curriculum in Chemistry Environmental Option

The matrix below is a sample plan for all coursework required for this program

	<b>Freshman</b>	
<b>Fall</b>	<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">MATH 2243 Calculus for Business and Economics</a>	3 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">PHSC 1001 Orientation to Physical Science</a>	1 <a href="#">ECON 2003 Principles of Economics I</a> <sup>T</sup>	3
<a href="#">PHSC 1004 Principles of Environmental Science</a> <sup>T</sup>	4 <a href="#">PHSC 1011 Orientation to Physical Science II</a>	1
<a href="#">CHEM 2124 General Chemistry I</a> <sup>T</sup>	4 <a href="#">CHEM 2134 General Chemistry II</a> <sup>T</sup>	4
	<a href="#">CHEM 3313 Environmental Chemistry</a>	3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>17</b>

Fall	Spring	
<u>U.S. History/Government</u> <sup>1,T</sup>	3 <u>PHYS 2024 Physical Principles II</u> <sup>T</sup>	4
<u>MATH 2163 Introduction to Statistical Methods</u> or <u>PSY/SOC 2053 Statistics for the Behavioral Sciences</u>	3 <u>CHEM 2111 Environmental Seminar</u>	1
<u>COMS 2003 Microcomputer Applications</u> or <u>COMS 2803 Programming in C</u>	3 <u>CHEM 3245 Quantitative Analysis</u>	5
<u>PHYS 2014 Physical Principles I</u> <sup>T</sup>	4 <u>CHEM 3264 Mechanistic Organic Chemistry</u>	4
<u>CHEM 3254 Fundamentals of Organic Chemistry</u>	4	
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>14</b>

Fall	Spring	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>ENGL 2053 Technical Writing</u>	3 <u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3
<u>BIOL 2124 Principles of Zoology</u>	4 <u>BIOL 2134 Principles of Botany</u>	4
<u>GEOL 1014 Physical Geology</u> <sup>T</sup>	4 <u>BIOL 3043 Conservation</u>	3
<u>CHEM 3353 Fundamentals of Toxicology</u>	3 <u>CHEM 3111 Environmental Seminar</u>	1
<b>Total Hours</b>	<b>17 Total Hours</b>	<b>14</b>

Fall	Spring	
<u>BIOL 3054 Microbiology</u>	4 <u>CHEM 4111 Environmental Seminar</u>	1
<u>BIOL 3114 Principles of Ecology</u>	4 <u>CHEM 4951-4 Undergraduate Research in Chemistry</u> or <u>CHEM 4991-4 Special Problems in Chemistry</u>	1-4
<u>GEOL 3083 Hydrogeology</u>	3 Elective <sup>T</sup>	6-9
<u>CHEM 4414 Instrumental Analysis</u>	4	
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>11</b>

<sup>1</sup>See appropriate choices, alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## General Option

The General option is specifically designed with a minimum of required courses so that students, in cooperation with their faculty academic advisors, can exercise a maximum degree of flexibility in tailoring programs to meet their individual aspirations. By judiciously choosing electives, individuals can enrich these minimum chemistry requirements to prepare for futures in law, technical marketing, environmental science, computer science, technical writing, toxicology, education, technical illustration, engineering, health sciences, and business.

### Curriculum in Chemistry General Option

The matrix below is a sample plan for all coursework required for this program

Freshman		
Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>BIOL 1114 Principles of Biology</u> <sup>T</sup>	4
<u>MATH 2914 Calculus I</u> <sup>T</sup>	4 <u>MATH 2924 Calculus II</u> <sup>T</sup>	4

<u>PHSC 1001 Orientation to Physical Science</u>	1	<u>PHSC 1011 Orientation to Physical Science II</u>	1
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4	<u>CHEM 2134 General Chemistry II</u> <sup>T</sup>	4
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>16</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences</u> <sup>1,T</sup>		3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>PHYS 2014 Physical Principles I</u> or <u>PHYS 2114 General Physics I</u> <sup>T</sup>		4 <u>PHYS 2024 Physical Principles II</u> or <u>PHYS 2124 General Physics II</u> <sup>T</sup>	4
<u>COMS 2003 Microcomputer Applications</u> or <u>COMS 2803 Programming in C</u> <sup>T</sup>		3 <u>CHEM 3245 Quantitative Analysis</u>	5
<u>CHEM 3254 Fundamentals of Organic Chemistry</u>		4 <u>CHEM 3264 Mechanistic Organic Chemistry</u>	4
<b>Total Hours</b>		<b>14 Total Hours</b>	<b>16</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>		3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>CHEM 3301 Chemistry Seminar</u>		1 <u>CHEM 3344 Principles of Biochemistry</u>	4
<u>CHEM 3324 Physical Chemistry I</u>		4 Elective <sup>4,T</sup>	5
<u>CHEM 3423 Descriptive Inorganic Chemistry</u>		3	
Science Elective <sup>2</sup>		3	
Elective <sup>4,T</sup>		1	
<b>Total Hours</b>		<b>15 Total Hours</b>	<b>12</b>

### Senior

<b>Fall</b>		<b>Spring</b>	
<u>CHEM 4414 Instrumental Analysis</u>		4 <u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3
CHEM Elective <sup>3</sup>		3 <u>CHEM 4401 Chemistry Seminar</u>	1
Elective <sup>4</sup>		9 CHEM Elective <sup>3</sup>	3
		Elective <sup>4</sup>	9
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>Science electives from BIOL, GEOL, PHYS, PHSC (excluding [BIOL 1014 Introduction to Biological Science](#), [PHSC 1013 Introduction to Physical Science](#), and [PHSC 1021 Physical Science Laboratory](#)), and excluding CHEM.

<sup>3</sup>Excluding [CHEM 1113 A Survey of Chemistry](#) and [CHEM 1111 Survey of Chemistry Laboratory](#).

<sup>4</sup>German, Statistics, and Technical Communications are encouraged. (Electives must include sufficient upper-division courses to result in 40 upper division hours) (upper division = 3000-4000 level).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Professional Option

The Professional option is especially recommended for students who plan to pursue graduate studies in chemistry or related fields or those persons wishing to seek employment in industry as chemists.

The matrix below is a sample plan for all coursework required for this program

Freshman

Fall	Spring	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3 <u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>BIOL 1114 Principles of Biology</u> <sup>T</sup>	4
<u>MATH 2914 Calculus I</u> <sup>T</sup>	4 <u>MATH 2924 Calculus II</u> <sup>T</sup>	4
<u>PHSC 1001 Orientation to Physical Science</u>	1 <u>PHSC 1011 Orientation to Physical Science II</u>	1
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4 <u>CHEM 2134 General Chemistry II</u> <sup>T</sup>	4
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

Sophomore

Fall	Spring	
<u>Social Sciences</u> <sup>1,T</sup>	3 <u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>PHYS 2114 General Physics I</u> <sup>T</sup>	4 <u>PHYS 2124 General Physics II</u> <sup>T</sup>	4
<u>MATH 2934 Calculus III</u>	4 <u>CHEM 3245 Quantitative Analysis</u>	5
<u>COMS 2003 Microcomputer Applications</u> or <u>COMS 2803 Programming in C</u> <sup>T</sup>	3 <u>CHEM 3264 Mechanistic Organic Chemistry</u>	4
<u>CHEM 3254 Fundamentals of Organic Chemistry</u>	4	
<b>Total Hours</b>	<b>18 Total Hours</b>	<b>16</b>

Junior

Fall	Spring	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3 <u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>CHEM 3301 Chemistry Seminar</u>	1 <u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3
<u>CHEM 3324 Physical Chemistry I</u>	4 <u>CHEM 3334 Physical Chemistry II</u>	4
<u>CHEM 3423 Descriptive Inorganic Chemistry</u>	3 Elective <sup>3</sup>	6
CHEM Elective <sup>2</sup>	3	
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>16</b>

Senior

Fall	Spring	
<u>CHEM 3344 Principles of Biochemistry</u>	4 <u>CHEM 4424 Advanced Inorganic Chemistry</u>	4
<u>CHEM 4401 Chemistry Seminar</u>	1 <u>CHEM 4952-4 Undergraduate Research in Chemistry</u> or <u>CHEM 4992-4 Special Problems in Chemistry</u>	2-4
<u>CHEM 4414 Instrumental Analysis</u>	4 Elective <sup>3</sup>	7-5
<u>CHEM 4433 Advanced Topics in Chemistry</u>	3	
<b>Total Hours</b>	<b>12 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>Excluding [CHEM 1113 A Survey of Chemistry](#) and [CHEM 2204 Organic Physiological Chemistry](#).

<sup>3</sup>German, Statistics, and Technical Communications are encouraged. (Electives must include sufficient upper division courses to result in 40 upper division hours) (upper division = 3000-4000 level)

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Chemistry

The minor in chemistry is designed for science majors who would like to further their studies in chemistry and for students

who cannot complete a major in chemistry, but for employment opportunities, would like to gain basic knowledge and competencies in chemistry. The minor in chemistry requires the core chemistry courses:

- \* [CHEM 2124 General Chemistry I](#), [CHEM 2134 General Chemistry II](#)
- \* [CHEM 3245 Quantitative Analysis](#)
- \* [CHEM 3254 Fundamentals of Organic Chemistry](#), [CHEM 3264 Mechanistic Organic Chemistry](#)

## Geology

The science of geology seeks to develop an understanding of the Earth's physical and chemical processes, environmental systems, and natural resources. Geologists work in a variety of areas, discovering new sources of fossil fuels, minerals, and economically important rocks. Volcanoes, earthquakes, landforms, surface and subsurface water, earth history, and fossils are all subjects for study. Also, geologists may work as members of an interdisciplinary team in planning construction projects, sanitary landfills, mine land reclamation, and other environmentally-oriented projects. Employment opportunities for geologists exist in private industry, state and federal government agencies, and teaching at all levels.

Geology students may follow programs designed to prepare them for entry into graduate school, employment in the geotechnical field, or secondary school earth science teaching. The best opportunities exist for students who continue their education and complete the master's or doctor's degree in geology. Major oil and gas companies generally require the master's degree for an entry-level position. Also, excellent employment opportunities are available in the environmental geotechnical field.

The geology major will study for a bachelor of science degree. This degree requires a minimum of 120 semester hours with a minimum of 43 semester hours in geology (professional option), or a minimum of 36 semester hours in geology (environmental option). Students interested in teaching as a profession should follow the [Physical Science for Teacher Licensure](#) curriculum listed under teacher licensure curricula, College of Education. Additional departmental courses and related courses may be specified for geology majors following particular emphasis programs, and for some emphasis programs, substitutions of the above list may be required. Strongly recommended are calculus and/or statistics.

The geology program is fully interdisciplinary, and the student and his/her advisor can "build" an academic program through selection of appropriate electives to suit the special needs and interests of the student.

### Curriculum in Geology Environmental Option

The matrix below is a sample plan for all coursework required for this program

Freshman			
Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>T</sup>	3	<a href="#">CHEM 2124 General Chemistry I</a>	4
<a href="#">PHSC 1001 Orientation to Physical Science</a>	1	<a href="#">COMS 1003 Introduction to Computer Based Systems</a> <sup>T</sup>	3
<a href="#">PHSC 1004 Principles of Environmental Science</a> <sup>T</sup>	4	<a href="#">PHSC 1011 Orientation to Physical Science II</a>	1
<a href="#">GEOL 1014 Physical Geology</a> <sup>T</sup>	4	<a href="#">GEOL 2024 Historical Geology</a>	4
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
Sophomore			
Fall		Spring	
<a href="#">ENGL 2053 Technical Writing</a>	3	<a href="#">BIOL 1014 Introduction to Biological Science</a> <sup>T</sup>	4
<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3	<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3	<a href="#">COMS 2003 Microcomputer Applications</a>	3
<a href="#">CHEM 2134 General Chemistry II</a>	4	<a href="#">GEOL 2111 Environmental Seminar</a>	1
<a href="#">GEOL 3014 Mineralogy</a>	4	<a href="#">GEOL 3164 Petrology</a>	4
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>15</b>
Junior			



<b>Fall</b>		<b>Spring</b>	
<u>BIOL 3043 Conservation</u> or Elective (3000-4000 level) <sup>2</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	6
<u>PHYS 2014 Physical Principles I</u> <sup>T</sup>	4	<u>PHYS 2024 Physical Principles II</u> <sup>T</sup>	4
<u>GEOL 3023 Geological Field Techniques</u>	3	<u>GEOL 3004 Structural Geology</u>	4
<u>GEOL 3044 Geomorphology</u> or <u>GEOL 3153 Environmental Geology</u>	4-3	<u>GEOL 3111 Environmental Seminar</u>	1
<b>Total Hours</b>	<b>13-14 Total Hours</b>		<b>15</b>

#### Senior

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3	<u>GEOL 3174 Computer Applications in Geology</u>	4
<u>BIOL 3043 Conservation</u> or Elective (3000-4000 level) <sup>2</sup>	3	<u>GEOL 4043 Geochemistry</u>	3
<u>FW/GEOG 2833 Introduction to Geographic Information Systems</u>	3	<u>GEOL 4111 Environmental Seminar</u>	1
<u>GEOL 3153 Environmental Geology</u> or <u>GEOL 3044 Geomorphology</u>	3-4	Science Elective <sup>2</sup>	6
<u>GEOL 3083 Hydrogeology</u>	3		
<b>Total Hours</b>	<b>15-16 Total Hours</b>		<b>14</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.\*

<sup>2</sup>Electives in Physical or Life Sciences and Mathematics (Geology, Biology, Chemistry, and Math).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Geology Petroleum Option

The matrix below is a sample plan for all coursework required for this program

#### Freshman

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>BIOL 1014 Introduction to Biological Science</u> <sup>T</sup>	4	<u>CHEM 2124 General Chemistry I</u>	4
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3	<u>MATH 1203 Plane Trigonometry</u> <sup>T</sup>	3
<u>PHSC 1001 Orientation to Physical Science</u>	1	<u>PHSC 1011 Orientation to Physical Science II</u>	1
<u>GEOL 1014 Physical Geology</u> <sup>T</sup>	4	<u>GEOL 2024 Historical Geology</u>	4
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>

#### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3
<u>CHEM 2134 General Chemistry II</u>	4	<u>FW/GEOG 2833 Introduction to Geographic Information Systems</u>	3
<u>GEOL 2001 Seminar</u>	1	<u>MATH 2914 Calculus I</u>	4
<u>GEOL 3014 Mineralogy</u>	4	<u>GEOL 3164 Petrology</u>	4
<u>GEOL 3044 Geomorphology</u>	4		
<b>Total Hours</b>	<b>16 Total Hours</b>		<b>14</b>

#### Junior

<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	6	<u>PHYS 2024 Physical Principles II</u> <sup>T</sup>	4
<u>PHYS 2014 Physical Principles I</u> <sup>T</sup>	4	<u>GEOL 3004 Structural Geology</u>	4
<u>GEOL 3001 Seminar</u>	1	<u>GEOL 3124 Invertebrate Paleontology</u> or <u>GEOL 4023 Principles of Stratigraphy and Sedimentation</u>	3-4
<u>GEOL 3023 Geological Field Techniques</u>	3	<u>GEOL 3174 Computer Applications in Geology</u> or <u>GEOL 4034 Subsurface Geology</u>	4
<b>Total Hours</b>		<b>14 Total Hours</b>	<b>15-16</b>

		<b>Senior</b>	
<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	6	<u>GEOL 3124 Invertebrate Paleontology</u> or <u>GEOL 4023 Principles of Stratigraphy and Sedimentation</u>	3-4
<u>GEOL 3153 Environmental Geology</u>	3	<u>GEOL 3174 Computer Applications in Geology</u> or <u>GEOL 4034 Subsurface Geology</u>	4
<u>GEOL 4001 Seminar</u>	1	<u>GEOL 4043 Geochemistry</u>	3
General Elective	4		
<b>Total Hours</b>		<b>14 Total Hours</b>	<b>10-11</b>

**Ninth Semester - Summer (after Junior or Senior year)**

<u>GEOL 4006</u> <sup>2</sup>	6
<b>Total Hours</b>	<b>6</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.\*

<sup>2</sup>GEOL 4006 (6 credit hours of field geology) must be completed during the summer after Junior or Senior year

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Curriculum in Geology Professional Option

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>	
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
Biological Science <sup>1,T</sup>	4	<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4
<u>PHSC 1001 Orientation to Physical Science</u>	1	<u>PHSC 1011 Orientation to Physical Science II</u>	1
<u>MATH 1113 College Algebra</u> <sup>T</sup>	3	<u>MATH 1203 Plane Trigonometry</u> <sup>T</sup>	3
<u>GEOL 1014 Physical Geology</u> <sup>T</sup>	4	<u>GEOL 2024 Historical Geology</u>	4
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>
		<b>Sophomore</b>	
<b>Fall</b>		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	9
<u>CHEM 2134 General Chemistry II</u> <sup>T</sup>	4	<u>GEOL 3124 Invertebrate Paleontology</u> or Elective(3000-4000 level) <sup>4</sup>	4
<u>FW/GEOG 2833 Introduction to Geographic Information Systems</u>	3	<u>GEOL 3164 Petrology</u>	4

<u>GEOL 2001 Seminar</u>	1		
<u>GEOL 3014 Mineralogy</u>	4		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>17</b>

### Junior

Fall		Spring	
<u>PHYS 2014 Physical Principles I</u> <sup>T</sup>	4	<u>PHYS 2024 Physical Principles II</u> <sup>T</sup>	4
<u>GEOL 3001 Seminar</u>	1	<u>GEOL 3004 Structural Geology</u>	4
<u>GEOL 3023 Geological Field Techniques</u>	3	<u>GEOL 3124 Invertebrate Paleontology</u> or Elective (3000-4000 level) <sup>4</sup>	4
<u>GEOL 3044 Geomorphology</u> or Elective (3000-4000 level) <sup>4</sup>	4	<u>GEOL 4023 Principles of Stratigraphy and Sedimentation</u> or Elective (3000-4000 level) <sup>4</sup>	3-4
MATH/COMS Elective <sup>2</sup>	3-4		
<b>Total Hours</b>	<b>15-16</b>	<b>Total Hours</b>	<b>15-16</b>

### Senior

Fall		Spring	
<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	3	<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3
<u>GEOL 3153 Environmental Geology</u>	3	<u>GEOL 3174 Computer Applications in Geology</u>	4
<u>GEOL 4001 Seminar</u>	1	<u>GEOL 4023 Principles of Stratigraphy and Sedimentation</u> or Elective (3000-4000 level) <sup>4</sup>	3-4
<u>GEOL 3044 Geomorphology</u> or Elective (3000-4000 level) <sup>4</sup>	4		
<b>Total Hours</b>	<b>11</b>	<b>Total Hours</b>	<b>10-11</b>

### Ninth Semester - Summer (after Junior or Senior year)

<u>GEOL 4006</u> <sup>3</sup>	6
<b>Total Hours</b>	<b>6</b>

<sup>1</sup>See appropriate choices, alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>COMS 1003 Introduction to Computer Based Systems, COMS 1103 Fortran Programming, MATH 2914 Calculus I, or MATH 2163 Introduction to Statistical Methods.

<sup>3</sup>GEOL 4006 (6 credit hours of field geology) must be completed during the summer after Junior or Senior year.

<sup>4</sup>Must complete both the GEOL class and one elective (GEOL course offered in alternating years).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Geology

The minor in geology is primarily designed for students who are majoring in disciplines where a broader background in geology can aid in recognizing and addressing geological hazards, natural disasters, environmental issues, natural resource management, conservation, and land use planning. The minor in geology requires 20 hours of courses:

\*GEOL Electives (11 hours)

\*GEOL Electives (9 hours of 3000 or 4000 level)

\*no more than one credit hour can be a seminar course or special problem

## Physics

The physics curriculum is designed to serve the needs of students in the fields of engineering, medicine, and other

sciences. The junior and senior courses are tailored for students who desire a concentration in physics for a bachelor of science degree in physical science and/or wish to pursue graduate study in areas such as physics, meteorology, and astronomy.

To qualify for a bachelor of science degree in physical science, the student must take eight hours in chemistry, three hours in computer and information science, 25 hours in mathematics, and a minimum of 30 hours in physics. Twenty-two semester hours in these courses must be at the 3000 or 4000 level. A minimum of 38 hours must be taken in the Department of Physical Sciences.

## Curriculum in Physics

The matrix below is a sample plan for all coursework required for this program

<b>Freshman</b>			
<b>Fall</b>		<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>MATH 1914 Precalculus</u> <sup>T</sup>	4	<u>MATH 2914 Calculus I</u> <sup>T</sup>	4
<u>PHSC 1001 Orientation to Physical Science</u>	1	<u>PHSC 1011 Orientation to Physical Science II</u>	1
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4	<u>CHEM 2134 General Chemistry II</u> <sup>T</sup>	4
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>
<b>Sophomore</b>			
<b>Fall</b>		<b>Spring</b>	
<u>COMS 2803 Programming in C</u>	3	Biological Science <sup>1,T</sup>	4
<u>Social Sciences</u> <sup>1,T</sup>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>MATH 2924 Calculus II</u> <sup>T</sup>	4	<u>MATH 2934 Calculus III</u>	4
<u>PHYS 2114 General Physics I</u> <sup>T</sup>	4	<u>PHYS 2124 General Physics II</u> <sup>T</sup>	4
Elective <sup>3</sup>	3		
<b>Total Hours</b>	<b>17 Total Hours</b>		<b>15</b>
<b>Junior</b>			
<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>MATH 3243 Differential Equations I</u>	3	<u>ELEG 2111 Electric Circuits Laboratory</u>	1
<u>ELEG 2103 Electric Circuits I</u>	3	<u>ELEG 2113 Electric Circuits II</u>	3
<u>PHYS 3023 Mechanics</u> or <u>PHYS 3213 Modern Physics</u>	3	<u>PHYS 3133 Theory of Electricity and Magnetism</u> or <u>PHYS 4013 Quantum Mechanics</u>	3
<u>PHYS 4113 Advanced Physics Laboratory</u> or PHYS Elective (3000-4000) <sup>4</sup>	3	PHYS Elective (3000-4000 level)	3
		Elective <sup>3</sup>	2
<b>Total Hours</b>	<b>15 Total Hours</b>		<b>15</b>
<b>Senior</b>			
<b>Fall</b>		<b>Spring</b>	
<u>PHYS 3213 Modern Physics</u> or <u>PHYS 3023 Mechanics</u>	3	<u>PHYS 4013 Quantum Mechanics</u> or <u>PHYS 3133 Theory of Electricity and Magnetism</u>	3
<u>PHYS 4113 Advanced Physics Laboratory</u> or PHYS Elective (3000-4000) <sup>4</sup>	3	<u>PHYS 4951-4 Undergraduate Research in Physics</u> or <u>PHYS 4991-4 Special Problems in Physics and Astronomy</u>	1-4
MATH Elective (3000-4000 level) <sup>2</sup>	3	MATH Elective (3000-4000 level) <sup>2</sup>	3
Elective (3000-4000 level) <sup>3</sup>	3	Elective(3000-4000 level) <sup>3</sup>	6-3
	3		

Elective<sup>3</sup>

**Total Hours**

**15 Total Hours**

**13**

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>Excluding [MATH 3003 Foundations of Number Systems](#), [MATH 3033 Methods of Teaching Elementary Mathematics](#), and [MATH 4113 History of Mathematics](#).

<sup>3</sup>Seven hours of electives must be from physical sciences, biology, engineering, computer science.

<sup>4</sup>Must complete both the [PHYS 4113 Advanced Physics Laboratory](#) and 3 hours PHYS electives (PHYS course offered in alternating years).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Nuclear Physics

The nuclear physics curriculum is designed to provide a baccalaureate degree program for persons employed or those interested in employment in the nuclear power industry. The program provides a combination of courses which form a firm theoretical foundation for those presently employed as nuclear power plant operators. Students without nuclear power industry experience or training will, in addition to the theoretical education provided through the program, receive sufficient training to enter nuclear power plant specific training. Graduates will also be prepared to enter a graduate school in nuclear physics or nuclear engineering.

### Curriculum in Nuclear Physics

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
<a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3	<a href="#">MCEG 2023 Engineering Materials</a>	3
<a href="#">MATH 2914 Calculus I</a> <sup>T</sup>	4	<a href="#">MATH 2924 Calculus II</a> <sup>T</sup>	4
<a href="#">PHSC 1001 Orientation to Physical Science</a>	1	<a href="#">PHSC 1011 Orientation to Physical Science II</a>	1
<a href="#">CHEM 2124 General Chemistry I</a> <sup>T</sup>	4	<a href="#">CHEM 2134 General Chemistry II</a> <sup>T</sup>	4
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

		<b>Sophomore</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">Social Sciences</a> <sup>1,T</sup>	6	<a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">COMS 2803 Programming in C</a> <sup>T</sup>	3	Biological Science <sup>1,T</sup>	4
<a href="#">MATH 2934 Calculus III</a>	4	<a href="#">MATH 3243 Differential Equations I</a>	3
<a href="#">PHYS 2114 General Physics I</a> <sup>T</sup>	4	<a href="#">PHYS 2124 General Physics II</a> <sup>T</sup>	4
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>14</b>

		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">ELEG 2103 Electric Circuits I</a>	3	<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">MCEG 3313 Thermodynamics I</a>	3	<a href="#">ELEG 2111 Electric Circuits Laboratory</a> and <a href="#">ELEG 2113 Electric Circuits II</a>	4
<a href="#">MCEG 3503 Basic Nuclear Engineering</a>	3	<a href="#">MCEG 3523 Radiation Health Physics</a> or <a href="#">PHYS 3033 Radiation Health Physics</a>	3
<a href="#">PHYS 3213 Modern Physics</a> or	3	<a href="#">MCEG 4403 Mechanics of Fluids and Hydraulics</a>	3

PHYS elective (3000-4000) <sup>2</sup>		
<u>PHYS 4113 Advanced Physics Laboratory</u> or	3	
PHYS elective (3000-4000) <sup>2</sup>		
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>13</b>

	<b>Senior</b>	
<b>Fall</b>	<b>Spring</b>	
<u>MCEG 4323 Power Plant Systems</u>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup> 3
<u>PHYS 3143 Electronics</u> or <u>ELEG 3103 Electronics I</u>	3	<u>MCEG 4443 Heat Transfer</u> 3
<u>PHYS 3213 Modern Physics</u> or PHYS elective (3000-4000) <sup>2</sup>	3	<u>PHYS 4951-4 Undergraduate Research in Physics</u> or <u>PHYS 4991-4 Special Problems in Physics and Astronomy</u> 1-4
<u>PHYS 4113 Advanced Physics Laboratory</u> or PHYS elective (3000-4000) <sup>2</sup>	3	Engineering Elective 3
Elective	3	PHYS Elective (3000-4000 level) 6-3
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>Must complete both the PHYS class and one PHYS upper division elective (PHYS course offered in alternating years). (upper division = 3000-4000 level courses).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Engineering Physics

Students graduating with an engineering physics degree will be well qualified for jobs requiring highly technical skills and theoretical knowledge. Also, the degree program will prepare students for graduate studies in the fields of physics and engineering. However, those interested in employment immediately after graduation will have numerous alternatives for career choices. Job opportunities for an engineering physics graduate could include employment in industries such as: McDonnell Douglas/Boeing, Texas Instruments, Honeywell, Microsoft, Polaroid, Union Carbide, National Institute of Standards & Technology, Entergy, Tennessee Valley Authority, and Dow Chemical. Also, government agencies such as NASA, National Bureau of Standards, Office of Naval Research, Department of Energy, etc., provide additional employment opportunities for engineering physics graduates.

To qualify for a baccalaureate degree in engineering physics, the student must complete eight hours in chemistry, three hours in computer and information science, 18 hours in mathematics, 33 hours in physics (including the core physics courses), and 26 hours in engineering.

### Curriculum in Engineering Physics

The matrix below is a sample plan for all coursework required for this program

	<b>Freshman</b>	
<b>Fall</b>	<b>Spring</b>	
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>	3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup> 3
<u>PHSC 1001 Orientation to Physical Science</u>	1	<u>PHSC 1011 Orientation to Physical Science II</u> 1
<u>MATH 2914 Calculus I</u> <sup>T</sup>	4	<u>MATH 2924 Calculus II</u> <sup>T</sup> 4
<u>COMS 2803 Programming in C</u> <sup>T</sup>	3	<u>MCEG 2023 Engineering Materials</u> 3
<u>CHEM 2124 General Chemistry I</u> <sup>T</sup>	4	<u>CHEM 2134 General Chemistry II</u> <sup>T</sup> 4
<b>Total Hours</b>	<b>15 Total Hours</b>	<b>15</b>

### Sophomore



<b>Fall</b>		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities/Speech</u> <sup>1,T</sup>	3	<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	6
<u>PHYS 2114 General Physics I</u> <sup>T</sup>	4	<u>PHYS 2124 General Physics II</u> <sup>T</sup>	4
<u>MATH 2934 Calculus III</u>	4	<u>MATH 3243 Differential Equations I</u>	3
Biological Science <sup>1,T</sup>	4	Elective	2
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

<b>Fall</b>		<b>Junior</b>	
		<b>Spring</b>	
<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	3	<u>Social Sciences/Fine Arts/Humanities</u> <sup>1,T</sup>	3
<u>ELEG 2103 Electric Circuits I</u>	3	<u>ELEG 2111 Electric Circuits Laboratory</u>	1
<u>PHYS 3023 Mechanics</u> or <u>PHYS 3213 Modern Physics</u>	3	<u>ELEG 2113 Electric Circuits II</u>	3
<u>PHYS 4113 Advanced Physics Laboratory</u> <sup>4</sup> or MATH (3000-4000 level) <sup>2</sup>	3	<u>PHYS 4003 Thermodynamics and Statistical Mechanics</u> or <u>PHYS 3003 Optics</u>	3
<u>PHYS 4213 Advanced Topics in Physics and Astronomy</u> or <u>MCEG 3013 Mechanics of Materials</u> <sup>3</sup>	3	<u>PHYS 4013 Quantum Mechanics</u> or <u>PHYS 3133 Theory of Electricity and Magnetism</u>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>13</b>

<b>Fall</b>		<b>Senior</b>	
		<b>Spring</b>	
<u>U.S. History/Government</u> <sup>1,T</sup>	3	<u>ELEG 4951 Undergraduate Research in Electrical Engineering</u> or <u>ELEG 4991/MCEG 4991 Special Problems in Engineering</u>	1
<u>PHYS 3213 Modern Physics</u> or <u>PHYS 3023 Mechanics</u>	3	<u>MCEG 4403 Mechanics of Fluids and Hydraulics</u> <sup>3</sup>	3
<u>PHYS 4113 Advanced Physics Laboratory</u> <sup>4</sup> or MATH (3000-4000 level) <sup>2</sup>	3	<u>MCEG 4443 Heat Transfer</u>	3
<u>PHYS 4213 Advanced Topics in Physics and Astronomy</u> or <u>MCEG 3013 Mechanics of Materials</u> <sup>3</sup>	3	<u>PHYS 3133 Theory of Electricity and Magnetism</u> or <u>PHYS 4013 Quantum Mechanics</u>	3
<u>PHYS 4951 Undergraduate Research in Physics</u> or <u>PHYS 4991 Special Problems in Physics and Astronomy</u>	1	<u>PHYS 4003 Thermodynamics and Statistical Mechanics</u> or <u>PHYS 3003 Optics</u>	3
ELEG/MCEG Elective (3000-4000 level)	3	ELEG/MCEG Elective (3000-4000 level)	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>Excluding MATH 3003 Foundations of Number Systems, MATH 3033 Methods of Teaching Elementary Mathematics, and MATH 4113 History of Mathematics.

<sup>3</sup>PHYS 3023 Mechanics and PHYS 4003 Thermodynamics and Statistical Mechanics will satisfy the prerequisites for MCEG 3013 Mechanics of Materials and MCEG 4403 Mechanics of Fluids and Hydraulics for engineering physics majors.

<sup>4</sup>Must complete both the PHYS class and one MATH upper division elective (PHYS course offered in alternating years).

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

The minor in engineering physics is for engineering students or physical science students wishing to obtain additional background to support their major degree and enhance their employment opportunities. The minor in engineering physics requires 20 hours of courses:

\*PHYS Electives (11 hours)

\*PHYS Electives (9 hours of 3000 or 4000 level)

\*No more than one credit hour can be a seminar course or special problem

## Physical Science

The baccalaureate degree in physical science offers a program of study in which the student can elect a major emphasis in the physical sciences department. The curriculum is designed with enough flexibility so that students may prepare for a number of professions that require technical skills and a broad physical sciences background. It is well suited for students anticipating the teaching of science in the secondary schools and for students planning a military career as it affords a desirable general scientific background.

To qualify for a baccalaureate degree in physical science, the student must complete the following minimum number of semester hours: eight hours in biology, eight hours in chemistry, eleven hours in physics, four hours in geology, and eleven hours in mathematics. The student must also complete additional hours in four of the following subject areas: chemistry, engineering, geology, mathematics, physics, and physical science ([PHSC 1004 Principles of Environmental Science](#), [PHSC 1013 Introduction to Physical Science](#), [PHSC 1021 Physical Science Laboratory](#), [GEOL 1004 Essentials of Earth Science](#) may not be counted in these hours).

### Curriculum in Physical Science

The matrix below is a sample plan for all coursework required for this program

		<b>Freshman</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>		3 <a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
BIOL Elective		4 <a href="#">Social Sciences</a> <sup>1,T</sup>	3
<a href="#">MATH 1113 College Algebra</a> <sup>T</sup>		3 <a href="#">MATH 2914 Calculus I</a> <sup>T</sup>	4
<a href="#">CHEM 2124 General Chemistry I</a> <sup>T</sup>		4 <a href="#">CHEM 2134 General Chemistry II</a> <sup>T</sup>	4
<a href="#">PHSC 1001 Orientation to Physical Science</a>		1 <a href="#">PHSC 1011 Orientation to Physical Science II</a>	1
<b>Total Hours</b>		<b>15 Total Hour</b>	<b>15</b>
		<b>Sophomore</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>		3 <a href="#">Fine Arts &amp; Humanities</a> <sup>1,T</sup>	3
<a href="#">Social Sciences</a> <sup>1,T</sup>		3 <a href="#">U.S. History/Government</a> <sup>1,T</sup>	3
<a href="#">MATH 2924 Calculus II</a> <sup>T</sup>		4 BIOL Elective	4
<a href="#">PHYS 2014 Physical Principles I</a> or <a href="#">PHYS 2114 General Physics I</a> <sup>T</sup>		4 <a href="#">PHYS 2024 Physical Principles II</a> or <a href="#">PHYS 2124 General Physics II</a> <sup>T</sup>	4
<a href="#">GEOL 1014 Physical Geology</a> <sup>T</sup>		4	
<b>Total Hours</b>		<b>18 Total Hours</b>	<b>14</b>
		<b>Junior</b>	
<b>Fall</b>		<b>Spring</b>	
<a href="#">COMS 2803 Programming in C</a>		3 <a href="#">Social Sciences/Fine Arts/Humanities/Speech</a> <sup>1,T</sup>	3
<a href="#">PHYS 3213 Modern Physics</a> or Elective (3000-4000 level) <sup>3</sup>		3 PHSC/MATH/ENGR Elective <sup>2</sup>	3
<a href="#">PHSC 3053 Astronomy</a>		3 PHSC/MATH Elective (3000-4000 level) <sup>2</sup>	6
PHSC/MATH/ENGR Elective <sup>2</sup>		3 Elective	3
PHSC/MATH Elective (3000-4000 level) <sup>2</sup>		4	
<b>Total Hours</b>		<b>16 Total Hours</b>	<b>15</b>

<b>Fall</b>	<b>Senior Spring</b>	
<a href="#">PHYS 3213 Modern Physics</a> or Elective(3000-4000 level) <sup>3</sup>	3	<a href="#">PHSC 3033 Meteorology</a> 3
Elective(3000-4000 level)	11	PHSC/MATH Elective (3000-4000 level) <sup>2</sup> 7
	Elective	3
<b>Total Hours</b>	<b>14 Total Hours</b>	<b>13</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)". A specific general education core course does not have to be taken in the semester listed, any other part of the general education core at any time is acceptable as well.

<sup>2</sup>Excluding [GEOL 1004 Essentials of Earth Science](#), [MATH 3003 Foundations of Number Systems](#), [MATH 3033 Methods of Teaching Elementary Mathematics](#), [MATH 4113 History of Mathematics](#), [PHSC 1004 Principles of Environmental Science](#), [PHSC 1013 Introduction to Physical Science](#), and [PHSC 1021 Physical Science Laboratory](#).

<sup>3</sup>Must complete both the PHYS class and one upper division elective (PHYS course offered in alternating years) (upper division = 3000-4000 level)

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Minor Physical Science

The minor in physical science is for students wishing to obtain additional background to enhance their employment opportunities. The minor in physical science requires 20 hours of courses:

\*Electives (11 hours chosen from CHEM, GEOL, PHSC, or PHYS)

\*Electives (9 hours of 3000 or 4000 level chosen from CHEM, GEOL, PHSC, or PHYS)

\*No more than one credit hour can be a seminar course or special problem

# College of Professional Studies and Community Outreach

The College of Professional Studies and Community Outreach offers a broad range of credit, non-credit, special interest, professional development, management, leadership, and leisure-learning courses. The College is responsive to the needs of the area and strives to offer programs and services which support a diverse target audience including business and industry, educational and government agencies, professional groups and associations, and the general community.

61 Lake Point Lane  
Lake Point Conference Center  
(479) 968-0318  
Fax: (479) 968-0205

## Mission Statement

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The mission of the College of Professional Studies and Community Outreach is to provide participating students with a theoretical and practical educational foundation to enhance their current professional capabilities as well as prepare them for new career opportunities in highly specialized technical and service industry positions.

## Programs of Study

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The Department of Professional Studies offers programs of study leading to baccalaureate and associate degrees as listed below:

### Bachelor of Professional Studies

Professional Studies

(Areas of Concentration)

- Agriculture Business (all courses not available online)
- Applied Leadership
- Criminal Justice
- Early Childhood Education (Note: Does not lead to K-6 certification)
- Industrial/Organizational Psychology
- Information Technology
- Interdisciplinary Studies
- Public Relations

### Associate of Science

[Early Childhood Education](#)

### Bachelor of Professional Studies

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The Bachelor of Professional Studies (BPS) is an online Accelerated Degree Program (ADP) which offers a flexible degree completion path addressing the unique needs of particular target groups. The accelerated delivery format is designed to ease the financial, time, and geographic constraints adults face in completing a baccalaureate program. Students complete the necessary hours for the degree within a convenient yet directed scheduling format under the guidance of advisors who understand the unique needs of the adult learner. The primary target groups include:

- Students graduating from community colleges
- Adults pursuing full-time careers or raising their families
- Degree “stop-outs” who began but never completed a bachelor’s degree
- Individuals who have accumulated hours that cannot be applied toward a specific major
- Entering freshmen seeking maximum diversity for career decisions.

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The degree’s focus is to successfully prepare graduates for entry or advancement in government, nonprofit, corporate, or industrial careers. The curriculum is designed to enhance workplace skills such as planning, organizational behavior, ethics, needs assessment, problem solving, communications, human resources, and technology applications.

Students may select one of the following concentration areas: agriculture business, applied leadership, early childhood education, information technology, industrial/organizational psychology, criminal justice, interdisciplinary studies, or public relations. The degree will follow the same guidelines as all other bachelor’s degrees in requiring 35 hours of general education coursework and a minimum of 40 hours of upper division courses.

## Program of Study (BPS)

General Education coursework or enrollment in courses as needed: 35 hours

Required Professional Core: 24 hours

[BUAD 2003 Business Information Systems](#) (OR)

[COMS 1003 Introduction to Computer Based Systems](#)

[ENGL 2053 Technical Writing](#)

[SPH 2173 Business and Professional Speaking](#) (dual credit in General Education)

[PS 3003 Project Design](#)

[PS 3023 Professional Communications](#)

[PS 3133 Applied Principles of Personnel Management](#)

[PS 3143 Applied Professional Research](#)

[PS 4003 Capstone Project](#)

Courses recommended in the Individual Plan of Study: 18 hours

Agriculture Business (all courses not available online)

Applied Leadership

Criminal Justice

Early Childhood Education (Note: Does not lead to K-6 certification)

Industrial/Organizational Psychology

Information Technology

Interdisciplinary Studies

Public Relations

[PS 3001 Portfolio Development for Prior Learning Assessment](#): Up to 12 hours

Balance of electives: Varies

Hours needed to meet 40-hour upper division requirement  
or balance of 120 hours

Total : 120 hours

## Prior Learning Assessment (PLA)

A Prior Learning Assessment (PLA) process is available which will award up to 12 hours of upper-division credit for relevant work experience, professional development, or military training through a portfolio course which provides the required documentation for determining the number of hours of credit which can be awarded.

### Learning Objectives for Professional Studies Degree

- Communication: Student will demonstrate competency in public presentation and written communication skills.
- Research: Student will apply empirical research to recommend relevant strategies for solving problems.
- Leadership/Critical Thinking: Student will assume a leadership role in identifying and addressing issues in a real-world environment.
- Project Management: Student will create, plan, and implement relevant strategies needed to develop a business proposal.

## Curriculum in Professional Studies

The matrix below is a sample plan for all coursework required for this program

	Freshman		
Fall		Spring	
<a href="#">ENGL 1013 Composition I</a> <sup>1,T</sup>	3	<a href="#">ENGL 1023 Composition II</a> <sup>1,T</sup>	3
Science with Lab <sup>1,T</sup>	4	Science with Lab <sup>1,T</sup>	4
<a href="#">Social Sciences</a> <sup>1,T</sup>	3	<a href="#">Social Sciences</a> <sup>1,T</sup>	3
Specialty Course	3	Specialty Course	3

<u>COMS 1003 Introduction to Computer Based Systems</u> or	3	<u>Mathematics</u> <sup>1,T</sup>	3
<u>BUAD 2003 Business Information Systems</u> <sup>T</sup>			
<u>TECH 1001 Orientation to the University</u>	1		
<b>Total Hours</b>	<b>17</b>	<b>Total Hours</b>	<b>16</b>

### Sophomore

<b>Fall</b>		<b>Spring</b>	
<u>ENGL 2053 Technical Writing</u> <sup>T</sup>	3	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3	<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	3
<u>SPH 2173 Business and Professional Speaking</u> <sup>T</sup>	3	Technical Course <sup>2, T</sup>	3
Specialty Course	3	Specialty Course	3
Elective	3	Elective (3000-4000 Level) <sup>3</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>PS 3133 Applied Principles of Personnel Management</u>	3	<u>PS 3023 Professional Communications</u>	3
Specialty Course	3	<u>PS 3143 Applied Professional Research</u>	3
Technical Courses <sup>2, T</sup>	6	Technical Courses <sup>2, T</sup>	6
Elective (3000-4000 Level) <sup>3</sup>	3	Elective (3000-4000 Level) <sup>3</sup>	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>15</b>

### Junior

<b>Fall</b>		<b>Spring</b>	
<u>PS 3003 Project Design</u>	3	<u>PS 4003 Capstone Project</u>	3
Specialty Course	3	Technical Courses <sup>2</sup>	9
Technical Courses <sup>2</sup>	6		
Elective (3000-4000 Level) <sup>3</sup>	3		
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>12</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Technical courses taken as part of an associate degree or from a community college may be transferred into the BPS degree.

<sup>3</sup>At least 40 of the total hours required for graduation must be 3000-4000 level courses: no more than 30 hours of electives towards the degree may be taken from the College of Business.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

### Specialty/Concentration Areas:

#### Agriculture Business: 18 hours

Take: AGBU 2063 Principles of Agricultural Macroeconomics, AGBU 2073 Principles of Agriculture Microeconomics, AGBU 3133 Intermediate Agricultural Macroeconomics, AGBU 4003 Agri-Business Management, AGBU 4013 Agricultural Marketing, and AGBU 4023 Agricultural Finance.

#### Applied Leadership: 18 hours

Take: BUAD 3123 Management, BUAD 3143 Marketing, PS 4143 Nonprofit Governance, PS 4243 Planning for Adult Learners, PS 4343 Community Development, and PS 4443

#### Industrial/Organizational Psychology: 19 hours

Take: PSY 2003 General Psychology, PSY 2053 Statistics for the Behavioral Sciences, PSY 2074 Experimental Psychology and 9 hours from the following: PSY 2023 Consumer Psychology, PSY 3093 Industrial Psychology, PSY 4033 Psychological Tests and Measurements, PSY 4043 Social Psychology, PSY 4234 Field Placement.

#### Information Technology: 19 hours

Take: COMS 1333 Web Publishing I, COMS 1403 Orientation to Computing, Information, and Technology, COMS 1411 Computer and Information Science Lab, COMS 2003 Microcomputer Applications, COMS 2233 Introduction to Databases,



Professional Leadership.

COMS 2700 Networking and Architecture Laboratory, COMS 2703 Computer Networks and Architecture, and 3 hours COMS elective credit.

**Criminal Justice: 18 hours**

Take: CJ 2003 Introduction to Criminal Justice, CJ 2043 Crime and Delinquency, CJ 3023 Judicial Process, CJ 3103 The Juvenile Justice System, CJ 3153 Prison and Corrections and 3 hours of CJ elective.

**Interdisciplinary Studies: 18 hours**  
(Courses selected with advisor approval)

**Early Childhood Education: 18 hours**

Take: ECED 2001 Introduction to Early Childhood Education and ECED 2002 Field-Based Experience Seminar in Early Childhood (concurrent enrollment); ECED 3023 Foundations of Early Childhood Education and ECED 3033 Child Development (concurrent enrollment); EDMD 3013 Integrating Instructional Technology, MATH 2033 Mathematical Concepts I, and BIOL/PHSC 3213 Science Education in the Elementary School.

**Public Relations: 18 hours**

Take: COMS 2003 Microcomputer Applications, SPH 3033 Interviewing Principles and Practices, SPH 4153 Persuasive Theory and Audience Analysis, JOUR 3173 Public Relations Principles, JOUR 3273 Public Relations Writing, and JOUR 4173 Public Relations Project.

## Early Childhood Education

### Associate of Science

The Associate of Science in Early Childhood Education is an online degree structured to provide a seamless acquisition of academic requirements for various career levels in occupations related to child care and early childhood education in the public and private sectors. The early childhood education courses provide the academic requirements for meeting assessment guidelines for the Child Development Associate (CDA) credential. The general education courses can be applied toward the Bachelor of Professional Studies degree in Early Childhood Education.

**Assistant Professor:**  
Aulgur

### Learning Objectives for Early Childhood Education Degree

- Demonstrate knowledge and understanding of child development and learning
- Know about, understand, and value the role of a child's family, culture, and community in children's lives
- Work cooperatively with parents, using an understanding of the family as a context for young children's development
- Demonstrate knowledge, skills, and dispositions of a reflective early childhood practitioner
- Demonstrate knowledge of health, safety, nutrition, and administrative guidelines
- Develop a thorough understanding of child development and the value of play in children's learning
- Design developmentally-appropriate curriculum and classroom practices
- Adhere to ethical practices in the field of early childhood education

## Program of Study (A.S. – Early Childhood Education)

General Education coursework or enrollment in courses as needed: 35 hours

Required Coursework: 25 hours

- TECH 1001 Orientation to the University
- ECE 2113 Basic Child Growth and Development
- ECE 2313 Foundations and Theories in Early Childhood Education
- ECE 2513 Curriculum for Early Childhood Education
- ECE 2613 Methods and Materials Using Developmentally Appropriate Practices and Activities for Young Children
- ECE 2991-9 Practicum in Early Childhood Education
- NUR 2303 Nutrition

### Curriculum in Early Childhood Education

The matrix below is a sample plan for all coursework required for this program

		Freshman		
Fall		Spring		
<u>ENGL 1013 Composition I</u> <sup>1,T</sup>		3	<u>ENGL 1023 Composition II</u> <sup>1,T</sup>	3
<u>Mathematics</u> <sup>1,T</sup>		3	<u>Speech</u> <sup>1,T</sup>	3

Science with Lab <sup>1,T</sup>	4	Science with Lab <sup>1,T</sup>	4
<u>Social Sciences</u> <sup>1,T</sup>	3	<u>Social Sciences</u> <sup>1,T</sup>	3
<u>ECE 2113 Basic Child Growth and Development</u>	3	<u>ECE 2313 Foundations and Theories in Early Childhood Education</u>	3
<u>TECH 1001 Orientation to the University</u>	1		
<b>Total Hours</b>	<b>17 Total Hours</b>		<b>16</b>

**Sophomore**

<b>Fall</b>		<b>Spring</b>	
<u>Fine Arts &amp; Humanities</u> <sup>1,T</sup>	6	<u>U.S. History/Government</u> <sup>1,T</sup>	3
<u>ECE 2513 Curriculum for Early Childhood Education</u>	3	<u>ECE 2991-9 Practicum in Early Childhood Education</u> <sup>2</sup>	9
<u>ECE 2613 Methods and Materials Using Developmentally Appropriate Practices and Activities for Young Children</u>	3	<u>NUR 2303 Nutrition</u>	3
<b>Total Hours</b>	<b>12 Total Hours</b>		<b>15</b>

<sup>1</sup>See appropriate alternatives or substitutions in "[General Education Requirements](#)".

<sup>2</sup>Enrollment must be approved by advisor.

<sup>T</sup>Designates a block of courses that would provide for a seamless transfer into this program if equivalent courses are taken at another college or university.

## Course Descriptions

In this section of the catalog, all courses taught at Arkansas Tech University are listed alphabetically by subject area. Courses fulfilling subject matter requirements in more than one area are cross-listed; e.g., the listing POLS(HIST) 4043 is offered for three semester hours of credit in either political science or history. For departmental write-ups and detailed curricula of programs of study, see the appropriate division of the preceding section.

Course numbers are to be interpreted as follows:

The first digit refers to the level of the course: 1-freshman, 2-sophomore, 3-junior, 4-senior; 0-designates a course that cannot be used to satisfy general education requirements nor provide credit toward any degree.

Normally, the middle two digits merely differentiate the course from others and have no meaning for the student, and the last digit refers to the number of hours of credit allowed for the course. Exceptions to this include internships, externships, practicums and variable credit classes where hours earned can be 10 or more. In these cases, the last two numbers refer to the number of hours of credit allowed for the course.

Typically an hour of credit requires one hour of classroom work per week for the duration of a semester.

[\(ACCT\) Accounting](#)  
[\(AGAS\) Agricultural Animal Science](#)  
[\(AGBU\) Agricultural Business and Economics](#)  
[\(AGED\) Agricultural Education](#)  
[\(AGEG\) Agricultural Engineering/Mechanization](#)  
[\(AGLE\) Agricultural Leadership](#)  
[\(AGPM\) Agricultural Pest Management](#)  
[\(AGPS\) Agricultural Plant Science](#)  
[\(AGSS\) Agricultural Soil Science](#)  
[\(AHS\) Allied Health Science](#)  
[\(AMST\) American Studies](#)  
[\(ANTH\) Anthropology](#)  
[\(ART\) Art](#)  
[\(BDA\) Business Data Analytics](#)  
[\(BIOL\) Biology](#)  
[\(BLAW\) Business Law](#)  
[\(BUAD\) Business Administration](#)  
[\(CHEM\) Chemistry](#)  
[\(CHIN\) Chinese](#)  
[\(CSP\) College Student Personnel](#)  
[\(COMS\) Computer and Information Science](#)  
[\(CJ\) Criminal Justice](#)  
[\(CUL\) Culinary](#)  
[\(DE\) Driver Education](#)  
[\(ECE\) Early Childhood Education - Associate Degree Program](#)  
[\(ECED\) Early Childhood Education - Bachelor Degree Program](#)  
[\(ECON\) Economics](#)  
[\(EDMD\) Educational Media](#)  
[\(ELED\) Elementary Education](#)  
[\(ELEG\) Electrical Engineering](#)  
[\(EAM\) Emergency Administration and Management](#)  
[\(ENGL\) English](#)  
[\(FIN\) Finance](#)  
[\(FW\) Fisheries and Wildlife Science](#)  
[\(FR\) French](#)  
[\(GEOG\) Geography](#)  
[\(GEOL\) Geology](#)  
[\(GER\) German](#)  
[\(HLED\) Health Education](#)  
[\(HIM\) Health Information Management](#)  
[\(HIST\) History](#)  
[\(HONR\) University Honors](#)  
[\(HA\) Hospitality Administration](#)  
[\(HUM\) Humanities](#)  
[\(JPN\) Japanese](#)  
[\(JOUR\) Journalism](#)

(LAT) Latin  
(LBMD) Library Media  
(MGMT) Management  
(MKT) Marketing  
(MATH) Mathematics  
(MCEG) Mechanical Engineering  
(MEDT) Medical Technology  
(MLEL) Middle Level Education  
(MS) Military Science - ROTC  
(MUSM) Museum  
(MUS) Music  
(MUS) Music - Musical Performance  
(MUS) Music - Music Ensembles  
(NUR) Nursing  
(NURN) Nursing for Registered Nurses  
(PHIL) Philosophy  
(PE) Physical Education - Activities  
(PE) Physical Education - Academic  
(PHSC) Physical Science  
(PHYS) Physics  
(POLS) Political Science  
(PS) Professional Studies  
(PSY) Psychology  
(READ) Reading  
(RDNG) Reading - Elementary Education  
(RP) Recreation and Park Administration - Coeducational Activities  
(RP) Recreation and Park Administration - Academic  
(RS) Rehabilitation Science  
(SEED) Secondary Education  
(SOC) Sociology  
(SPAN) Spanish  
(SPED) Special Education  
(SPH) Speech  
(TECH) University Orientation  
(TH) Theatre  
(VOBE) Vocational Business Education  
(WS) Wellness Science - Activities  
(WS) Wellness Science - Academic

## Accounting Course Descriptions

### ACCT 2000: Accounting Principles I Lab

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Co-requisite for ACCT 2003 Accounting Principles I.

### ACCT 2003: Accounting Principles I

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ACTS Common Course - ACCT2003\*

Prerequisites: A grade of C or higher in BUAD 2003 and MATH 2223 or MATH 2243.

Co-requisite: ACCT 2000.

Fundamental process of accounting, books of original entry, preparation of working papers, adjusting entries, and financial statements for sole proprietorships.

Note: Accounting majors may not repeat this course to raise grade point in their major field after completing ACCT 3013.

### ACCT 2013: Accounting Principles II

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ACTS Common Course - ACCT2013

Prerequisite: ACCT 2003

Accounting processes applied to corporations and partnerships. Manufacturing cost, income tax, managerial reports, cash flow, and statement analysis.

Note: Accounting majors may not repeat this course to raise grade point in their major field after completing ACCT 3013.

### ACCT 3003: Intermediate Accounting I

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Prerequisites: ACCT 2013; junior standing in College of Business. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A comprehensive study of accounting theory governing preparation of financial statements with emphasis on conceptual framework, development of accounting standards, and the recording and reporting process. Cash, receivables, inventories, property, plant and equipment, intangible assets, and other selected topics.

### ACCT 3013: Intermediate Accounting II

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Prerequisites: ACCT 3003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Continuation of ACCT 3003. Topics covered include current and long-term liabilities, contingencies, stockholders' equity, earnings per share, temporary and long-term investments, revenue recognition, accounting changes, cash flows, statement analysis, and disclosure in financial reporting.

### ACCT 3023: Accounting Information Systems

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Offered: Spring

Prerequisites: MGMT 2013 or BDA 2003 and ACCT 3003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of accounting information processing, the systems concept, the analysis and design of accounting information systems, and database hardware and software technology as they apply to producing accounting information to be used in decision making.

### ACCT 3043: Federal Taxes I

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Prerequisites: ACCT 2013. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of federal income tax laws and their relationship to other forms of taxation with primary emphasis on the determination of federal income tax liability and tax planning for individuals.

### **ACCT 3053: Federal Taxes II**

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Prerequisites: ACCT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of federal income tax laws with primary emphasis on the determination of federal income tax liability and tax planning for entities other than individuals.

### **ACCT 3063: Managerial Accounting**

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Prerequisites: ACCT 2013. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of accounting principles, concepts and procedures as an aid to management for internal use in planning, controlling and decision making. Financial statements, cost accounting, cost behavior, budgets, capital expenditures, pricing decisions, and other selected topics will be covered.

### **ACCT 4003: Advanced Accounting I**

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Prerequisites: ACCT 3013. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A comprehensive study of complex accounting problems involving financial statement treatment of income taxes, pensions, and leases. Problems underlying accounting for partnerships, corporate liquidations and reorganization, and estates and trusts are examined.

### **ACCT 4013: Advanced Accounting II**

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Prerequisites: ACCT 3013. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A comprehensive study of complex problems involving mergers and acquisitions, consolidated financial statements, segment and interim reporting, multinational accounting, SEC, and accounting theory.

### **ACCT 4023: Cost Accounting**

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Offered: Spring

Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Basic principles of cost accounting, departmentalization, budgets, standard cost, variance analysis, job order and process costs.

### **ACCT 4033: Auditing**

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Offered: Fall

Prerequisites: ACCT 3013. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Auditing procedures and concepts, audit working papers and reports, evaluation of internal controls, legal and ethical environment.

### **ACCT 4071,4072,4073: Seminar in Accounting**

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Prerequisites: Permission of the Department. Additional prerequisites for 3000 and 4000 level courses are listed in the



College of Business section of this catalog.

Accounting topics of current interest will be covered. Coverage will include international accounting practices, S.E.C., and accounting ethics. Cases and small group activities will be utilized. Participants will prepare and present written and oral reports on topics under study. Credit for one to three hours may be earned depending upon the material covered.

### **ACCT 4083,4086: Internship in Accounting**

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Prerequisites: Permission of the Accounting Department Head and senior standing. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A structured assignment which allows a senior accounting major to gain "real world" professional experience in an accounting position relating to an area of career interest. The student works full-time one semester in the office of a cooperating firm under the supervision of a member of management of that firm. An accounting faculty member will observe and consult with the student and the cooperating firm's management periodically during the period of internship. A term paper prepared by the student will be required.

### **ACCT 4093: Governmental Accounting**

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Prerequisites: ACCT 3013. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Study of GAAP underlying accounting for governmental/ nonprofit entities. Governmental, Proprietary, and Fiduciary funds along with Fixed Asset and Long-term Liability Account Groups are covered.

### **ACCT 4103: Special Topics in Accounting**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course provides in-depth exploration of selected accounting topics. The primary topic will vary from offering to offering; thus, the course may be taken more than once.

# Agriculture Animal Science Course Descriptions

## **AGAS 1001: Principles of Animal Science Laboratory**

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Study of management and the facilities used in the production of beef cattle, swine, sheep, and horses.

Note: Laboratory mandatory for all animal science majors. Optional for others.

Laboratory two hours.

## **AGAS 1014: Principles of Animal Science**

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A study of the American livestock industry and the scientific principles underlying the management and production of livestock and poultry.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGAS 2084: Feeds and Feeding**

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Prerequisites: AGAS 1014 and CHEM 1113 and CHEM 1111 or consent of instructor.

Principles of animal nutrition, characteristics of feed ingredients, feeding strategies and formulation of rations for farm animals.

Lecture three hours, laboratory two hours.

## **AGAS 3004: Reproduction in Farm Animals**

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Prerequisite: AGAS 1014 or consent of instructor.

Anatomy and physiology of the reproductive system of farm animals; to include a study of the causes of reproductive failure, management to improve reproductive efficiency, and practical training in pregnancy testing and artificial insemination of cattle.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGAS 3014: Beef Cattle Management**

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Prerequisite: AGAS 1014 or consent.

A study of practices in management of beef cattle including breeding, feeding, care and marketing, with emphasis on production in the South.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGAS 3021: Livestock Selection and Evaluation**

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Offered: Fall

Prerequisites: AGAS 1014 and AGAS 2083

This course is offered as a study in livestock selection according to desirable characteristics for cattle, swine, sheep, goats, and poultry. Evaluation criteria are presented according to industry standards for species' breeds and expected market production. Students will be expected to develop safe handling practices with live animals.

\$20 laboratory fee.

## **AGAS 3104: Swine Management**

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Prerequisite: AGAS 1014 or consent of instructor.

A study of current practices during the farrowing, growing, and finishing phases of swine production. Topics covered include housing, feeding, scheduling, reproduction, disease control, and waste disposal.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

### **AGAS 3113: Light Horse Production**

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Prerequisite: AGAS 1014 or consent of instructor.

A study of breeding, feeding, management, and disease control practices in light horse production.

### **AGAS 3303: Poultry Management**

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Prerequisite: Junior standing or consent of instructor.

A study of the management practices involved in the various phases of the production of eggs, broilers, turkeys, and breeders.

### **AGAS 3323: Poultry Nutrition**

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Prerequisite: Junior standing or consent of instructor.

An introductory course in poultry nutrition. A study of the essential nutrients for poultry, available sources of these nutrients and formulation of diets that supply the nutrients in their appropriate amounts.

### **AGAS 3343: Regulatory Affairs of the Food Industry**

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Prerequisites: AGAS 1014, and Junior standing or consent of instructor

Regulatory Affairs of the Food Industry course is designed to offer a combination of theory and practical training for students in the field of food regulatory affairs. In this field, rapidly evolving regulations and expansion of international markets create an increasing need to train students in the implementation of regulatory guidelines, industry's compliance with regulations, and the regulatory strategies of companies looking to create a sustainable competitive advantage in the food industry.

### **AGAS 3933: Animal Breeding and Genetics**

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Offered: Fall

Prerequisites: AGAS 1014 and BIOL 1014 or Higher

Basic principles of Mendelian and quantitative genetics as they apply to the improvement of farm animals. Selection, inbreeding, crossbreeding and their application to the improvement of beef cattle, dairy cattle, swine, horses and poultry as well as the genetic control of coloration and defects in cattle and horses are included.

### **AGAS 4203: Livestock and Poultry Nutrition**

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Prerequisites: AGAS 2084, CHEM1113, CHEM 1111 or consent of instructor.

Digestion, absorption of nutrients, and metabolism of farm animals. Includes a study of the requirements for maintenance, growth, activity, and reproduction of ruminants and non-ruminants.

### **AGAS 4403: Poultry and Livestock Disease**

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Prerequisite or Co-requisite: Junior standing or consent of the instructor

A study of the diseases of poultry and livestock, particularly those common to Arkansas and surrounding states. Emphasis will be placed on the recognition of the disease and methods to control and/or prevent the disease.

# Agricultural Business/Economic Course Descriptions

## **AGBU 1001: Agriculture Orientation**

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Agriculture Orientation is a freshman course with attention given to sharing of possible solutions to individual problems. Learning experiences also include exploration of anticipated collegiate experiences for departmental majors in addition to post-graduation opportunities. Student and faculty interaction is stressed.

## **AGBU 1013: Principles of Agricultural Business**

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Overview of the economic theories associated with the production, consumption, and marketing of agricultural products, and with the policies designed to achieve efficiency and welfare goals in agriculture.

## **AGBU 2063: Principles of Agricultural Macroeconomics**

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Prerequisite: AGBU 1013

A study of macroeconomic variables that affect agriculture with emphasis on consumption, unemployment, inflation, government spending and taxes, investments, national income, and money and banking.

## **AGBU 2073: Principles of Agriculture Microeconomics**

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Prerequisite: AGBU 1013

A study of microeconomics variables that affect agriculture with emphasis on price determination, production, costs, income distribution, perfect and imperfect competition.

## **AGBU 2103: A Global Perspective: Resources, Food, and Society**

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Prerequisites or Co-requisites: ENGL 1013 and SPH 2003 or SPH 2173

A study of food and fiber production and distribution problems, policies, and processes analyzed within social, economic, political, and cultural contexts. The course will address issues related to feeding a growing world population.

## **AGBU 3133: Intermediate Agricultural Macroeconomics**

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Prerequisites: AGBU 2063 and 2073 or consent of instructor.

A study of macroeconomic theory and its application to the agriculture industry.

## **AGBU 3213: Career Development in Agriculture**

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Prerequisite: Junior standing

Study of the professional opportunities and responsibilities associated with agricultural business careers. Interaction with professionals in the chosen career along with development and improvement of written communication, oral communication, and leadership skills.

\$20 laboratory fee.

## **AGBU 3993: Internship I in Agriculture**

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Prerequisite: Approval of the department head.

A supervised, practical experience providing undergraduate agribusiness majors with a hands-on, professional experience in a position relating to an area of career interest. The student will work in a local cooperating agribusiness establishment under the supervision of a member of management of that firm. A minimum of 300 clock hours of supervision, maintain a weekly internship log and prepare a final report.

Note: Only three hours of Internship I in Agriculture may be used to satisfy the curriculum requirements for a B.S. degree in Agribusiness.

## **AGBU 4003: Agri-Business Management**

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Prerequisites: AGBU 1013, Junior standing, or consent of the instructor.

A study of the managerial practices and procedures that apply to all agriculture businesses. Emphasis is placed on the use and application of management and economic principles in decision making directed toward profit maximization.

## **AGBU 4013: Agricultural Marketing**

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Prerequisites: AGBU 2063 and 2073, or consent of instructor.

A study of marketing functions, practice, organizational structure, legal aspects of agricultural marketing in relation to marketing policies, analysis of consumer behavior, and market demand.

## **AGBU 4023: Agricultural Finance**

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Prerequisites: AGBU 2063 and 2073 and ACCT 2003

Designed as an economic and accounting study of the processes in agricultural businesses. Manufacturing costs, income tax, managerial reports, cash flow, and statement analysis of agricultural businesses along with capital allocation and the purpose and efficiency of agricultural lending institutions are analyzed.

## **AGBU 4033: Agricultural Policy**

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Prerequisites: AGBU 2063 and 2073 or consent of instructor.

Designed as an introduction to historical and current federal governmental legislation in agriculture. Specific emphasis is placed on the logic, beliefs, attitudes and values of the American people coincident with the social, economic, and political environment, and on evaluating the objectives, means and the observed results through the criteria of resource allocation and income distribution in the agricultural sector of the economy.

## **AGBU 4043: Appraisal of Farm Real Estate**

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Prerequisites: AGBU 2063 and 2073, or consent of instructor.

A practical application of principles and practices in farm real estate evaluation, emphasizing the processes of value development and uses.

## **AGBU 4053: Agricultural Price Analysis**

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Prerequisites: AGBU 2063 and 2073

Study of the trends, cycles, and seasonal patterns associated with agricultural markets and institutional arrangements. Graphical and statistical analysis of commodity data and the fundamentals of agricultural futures markets are covered.

## **AGBU 4063: Agricultural Investments**

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Prerequisites: AGBU 2063 and AGBU 2073, senior standing or consent of instructor.

An in-depth analysis of investment opportunities available in the field of agriculture. Emphasis will be on investment in stocks, bonds, agricultural commodities, futures hedging, and in international currencies. Students will be required to create and maintain a diversified investment portfolio with weekly monitoring of their chosen investments.

## **AGBU 4073: Commodity Risk and Futures**

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Prerequisites: AGBU 1013, 2063, and 2073, or consent of instructor

An introductory study of grain and livestock futures markets, options, and their relationship to the cash market.

## **AGBU 4153: Computers in Agriculture**

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Prerequisites: AGBU 1013, AGBU 2063, AGBU 2073, and COMS 1003 or consent of instructor

An introduction to the use of Microsoft Office, especially Excel, and the different price information sources in the agriculture field.

## **AGBU 4951,4952,4953,4954: Undergraduate Research in Agricultural Business and Economics**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **AGBU 4973: Senior Seminar in Agriculture Business**

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Prerequisite: Senior standing

This seminar is designed as a capstone course for the Agriculture Business degree. In the capstone experience, students are coached/coaxed to bridge the gap between the structured learning of traditional classroom and the dynamic agricultural business environment - which puts a premium on motivation, initiative and creativity. Students will be challenged to integrate their accumulated knowledge and technical and social skills in order to identify and solve a problem relevant to issues encountered by professionals in their chosen discipline and to communicate the results of their efforts to their peers. In doing so, students will have the opportunity to demonstrate their ability to adapt to professional situations. It is hoped that this experience will transition students from dependent learners to self-directed learners and stimulate students' appreciation of the need for lifelong learning and initiate professional and personal liaisons.

## **AGBU 4983: Internship II in Agriculture**

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Prerequisites: Internship I in Agriculture, approval of the department head, junior or senior standing, minimum of 2.5 GPA overall.

A supervised, practical experience providing undergraduate agribusiness majors with a hands-on, professional experience in a position relating to an area of career interest. The student will work in a local cooperating agribusiness establishment under the supervision of a member of management of that firm. A minimum of 300 clock hours of supervision, maintain a weekly internship log, prepare a final report and present at least a 15 minute seminar to the agriculture department.

Note: Only three hours of Internship II in Agriculture may be used to satisfy the curriculum requirements for a B.S. degree in Agribusiness.

## **AGBU 4991,4992,4993,4994: Special Problems in Agriculture**

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Prerequisite: Permission of the department.

One to four hours credit, depending on the nature and extent of the problem. This is a course designed to introduce qualified students to specific agricultural areas including Agribusiness, Animal Science, Horticulture, or Plant Science.

Note: only six hours of Special Problems in Agriculture may be used to satisfy the curriculum requirements for the B.S. degree in Agribusiness.



# Agricultural Education Course Descriptions

## **AGED 1001: Introduction to Agricultural Education**

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Freshman orientation with attention given to sharing of possible solutions to individual problems. Exploration of anticipated collegiate experiences for departmental majors as well as post-graduation opportunities. Student and faculty interaction is stressed.

The class meets one day a week for the full semester or two days a week for half a semester.

## **AGED 1013: Agricultural Youth Organizations**

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A comprehensive introduction to student organizations in agriculture and career and technical education, including 4-H and FFA. Special attention is given to topics related to membership, benefits, awards, and special recognition programs. Supervised agricultural experience programs are also addressed.

## **AGED 2104: Introduction to Agricultural Systems Technology**

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Prerequisite: Sophomore standing

The purpose of this course is for the student to develop an understanding of, and be able to apply, the basic principles utilized in agricultural mechanization with emphasis in the areas of structures, power and machinery, electricity, and agricultural surveying and land measurement. Discussion of the role mechanics plays in agriculture, as well as future roles is included.

\$50 course fee.

## **AGED 2203: Applied Agricultural Systems Technology**

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Prerequisite: AGED 2104

This course is designed to prepare secondary Arkansas agriculture teachers to apply agricultural systems technology in the laboratory. Content areas include safe practices in the laboratory, metalworking, woodworking, internal combustion engines, electrical wiring, tractor mechanics, paint & preservation.

\$50 course fee.

## **AGED 3013: Principles of Farm Management**

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Prerequisite: AGBU 1013, Junior standing, or consent of instructor.

A study of the principles of agribusiness including ways of doing business in a free market economic system, entrepreneurship, business start-up, business plans, management, facility needs, legal aspects and tax responsibilities, personnel, and ethics.

## **AGED 3033: Philosophy and Foundations of Program Development**

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Prerequisite: AGED 1013 or consent of instructor.

This course provides a comprehensive overview of the historical and philosophical foundations of Agricultural Education programs. Based on this foundation, the course will prepare pre-service teachers for the job and responsibility of developing a local program and curriculum that incorporates local, national and international agricultural policy issues as they relate to lecture and discussion on issues related to the global food, fiber, and natural resource system.

## **AGED 4033: Curriculum Design and Assessment**

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Prerequisite: AGED 3033 or consent of instructor

This course is designed to prepare pre-service educators for the responsibility of developing philosophical approaches, designing curricular programs, planning for effective instruction, and assessing student performance. Students will be expected to communicate effectively through both written and verbal presentation of information.

## **AGED 4044: Methods in Teaching Agriculture**

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Prerequisite: AGED 4033 or consent of instructor.

Instructional methodology course focused on teaching approaches and methods, problemsolving teaching techniques, and managing learning environments for teaching agriculture subjects in formal and nonformal educational settings.

\$25 course fee.

## Agriculture Engr/Mechanization Course Descriptions

### **AGEG 3203: Soil, Water and Forest Conservation**

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Prerequisite: Junior standing or consent of instructor.

Causes and control of soil and water losses; methods of erosion control; relationship of soil and water conservation to forest, recreation, pollution and wildlife management.

## Agricultural Leadership Course Descriptions

### **AGLE 3003: Personal Leadership Theory and Development**

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Prerequisite: Junior Standing

This course focuses on the knowledge, skills and attitudes that enhance personal effectiveness and professional success. Students will gain self-awareness and study leadership traits. Goal attainment, personal organization and critical thinking strategies are emphasized.

### **AGLE 3013: Team Leadership and Organizational Change**

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Prerequisite: Junior Standing

Principles and practices in planning, developing, conducting, and evaluating leadership programs for agricultural groups. The course focuses on helping students better understand themselves and others; improving group communication; becoming effective leaders and members of groups; improving leadership and personal development skills; assessing leadership situations, determining and administering appropriate leadership strategies, and evaluating results.

# Agricultural Pest Management Course Descriptions

## **AGPM 3104: Introduction to Entomology**

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Cross-listed: BIOL 3104

This course will introduce the student to insect diversity and the identification of the major families of insects. Laboratory time will be spent learning family characteristics and collecting and preserving insect specimens. Lecture will consist of topics such as insect diversity, morphology and physiology.

\$25 laboratory fee.

## **AGPM 3124: Applied Pest Control**

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Prerequisites: AGPS 1003, AGPM 3104, AGPS 3053, Junior standing or consent of instructor.

Advanced concepts and techniques used in modern pest control practices and the chemistry and environmental fate of pesticides.

\$20 laboratory fee.

## **AGPM 4103: Integrated Pest Management**

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Prerequisites: AGPS 1003, Junior standing or consent of instructor.

A systematic approach utilizing biological, cultural and genetic control methods to suppress pest numbers in agroecosystems.

# Agriculture Plant Science Course Descriptions

## **AGPS 1024: Principles of Plant Science**

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A study of important plant practices associated with horticulture and agronomic crop production, including classification of plants, the role of soil and the environment, plant management, cropping systems, and integrated pest management and harvest methods. Principles and practices in propagation of plants and sexual and asexual reproduction methods.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGPS 1033: Introduction to Forestry**

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General survey of the five fields of forestry; a preview of forestry subjects; forestry resources; some emphasis on silviculture, measurement, protection, utilization, preservation and forest administration.

## **AGPS 3023: Forage Crops and Pasture Management**

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Prerequisites: Junior standing or consent of instructor.

Selection, culture, production, distribution and uses of pasture and forage plants; management problems in hay and silage; emphasis on utilization and improvement of pasture.

## **AGPS 3044: Plant Propagation**

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Prerequisites: AGPS 1024, Junior standing or consent of instructor.

A study of the principles and practices in the propagation of herbaceous and woody indoor plants and flowers.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGPS 3053: Weed Ecology**

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Prerequisites: AGPS 1003 and Junior standing or consent of instructor.

The principles of weed ecology including weed demography and population dynamics, competition, interference, soil seed bank concept and systematic approaches to weed management.

## **AGPS 3064: Vegetable Growing**

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Prerequisites: AGPS 1024, Junior standing or consent of instructor.

The application of scientific facts and principles that are involved in the successful production of vegetables under cover and/or in the open.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGPS 3074: Floriculture**

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Prerequisites: AGPS 1024, Junior standing or consent of instructor.

Commercial production and marketing of major cut flower crops, bedding plants, and flowering pot plants under cover and/or in the open.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGPS 3083: Small Fruit and Nut Culture**

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Prerequisites: AGPS 1024, Junior standing or consent of instructor.

A study of the factors underlying the commercial and home production of small fruits and nuts, including a study of varieties, propagation, pruning, spraying, harvesting, and marketing.



## **AGPS 3093: Greenhouse Operation and Management**

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Prerequisites: AGPS 1024, Junior standing or consent of instructor.

Greenhouse construction and management of heating, cooling, moisture, fertilization, lighting, insect and disease control in the growth of major greenhouse crops.

## **AGPS 3244: Plant Pathology**

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Prerequisite: BIOL 2134 or BIOL 1014

Introductory course in plant diseases. A study of the causes, symptoms, spread and control of plant diseases. The emphasis is placed on the interaction between disease causing agents and the diseased plant and the way in which environmental conditions influence the mechanisms by which factors produce plant disease.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AGPS 4103: Crop and Garden Insects**

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Prerequisites: AGPS 1024, Junior standing or consent of instructor.

Anatomy, physiology, ecology, life history, and control of insects affecting crops and garden plants.

# Agriculture Soil Science Course Descriptions

## **AGSS 2014: Soils**

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Prerequisites: CHEM 1113 and CHEM 1111

Development, classification, and properties of soils. A review of the major areas of soil science and their application to agricultural production and the environment.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## Allied Health Science Course Descriptions

### **AHS 1023: Basic Pharmacology with an Overview of Microbiology**

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Enrollment is limited to medical assistant and health information management majors. Topics to be covered in addition to introductory pharmacology will include basic chemistry as it applies to the medical laboratory and a brief overview of microbiology and immunology. Basic pharmacology as it relates to the drug interaction with each of the body systems and classifications of drugs will be covered. Students will utilize the Physicians' Desk Reference (PDR) in the course.

### **AHS 2013: Medical Terminology**

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A study of the language of medicine including word construction, definition, and use of terms related to all areas of medical science, hospital service, and the allied health specialties.

Note: Duplicate credit for AHS 2013 and 3013 will not be allowed.

### **AHS 2022: Medical Laboratory Orientation and Instrumentation, Laboratory**

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Offered: Fall

Prerequisite: a grade of "C" or higher in BIOL 1114 or BIOL 2124.

Enrollment is limited to students enrolled in BIOL 2023. Topics covered will include laboratory orientation, laboratory procedures/ techniques, introduction to clinical laboratory instrumentation (both manual and automated), quality control principles, and care of equipment.

Laboratory four hours weekly. \$20 laboratory fee.

### **AHS 2023: Medical Laboratory Orientation and Instrumentation**

---

Offered: Fall

Prerequisites: Enrollment is limited to medical assistant and/or medical technology majors who have completed at least BIOL 1114 or BIOL 2124 (AHS 2013 recommended) with a grade of "C" or higher and are in the final year of their program at Tech.

This course is concerned with both the theoretical and practical application of a wide range of clinical duties performed by the medical assistant and medical technologist. Topics covered will include hematology, urinalysis, hemostatic processes, body chemistry, microbiology, and blood typing.

### **AHS 2032: Medical Assistant Clinical Practice Laboratory**

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Offered: Spring

Co-requisites: Enrollment is limited to medical assistant majors who are enrolled in AHS 2034 and in the final semester before the medical assistant externship assignment.

This course is designed to allow for practice in locale area clinics. Students will complete a two-hour laboratory in the simulated lab and will be assigned to three hours in area clinics on a weekly basis. While at the medical facility students will apply the theories and concepts covered in AHS 2023 and AHS 2034.

Laboratory five hours weekly. \$20 laboratory fee.

### **AHS 2033: Coding Principles for Medical Office**

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Prerequisites: AHS 2013, 1023, BIOL 2004, or permission of instructor.

A study of medical coding using ICD-9-CM and CPT codes in the medical office. Students will be taught to evaluate patients' medical records to correctly assign both diagnostic and procedural codes required for healthcare reimbursement in the medical office setting.

## **AHS 2034: Medical Assistant Clinical Practice**

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Offered: Spring

Prerequisites: AHS 2023 and 2022. Enrollment is limited to medical assistant majors.

Topics covered will include examination room techniques, sterilization procedures, operation and care of electrocardiograph, assisting with minor surgery, physiotherapy, pharmacology, medications and specialist assisting. Students must subscribe to malpractice liability insurance.

\$20 laboratory fee.

## **AHS 2044: Medical Assistant Administrative Practice**

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Offered: Fall

Prerequisite: AHS 2013. This course is open only to medical assistant majors in the final part of the program or by permission of the medical assistant program director.

A survey course emphasizing the business administrative duties of the medical assistant. Course content will include working with patients, medical records, medical dictation, office procedures, and office management. Student must subscribe to malpractice liability insurance.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **AHS 2053: Computers in the Medical Office with an Overview of Insurance Procedures**

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Offered: Spring

Prerequisites: HIM 2003, AHS 2044. This course is open only to medical assistant majors in the final part of the program or by permission of the medical assistant program director.

This course will prepare the medical assistant to work as an administrative medical assistant in a health care facility. Students are introduced to the computerization of the medical office using current operating systems. Topics covered will include recording information on patients, scheduling appointments, printing reports, producing patient statements and claim forms, and filing electronic claims.

## **AHS 2055: Externship**

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Offered: First summer term

Prerequisites: Completion of all other required courses in medical assistant curriculum.

The course is scheduled at the end of the program. It shall include the opportunity to perform various clinical and administrative procedures under supervision. The student will remain in a medical facility for a period of four weeks. Assignments may be made anywhere in Arkansas; students must assume the full financial responsibility for this assignment. A seminar will be scheduled for the fifth week. Student must subscribe to malpractice liability insurance.

## **AHS 2061: Medical Assistant Seminar**

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Offered: First summer term

Prerequisite: AHS 2055

A one week seminar scheduled for the week following the externship. Topics discussed will be based on those arising from the student's experiences while on his/her externship. Employment procedures will also be covered.

## American Studies Course Descriptions

### **AMST 2003: American Studies**

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An exploration of American culture through study of significant ideas, social issues and literary texts.

Note: AMST 2003 may be used to fulfill 3 hours of the Social Sciences general education requirements.

# Anthropology Course Descriptions

## **ANTH 1213: Introduction to Anthropology**

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ACTS Common Course - ANTH1013

An introduction to the subdisciplines of cultural anthropology, physical anthropology, archeology, and linguistics.

## **ANTH 2003: Cultural Anthropology**

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ACTS Common Course - ANTH2013

A study of contemporary and historical peoples and cultures of major world culture areas.

Note: May not be taken for credit after completion of ANTH 3213.

## **ANTH 2103: Ozark-Ouachita Studies**

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This course provides students with the knowledge and skills to understand changing human-environment relationships in the mountain South and to apply these understandings to the assessment of, and potential solutions to, contemporary socio-environmental issues in the area. We will explore the emergence of Mississippian societies, their transformation during prehistoric and early historic eras, the impacts of early European settlements and the regions' incorporation into the global marketplace, development and the growth of tourism and industry in the area, and current social and environmental issues in the mountain South.

## **ANTH 2203: Indians of North America**

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A study of contemporary and historical peoples and cultures of North America.

## **ANTH 2223: North American Archeology**

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The study of prehistoric peoples and cultures of North America.

## **ANTH 2303: Globalization**

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This course provides an overview of the economic, social, technological, environmental, and ideological impacts of globalization on national communities, with an emphasis on the cultural dynamics of the process. Through class discussions and lectures, readings, and student research, this course will examine the complex implications of globalization on culture change in different national settings.

## **ANTH 2833: Cultural Resource Management**

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This course explores the discipline of cultural resource management (CRM), a form of applied anthropology, which manages the impacts of the contemporary world on places (e.g., historic and archaeological sites and landscapes) and items of cultural value. Through an exploration or real-world case studies, students will gain an understanding of current federal and state laws pertinent to CRM, disciplinary best practices, and ethical issues.

## **ANTH 3103: Anthropology of Food**

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Prerequisite: ANTH 1213

This course examines the topics of food and agriculture from a broadly anthropological perspective with a significant focus on the Ozark-Ouachita region of Arkansas. The course explores the relationships among human biology, cultural diversity, social systems, politics, economics and food and agriculture. Significant emphasis is placed on how political and economic forces have created a global, industrial food system that is ecologically unsustainable, socially unjust, and detrimental to human health and well-being as well as on opportunities that exist to change this system.

## **ANTH 3243: Seminar in Anthropology**

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Prerequisite: Permission of instructor.



A directed seminar in an area of anthropology. The specific focus will depend upon research interests, student interest, and current developments in the field of anthropology.

### **ANTH 3303: Southeastern Archaeology**

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The course will survey the rise of chiefdom-level societies in the prehistoric Southeast, reconstruct the "Mississippian world" these chiefdoms created, document the activities of sixteenth-century Spanish explorers in the region, and trace the subsequent decline of Mississippian chiefdoms. In addition to reconstructing the landscape of the ancient South, students will explore long-term social and cultural traits of southeastern Indians and discover the secrets unearthed at famous Mississippian sites such as Cahokia, Moundville, and Etowah.

### **ANTH 3313: Southeastern Indians**

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This course is an ethnographic and historic survey of southern Indians from European contact through the era of Removal. Particular emphasis will be placed on the following subjects: the decline of chiefdom societies across the South, the Spanish mission system, the development of the deerskin and Indian slave trade, native resistance to colonial encroachment, and a detailed discussion of Removal. The course also includes ethnographic descriptions of major southern Indian groups, including the Creek, Cherokee, Catawba, Choctaw, Chickasaw, Seminole, Apalachee, and Natchez. By the end of the course students should acquire an understanding of a little known aspect of our country's heritage, be able to distinguish between the various colonial strategies at play in the region, as well as the various forms of native resistance, and gain an appreciation for the place of southern Indians within U.S. society today.

### **ANTH 3403: Ethnographic Methods**

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This course trains students in research methods in anthropology with an emphasis on qualitative research. Students learn the different uses of methodologies to address specific types of research questions, practice participant-observation and interview techniques as part of semester-long research projects, and survey anthropological theory as it relates to conducting ethnographic fieldwork.

### **ANTH 4403: Interpretation/Education through Museum Methods**

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Cross-listed: HIST 4403, MUSM 4403

Prerequisite: Senior or Graduate standing, or permission of instructor.

Museum perspectives and approaches to care and interpretation of cultural resources, including interpretive techniques of exhibit and education- outreach materials, and integrating museum interpretation/education into public school and general public programming. Class projects focus on special problems for managing interpretive materials in a museum setting.

### **ANTH 4853: Music of the World's Peoples**

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Cross-listed: MUS 4853

Open to students in all majors. A survey of predominantly non-Western world music cultures with attention to sonic structures, musicians, musical instruments, and socio-cultural contexts of music making. Listening emphasized.

### **ANTH 4951,4952,4953,4954: Undergraduate Research in Anthropology**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **ANTH 4991,4992,4993,4994: Special Problems in Anthropology**

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Prerequisite: Permission of instructor.

Independent work under individual guidance of staff member.

# Art Course Descriptions

## **ART 1001: Introduction to Art**

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The course provides university orientation and a general introduction to the art program. Various topics that review career options, curriculum, studio concentrations, opportunities and program requirements are covered to help incoming art students prepare for their specific program of study in Fine Arts, Graphic Design, and Art Education.

## **ART 1163: Basic Digital Photography**

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Cross-listed: JOUR 1163

Basic Digital Photography, an introduction to the medium, its history, techniques and theory. This course will teach students the basics of photographic composition, lighting, camera and lens operation, editing and printing using the digital format.

## **ART 1303: Introduction to Drawing**

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An introduction to structural and expressive responses in drawing by the study of line, volume, shape, light perspective, the media, and their interrelations.

Studio six hours. \$36 art fee.

## **ART 1403: Two-dimensional Design**

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Basic study of elements and principles of two-dimensional design employing a variety of tools and materials.

Studio six hours. \$36 art fee.

## **ART 1503: Introduction to Graphic Design**

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Prerequisites: ART 1403, ART 1303 or permission of instructor.

An introduction to fundamental graphic design principles, techniques and materials.

Studio six hours. \$36 art fee.

## **ART 2103: Art History I**

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ACTS Common Course - ARTA2003

An examination of the periods and western cultures responsible for major artistic monuments and achievements from pre history through the Gothic period.

## **ART 2113: Art History II**

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ACTS Common Course - ARTA2103

A western art survey of the events, people, and stylistic trends involved in the development of major art forms from the era of the Italian Renaissance to the present.

## **ART 2123: Experiencing Art**

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ACTS Common Course - ARTA1003

This course is designed to provide a background in art and the related processes so that a student may develop powers of observation and thereby respond to a work of art.

## **ART 2213: Digital Skills for the Graphic Designer**

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Students will learn graphic design software which they will, in turn, use to create various projects.

Studio six hours. \$36 art fee.

### **ART 2303: Figure Drawing**

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Prerequisite: ART 1303.

Introduction to the study of the human figure. A major emphasis will be directed to exercises in the study of anatomy, proportion, and line as it relates to the figure.

Studio six hours. \$36 art fee.

### **ART 2403: Color Design**

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Basic application of color principles and color theory.

Studio six hours. \$36 art fee.

### **ART 2413: Three-dimensional Design**

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Prerequisite: ART 1403

Basic study of three-dimensional problems of structure, spatial organization, and introductory sculptural concerns.

Studio six hours. \$36 art fee.

### **ART 3001: Sophomore Review**

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Prerequisites: ART 1303, ART 1403, ART 2403, and ART 2413 or permission of the Department Head.

The Sophomore Review course is an academic engagement designed to provide you with an opportunity to discuss your work on a scholarly level. Faculty will give you specific feedback on the work in your portfolio, the ability to use and understand art vocabulary, and communicate effectively about art. This course must be successfully completed with a C or better before students will be permitted into Upper Division classes.

### **ART 3003: Concepts in Art Education**

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Prerequisite: ART 3001

Introduction to theory and specialized practice in art education issues as applied to elementary art experience. Studio processes, art criticism, aesthetics, and art history methodology will be incorporated into lessons implemented as part of field experience in local elementary schools.

Studio six hours. \$36 art fee.

### **ART 3013: Art Education Practicum**

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Prerequisite: ART 3001

Curriculum design with emphasis on visual art standards, art media, and assessment as applied to teaching on the secondary level. Students will implement a unit of study in partnership with local schools.

Studio six hours. \$36 art fee.

### **ART 3073: Introduction to Sculpture**

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Prerequisite: ART 3001 or permission of Department Head

Basic techniques of sculpture and sculptural composition. Modeling, casting, carving, and constructive processes are introduced.

Studio six hours. \$100 art fee.

## **ART 3113: Art History, American**

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Prerequisite: ART 2103, ART 2113, and ART 3001.

A study of art forms in architecture, painting, sculpture and craft from Colonial times to the present.

## **ART 3123: Art History, Renaissance**

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Prerequisite: ART 2103, ART 2113, and ART 3001.

A concentrated study of art forms in architecture, painting, sculpture and crafts during the period of the Italian and Northern Renaissance.

## **ART 3133: Art History, Americas & Africa**

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Prerequisites: ART 2103, ART 2113, and ART 3001.

A study of the art of Africa, with a strong focus on African cultures south of the Sahara, along with art of native peoples of North, Central, and South America from both before and after contact with Europeans. Contemporary works by African, Latin American, and Native American artists will also be studied.

## **ART 3143: Art History, Asia & Pacific**

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Prerequisites: ART 2103, ART 2113, and ART 3001

A study of the art of South, East, and Southeast Asia, the islands of the Pacific, and the Aboriginal cultures of Australia. Contemporary works by artists from these regions will also be studied.

## **ART 3203: Typography and Layout**

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Prerequisites: ART 1503 and ART 2213

Beginning and intermediate problems in layout designs as well as the effective use of type.

Studio six hours. \$36 art fee.

## **ART 3223: Package Design**

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Prerequisites: ART 1503, ART 2213, ART 3001, and ART 3203

Studio problems in the design and presentation of 3 D advertising packaging and displays.

Studio six hours. \$36 art fee.

## **ART 3232: Production Design**

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Prerequisites: ART 1503, ART 3203, ART 3223

Course on preparing graphic design pieces for commercial printing.

Studio six hours. \$24 art fee.

## **ART 3243: Web Design**

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Prerequisites: ART 2213, 3001, and 3203

Introduce basic website planning, content editing and creation using graphic arts techniques. Screen-based color theory, web design aesthetics, use of graphic editors, and interface design are explored.

Studio six hours. \$36 art fee.\*

\*Fee removed effective fall 2013

## **ART 3253: Digital Illustration**

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Prerequisites: ART 2213 and ART 3001

This course will provide students with advanced conceptual skills in computer illustration and digital imaging. Students will acquire intermediate knowledge in vector and pixel-based drawing formats, digital painting effects, comic art/video game illustration, storyboarding and coloring through the completion of integrated design projects.

Studio six hours. \$36 art fee.

## **ART 3303: Drawing Studio I**

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Prerequisites: ART 3001 or permission of Department Head.

The application of the theories and techniques of drawing as they relate to the study of composition in finished works of art.

Studio six hours. \$36 art fee.

## **ART 3403: Introduction to Opaque Painting**

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Prerequisites: ART 1303, ART 1403, ART 2403, ART 3001, or permission of instructor.

The exploration of opaque painting techniques. Traditional oil, acrylic and alkyd will be studied.

Studio six hours. \$36 art fee.

## **ART 3503: Painting Studio I**

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Prerequisites: ART 3403 or ART 3533 and ART 3001.

A continued study in the opaque or transparent painting techniques. Emphasis will be directed toward the economy of conception and performance in the completion of finished works of art.

Studio six hours. \$36 art fee.

## **ART 3533: Watercolor Painting**

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Prerequisite: ART 3001 or permission of Department Head.

The exploration of transparent water painting techniques.

Studio six hours. \$36 art fee.

## **ART 3603: Introduction to Ceramics**

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Prerequisite: ART 3001 or permission of Department Head.

An introduction to ceramics, emphasizing the imaginative design and production of ceramic objects utilizing hand building and wheel throwing techniques. Exposure to the complete ceramic process through the use of demonstrations, slides, and lectures.

Studio six hours. \$100 art fee.

## **ART 3703: Sculpture Studio I**

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Prerequisite: ART 3073

A continued study of sculptural techniques introduced in Introduction to Sculpture, allowing for student expansion and specialization on individual conceptions.

Studio six hours. \$100 art fee.

## **ART 3713: Sculpture Studio II**

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Prerequisite: ART 3703

A continued study of sculptural techniques introduced in Introduction to Sculpture, allowing for student expansion and specialization on individual conceptions.

Studio six hours. \$100 art fee.

## **ART 3803: Introduction to Printmaking**

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Prerequisite: ART 3001 or permission of Department Head.

A survey of traditional printmaking techniques will be taught including intaglio, relief, and monotype.

Studio six hours. \$100 art fee.

## **ART 3813: Printmaking Studio I**

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Prerequisites: ART 3001 and ART 3803

Printmaking activities introduced in Introduction to Printmaking will be used as a basis for the student to expand and specialize. Students will be expected to develop an individual print series in one or more print techniques.

Studio six hours. \$100 art fee.

## **ART 3903: Introduction to Fiber Arts**

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Prerequisite: ART 3001 or permission of Department Head.

An introduction to fiber arts to include historical and cultural connections, techniques and processes associated with materials studies such as weaving, papermaking, textile design, and mixed media.

Studio six hours. \$36 art fee.

## **ART 4103: Art History, Modern 1789-1945**

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Prerequisite: ART 2103, ART 2113, and ART 3001.

A study of the artists, movements, and theories of European art from the French Revolution to World War II.

## **ART 4113: Art History, Art After 1945**

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Prerequisites: ART 2103, ART 2113, and ART 3001.

A study of the artists, movements, and theories of Western art since 1945, with an emphasis on art of the United States.

## **ART 4123: Art History, Medieval**

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Prerequisite: ART 2103, ART 3001, or permission of instructor.

A study of the art and architecture of the European Middle Ages, from the rise of Christianity through the Gothic period.

## **ART 4163: Advanced Digital Photography**

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Cross-listed: JOUR 4163

Prerequisite: JOUR (ART) 1163 or consent of instructor.

Advanced techniques in digital photography are explored to expand the student's understanding of the digital processes as they relate to computer editing, manipulation and printing of digital images. Students will also study current theories of visual communication that relate to the field of digital photography.



## **ART 4231: Graphic Design Exhibition**

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Offered: spring

Prerequisites: ART 1503, ART 2213, ART 3001, ART 3203, ART 3223, ART 3232, ART 3243, ART 3253, and ART 4623

Co-requisite: ART 4243

The purpose of the course is to provide the student an opportunity to present their work in a professional manner in a public venue.

Studio two hours.

## **ART 4233: Illustration Studio**

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Prerequisite: ART 3001 or permission of Department Head.

Application of fine art drawing and painting techniques to illustration problems.

Studio six hours. \$36 art fee.

## **ART 4243: Professional Portfolio Preparation for Graphic Designers**

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Prerequisites: ART 1503, ART 2213, ART 3203, ART 3223, or permission of Department Head.

Co-requisite: ART 4231

Review. The purpose of this course is to prepare the student for entry into the professional world through the development of a resume and the presentation of their work.

Studio six hours. \$36 art fee.

## **ART 4313: Drawing Studio II**

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Prerequisites: ART 3303 and ART 3001

The further development of advanced drawing concepts and skills. This course will deal with each student on a one to one basis. The student will present a "contract of drawing projects" subject to instructor's approval.

Studio six hours. \$36 art fee.

## **ART 4323: Drawing Studio III**

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Prerequisites: ART 3001 and ART 3303

The further development of advanced drawing concepts and skills. This course will deal with each student on a one to one basis. The student will present a "contract of drawing projects" subject to instructor's approval.

Studio six hours. \$36 art fee.

## **ART 4503: Painting Studio II**

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Prerequisites: ART 3001 and ART 3503

Advanced study of the opaque/ transparent painting techniques. Emphasis will be theme oriented. Each student must submit to the instructor a "painting contract" which must be approved.

Studio six hours. \$36 art fee.

## **ART 4603: Ceramics Studio I**

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Prerequisites: ART 3001 and ART 3603

A study of advanced techniques and skills. This course will deal with each student on a one to one basis. Each student must submit a "contract of ceramics project" subject to instructor's approval.

Studio six hours. \$100 art fee.

## **ART 4613: Ceramics Studio II**

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Prerequisites: ART 3001 and ART 3603

A study of advanced techniques and skills. This course will deal with each student on a one to one basis. Each student must submit a "contract of ceramics project" subject to instructor's approval.

Studio six hours. \$100 art fee.

## **ART 4623: Animation Techniques**

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Prerequisite: ART 2213 and ART 3001 or permission of Department Head.

Introduce basic drawing/2D animation, and create movies/cartoons, motion graphics/interactive content using multimedia tools and techniques. Time-based media, animation timing, use of audio-visual editors, and effective storyboard techniques are explored.

Studio six hours. \$36 art fee.

## **ART 4703: Senior Project and Exhibition**

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Offered: Spring

Prerequisites: ART 3001 and Junior Review

This course is required for all Fine Arts majors, and elective for Graphic Design and Art Education majors.

Studio six hours.

## **ART 4723: Art History Seminar**

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Prerequisite: ART 2103, ART 2113, and ART 3001.

This course will provide a forum for in-depth examination of a particular artist, movement, theme, or period in art history.

## **ART 4733: Graphic Design Internship**

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Prerequisites: ART 1503, ART 2213, ART 3001, ART 3203, ART 3233, Junior Review, and instructor's permission.

A supervised, practical experience providing graphic design majors with professional hands-on training in a position relating to an area within their chosen field of graphic design at a cooperating business.

## **ART 4736: Graphic Design Internship**

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Prerequisites: ART 1503, ART 2213, ART 3001, ART 3203, ART 3233, Junior Review and instructor's permission.

A supervised, practical experience providing graphic design majors with professional hands-on training in a position relating to an area within their chosen field of graphic design at a cooperating business.

## **ART 4803: Printmaking Studio II**

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Prerequisites: ART 3001, ART 3813, and permission of Instructor.

A concentration on printmaking techniques which will develop additional strength and capability in the student.

Studio six hours. \$100 art fee.

## **ART 4823: Art Criticism and Aesthetics**

---

Prerequisite: 3 hours of Art History or permission of Department Head

Perspectives on analyzing and interpreting works of art required for art education majors. The course may be used as an art history elective for graphics and fine arts majors.

## **ART 4833: Advanced Web Design**

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Prerequisite: ART 3243

Builds upon the fundamental concepts and skills developed in ART 3243: Web Design. Students will take an in-depth look at website development and strategies. Advanced web editing and scripting techniques will be used to complete projects and build a professional web portfolio.

Studio six hours. \$36 art fee.

## **ART 4883: Advanced Studio Studies**

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Prerequisite: Senior Status or permission of Department Head

Advanced Studio Studies is an advanced studio course with a revolving focus selected by the art faculty to provide research in particular skills, subjects, or trends in art & media.

Note: This course can be repeated for credit if course content differs.

Studio six hours. \$45 art fee.

## **ART 4951,4952,4953,4954: Undergraduate Research in Art**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **ART 4991,4992,4993,4994: Special Problems in Art**

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This course requires advance approval by the instructor, department head, and the dean of school. Designed to provide certain advanced students with further concentration in a particular area.

Fee may apply.

# Business Data Analytics Course Descriptions

## **BDA 2003: Business Problem Solving**

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Prerequisites: BUAD 2003 with a 'C' or better or COMS 2003 with a 'C' or better or permission of instructor.

This course is designed to provide students training in solving business problems. Students will work individually and in groups on projects to learn and apply various problem solving frameworks, methods, and tools to realistic business situations. Frameworks include general problem solving, systems thinking, critical thinking, and ethical reasoning. Methods and tools include project management, communication and coordination techniques, quantitative models, and software applications.

## **BDA 2013: Business Spreadsheet Modeling**

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Offered: Fall

Prerequisites: BUAD 2003, BDA 2003, MATH 2223

This is an introductory course for business major undergraduate students. The main objective of the course is to teach how to solve problems arising in modern business environments using Microsoft Excel. The course will begin by teaching common tools available in Microsoft Excel. Then it will introduce the students to a variety of analytical problems arising in modern businesses and present ways in which these problems can be solved using Microsoft Excel.

## **BDA 3003: Data Analytics Apps Development**

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Offered: Fall

Prerequisites: BDA 2013 and BDA 2053 or permission of instructor

This course covers how business data analysts develop software applications to retrieve and analyze data and provide information and business intelligence useful to solve business problems, to support business decisions, and to determine business tactics and strategy. Students will learn how to design appropriate logic and user interfaces for business data analytic software as well as write and debug professional code in a typical production environment. The student will develop a set of standard data analysis techniques representing typical approaches to solving business intelligence problems.

## **BDA 3033: Data Modeling and Management**

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Offered: Fall

Prerequisite: BDA 2003 or permission of the instructor

This course covers how databases are constructed and managed so that business data analysts can store, update, manage, retrieve, and process data. Students will learn to design, implement, and use databases to create information and business intelligence useful for solving problems, making business decisions, and determining business strategy and tactics. The content addresses how to design effective and efficient data models, implement data models in commonly used database management systems, retrieve and process that data, present information to clients and managers, and address the main issues and tradeoffs in database administration.

## **BDA 3053: Business Data Analysis**

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Offered: Spring

Prerequisites: COMS 2003 or BUAD 2003 and BDA 2003 and BUAD 2053 with a "C" or better.

This course explores the development of exploratory and predictive models for managers and business decision-makers. Specific tools addressed include analysis of variance (ANOVA), multiple regression, factor analysis, cluster analysis, logistic regression, and path analysis. Emphasis is on analyzing data using statistical software, visualizing and interpreting the results of those analyses and translating results into clear and simple insights to aid managerial decision making.

## **BDA 4003: Business Intelligence**

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Offered: Spring

Prerequisites: BDA 3003, BDA 3033 with a 'C' or better, BDA 3053 with a 'C' or better or permission of instructor.

This course covers how data analysts can process large data sets from a variety of sources to create information by that guides leaders in crafting strategy and tactics which allow an organization to survive and thrive in a turbulent environment. Students will review how business intelligence has been created and successfully used in the past and learn appropriate processes and a variety of techniques to accomplish this transformation. The course also addresses professional and ethical conduct with respect to data mining and use of business intelligence.

### **BDA 4031,4032,4033: Internship**

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Offered: As needed

Prerequisites: Cumulative GPA greater than 2.50, junior standing, and approval of the instructor, department head, and dean.

A supervised, practical experience providing undergraduate BDA majors with a hands-on professional experience in a position relating to an area of career interest. The student will work in a local cooperating business establishment under the supervision of a member of management of that firm. A College of Business faculty member will observe and consult with the students and the management of the cooperating firm periodically during the period of the internship. Students will be required to make oral reports in the classroom, maintain an internship log, and prepare a final term paper.

Note: Only three hours of internship may be used to satisfy the curriculum requirements for Business Data Analytics electives. Additional hours may be used to satisfy the curriculum requirements for general electives.

### **BDA 4073: Special Topics**

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Offered: As needed

Prerequisites: Cumulative GPA greater than 2.0, Junior Standing, BDA 2013, and BDA 3053 or approval of Instructor.

This course offers an in-depth exploration of selected business data analytics topics. The primary topic will vary from offering to offering; thus, the course may be taken more than once.

## Biology Course Descriptions

### **BIOL 1004: Principles of Environmental Science**

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Cross-listed: PHSC 1004

This course is designed to bring the student to a basic but informed awareness of and responsible behavior toward our environment and the role of the human race therein. The content will include a study of the philosophical and scientific basis for the study of ecosystems and the environment, the nature of ecosystems, the techniques used to study the environment, the origin and development of current environmental problems, the interdisciplinary nature of environmental studies, the processes of critical thinking and problem solving, and the moral and ethical implications of environmentally-mandated decisions.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

### **BIOL 1011: Orientation to the Biological Sciences**

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This course orients entering students to the biological sciences. Topics examined in this course include an overview of the Tech Department of Biological Sciences and careers in biology, managing a biology curriculum (registration procedures, student responsibilities, and study skills), requirements for professional schools and graduate education, and undergraduate research opportunities.

### **BIOL 1014: Introduction to Biological Science**

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ACTS Common Course - BIOL1004

An introduction to the major concepts of biological science, with an emphasis on the development of this scientific perspective and how it applies to humans.

Note: Duplicate credit for BIOL 1014 and BIOL 1114 will not be allowed. May not be taken for credit after completion of BIOL 1114, 2124, or 2134.

Lecture three hours, laboratory two hours. \$20 laboratory fee (Fee is not charged for online sections).

### **BIOL 1114: Principles of Biology**

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ACTS Common Course - BIOL1014

Prerequisites: scores of 19 or higher on the reading, science reasoning and mathematics portions of the enhanced ACT or completion of MATH 0903 with a grade of C or higher, or a grade of C or higher in a science course.

An in depth study of biological principles and the interrelationships of biology with other sciences. Topics included are: cellular structure, intermediary metabolism and differentiation, population genetics, ecology, and evolution.

Note: Duplicate credit for BIOL 1014 and BIOL 1114 will not be allowed.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

### **BIOL 2004: Basic Human Anatomy and Physiology**

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Prerequisite: A grade of C or higher in a science course or approval of the instructor.

This course is intended for students who have a need for basic studies in functional aspects of the organ systems of the human body.

Note: This course may not be taken for credit after completion of BIOL 2014, 3074, or equivalent.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

### **BIOL 2014: Human Anatomy**

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ACTS Common Course - BIOL2404



Prerequisite: A grade of C or higher in a science course or approval of the instructor.

This is an introductory course in human anatomy which should be useful to students in the biological and health oriented fields. The course is designed to present an introduction to the unified concepts and data that contribute to a basic understanding of the structure of the human body. The course will include familiarization with essential technical vocabulary; reference to general functions of organs and organ systems; and brief encounters with histology, embryology, and comparative anatomy.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 2022: Medical Laboratory Orientation and Instrumentation, Laboratory**

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Prerequisites: A grade of "C" or higher in BIOL 1114 or BIOL 2124. Enrollment is limited to students enrolled in BIOL 2023.

Topics covered will include laboratory orientation, laboratory procedures/ techniques, introduction to clinical laboratory instrumentation (both manual and automated), quality control principles, and care of equipment.

Laboratory four hours weekly. \$20 laboratory fee.

## **BIOL 2023: Medical Laboratory Orientation and Instrumentation**

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Prerequisites: Enrollment is limited to medical assistant and/or medical technology majors who have completed at least BIOL 1114 or BIOL 2124 (AHS 2013 recommended) with a grade of "C" or higher and are in the final year of their program at Tech.

This course is concerned with both the theoretical and practical application of a wide range of clinical duties performed by the medical assistant and medical technologist. Topics covered will include hematology, urinalysis, hematostatic processes, body chemistry, microbiology, and blood typing.

## **BIOL 2054: Microbiology for Health Sciences**

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Prerequisites: Completion of CHEM 1113 and 1111 or CHEM 2124 with a grade of C or higher

Microbiological concepts, including overviews of bacteria, viruses, fungi, protozoa, prions, and viroid and how they interact with humans. Designed to serve students in health-related majors other than biology.

Lecture three hours, laboratory two hours.

## **BIOL 2111: Environmental Seminar**

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Cross-listed: CHEM 2111, GEOL 2111

A seminar for students pursuing the environmental option of biology, chemistry, or geology and other students interested in environmental sciences.

## **BIOL 2124: Principles of Zoology**

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ACTS Common Course - BIOL1054

Prerequisites: Scores of 19 or higher on the reading and science reasoning portions of the enhanced ACT; or BIOL 1014 or BIOL 1114; or approval of the instructor.

A survey of the major animal phyla: morphology, physiology, and natural history.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 2134: Principles of Botany**

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ACTS Common Course - BIOL1034

Prerequisites: Scores of 19 or higher on the reading and science reasoning portions of the enhanced ACT; or BIOL 1014 or BIOL 1114; or approval of the instructor.

Introduction to the structure, function, classification, and importance of nonvascular and vascular plants.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 2144: Honors Zoology**

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Prerequisite: Admission to the Tech Honors Program or permission of the instructor.

An honors course which includes a survey of the major animal phyla: morphology, physiology, and natural history. The presentation will foster rational inquiry, critical thinking, and analytical skills in general and specifically toward discussions of evolution and associated implications for world views.

Note: Duplicate credit for BIOL 2124 and 2144 will not be allowed.

Lecture 3 hours, lab 2 hours.

## **BIOL 2404: Human Anatomy and Physiology I**

---

ACTS Common Course - BIOL 2404

Prerequisites: Grade of "C" or better in a college chemistry course or permission of instructor

This course is the first in a two semester sequence that covers the basic structure and function of human organ systems including mechanisms of homeostasis. Specific topics include: body organization, basic biochemistry, cell biology, metabolism, histology, the integumentary, skeletal, muscular, and nervous systems. Laboratory sessions involve dissection, microscopy, demonstration and/or experimental modeling of concepts.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 2414: Human Anatomy and Physiology II**

---

ACTS Common Course - BIOL 2414

Prerequisite: Grade of "C" or better in BIOL 2404 or consent of instructor

This course is the second in a two semester sequence that covers the basic structure and function of human organ systems including mechanisms of homeostasis. Specific topics include: the Endocrine, Cardiovascular, Lymphatic, Respiratory, Digestive, Urinary, and Reproductive systems as well as principles of immunity, genetics, metabolism, fluid and electrolyte balance, and acid-base homeostasis. Laboratory sessions involve dissection, microscopy, demonstration and/or experimental modeling of concepts.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 2881,2882,2883,2884: Special Topics in Biology**

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Offered: On demand

Prerequisite: Consent of the instructor.

This course offers specialized instruction in an area of biological sciences that is not otherwise covered in the curriculum. The focus of the course will vary from offering to offering, thus the course may be taken more than once.

Note: BIOL 2884 includes a \$20 laboratory fee.

## **BIOL 3004: Plant Taxonomy**

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Prerequisites: BIOL 1114 and 2134 or permission of instructor.

An overview of the major principles of classification, identification, naming, and collection of representatives of vascular plants.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3034: Genetics**

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Prerequisites: BIOL 1114 (or equivalent) with a grade of "B" or higher, MATH 1113 (or higher) and two semesters of chemistry.

Introduction to and discussion of the principles of Mendelian, molecular and population genetics with a strong emphasis on problem solving. Laboratory exercises will involve hands-on experience with microbes, plants, animals and fungi using traditional and molecular techniques.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 3043: Conservation**

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Prerequisite: BIOL/CHEM/GEOL 2111.

A study of natural resources, their utilization in a technical society, and factors leading to their depletion.

## **BIOL 3054: Microbiology**

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Prerequisites: One semester of chemistry and one semester of biology.

An introduction to the microbial world with an emphasis on prokaryotes. Identification of bacteria based on staining, immunologic reactions, morphology and physiology. Symbionts and pathogens of human and domestic animals. Principles of control using chemical and physical agents. An overview of virology and immunology.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 3064: Parasitology**

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Prerequisite: BIOL 2124

A survey of parasitism in the various phyla. Special emphasis is given to parasites that affect humans.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3074: Human Physiology**

---

Prerequisites: C grade or better in BIOL 2014, CHEM 1113 and CHEM 1111 or CHEM 2124.

An introduction to the function of vertebrate body systems, i.e., muscle action, digestion, circulation, nervous control, endocrine, metabolism and respiration, with special emphasis on the human body.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 3084: Ichthyology**

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Cross-listed: FW 3084

Prerequisite: BIOL 2124

Systematics, collection, identification, natural history, and importance of fishes.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3104: Introduction to Entomology**

---

Cross-listed: AGPM 3104

This course will introduce the student to insect diversity and the identification of the major families of insects. Laboratory time will be spent learning family characteristics and collecting and preserving insect specimens. Lecture will consist of topics such as insect diversity, morphology and physiology.

\$25 laboratory fee.

## **BIOL 3111: Environmental Seminar**

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Cross-listed: CHEM 3111, GEOL 3111

A seminar for students pursuing the environmental option of biology, chemistry, or geology and other students interested in environmental sciences.

## **BIOL 3114: Principles of Ecology**

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Cross-listed: FW 3114

Prerequisites: BIOL 2124, BIOL 2134, and one semester of chemistry.

Responses of organisms to environmental variables, bioenergetics, population dynamics, community interactions, ecosystem structure and function, and major biogeographical patterns.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3134: Invertebrate Zoology**

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Prerequisites: BIOL 1114, BIOL 2124, BIOL 2134, and two semesters of chemistry.

Morphology, physiology, natural history and taxonomy of major invertebrate phyla. Laboratory maintenance and preservation techniques.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3144: Ornithology**

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Cross-listed: FW 3144

Prerequisite: BIOL 2124

An introduction to the biology of birds. The course covers aspects of anatomy, physiology, behavior, natural history, evolution, and conservation of birds. Laboratories address field identification and natural history of the birds of Arkansas.

Note: Students will be expected to participate in an extended 5-7 day field trip.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3154: Mammalogy**

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Cross-listed: FW 3154

Prerequisite: BIOL 2124

Taxonomy, identification, ecology, and study natural history of the mammals.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 3174: Physiological Ecology**

---

Prerequisites: BIOL 1114, BIOL 2124, BIOL 2134 and two semesters of chemistry.

An in-depth study of plant and animal adaptations and responses to different environmental conditions. Comparative physiology of major systems, mechanisms of adaptation and adaptations to challenging habitats will be studied.

\$20 laboratory fee.

## **BIOL 3184: Animal Behavior**

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Cross-listed: PSY 3184

Prerequisites: sophomore standing in biology or psychology, or approval of instructor.

An introductory course in animal behavior covering behavioral responses in primitive and advanced animals exposed to a wide range of environmental and social conditions. Laboratory exercises will include field as well as in-lab exercises and will focus on observational techniques and analyses of behavioral patterns in vertebrates and invertebrates.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 3213: Science Education in the Elementary School**

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Cross-listed: PHSC 3213

Prerequisites: Junior standing, ECED 2001, ECED 2002, and at least six credit hours in science.

An overview of the most recent and research-based strategies and techniques for planning, teaching, and assessing elementary science. Inquiry-based methods and other constructivist approaches as described in the National Science Education Standards will be emphasized. Design and execution of learning activities for an elementary school setting are required.

Note: To enroll in an internet section (TC1 or AT1) of this course, one of these prerequisite courses is required: COMS 1003, EDMD 3013, or equivalent.

Lecture two hours, laboratory two hours; three credit hours. \$20 laboratory fee.

## **BIOL 3223: Science Education in the Middle Level**

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Cross-listed: PHSC 3223

Prerequisites: 16 hours in science and MLED 2003.

This course is designed to provide pre-service teachers with an integrated approach to the teaching of science in the middle grades. Theoretical and practical aspects of teaching science will be explored and students will develop curricular materials based on their explorations.

Lecture two hours, laboratory 2 hours. \$20 laboratory fee.

## **BIOL 3224: Herpetology**

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Cross-listed: FW 3224

Prerequisite: BIOL 2124

The phylogeny, classification, physiology, behavior, and distribution of reptiles and amphibians. The Laboratory will stress identification of the species found in Arkansas.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 3233: Science Education in the Secondary School**

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Cross-listed: PHSC 3233

Offered: Fall

Prerequisites: 16 hours in biology or 16 hours in physical science and SEED 2002.

This course will examine the issues of nature and history of science, developing lessons and assessments, and science education standards for the prospective secondary school teacher. Curriculum development, including assessment and planning skills, utilizing various instructional media and inquiry methodology are emphasized. Design and execution of learning activities for a secondary school setting are required.

Lecture two hours, laboratory two hours. \$20 laboratory fee.

## **BIOL 3243: Integrating the Three Dimensions of Science**

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Cross-listed: PHSC 3243

Prerequisites: Junior Standing and at least 8 hours of science.

This course integrates the three major areas of discipline in science: physical science, life science and earth science, using as a focus the processes and cross-cutting concepts of science, technology, engineering and mathematics (STEM).

\$20 laboratory fee.

## **BIOL 3252: The Nature and Context of Science**

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Cross-listed: PHSC 3252

Prerequisite: At least 12 hours of science courses.

This seminar course examines science from a holistic perspective. It will concentrate on examining how current science develops scientific knowledge including unifying concepts across scientific disciplines, the place of science within modern society, technology and its role in science and society, and current scientific methodology.

## **BIOL 3253: Teaching Methods for STEM**

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Cross-listed: PHSC 3253

Prerequisites: Junior Standing, ECED 2001, ECED 2002, PHSC 3243 and completion of at least 8 hours of science.

An overview of strategies and techniques for planning, teaching, and assessing elementary science. An emphasis will be placed on best practices, crosscutting concepts, and core ideas outlined in current National Science Frameworks developed in conjunction with the National Research Council. Current adopted standards such as the Next Generation Science Standards (NGSS) and Common Core State Standards will be emphasized in designing learning experiences that integrate science, technology, math, and engineering (STEM) with language arts skills. Inquiry-based methods and other constructivist approaches as described in the National Science Education Frameworks will be emphasized. Design and execution of learning activities for an elementary school setting are required.

Lecture two hours, laboratory two hours; three credit hours. \$20 laboratory fee.

## **BIOL 3803: Applied Pathophysiology**

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Cross-listed: NUR 3803

Prerequisites: grade of C or better in BIOL 2014 or BIOL 2404 and BIOL 2414 or BIOL 3074

This course focuses on the mechanisms and concepts of selected pathological disturbances in the human body. Emphasis is placed on how the specific pathological condition effects the functioning of the system involved, as well as its impact on all other body systems.

## **BIOL 4023: Immunology**

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Prerequisites: Four hours each in biology and chemistry and/or consent of instructor.

An overview of the human immune system, including cellular and humoral defense mechanisms, immunity to infection, hypersensitivity, transplant rejection, and tumor destruction. Immune deficiency and autoimmune diseases. Antibody structure and the use of antibodies in medicine and research.

## **BIOL 4024: Limnology**

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Cross-listed: FW 4024

Prerequisite: BIOL(FW) 3114.

A study of physical and chemical processes in fresh water and their effects on organisms in lakes and streams. Laboratory sessions and field trips demonstrate limnological instrumentation and methodology.

Lecture two hours, laboratory four hours. \$20 laboratory fee.



## **BIOL 4033: Cell Biology**

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Prerequisites: BIOL 1114, four additional hours of biology, eight hours of chemistry, and C grade or better in one course from BIOL 3034, 3054, 3074, 4023 or CHEM 3344.

The primary goal of this course is to build on the cell and molecular component of BIOL1114, by performing an in-depth study of the molecular processes underlying cell structure and function through the directed application of energy and processing of information within the cell. Topics include methods of cell study, ultrastructure and function of cellular organelles, membrane structure and function, cell-cell communication, cell division and differentiation. Lecture three hours per week.

## **BIOL 4044: Dendrology**

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Prerequisites: BIOL 1114 and BIOL 2134.

A study of woody plants with emphasis on field recognition throughout the year.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 4054: Vertebrate Histology**

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Prerequisites: BIOL 1114, BIOL 2124 and an additional four hours in biology.

A study of functional/structural relationship of cells, tissues, and organs. Exercises in the preparation and observation of tissues and development of general principles of micro techniques.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **BIOL 4064: Evolutionary Biology**

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Prerequisites: BIOL 3034 or permission of instructor.

This course focuses upon the principles and major concepts in evolutionary biology from a historical and contemporary viewpoint. Morphological and molecular evolution, population genetics, systematics, the fossil record, a history of life on earth, macroevolution, and adaptation are among the topics examined in this course.

Lecture 3 hours, laboratory 3 hours. \$20 laboratory fee.

## **BIOL 4074: Molecular Genetics**

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Prerequisite: BIOL 3034

This course continues the material introduced in Genetics (BIOL 3034) with a focus upon the major concepts and techniques in contemporary molecular genetics. Current viewpoints of the gene, gene regulation, developmental genetics, recombinant DNA technology, genomics, proteomics, and molecular evolution are among the topics examined in the course.

Lecture 3 hours, laboratory 3 hours. \$20 laboratory fee.

## **BIOL 4083: Cancer Biology**

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Prerequisite: BIOL 3034

An in-depth study of major areas and topics in cancer biology, including etiology and epidemiology of cancer, impact of the human genome mapping project, molecular genetics and cell biology of cancer, cancer modeling and clinical aspects of human cancer.

## **BIOL 4094: Coastal Ecology**

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Prerequisites: BIOL 2124 and BIOL 2134 and one semester of chemistry.

A focused study of coastal ecology, as represented by the Mississippi Gulf Coast. Coastal plants, animals, their interactions, and relationship to the physical environment are explored.

Note: The course includes a required field trip to the Gulf Coast. Investigations are conducted in the marshes, bays, estuaries, bogs, and barrier island systems. Students bear the cost of food and a nominal housing fee.

\$20 laboratory fee.

## **BIOL 4111: Environmental Seminar**

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Cross-listed: CHEM 4111, GEOL 4111

A seminar for students pursuing the environmental option of biology, chemistry, or geology and other students interested in environmental sciences.

## **BIOL 4112: Biology Internship**

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Prerequisites: Junior or senior standing and consent of internship program director.

A supervised, practical experience providing BIOL majors with a hands-on, professional experience related to their career interests. The course will allow students to gain experience in an occupational environment. Students will be placed in positions under the direction of the internship program director and work supervisor. The program will emphasize application of classroom knowledge to career goals. Approximately 200 clock hours, a proposal, a log book or journal, a summary letter from the employment supervisor, and a written report are required.

Note: A maximum of four credit hours is allowed for BIOL internship.

## **BIOL 4114: Biology Internship**

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Prerequisites: Junior or senior standing and consent of internship program director.

A supervised, practical experience providing BIOL majors with a hands-on, professional experience related to their career interests. The course will allow students to gain experience in an occupational environment. Students will be placed in positions under the direction of the internship program director and work supervisor. The program will emphasize application of classroom knowledge to career goals. Approximately 400 clock hours, a proposal, a log book or journal, a summary letter from the employment supervisor, and a written report are required.

Note: A maximum of four credit hours is allowed for BIOL internship.

## **BIOL 4163: Biodiversity and Conservation Biology**

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Cross-listed: FW 4163

Prerequisite: A course in ecology or permission of instructor

The concepts of, processes that produce, and factors that threaten biological diversity are introduced and examined. Further emphasis is placed on unique problems associated with small population size, management of endangered species and practical applications of conservation biology.

## **BIOL 4701: Special Methods in Biology**

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Prerequisite: Admission to student teaching phase of the teacher education program.

Co-requisite: SEED 4909

Intensive on campus exploration of the principles of curriculum construction, teaching methods, use of community resources, and evaluation as related to teaching biology.

\$20 laboratory fee.

## **BIOL 4881,4882,4883,4884: Advanced Topics in Biology**

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Offered: On demand

Prerequisites: an upper level science course and consent of the instructor.

This course offers advanced instruction in an area of biological sciences that is not otherwise covered in the curriculum. The focus of the course will vary from offering to offering, thus the course may be taken more than once.

Note: BIOL 4884 includes a \$20 laboratory fee.

### **BIOL 4891: Seminar in Biology**

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Prerequisite: An upper level biology course and senior standing.

Designed to integrate all aspects of biology by covering current topics in many fields of biology and to acquaint the student with fields of biology not covered in the general curriculum.

### **BIOL 4951,4952,4953,4954: Undergraduate Research in Biology**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## Business Law Course Descriptions

### **BLAW 2033: Legal Environment of Business**

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Prerequisite: Sophomore standing

A survey of the basic framework of the American and international legal systems, including civil procedure, constitutional law, administrative regulation, and topics in business law, with particular emphasis on the ethical, sociocultural and political influences affecting such environments.

### **BLAW 4073: Special Topics in Law**

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Prerequisites: BLAW 2033. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Course offers an in-depth exploration of selected legal issues affecting business. The primary focus of the course will vary from offering to offering; thus the course may be taken more than once.

# Business Administration Course Descriptions

## **BUAD 1023: Keyboarding**

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Instruction and supervised practice in basic keyboarding skills with emphasis on alphabetic and numeric keyboard, ten-key pad, and basic applications transferable to computer terminal keyboards. The purpose of the course is to prepare Business Education majors for teaching secondary education students how to use computer and typewriter keyboards. The course is required by Business Education majors, but may be taken by other majors as well.

Note: May not be taken for credit after successful completion of BUAD 2002.

## **BUAD 1111: Introduction to Business**

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The course provides university orientation and a general business perspective. Fundamentals of organizing and managing business enterprises and the American enterprise system. Principles and frame work for analysis of business problems with a systems emphasis.

Note: This course may not be taken for credit after completion of MGMT 3003.

## **BUAD 2003: Business Information Systems**

---

An introduction to business information systems with emphasis on concepts and applications utilizing spreadsheets, word processing, and database management as productivity tools; provides basic rationale for using computers in generating and managing information necessary for the business decision making process.

## **BUAD 2043: Principles of Word Processing**

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Prerequisites: BUAD 1023 or BUAD 2003 or COMS 1003

A course designed to develop technology skills using current software; application documents include letters, memos, reports, tables, desktop publishing, and graphics for business as well as personal use.

## **BUAD 2053: Business Statistics**

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ACTS Common Course - BUSI2103

Prerequisites: COMS 2003, BUAD 2003 or MGMT 2013, and MATH 2223 or any higher level math course.

This course reviews basic descriptive statistics and probability distributions. The course introduces inferential statistics and their application to business problems. Topics covered include data collection, the t-tests for one sample, matched-pairs, and independent groups, the F-test for one and two-way analysis of variance, the z-test for one and two proportions, the chi-square tests for independence and goodness of fit, the t- and F- tests as they relate to simple and multiple regression, control charts, time-series analysis, the visual display of quantitative information, and the reporting of results. Problems are addressed using technology such as statistical calculators and advanced statistical software.

## **BUAD 3023: Business Communications**

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Prerequisites: 6 hours of English Composition and BUAD 2003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Course includes principles of effective business communication using technology to generate documents including letters, memos, and reports; international, ethical, legal, and interpersonal topics are integrated throughout the course.

## **BUAD 3123: Management**

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A study of the basic principles of management and organizational behavior including planning, organizing, leading, controlling, staffing, decision making, ethics, interpersonal influence, and group behavior, and organizational change and development.

## **BUAD 3143: Marketing**

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This course covers marketing fundamentals, consumer behavior, the retailing and wholesaling systems, marketing functions, marketing policies, marketing costs, critical appraisal of marketing, marketing ethics and social responsibility, and the relationship between marketing, society, and the government.

### **BUAD 3293: International Business**

---

This course covers all aspects of international business including, but not limited to, international politics, culture, economics, finance, technology, marketing, ethical decision-making, strategic planning and management, and human resource development in a global environment.

### **BUAD 3393: Small Business Firm Planning**

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Application of business planning principles to the creation and operation of small-scale enterprises. The emphasis for this course is on the preparation and implementation of business plans for small firms. Focus will be given to plans used for business strategy and for seeking financial investment in the firm.



# Chemistry Course Descriptions

## **CHEM 1111: Survey of Chemistry Laboratory**

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ACTS Common Course - CHEM1214 (taken with CHEM 1113)

Co-requisite: CHEM 1113.

An introduction to laboratory experiences in chemistry.

\$20 laboratory fee

## **CHEM 1113: A Survey of Chemistry**

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ACTS Common Course - CHEM1214 (taken with CHEM 1111)

Prerequisite: A score of 19 or above on the mathematics section of the ACTE exam, or completion of MATH 0903, Intermediate Algebra, with a grade of C or better.

Co-requisite: CHEM 1111

A survey of selected topics in chemistry for life science majors. A brief introduction to fundamental concepts, atomic structure, chemical bonding, and periodic law as applied in the life sciences and allied areas.

May not be taken for credit after completion of CHEM 2124 or 2134.

## **CHEM 2111: Environmental Seminar**

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Cross-listed: BIOL 2111, GEOL 2111

A seminar for students pursuing the environmental option of chemistry, biology, or geology and other students interested in environmental sciences.

## **CHEM 2120: General Chemistry I Lab**

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Co-requisite for CHEM 2124 General Chemistry I.

## **CHEM 2124: General Chemistry I**

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ACTS Common Course - CHEM1414

Prerequisite: Score of 21 or higher on the math portion of the ACTE; or MATH 1113 or equivalent; or a "C" or better in CHEM 1113 and CHEM 1111; or approval of the instructor.

Co-requisite: CHEM 2120

The first of a two semester sequence designed for science and engineering majors. Topics include qualitative and quantitative, applied and theoretical analyses of the interactions of matter; atoms, molecules, ions, the mole concept, chemical equations, gases, solutions, intermolecular forces, thermochemistry, quantum theory, periodic law, ionic and covalent bonding, molecular geometry.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **CHEM 2130: General Chemistry II Lab**

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Co-requisite for CHEM 2134, General Chemistry II.

## **CHEM 2134: General Chemistry II**

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ACTS Common Course - CHEM1424

Prerequisite: Completion of CHEM 2124 or equivalent.

Co-requisite: CHEM 2130

A continuation of CHEM 2124, encompassing chemical kinetics, equilibrium, acid/base systems, atmospheric chemistry, thermodynamics, electrochemistry, descriptive inorganic chemistry and nuclear chemistry.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **CHEM 2204: Organic Physiological Chemistry**

---

ACTS Common Course - CHEM1224

Offered: Fall

Prerequisite: CHEM 1113 and CHEM 1111 or CHEM 2124.

For students who desire only one semester of organic/physiologic chemistry, such as wildlife biology and various allied health programs. A brief introduction to organic and physiological chemistry. The structures, reactions and biological aspects of organic compounds will be stressed.

Note: Will not be counted for chemistry credit toward the ACS approved BS in chemistry.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **CHEM 2991,2992,2993,3991,3992,3993: Special Problems in Chemistry**

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Prerequisite: Permission of instructor

One to three credits, depending on the nature and extent of the problem. This course is designed to encourage creative, independent scientific activity on the part of advanced students. Problems will be designed to fit the future aspirations of individual students and will be supervised by a faculty mentor.

## **CHEM 3111: Environmental Seminar**

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Cross-listed: BIOL 3111, GEOL 3111

A seminar for students pursuing the environmental option of chemistry, biology, or geology and other students interested in environmental sciences.

## **CHEM 3245: Quantitative Analysis**

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Offered: Spring

Prerequisite: CHEM 2134

This is a lab intensive course, that focuses on a variety of experimental techniques that enable the chemist to characterize and quantify many types of samples.

Lecture three hours, laboratory six hours. \$20 laboratory fee.

## **CHEM 3254: Fundamentals of Organic Chemistry**

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Prerequisite: CHEM 2134

An introduction to the chemistry of covalently bonded carbon. Special emphasis will be given to descriptive and structural aspects of Organic Chemistry.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **CHEM 3264: Mechanistic Organic Chemistry**

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Prerequisite: Completion of CHEM 3254 or equivalent.

A continuation of CHEM 3254 with special emphasis on theory and mechanisms of organic reactions.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

### **CHEM 3301: Chemistry Seminar**

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Offered: Fall

Participants will prepare written reviews, present oral reports, and defend their reports. Emphasis will be on the use of the library and current chemical research.

### **CHEM 3313: Environmental Chemistry**

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Offered: Spring

Prerequisite: Chemistry 3254

An examination of the chemistry of the environment including the origins, natural processes, and anthropogenic influences.

### **CHEM 3324: Physical Chemistry I**

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Offered: Fall

Prerequisites: CHEM 3254, PHYS 2114, MATH 2924

A junior-level chemistry course required of all chemistry majors. Course content includes ideal and non-ideal gases, laws of thermodynamics, enthalpy, entropy, heat capacity, free energy, Maxwell's relations, activities, phase and chemical equilibria, electrochemistry, colligative properties, kinetic theory of gases, statistical mechanics, classical kinetics and mechanisms.

Lecture 3 hours, laboratory 3 hours. \$20 laboratory fee.

### **CHEM 3334: Physical Chemistry II**

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Offered: Spring, alternating years

Prerequisite: CHEM 3324

Continuation of CHEM 3324. Early and modern quantum theory, wave mechanics and the Schrodinger wave equation, valence bond theory, molecular orbital (MO) theory, computational chemistry, group theory and molecular symmetry, vibrational and rotational spectroscopy.

Lecture 3 hours, laboratory 3 hours. \$20 laboratory fee.

### **CHEM 3344: Principles of Biochemistry**

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Prerequisites: CHEM 3264 and BIOL 1014 or 1114

The chemistry of metabolism of carbohydrates, lipids, and proteins. Basic concepts of the biochemistry of DNA, vitamins, enzymes, biological oxidations, and bioenergetics with introduction to biochemical laboratory techniques.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

### **CHEM 3353: Fundamentals of Toxicology**

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Offered: On demand

Prerequisite: CHEM 3254

An introduction to the science of poisons. Toxicological principles studied include structures, dose/response relationships, metabolism, mechanism of action, and gross effects of chemicals.

## **CHEM 3363: Metabolic Biochemistry**

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Offered: Spring

Prerequisite: grade of C or better in CHEM 3344

The study of metabolism of carbohydrates, lipids, proteins, and nucleic acids, and the study of biological information flow in organisms. Metabolic pathways and genetic informational flow in plants and animals will be addressed.

## **CHEM 3423: Descriptive Inorganic Chemistry**

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Offered: Fall

Prerequisite: CHEM 2134

Basic descriptive inorganic chemistry dealing in a systematic way with the elements and the structures, properties and reactions of their inorganic compounds. Topics range from coordination chemistry to organometallic chemistry to bioinorganic chemistry.

## **CHEM 4111: Environmental Seminar**

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Cross-listed: BIOL 4111, GEOL 4111

A seminar for students pursuing the environmental option of chemistry, biology, or geology and other students interested in environmental sciences.

## **CHEM 4401: Chemistry Seminar**

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Offered: Spring

Prerequisite: CHEM 3301 and senior status

Participants will prepare written reviews, present oral reports, and defend their reports. Emphasis will be on the use of the library and current chemical research.

## **CHEM 4414: Instrumental Analysis**

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Offered: Fall

Prerequisite: CHEM 3245

This course is designed for chemistry majors. It will focus on the understanding of the instrumental methods used in analytical chemistry. A variety of spectrometric, chromatographic, and electrometric techniques will be covered in the lecture and laboratory.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **CHEM 4424: Advanced Inorganic Chemistry**

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Offered: Spring, alternating years

Prerequisite: CHEM 3423

CHEM 4424 is a senior level inorganic chemistry course. The course gives an overview of some of the many advanced areas of study in inorganic chemistry including atomic and molecular structure, acid-base chemistry, symmetry and group theory, coordination chemistry and organometallic chemistry.

Lecture three hours, laboratory three hours. \$20 laboratory fee

## **CHEM 4433: Advanced Topics in Chemistry**

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Offered: On demand

Prerequisite: Permission of instructor.

Various advanced topics in any specialty area of chemistry, e.g., polymers, coordination chemistry, and nuclear chemistry.

### **CHEM 4951,4952,4953,4954: Undergraduate Research in Chemistry**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **CHEM 4991,4992,4993,4994: Special Problems in Chemistry**

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Prerequisite: Permission of instructor.

One to four credits, depending on the nature and extent of the problem. This course is designed to encourage creative, independent scientific activity on the part of advanced students. Problems will be designed to fit the future aspirations of individual students and will be supervised by a faculty mentor.

## Chinese Course Descriptions

### **CHIN 1013: Beginning Chinese I**

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Emphasis on conversation; introduction to basic grammar, reading, writing, and culture.

Three hours of applied class work and one hour of foreign language lab per week is required.

### **CHIN 1023: Beginning Chinese II**

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Continued emphasis on conversation and fundamental language skills.

Three hours of applied class work and one hour of foreign language lab per week is required.

### **CHIN 2013: Intermediate Chinese I**

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Prerequisite: CHIN 1023 or equivalent.

Instruction designed to develop communication skills and knowledge of grammar, reading, writing, and culture.

Three hours of applied class work and one hour of foreign language lab per week is required.

### **CHIN 2023: Intermediate Chinese II**

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Prerequisite: CHIN 2013 or equivalent.

Instruction designed to enhance communication skills and knowledge of grammar, reading, writing, and culture.

Three hours of applied class work and one hour of foreign language lab per week is required.



# Criminal Justice Course Descriptions

## CJ 2003: Introduction to Criminal Justice

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ACTS Common Course - CRJU1023

Cross-listed: SOC 2003

An overview of the criminal justice system and the workings of each component. Topics include the history, structure, and functions of law enforcement, judicial and correctional organizations, their interrelationship and effectiveness, and the future trends in each.

## CJ 2033: Social Problems

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ACTS Common Course - SOCI2013

Cross-listed: SOC 2033

Prerequisite: SOC 1003

A sociological analysis of contemporary social problems including inequalities, deviance, population changes, and troubled institutions.

## CJ 2043: Crime and Delinquency

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Cross-listed: SOC 2043

Prerequisite: SOC 1003 or CJ(SOC) 2003

A study of the major areas of crime and delinquency; theories of crime, the nature of criminal behavior and the components of the criminal justice system. Topics include: crime statistics, criminology research, theories of crime and delinquency, criminal typologies and operations of the criminal justice system.

## CJ 3023: Judicial Process

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Cross-listed: POLS 3023

The structure and operations of the state and national court systems. Emphasis is upon the role of the criminal courts in the political system and the consequences of judicial policy making.

## CJ 3033: The Criminal Mind

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Cross-listed: PSY 3033

Prerequisites: PSY 2003 and CJ(SOC) 2003 or (CJ)SOC 2043

The course familiarizes students with various models, theories, and research regarding criminality from a psychological perspective. Genetic, constitutional, and biological factors will be emphasized and some practical applications to dealing with criminals will be considered.

## CJ 3083: Social Deviance

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Cross-listed: SOC 3083

Prerequisite: SOC 1003 or SOC(CJ) 2003

An introduction to the sociological and criminological study of human deviance. Various theories of deviance will be examined and applied to real life examples.

## CJ 3103: The Juvenile Justice System

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Cross-listed: SOC 3103

Prerequisite: CJ(SOC) 2003 or permission of instructor

An in-depth look at the juvenile justice system including the structure, statuses and roles as well as current issues, problems, and trends.

## **CJ 3153: Prison and Corrections**

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Cross-listed: SOC 3153

Prerequisites: SOC 1003 and SOC(CJ) 2033

An introduction to and analysis of contemporary American corrections. Emphasis will be on current and past correctional philosophy, traditional and modern correctional facilities, correctional personnel and offenders, new approaches in corrections, and the relationship of corrections to the criminal justice field.

## **CJ 4013: Drugs in Society**

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Cross-listed: SOC 4013

Prerequisite: SOC 1003 or CJ 2003

This course presents a comprehensive study of the history and prohibition of drug use in the United States, as well as the effects of drugs on society in the form of crime, prison and treatment. The main focus of this class is on the history of drug use, how certain drugs become illegal, and the intended and unintended consequences of drug prohibition for communities and society.

## **CJ 4023: Law and the Legal System**

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A comprehensive study of judicial process and behavior in criminal and civil law.

Note: May not be taken for credit after completion of POLS 5023 or equivalent.

## **CJ 4141,4142,4143,4144: Seminar in Criminal Justice**

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Prerequisites: CJ 2003 and consent of instructor.

This course is a directed seminar in an area of criminal justice selected by both the student and supervising faculty member. Topics will vary depending on the research underway, community or student need, and the unique educational opportunity available.

This course may be repeated for course credit if the content differs.

## **CJ 4206: The Law in Action**

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Cross-listed: SOC 4206

Offered: Summer only

Prerequisites: CJ(SOC) 2043, 9 hours of Criminal Justice coursework, senior classification, and instructor permission.

An examination of sociological theories of law and main currents of legal philosophy is followed by participant observation of actual community legal agencies, including police, courts, and others as available.

Note: Requires insurance fee.

## **CJ 4951,4952,4953,4954: Undergraduate Research in Criminal Justice**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **CJ 4991,4992,4993,4994: Special Problems in Criminal Justice**

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Prerequisite: Prior approval of instructor and department.

Content is to be determined by faculty student conference and based on student background and interest.

# College Student Personnel Course Descriptions

## **CSP 1013: Principles of Collegiate Success**

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This course is designed specifically to enhance student adjustment to college life, student adaptation to the higher education learning experience, student comprehension of personal responsibility, and student advancement regarding career pathways.

# Computer/Information Science Course Descriptions

## **COMS 1003: Introduction to Computer Based Systems**

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ACTS Common Course - CPSI1003

Provides students with both computer concepts and hands-on applications. Although little or no prior computer experience is required for this course, keyboarding proficiency is assumed. Topics include PC basics, file maintenance, and hardware and software components. Students will gain experience in the use of Windows, e-mail, the Internet, word processing, spreadsheets, databases, and presentation packages. The integration of software packages will also be covered.

Note: This course may not be taken for credit after completion of COMS 2003 or BUAD 2003.

Note: Credit by examination is offered to students who have notable experience with computers and MS Office applications. Information regarding this examination can be found at [cs.atu.edu/coms1003](http://cs.atu.edu/coms1003).

## **COMS 1333: Web Publishing I**

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Prerequisites: COMS 1003 or BUAD 2003

This course focuses on how to develop web pages for display on the World Wide Web. Topics covered include standards-based coding, hyperlinks, images, tables, forms, design issues, and other topics as appropriate. Students will learn how to publish a web site to a server and maintain the site.

## **COMS 1403: Orientation to Computing, Information, and Technology**

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Co-requisite: MATH 1113 and COMS 1411

An overview of hardware, software, technology, and information systems concepts and terms as well as ethics and opportunities within the three fields.

Note: Required of all students who have declared a major in Computer Science, Information Systems, or Information Technology.

## **COMS 1411: Computer and Information Science Lab**

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Co-requisite: COMS 1403

An introduction to the computing resources of the department and the university.

## **COMS 2003: Microcomputer Applications**

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Prerequisite: COMS 1003 or BUAD 2003

This course provides hands-on experience with several software applications. Topics include intermediate and advanced word processing; spreadsheet design, formulas, and charts; database design principles and implementation; presentation design and techniques; and integration among these applications. Students will be required to apply each package on a semester project related to their major.

## **COMS 2104: Foundations of Computer Programming I**

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Prerequisites: MATH 1113, and either COMS 1403 and 1411 or consent of instructor

An introduction to the foundational concepts of programming using structured programming concepts of C++ as an implementation tool. Programming principles covered in lecture are practiced in lab. Major topics include sequential, selection, and iterative control structures, functions, parameter passing, and file processing. Arrays are introduced as a structured data type.

## **COMS 2163: Scripting Languages**

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Prerequisite: Minimum of 3 hour programming course.

This course introduces the student to script writing in several languages. The primary categories of scripts will be UNIX shell, text processing, and Perl. CGI Scripts, using Perl, will be introduced.

## **COMS 2203: Foundations of Computer Programming II**

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Prerequisites: MATH 1113 or equivalent with a grade of C or better and completion of COMS 2104 with a grade of C or better.

This course is a continuation of Foundations of Programming I. Topics include multi-dimensional arrays, functions, string processing, classes, and records. Students are introduced to object oriented programming using C++.

## **COMS 2213: Data Structures**

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Prerequisites: COMS 2203, and COMS 2903

This course involves a study of abstract data structures and the implementation of these abstract concepts as computer algorithms.

## **COMS 2223: Computer Organization and Programming**

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Prerequisites: COMS 2203 and ELEG 2134

Introduction to organizing and structuring hardware components of computers. Topics include internal data representation, data transfer and control, I/O, memory hierarchy, and programming in assembly.

## **COMS 2233: Introduction to Databases**

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Prerequisite: COMS 1003 or COMS 1403

This course develops a detailed understanding of a database software package developed for microcomputer applications. Topics include how to design, implement, and access a personal database. Entity relationship diagrams are emphasized in design. The use of macros, data conversion operations, linking, and complex selection operations are used in implementation. Advanced report generation mechanisms are covered along with custom-designed menus and user interfaces.

## **COMS 2333: Web Publishing II**

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Prerequisite: COMS 1333 or consent of instructor.

This course is a continuation of COMS 1333. Students are introduced to multimedia design concepts and software. Multimedia applications and design tools are used to create and maintain multimedia products such as dynamic graphics, animation, interactive websites, and video.

## **COMS 2700: Networking and Architecture Laboratory**

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Co-requisite: COMS 2703

Laboratory exercises repairing and networking computers.

## **COMS 2703: Computer Networks and Architecture**

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Prerequisites: COMS 1411 and COMS 1403

Co-requisite: COMS 2700

This course covers how to install and administer a local area network and connect it to the Internet. Topics include network architecture, hardware, and software, along with popular protocols for establishing connectivity for sharing resources such as printers and files. Participation in a designated lab outside of the regularly scheduled meeting time is required.

## **COMS 2713: Survey of Operating Systems**

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Prerequisites: COMS 1411; COMS 1003 or COMS 1403

Several Operating Systems (such as Unix, Microsoft, IBM) will be examined with regard to the user's view of the system. This view includes the types of files supported, the kinds of operations that can be performed on files (from the shell and from programs), the mechanisms for starting and controlling processes (i.e. running programs), some basic utility programs that a beginning or intermediate level administrator would need to use.

## **COMS 2733: Introduction to Computer Forensics and Security**

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Prerequisite: COMS 2703

Co-requisite: COMS 2713

An introduction to the fundamentals of computer forensic technology. The course emphasizes techniques for identifying and minimizing the threats to, and vulnerabilities of computer systems. These techniques include methods and tools for tracking suspicious activity, for recovering and preserving digital media, and for doing post-mortem analysis.

## **COMS 2803: Programming in C**

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Co-requisite: MATH 1113

Not for majors. This course involves the design, coding, debugging, and implementation of programs using the C language. The UNIX operating system is introduced.

Note: May not be taken for credit after the successful completion of COMS 2104.

## **COMS 2853: Business Application Programming using COBOL**

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Prerequisite: COMS 2203

This course involves the analysis, design, development, testing, implementation, and maintenance of business application programs using the COBOL language. Topics include traditional data file organization, access, and processing methodologies. Additional topics include data validation, tables, sorting, searching, screen I/O, and report-based output. Programs are developed in PC and IBM mid-range computing environments.

## **COMS 2903: Discrete Structures for Technical Majors**

---

Prerequisites: MATH 1113 and a C or better In COMS 2104 or equivalent

Fundamental mathematical concepts related to computing, including logic and proof techniques; sets, sequences, relations, and functions; combinatorics; algebraic structures and Boolean algebra ; trees and graphs.

## **COMS 2981,2982,2983,2984: Special Topics**

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Prerequisite: Permission of the department.

This course will be offered on an "as-needed" basis to cover those topics and subject areas in computing that are emerging in a technological sense, but that do not yet warrant the addition of a new course to the curriculum.

Note: This course may be repeated for credit if course content differs.

## **COMS 3053: Implications of Technology on Society**

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Prerequisite: Junior standing in IS, IT, or CS

This course explores ethical issues faced by members of a complex technological society and by professionals in a technology-related field. Topics covered include professional ethics, ethical decision making, privacy issues, intellectual property, and technology issues relating to software development, productivity, and computer crime. Extensive research on current issues is expected.

## **COMS 3163: Web Programming**

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Prerequisites: COMS 2213 and COMS 3233

Topics include features of web forms and CGI processing via a scripting language. Basic database interaction and Server-Side Includes (SSI), client-side implementation of pop-up windows, form validation, cookies, security, and other concepts will also be discussed.

## **COMS 3213: Advanced Data Structures and Algorithm Design**

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Prerequisites: COMS 2213 and 3913

Concepts, implementation, and application of trees, hashing, graphs, and other advanced data structures will be studied.

## **COMS 3233: Database Design and Implementation**

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Prerequisites: COMS 2003, COMS 2203 and COMS2903

This course focuses on the design and implementation of relational database systems. Fundamental principles of databases such as relational model, conceptual design and normalization are covered. Students will also gain experience in database and query implementation using a DBMS and SQL.

## **COMS 3243: Data Mining**

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Prerequisites: COMS 3233 and 3 hours statistics

Introduction to knowledge discovery from large databases: terminology, algorithms, methodologies, software, limitations, implications, and current trends. Students will implement and evaluate data mining techniques.

## **COMS 3503: Visual Programming**

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Prerequisites: COMS 2003 (or equivalent) and COMS 2213

This course covers the design and development of event-driven programs using an object-oriented visual programming languages such as Visual Basic, Visual C#, or Visual C++.

## **COMS 3513: Administering and Using the IBM Platform**

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Prerequisites: COMS 2104 or consent of instructor.

This course is an introduction to the operations of the IBM midrange computer system. Topics include architecture, system security, user interface, and work management. Coverage will also extend to applications and programming using an introduction to DB2 and RPG.

## **COMS 3523: Human Factors in Information Technology**

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Prerequisite: Junior standing in a computing major or instructor consent.

A study of the major factors involved in Human-Computer Interaction. A system-oriented, multi-disciplinary approach to understanding the human considerations in the design, testing, implementation, and administration of computer-based systems and information technology.

## **COMS 3603: Principles of Management Science**

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Prerequisites: BUAD 2053 and junior standing.

An introduction to management science analytical techniques, including such topics as the simplex method of linear programming, dual problem and sensitivity analysis, and integer programming. Emphasis is placed on the application of these methods using case studies and examples from the area of finance, marketing, and production. Applicable management science software will be used.

## **COMS 3703: Operating Systems**

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Prerequisites: COMS 2213 and COMS 2223

This course explores the fundamental concepts upon which modern operating systems are based. Topics include CPU, memory, file and device management, concurrent processes, protection mechanisms, and distributed systems. Several important algorithms will be implemented by the student.

### **COMS 3903: Systems Software and Architecture**

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Prerequisites: COMS 2703, COMS 2104 and junior standing

This course covers the implementation of production operating systems, the fundamentals of digital logic, and machine architecture.

Note: This course does not count as credit toward a degree in Computer Science.

### **COMS 3913: Advanced Discrete Structures**

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Prerequisites: COMS 2203, COMS 2903 and MATH 2914

Advanced topics in discrete mathematics applicable to modeling, analysis, and computer theory. Topics include relations, graphs, analysis of algorithms, and computability.

### **COMS 4013: Quality Management in Information Technology**

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Prerequisites: BUAD 2053 and COMS 3233

The study of quality management and quality assurance with regard to the analysis, design, development, and implementation of information systems and information technology. Topics include measurement techniques and standards, including ISO 9001 and other associated best practices regarding process management and process improvement.

### **COMS 4033: Systems Analysis and Design I**

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Prerequisite: COMS 3233

The application of concepts, tools, procedures, and techniques involved in the development of information systems. Emphasis is placed on the systems approach to problem solving, user involvement, the management of quality, project control, and teamwork.

### **COMS 4043: Systems Analysis and Design II**

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Prerequisites: COMS 4033 and either COMS 4133, 4163, or 4313

A continuation of COMS 4033, with emphasis on the application of the theory and techniques covered in the previous course. Students will research, analyze, design, implement, test and document a complete system. Students, working as a team, will analyze, plan, implement, document, and present a complete system in a real world environment.

### **COMS 4053: Information Systems Resource Management**

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Prerequisites: Junior standing in information systems, information technology, or computer science.

A study of the principles and concepts involved in the management of organizational maintenance of all information resources, including hardware, software, and personnel. Includes coverage of departmental functions within computer/information services, as well as legal, ethical, and professional issues, quality management, and the strategic impact of information systems.

### **COMS 4063: IT Project Administration**

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Prerequisite: Junior standing in information technology, information systems, or computer science.

This course provides a thorough introduction to the art and science of Project Management, as applied in the domain of information technology. Theories, best practices, and tools of project management are studied in relation to the completion of a successful project life cycle.

### **COMS 4103: Organization of Programming Languages**

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Prerequisites: COMS 2213, COMS 2223, and COMS 3913

This course emphasizes the comparative structures and capabilities of several programming languages. Major emphasis will be placed on language constructs and the run-time behavior of programs.

## **COMS 4133: Application Program Development**

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Prerequisites: COMS 2213 and COMS 2853

Object-oriented application development. Topics include OO Programming, three-tier design, and model-driven development. The course involves a major individual programming project. Students will develop and present their own large-scale application program.

## **COMS 4163: Personal Software Engineering**

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Prerequisite: COMS 3213

Formal methods for software specification. Program analysis, verification, and testing. Principles of software design. Object-oriented program implementation. Personal software process and product measurements. Program documentation. Software tools. Each student will implement a large application.

## **COMS 4203: Database Concepts**

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Prerequisites: COMS 2003, COMS 2203 and COMS 2903

Problems associated with common data processing systems, reasons for database system development; objectives such as data, device, user, and program independence; hierarchical, network, and relational models; data structures supporting database systems; operational considerations such as performance, integrity, security, concurrency, and reorganization; characteristics of existing database systems.

## **COMS 4213: Database Administration**

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Prerequisite: COMS 3233

This course develops a comprehensive foundation in the planning, implementation and execution of database management polices and procedures. Topics include installation, storage and replication implementation, security management, indexing and performance tuning, and backup and recovery.

## **COMS 4303: Client/Server Systems**

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Prerequisites: COMS 2213 and COMS 3233

This course provides in- depth coverage of client/server concepts. The student will use object-oriented visual programming tools and SQL in the construction of client/server programs. Emphasis will be placed on the proper design of server databases and on programming techniques used in event- driven environments.

## **COMS 4313: Server Administration**

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Prerequisites: COMS 2333 and COMS 2733

The tools and techniques needed to administer a server. Installation, configuration, and administration of a variety of servers on different platforms.

## **COMS 4353: Artificial Intelligence**

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Prerequisites: COMS 2213 and junior standing

General concepts, wide overview of AI history, and development and future of AI. Implementation of AI techniques using the LISP and or PROLOG languages. Additional topics include pattern recognition. natural language processing, learning process, and robotics.

## **COMS 4403: Compiler Design**

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Prerequisites: COMS 2223, COMS 3213 and COMS 4103

This course covers syntax translation, grammars and parsing, symbol tables, data representation, translating control structures, translating procedures and functions, processing expressions and data structures, and multipass translation. Students will design a computer language and implement the compiler.

## **COMS 4700: Data Communications and Networking Lab**

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Co-requisite: COMS 4703

Students will complete network lab exercises in support of COMS 4703.

## **COMS 4703: Data Communications and Networks**

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Prerequisites: COMS 2703, COMS 2903; COMS 2223 or COMS 3903.

Co-requisite: COMS 4700

Basic elements and functional aspects of the hardware and software required to establish and control data communications in a stand-alone or network environment. Topics include communication protocols, media, network topologies, and system support software. Participation in a designated lab outside of the regularly scheduled meeting time is required.

## **COMS 4710: Heterogeneous Networks Lab**

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Co-requisite: COMS 4713

Students will complete network lab exercises in support of COMS 4713.

## **COMS 4713: Heterogeneous Networks**

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Prerequisite: COMS 4703

Co-requisite: COMS 4710

The student will design, develop, implement and manage numerous heterogeneous networking operating system environments. Required policies and procedures are examined and developed. Networking tools required for the development of a seamless heterogeneous networking environment are studied and applied.

## **COMS 4803: System Simulation**

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Prerequisites: COMS 2213 and 3 hours of Statistics.

Three hour programming course and junior/senior classification. An introduction to simulation methodology as it applies to the analysis and synthesis of systems. Design of simulation experiments and the analysis of data generated therefrom. Random sampling of the Monte Carlo method are used to develop computer procedures for simulated sampling. A broad range of applications is discussed.

## **COMS 4951,4952,4953,4954: Undergraduate Research in Computer and Information Science**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **COMS 4981,4982,4983: Seminar in Computer and Information Science**

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Prerequisite: Permission of department

A directed seminar in an area of computer and information science. Seminars will focus on topics relating to emerging technologies which are beyond the scope of other computer and information science courses.

Note: This course may be repeated for credit if course content differs.

### **COMS 4991,4992,4993,4994: Special Problems in Computer and Information Science**

Prerequisite: Permission of department

This course will allow the student to work individually or as part of a small team to study and design practical computerized systems in order to solve problems of particular interest. This course may be used to offer a variety of subjects that strengthen the student's knowledge in areas not covered by other course offerings.



# Culinary Course Descriptions

## **CUL 1013: Sanitation Safety**

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Cross-listed: HA 1013

This course provides knowledge of food safety, potable water, bioterrorism and risk management particularly in the areas of food service and storage. The student will gain knowledge on safe food handling from; receiving and storage through preparing and serving food. This course will also analyze ethical considerations with regards to food and water safety and food service. ServSafe certification from the NRAEF will result upon successful completion of standardized exam.

## **CUL 1923: Introduction to Food and Beverage Management**

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Cross-listed: HA 1923

This course introduces the practical skills and knowledge necessary for the effective management of food and beverage operations encompassing the historical timeline of food and beverage, non-alcoholic beverages, the identification of meats, fishes, fruits, vegetables, dairy products and proteins. This course also introduces the front-of-the-house essentials for food and beverage operations encompassing glassware, service ware and other front-of-the-house equipment.

## **CUL 2003: Cost Controls**

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Prerequisite: MATH 1003 or MATH 1113

This course will study the role of cost control management on overall profitability of hospitality entities. Basic principles of purchasing food, beverage, and non-food items with regards to maintaining an operation's competitive advantage within the industry will be covered.

## **CUL 2023: Hospitality Supervision and Leadership**

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Cross-listed: HA 2023

This course provides comprehensive coverage of the principles, theories, human-relations techniques, leadership styles, and decision-making skills that are required to manage a team to profitable results in the food service and lodging industries.

## **CUL 2053: Work Experience**

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Cross-listed: HA 2053

Prerequisite: HA/CUL major or HA minor.

Sophomore standing or permission of instructor. Placement in selected hospitality settings as a student worker under professional guidance of both agency and faculty. Students are given the opportunity to take part in meaningful work experiences in actual work situations and managerial observation.

Minimum of 200 clock hours of work experience.

## **CUL 2063: Guest Service Management**

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Cross-listed: HA 2063

The analysis and development of guest services management skills including leadership behavior, motivation, communication, training, staffing, etiquette, and professional service.

Lecture two hours, lab minimum of four hours depending on the special event requirements.

Note: \$100 lab fee which helps to cover your meal costs.

## **CUL 2813: Basic Human Nutrition in Hospitality Administration**

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Cross-listed: HA 2813

Study of the relationship between nutrition and health as a basis for food choices of all ages; the application of nutrient functions in human life processes and cycles; how balanced eating promotes healthy lifestyles. Current concepts and controversies are highlighted.

## **CUL 2903: Introduction to Garde Manger**

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Prerequisites: CUL (HA) 1013 and CUL (HA) 2913

This course is an introduction to three main areas of the cold kitchen: reception foods, plated appetizer and buffet arrangements. Students will learn to prepare canapes, hot and cold hors d'oeuvre, appetizers, forcemeats, pates, galantine, terrines, roulades, salads and sausages. Curing and smoking techniques for meat, seafood and poultry items will be covered. Cheese identification, production, presentation and service will be studied. The student will also explore contemporary styles of presenting foods and buffet preparation.

Lecture 1 hour, lab 3 hour minimum.

Note: \$100 lab fee required. Additional Costs: professional uniforms are required and are to be considered additional out-of-pocket expenses to the student.

## **CUL 2913: Principles of Food Preparations**

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Cross-listed: HA 2913

Prerequisite: CUL (HA) 1013, CHEM 1113 and CHEM 1111

Co-requisite: CUL (HA) 2813

Upon completion of this course the student should be able to demonstrate skills in basic cooking techniques and methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to recognize and safely operate common foodservice equipment used in commercial kitchens and demonstrate proficient culinary knife skills.

This course is 2 hours lecture and a 4 hour lab depending upon special event requirement(s).

Note: \$100 lab fee required. Additional costs: professional uniforms are required and are to be considered additional out-of-pocket expenses to the student.

## **CUL 2923: Stock, Sauces, and Soups**

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Prerequisite: CUL (HA) 2913

This course is an introduction to the basic stocks, sauces and soups and is based on the classical model by Escoffier. Fundamental elements covered include the entire classic French repertoire of hot sauces; the five leading sauces; bechamel, veloute, espagnole (also known as brown), tomato and hollandaise as well as small compound sauces, cold sauces, compound butter, court bouillon and marinades, roux and other thickening agents. Clear soups, thick soups and specialty soups will be introduced and expanded upon.

Lecture 1 hour, lab 3 hour minimum.

Note: \$100 lab fee required. Additional costs: professional uniforms are required and are to be considered additional out-of-pocket expenses to the students.

## **CUL 2933: Advanced Food Preparations**

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Prerequisite: CUL (HA) 2913

This course reviews basic cooking methods and techniques and refines the understanding of/and application of culinary terminology, proper care and use of tools and equipment as well as safety and sanitation techniques. Students will gain an advanced knowledge of the correct procedures for the following methods: poach, fry, bake, broil, boil, roast, stew, saute, grill and steam. Students will gain an advanced knowledge of vegetable, pasta, grain, and potato cookery as well as preparation of game, fish, shellfish, lamb, and veal.

Lecture 1 hour, lab 3 hour minimum.

Note: \$100 lab fee required. Additional costs: professional uniforms are required and are to be considered additional out-of-pocket expenses to the student.

## **CUL 2943: Introduction to Baking & Pastry**

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Prerequisite: CHEM 1113 and CHEM 1111

This course introduces basic methods used in baking and pastry. Methods introduced include, creaming, thickening for custards, pre-cooked, foaming, cut-in/rubbing, straight dough, blending and lamination. This course will focus on the range of baking ingredients in original, modified, and prepared forms as well as the theory and operation of large and small equipment used in bakeries and pastry shops. Through preparing, tasting and testing, students will learn to identify and select quality grains, dairy products, baking spices, flours, chocolates, fats, and oils used in baking.

Lecture 1 hour, lab 3 hour minimum. \$100 lab fee required. Additional costs: professional uniforms are required and are to be considered additional out-of-pocket expenses to the student.

## **CUL 2996: Externship**

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Prerequisite: Culinary major, sophomore standing, current certifications in CPR, Standard and Advanced First Aid, consent of the department head and completion of all other courses applicable to degree.

This course provides industry experience for students in cooperating businesses, agencies and organizations under professional guidance of both agency supervisor and faculty. While enrolled in this course, a student must work a minimum of 400 hours and a minimum of 10 weeks in an approved position in the hospitality industry. Student cannot document more than 40 hours of work experience per week. No prior experience credit will be given. A written report is required within two weeks of externship completion.

\$100 supervisor travel fee is required.

## Driver Education Course Descriptions

### **DE 4543: Driver and Traffic Education II**

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Prerequisites: A valid driver's license, admission to teacher education program, a driving record free from frequent and unusual violations.

This course is designed to prepare teachers to organize and teach driver education and traffic safety programs in secondary schools. It includes administration, supervision of personnel, design of facilities, and a research project.

Note: May not be repeated for credit as DE 5543 or equivalent.

### **DE 4613: Driver and Traffic Education I**

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Prerequisites: A valid driver's license, admission to teacher education program, and a driving record free from frequent and unusual violations.

This course is designed to prepare teachers to organize and teach driver education and traffic safety programs in secondary schools. This course provides a survey of materials and methods of instruction plus evaluation of textbooks and in car training of a student driver.

Two hour lecture, two hours laboratory.

Note: May not be repeated for credit as DE 5613 or equivalent.

# Early Childhood Education (AS) Course Descriptions

## Associate Degree Program

### **ECE 2113: Basic Child Growth and Development**

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A study of the various developmental principles affecting the individual from the prenatal period through early adolescence. The course includes observational experiences in settings for young children.

### **ECE 2313: Foundations and Theories in Early Childhood Education**

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An introduction to the profession including historical and social foundations, awareness of value issues, ethical and legal issues, staff relations, and the importance of becoming an advocate for children and families.

### **ECE 2513: Curriculum for Early Childhood Education**

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Prerequisite or Co-requisite: ECE 2113

A study and application in the field of the theoretical base for early learning. Covers curriculum for young children based on research and theory.

### **ECE 2613: Methods and Materials Using Developmentally Appropriate Practices and Activities for Young Children**

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Prerequisite or Co-requisite: ECE 2113

A combination of classroom and field based experiences stressing developmentally appropriate techniques and materials fostering successful development and learning in young children.

### **ECE 2991,2992,2993,2994,2995,2996,2997,2998,2999: Practicum in Early Childhood Education**

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Prerequisites: Completion of 12 hours of ECE courses taken for meeting assessment requirements for the Child Development Associate credential.

Variable credit available for documented early childhood training related to the principles and procedures which support the development and operation of an effective early childhood education program. Credit may also be awarded for portfolio development for the Child Development Associate assessment. Equivalencies for awarding credit will be determined by the advisor in accordance with guidelines of the National Association for the Education of Young Children (NAEYC). Additional coursework approved by the advisor may be applied toward any balance of credit needed to complete the nine hours.

# Early Childhood Education (BS) Course Descriptions

## Bachelor Degree Program

### **ECED 2001: Introduction to Early Childhood Education**

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Co-requisite: ECED 2002

This course studies the social, historical, and philosophical foundations in American Education. Basic technology skills including the portfolio will be introduced.

### **ECED 2002: Field-Based Experience Seminar in Early Childhood**

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Co-requisite: ECED 2001

This course provides an opportunity for prospective education majors to participate in guided classroom observation with time for reflection and discussion.

### **ECED 3023: Foundations of Early Childhood Education**

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Co-requisite: ECED 3033

An introduction to the field of early childhood education, including a history of the movement, influencing concepts and theories, and relevant issues.

### **ECED 3033: Child Development**

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Co-requisite: ECED 3023

A study of the physical, cognitive, and psychosocial development of the individual beginning with the prenatal period and continuing through early adolescence. This course includes an on-site field experience in settings for young children.

### **ECED 3043: Developmentally Appropriate Practice**

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Prerequisites: ECED 3023 and ECED 3033 and admission to Stage II.

Co-requisite: ECED 3053

A study of developmentally appropriate practice for young children, birth through age 9. This exploration is an integrated curricular study of appropriate early childhood curriculum, materials, environments, assessments, expectations, instructional strategies, and considerations for early childhood educators. Appropriate field observations and experiences are an integral part of this course, and will be integrated with course content.

### **ECED 3053: Children and Families in a Diverse Society**

---

Prerequisites: ECED 3023 and ECED 3033 and admission to Stage II.

Co-requisite: ECED 3043

A study of the characteristics of young children with developmental disabilities in the contexts of family theory and intervention. Particular emphasis will be placed on how these characteristics impact the child's family and educational needs.

### **ECED 3113: Integrated Curriculum I (3-5 years)**

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Prerequisites: ECED 3043 and ECED 3053 and admission to Stage II.

Co-requisites: ECED 3122, ECED 3162, ECED 3172, ECED 3183, ECED 3192

In this course, pre-service teachers build a working knowledge of curriculum strategies and techniques on which to base wise curriculum decision making for children ages 3-5. This course is connected to the ECED 3122 Practicum.



## **ECED 3122: Practicum I**

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Prerequisites: ECED 3043 and ECED 3053 and admission to Stage II.

Co-requisites: ECED 3113, ECED 3162, ECED 3172, ECED 3183, ECED 3192

Practicum I is designed to provide pre-service teachers with field-based experiences for children age 3-5 years.

## **ECED 3162: Diagnosis and Assessment of Young Children I (3-5 years)**

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Prerequisites: ECED 3043 and ECED 3053 and admission to Stage II.

Co-requisites: ECED 3113, ECED 3122, ECED 3172, ECED 3183, ECED 3192

A study of observational and developmentally appropriate tools and methods of collecting data for decision making. Emphasis is on qualitative assessment techniques that are specific to 3-5 year-old children. This course is connected to the ECED 3122 Practicum.

## **ECED 3172: Guiding Young Children I (3-5 years)**

---

Prerequisites: ECED 3043 and ECED 3053 and admission to Stage II.

Co-requisites: ECED 3113, ECED 3122, ECED 3162, ECED 3183, ECED 3192

Emphasis is placed on the guidance and management, individually and in groups, of young children ages 3-5 years. The course focuses on developmentally appropriate practices in early childhood settings. Creation of learning environments that foster social competence, build self-esteem in young children, and assist them in the exploration of ways to independently solve problems and gain self-control are emphasized. This course is connected to the ECED 3122 Practicum.

## **ECED 3183: Language and Literacy I (3-5 years)**

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Prerequisites: ECED 3043 and ECED 3053 and admission to Stage II.

Co-requisites: ECED 3113, ECED 3122, ECED 3162, ECED 3172, ECED 3192

A study of teaching strategies and support systems for encouraging the various areas of literacy in the 3-5 year-old child. This course is connected to the ECED 3122 Practicum.

## **ECED 3192: Children's Literature I (3-5 years)**

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Prerequisites: ECED 3043 and ECED 3053 and admission to Stage II.

Co-requisites: ECED 3113, ECED 3122, ECED 3162, ECED 3172, ECED 3183

Study of sources and types of reading materials available for 3-5 year old children and ways to use them to enhance learning. This course is connected to the ECED 3122 Practicum.

## **ECED 3213: Integrated Curriculum II (6-9 years)**

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Prerequisites: ECED 3113 and admission to Stage II.

Co-requisites: ECED 3222, ECED 3262, ECED 3272, ECED 3283, ECED 3292

ECED 3213 builds on the concepts presented in ECED 3113 and emphasizes developmentally appropriate curriculum for children ages 6-9; mandated curriculum; and contemporary issues related to curriculum. This course is connected to the ECED 3222 Practicum.

## **ECED 3222: Practicum II**

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Prerequisites: ECED 3122 and admission to Stage II.

Co-requisites: ECED 3213, ECED 3262, ECED 3272, ECED 3283, ECED 3292

Practicum II is designed to provide pre-service teachers with field- based experiences for children age 6-9 years.

## **ECED 3262: Diagnosis and Assessment of Young Children II (6-9 years)**

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Prerequisites: ECED 3162 and admission to Stage II.

Co-requisites: ECED 3213, ECED 3222, ECED 3272, ECED 3283, ECED 3292

A study of fundamental observation, assessment, and evaluation concepts and tools. Emphasis on both qualitative and quantitative methods of measuring and reporting student progress and learning. Designed to give the beginning teacher a background in the collection and interpretation of data with the goal of making valid data-driven decisions. This course is connected to the ECED 3222 Practicum.

## **ECED 3272: Guiding Young Children II (6-9 years)**

---

Prerequisites: ECED 3172 and admission to Stage II.

Co-requisites: ECED 3213, ECED 3222, ECED 3262, ECED 3283, ECED 3292

Emphasis is on the guidance and management, individually and in groups, of primary-aged children, 6-9 years. The course focuses on developmentally appropriate practices in multi-cultural school settings that encourage children to become self-regulated learners. Creation of a context for positive discipline and a guidance approach for an encouraging classroom are explored. This course is connected to the ECED 3222 Practicum.

## **ECED 3283: Language and Literacy II (6-9 years)**

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Prerequisites: ECED 3183 and admission to Stage II.

Co-requisites: ECED 3213, ECED 3222, ECED 3262, ECED 3272, ECED 3292

A study of teaching strategies and support systems for encouraging the various areas of literacy in the 6-9 year-old child. This course is connected to the ECED 3222 Practicum.

## **ECED 3292: Children's Literature II (6-9 years)**

---

Prerequisites: ECED 3192 and admission to Stage II.

Co-requisites: ECED 3213, ECED 3222, ECED 3262, ECED 3272, ECED 3283

Study of sources and types of reading materials available for 6-9 year old children and ways to use them to enhance learning. This course is connected to the ECED 3222 Practicum.

## **ECED 4915: Early Childhood Education Internship**

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Prerequisite: Admission to Internship.

(Fifteen hour course.) An intensive field experience and campus seminar class which culminates the early childhood program. Students will spend time in early childhood environments and in campus seminars applying their knowledge and skills in reflective decision making with children and families.

\$100 course fee.

# Economics Course Descriptions

## **ECON 2003: Principles of Economics I**

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ACTS Common Course - ECON2103

Macroeconomic analysis of output, income, employment, price level, and business fluctuations, including the monetary system, fiscal and monetary policy, and international economics.

## **ECON 2013: Principles of Economics II**

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ACTS Common Course - ECON2203

Prerequisite: ECON 2003

Microeconomic analysis of consumer and producer behavior. Includes theory of production and cost, the effects of market structure on resource allocation, distribution of income, and welfare economics.

## **ECON 2103: Honors Principles of Economics I**

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Prerequisite: Admission to University Honors or permission of Honors Director.

Macroeconomic analysis of output, income, employment, price level, and business fluctuations, including the monetary system, fiscal and monetary economics, and international economics.

## **ECON 3003: Money and Banking**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Nature, principles and functions of money, macroeconomic theory, development and operation of financial institutions in the American monetary system, with emphasis on processes, problems, and policies of commercial banks in the United States.

## **ECON 3013: Economics of Labor Relations**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

An overview of U.S. labor sector including demographic trends, labor unions, human capital issues and work-leisure values. A brief review of neo-classical wage theory with critiques. Selected labor sector issues such as global labor developments, public sector employment, migration/mobility and discrimination.

## **ECON 3073: Intermediate Microeconomic Theory**

---

Prerequisites: ECON 2003 and 2013, MATH 2243 or 2914, and junior standing. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

An examination of the theories of consumer behavior and demand, and the theories of production, cost and supply. The determination of product prices and output in various market structures and an analysis of factor pricing.

## **ECON 3093: Econometrics**

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Prerequisites: BUAD 2053, PSY 2053 or MATH 2163 or consent of instructor. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course develops the theory and applications of regression analysis, which is the primary tool for empirical work in economics. Emphasis is placed on techniques for estimating economic relationships, economic modeling, inference, and testing economic hypotheses in the context of real world problems. Students will also be exposed to other empirical techniques to prepare them for further studies.

## **ECON 4003: Readings in Economic Theory**

---

Offered: On demand

Prerequisites: Senior standing, background of courses needed for problem undertaken and permission of the department head. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Advanced study on an individual basis is offered in money and banking, public finance, general economics, international trade, labor relations, transportation.

## **ECON 4033: Current Economic Problems**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Emphasis is on a "way of thinking" about current economic problems including a conceptual context, critical thinking and problem solving approaches. Major domestic and global economic trends are reviewed. Current economic issues are selected for evaluation.

## **ECON 4073: World Economic Systems**

---

Offered: On demand

Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of the institutional framework of an economic system selected by the instructor. The course includes a visit to the country being studied.

## **ECON 4093: International Economics and Finance**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A course designed specifically for economics and finance majors desiring an understanding of the interplay of economic and financial forces between nations. While developing the theoretical base underlying these forces, the course will emphasize practical aspects of cross border flows of goods, services, and capital from the point of view of the firm. Lecture and discussion will be supplemented by analysis of cases and current events where appropriate. The content of the course should be readily applicable to any private or public sector policy making situation involving an international dimension in which students find themselves.

## Educational Media Course Descriptions

### **EDMD 3013: Integrating Instructional Technology**

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An instructional technology course for preservice to teachers introducing students to the incorporation of technology into instructional situations. Students will become familiar with classroom computer utilization for instructional and classroom management technology, state and national standards for technology and curriculum areas, and create lessons centered upon those standards.

## Elementary Education Course Descriptions

### **ELED 2003: Educational Research and the Teacher as a Lifelong Learner**

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This course provides potential teacher education candidates with the knowledge base and practice in the skills needed to locate educational research information; analyze, synthesize, and evaluate the compiled materials; professionally communicate these findings to others; and examine, observe, and reflect upon research applications in the school setting.

### **ELED 3113: Human Development and Learning Theories**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

This course is a study of the physical, cognitive, and psychosocial development of the individual beginning with the early childhood period and continuing through early adolescence. This course also provides lateral entry teachers an introduction to learning theory, various styles of learning, and motivational factors involved in the learning process. Emphasis is placed on the development of cognitive skills using the eight types of intelligence and applying these to practical classroom situations. Upon completion, students should be able to describe theories and styles of learning. This course includes an on-site field experience.

### **ELED 3123: Diagnosis and Assessment of Elementary Students**

---

Prerequisite: Admission to Stage II of the Teacher Education Program.

This course is designed to develop preservice teachers with who can successfully implement the design and implementation of current best practices in assessment and who can utilize assessment data to plan, evaluate and promote instructional achievement in a 21st Century standards-based classroom.

### **ELED 3133: Integrated Curriculum**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

This course is designed to provide teacher candidates with an overview of how to develop teaching/learning strategies and to integrate curriculum in the elementary classroom. Emphasis is placed on helping teachers adapt techniques, choose materials, and design units that integrate multiple content areas across a student-centered curriculum.

### **ELED 3143: Teaching Methods K-6 Social Studies**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

This course is an introduction to teaching powerful social studies in the elementary classroom. Based on current theory and research and with particular emphasis on active citizenship and diversity, the course develops instructional decision-makers who will utilize innovative and effective practice and resources for teaching meaningful social studies. This course also informs about best practice in the field.

### **ELED 4033: Classroom and Behavior Management**

---

Prerequisite: Admission to Stage II of the Teacher Education Program.

This course is designed to provide elementary teacher candidates a foundation for operating an effective and efficient 21st Century classroom. Best practices in creating a respectful and responsive culture for learning will be presented. Emphasis will be placed on establishing high expectations for learning, achievement and behavior, including ways to manage the classroom environment and organizational approaches that encourage elementary students to take responsibility for their own learning and their own behavior. Strategies for classroom management, classroom organization and behavior management will be analyzed.

### **ELED 4912: Internship in Elementary Education**

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Prerequisite: Admission to Internship.

(Twelve hour course.) An intensive field experience which culminates the elementary education program. Students will spend time in elementary education (K-6) environments applying their knowledge and skills in reflective decision making



with children and families.

\$100 course fee.

# Electrical Engineering Course Descriptions

## **ELEG 1012: Introduction to Electrical Engineering**

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An introductory course to acquaint students with the fundamental techniques in the field of electrical engineering. Topics include technical and ethical aspects of electrical engineering, problem solving skills, electrical measurements and calculations, basic circuits and prototyping.

Lecture/lab two hours

## **ELEG 2103: Electric Circuits I**

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Co-requisite: MATH 3243 or consent of instructor.

An introduction to circuit theory and electrical devices. Topics include resistive circuits, independent and dependent sources; analysis methods, network theorems; RC and RL first order circuits, and RLC second order circuits.

## **ELEG 2111: Electric Circuits Laboratory**

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Co-requisite: ELEG 2113

Report writing; use of basic electrical measurement devices; voltmeters, ammeters, R meters, wattmeters, and oscilloscopes. Computer modeling and data analysis of AC and DC circuits. Emphasis on developing laboratory techniques through experiments paralleling topics in ELEG 2103 and ELEG 2113.

Laboratory three hours per week.

## **ELEG 2113: Electric Circuits II**

---

Prerequisites: ELEG 2103 or consent of instructor

A continuation of ELEG 2103 covering phasor analysis, steady state power, complex network functions, frequency response, transformers, Laplace methods.

## **ELEG 2130: Digital Logic Design Lab**

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Co-requisites: ELEG 2134 and COMS 2104 or consent of instructor.

Laboratory must be taken during the same semester as the lecture, ELEG 2134. A study of basic digital logic circuit design and implementation. Circuit schematic development utilizing computerized automated design tools. Computer modeling and simulation of digital systems. Emphasis will be placed on proper laboratory techniques, including data collection, data reduction, and report preparation.

Laboratory three hours

## **ELEG 2134: Digital Logic Design**

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Co-requisites: ELEG 2130 and COMS 2104 or consent of instructor.

Binary numbers and codes, Boolean algebra, combinational and sequential logic including: minimization techniques, memory systems, register transfers, control logic design, and state machines.

## **ELEG 3003: Engineering Modeling and Design**

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Cross-listed: MCEG 3003

Prerequisites: COMS 2803 or MCEG 2203 and MATH 3243

Reduction of engineering systems to mathematical models; methods of analysis using computers; interpretation of numerical results; optimization of design variables. Examples are drawn from various engineering disciplines.

## **ELEG 3103: Electronics I**

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Prerequisites: ELEG 2111 and ELEG 2113

Physics and electrical characteristics of diodes, bipolar transistors, and field effect transistors, behavior of these devices as circuit elements; common electronic circuits in discrete and integrated form; digital circuits including standard IC gates and flip flops, linear circuits including standard discrete and integrated amplifier configurations and their characteristics.

## **ELEG 3123: Signals and Systems**

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Prerequisites: MATH 3243 and ELEG 2113

Signal and system modeling, time and frequency domain analysis, singularity functions, the Dirac Delta function, impulse response, the superposition integral and convolution, Fourier series and Fourier and Laplace transformations.

## **ELEG 3133: Microprocessor Systems Design**

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Prerequisites: ELEG 2134 and ELEG 2130 or consent

Digital design using microprocessors. Microcomputer architecture, memory structures, I/O interfaces, addressing modes, interrupts, assembler programming, development tools. This course should also attract computer science students interested in hardware.

## **ELEG 3143: Electromagnetics**

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Prerequisites: MATH 2934 and PHYS 2124

Prerequisite or Co-requisite: ELEG 3123

An introduction to static and dynamic electromagnetic fields using vector methods. Transmission lines, electrostatic fields, magnetostatic fields, Maxwell's equations, plane electromagnetic wave propagation, reflection, refraction, attenuation, antennas, reciprocity, and gain.

## **ELEG 3153: Electrical Machines**

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Prerequisite: ELEG 2113

Steady state analysis of single phase and polyphase transformers, direct current machines, synchronous machines, induction machines, and special purpose machines. Special emphasis will be given to the modeling and control of these machines.

## **ELEG 3163: Electric Power Systems**

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Prerequisites: ELEG 2113 and PHYS 2124

Introduction to power system analysis and operation. Topics included: mathematical modeling of power system components, power flow analysis, symmetric and asymmetric faults and economic operation of power systems.

## **ELEG 3173: Math Methods for Engineers**

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Offered: Annually

Cross-listed: MATH 3173

Prerequisite: MATH 3243

This course is designed to give the undergraduate student an introduction to a variety of advanced mathematical techniques used in solving engineering problems. The course will cover linear algebra, complex variables, discrete mathematics, and applied statistics.

## **ELEG 3203: Renewable Energy Technology**

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Prerequisite: ELEG 2113

An introduction and comprehensive overview of renewable energy technology. Topics include distributed generations and renewable energies including wind power, solar power, fuel cells and hydropower. Emphasis will be placed on basic concepts, operation principles and economics of existing and emerging renewable energy technologies.

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## **ELEG 4103: Electronics II**

Prerequisite: ELEG 3103

A continuation of ELEG 3103 specializing in characteristics and applications of both linear and digital integrated circuits; amplifiers, feedback analysis, frequency response, oscillators, amplifier stabilization, microprocessors, memory systems, emphasis on design.

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## **ELEG 4113: Digital Signal Processing**

Prerequisites: ELEG 3123 and ELEG(MCEG) 3003

The study of discrete-time signals and systems, convolution, correlation, z-transform, discrete-time Fourier transform, analysis and design of digital filters.

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## **ELEG 4122: Electrical Systems Lab**

Offered: Spring

Prerequisite: ELEG 3103

Co-requisite: ELEG 4103

The course presents advanced topics in electrical engineering system design. Topics include discrete components, ICs, PLCs, and data acquisition systems.

\$15 laboratory fee.

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## **ELEG 4133: Advanced Digital Design**

Prerequisite: ELEG 2134

Principles of digital systems design and the use of hardware description languages (HDL) are targeted toward the development of programmable logic devices in this project oriented course. The basic tenets of HDL will be presented including design flow, structural and behavioral descriptions, data types, concurrent and sequential statements, processes, procedures, functions, and packages. Approximately one hour per week will be devoted to supervised project development.

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## **ELEG 4143: Communication Systems I**

Prerequisite: ELEG 3123

An introduction to design and analysis of analog and digital communication systems. Amplitude and angle modulation and demodulation, bandwidth, frequency division multiplexing, sampling and pulse-code modulation, detection error statistics in digital communication.

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## **ELEG 4153: Communication Systems II**

Prerequisite: ELEG 4143

Continuation of ELEG 4143. Design and analysis of analog and digital communication systems, taking into account the effects of noise. Random variables, random processes, analog and digital communication systems in the presence of noise.

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## **ELEG 4193: Electrical Design Project**

Prerequisites: ELEG 3003 and ELEG(MCEG) 4202, senior standing and consent of instructor.

Co-requisite: ELEG 4103

An independent or group project in electrical engineering design. Where appropriate, a team approach will be employed. Emphasis will be placed on designing an electrical system or sub system with due regard for: safety, environmental concerns, reliability, longevity, ease of manufacturing, maintainability, and cost effectiveness. A written and oral report are required.

## **ELEG 4202: Engineering Design**

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Cross-listed: MCEG 4202

Prerequisites: ELEG major, senior standing

Co-requisite: ELEG 3103

This course serves as the first part of a two course sequence in which the student completes a senior design project. Design methodologies and tools including real world design considerations such as environmental impact, engineering ethics, economics, safety, product costing and liability are introduced. Design for manufacture, project management, scheduling and proposal writing will be covered. Successful completion of this course shall require completion of a proposal for a senior design project being accepted by the faculty design project review process.

## **ELEG 4303: Control Systems**

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Prerequisites: ELEG(MCEG) 3003 and ELEG 2113

An introduction to the field of control system engineering. Topics include: open and closed loop systems; mathematical modeling of electrical and mechanical systems; linearization; stability; block diagram reduction; signal flow graphs; transient analysis; stability analysis; root locus analysis; frequency analysis; and an introduction to compensator design.

## **ELEG 4313: Modern Control Systems**

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Prerequisite: ELEG 4303

A continuation of ELEG 4303 Control Systems. Topics include: frequency response design, state space analysis, controllability, observability, state space design, robustness, and an introduction to digital control.

## **ELEG 4951,4952,4953,4954: Undergraduate Research in Electrical Engineering**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **ELEG 4991,4992,4993,4994: Special Problems in Engineering**

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Prerequisite: Minimum of three hours at the junior level in area of study.

Individual study in advanced area of the student's choice under the direction of a faculty advisor.

# Emergency Admin/Mgmt Course Descriptions

## **EAM 1003: Living in a Hazardous Environment**

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Overview of emergency management systems with an analysis of the causes, characteristics, nature and effects of such disasters as avalanches, drought, earthquakes, epidemics, fires, flooding, hazardous materials, hurricanes, industrial accidents, nuclear power plant accidents, power failures, volcanoes, and other catastrophic hazards. Required for major.

## **EAM 1013: Aim and Scope of Emergency Management**

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Analysis of disasters in historical settings and current situations. Areas covered include the role of local, state, and federal government, the unique problems of business/industry crisis management, disaster prevention and mitigation policy, technology support, and professionalism and litigation issues. Required for major.

## **EAM 2033: Citizen/Family/Community Disaster Preparedness Education**

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Prerequisites: EAM 1003 and 1013 or consent of instructor.

The course covers the need for citizen disaster preparedness; research findings on the subject; program design models; team and coalition building, materials and approaches, effective presentation skills, overcoming disaster denial and apathy; preparedness with children, the elderly, and other high-risk populations.

## **EAM 3003: Developing Emergency Management Skills**

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Prerequisites: EAM 1003 and 1013 or consent of instructor.

Topics covered in this course include: program planning and management, financial planning and management, managing information, managing people and time, personality types, leadership styles, followership styles, decision-making skills, team-building skills and group dynamics; community-building skills, intergovernmental relationships, negotiating skills, communications skills, emergency management ethics, and professionalism.

## **EAM 3013: Public Policy Issues in Emergency Management**

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Prerequisites: EAM 1003 and 1013 or consent of instructor.

The course will analyze the role of public policy in relation to disaster planning issues, financial impact of disasters, disaster mitigation issues, land use planning, disaster recovery issue, legal and liability issues, management of large-scale disaster response/recovery, and disaster legislation.

## **EAM 3023: Principles and Practice of Disaster Planning and Response Operations**

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Prerequisites: EAM 1003 and 1013 or consent of advisor.

The course is an in-depth study of pre-plan requirements, hazards and resource assessments, vulnerability analysis, methodology of planning, and public policy considerations. Course content will include steps necessary for implementing a disaster plan and recovery efforts with consideration given to disaster warning systems, emergency center operations, public health issues in large-scale disasters, the press and communications issues, utilizing local, state, and federal interfaces.

Note: May not be taken for credit after completion of EAM 1023 and 2023.

## **EAM 3033: The Social Dimension of Disaster**

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Prerequisites: EAM 1003 and 1013 or consent of instructor.

Overview of empirical vs. theoretical approaches; human behavior in disaster, myths and reality; group disaster behavior, community social systems and disaster, cultures, demographics and disaster behavior distinctions, and model-building in sociological disaster research.

## **EAM 3123: Public Information Skills for Emergency Managers**

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This course provides the student with experience in dealing with the media before, during and after a crisis or disaster. The student will be able to demonstrate presentation skills using a variety of communication styles, graphics integration, informational brochures, and electronic resources.

Note: Much of the course will involve working at onsite locations with actual media contact.

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### **EAM 3143: The Economics of Disaster**

Prerequisites: EAM 1003 and 1013 or consent of instructor.

The course concentrates on the implications of disaster on state, regional, national, and international economies; case studies in false economies; economics of disaster modeling; and current issues in state, federal, and global economic disaster policy.

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### **EAM 3206: Externship**

Prerequisites: EAM 1003 and 1013 or consent of instructor.

Students will enroll in this course, pay the regular tuition and fees, and complete an assessment portfolio documenting their experience and training totaling 200 contact hours. No more than 100 contact hours of FEMA study courses can be applied. At least 100 hours of training or related activities must be included. This course is graded Pass/Fail.

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### **EAM 3243: Introduction to Terrorism and Anti-Terrorism**

This course is an overview of terrorism in which students will explore various aspects of terrorism in a Post 9/11 world leading to a basic understanding of a global phenomenon. Subject matter will include the history of terrorism, its strategies, and why those strategies are effective. The student will examine the psychology of fundamentalist religious movements and extreme political organizations. While studying the effects of terrorism the student will examine governmental concerns, preparedness, response, and defensive operations of dealing with terrorism.

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### **EAM 4003: Principles and Practice of Disaster Relief and Recovery**

Prerequisites: EAM 1003 and 1013 or consent of instructor.

Recovery issues are studied and how they relate to ethical, medical, and economic and environmental considerations; initial, short-term, and long-term recovery efforts and group exercises; and documentation and record-keeping.

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### **EAM 4013: Business and Industry Crisis Management**

Prerequisites: EAM 1003 and 1013 or consent of instructor.

The course provides an analysis of the players involved; conjunction with governmental emergency management; legal requirements; employee disaster awareness and preparedness; disaster mitigation and response; business resumption considerations and public policy considerations and community outreach.

---

### **EAM 4023: Information Technology and Emergency Management**

Prerequisites: EAM 1003 and 1013 or consent of instructor.

This course emphasizes the application of computer technology to emergency management issues. It includes determining information requirements and the acquisition, analysis, modeling and data management processes used to address those requirements. Technologies covered include geospatial, networking, communications, remote sensing, and decision support systems and other emerging technologies related to emergency management. Required for major.

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### **EAM 4033: Emergency Management Research Methods/Analysis**

Prerequisites: EAM 1003 and 1013 and ENGL 2053 or consent of instructor.

The course covers the basic research methodology and statistical analysis required for managing a research/data base to be utilized for decision-making and policy development. Required for major.

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### **EAM 4043: Disaster and Emergency Management Ethics**

Prerequisites: EAM 1003 and 1013 or consent of instructor.

The course will provide an introduction to a variety of ethical theories and a review of specific ethical dilemmas per disaster phase. An emphasis will be placed on professional ethics, overcoming biases, avoiding discrimination, and developing sensitivity. Additionally, detailed ethical case studies will be examined.

### **EAM 4053: Community Management of Hazardous Materials**

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Prerequisites: EAM 1003 and 1013 or consent of instructor.

The course addresses chemical properties of hazardous materials and wastes; legal requirements for their handling, storage, transportation, and disposal; and methods for protecting employees, facilities, and the community.

### **EAM 4083: Introduction to Legal Issues in Emergency Management**

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Prerequisites: EAM 1003 and 1013 or consent of instructor.

This course allows students to become familiar with key, basic legal issues in each phase of emergency management-preparedness, mitigation, response and recovery. And at each level of government -local, state, federal, and international. Interaction between the government, private and volunteer sectors will also be addressed from a legal perspective. Students will become familiar with the fundamental legal concepts with which emergency managers need to be equipped.

### **EAM 4106: Practicum/Internship**

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Prerequisites: Completion of a minimum of 75 hours including 21 hours of EAM Core (EAM 1003, 1013, 4023, 4033 and 9 additional hours) and EAM 3206 or consent of the instructor.

Students will enroll in this course and pay the regular tuition and fees in order to obtain credit on their transcripts toward degree requirements. A portfolio will be required to document competencies attained. A minimum of 400 hours of relevant work experience must be completed in an approved internship site. The student will work with an advisor to have a site approved at least one semester in advance.

### **EAM 4951,4952,4953,4954: Undergraduate Research in Emergency Administration and Management**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **EAM 4991,4992,4993: Special Problems and Topics**

---

Prerequisites: EAM 1003 and 1013 or consent of instructor.

The topics will vary to reflect the continual changes in the emergency management field. This course may also serve as an independent study course upon recommendation of the advisor and approval by the dean.

## English Course Descriptions

### **ENGL 0203: English as a Second Language**

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A course in basic English grammar, composition, reading, aural comprehension, and oral communication designed to prepare speakers of English as a second language for the six hour, college level composition sequence.

Note: The grade in this course will be computed in semester and cumulative grade point averages, but the course may not be used to satisfy general education requirements nor provide credit toward any degree.

Students who are placed in ENGL 0203 must earn a grade of C or better in the course before enrolling in ENGL 1013. A student who makes a D or F in ENGL 0203 must repeat the course in each subsequent semester until he or she earns a grade of C or better.

### **ENGL 0303: Foundational Composition**

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A course in basic grammar and writing to prepare students for the required six hour composition sequence.

Note: The grade in the course will be computed in semester and cumulative grade point averages, but the course may not be used to satisfy general education requirements nor provide credit toward any degree.

A student who is placed in ENGL 0303 must earn a grade of C or better in the course before enrolling in ENGL 1013. A student who makes a D or F in ENGL 0303 must repeat the course in each subsequent semester until he or she earns a grade of C or better.

### **ENGL 0404: Developmental Reading and Writing**

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A course in basic reading and writing skills designed to prepare students for success in the six-hour composition sequence.

Note: The grade in ENGL 0404 will be computed in semester and cumulative grade point average, but the course may not be used to satisfy general education requirements nor provide credit toward any degree.

A student who makes a "D" or "F" in ENGL 0404 must repeat the course in each subsequent semester until he or she earns a grade of "C" or better.

### **ENGL 1013: Composition I**

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ACTS Common Course - ENGL 1013

Prerequisite: Score of 19 or above on English section of the Enhanced ACT, 450 or above on the quantitative portion of the SAT, 40 or above on the TSWE, 80 or above on the COMPASS writing section, or a grade of C or better in ENGL 0203 or 0303 or 0404.

A review of grammar, introduction to research methods, and practice in writing exposition using reading to provide ideas and patterns.

Note: A grade of C or better must be earned in each of the two composition courses used to satisfy the general education requirement of English/Communication.

Note: May not be taken for credit after successful completion of ENGL 1043.

### **ENGL 1023: Composition II**

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ACTS Common Course - ENGL1023

Prerequisite: Minimum grade of C in ENGL 1013 or 1043.

A continuation of ENGL 1013 with readings in poetry, fiction, and drama.

Note: A grade of C or better must be earned in each of the two composition courses used to satisfy the general education requirement of English/Communication.

Note: May not be taken for credit after successful completion of ENGL 1053.

## **ENGL 1043: Honors Composition I**

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Prerequisite: Admission to the Tech Honors Program or permission of the Honors Program Director.

An honors course that concentrates on advanced reading and writing skills.

Note: A grade of C or better must be earned in each of the two composition courses used to satisfy the general education requirement of English/Communication.

## **ENGL 1053: Honors Composition II**

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Prerequisites: Successful completion of ENGL 1013 or ENGL 1043 and admission to the Tech Honors Program or permission of the Honors Program Director.

An honors writing course that includes the study of poetry, fiction, and drama.

Note: A grade of C or better must be earned in each of the two composition courses used to satisfy the general education requirement of English/Communication.

## **ENGL 2003: Introduction to World Literature**

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ACTS Common Course - ENGL2113

Prerequisite: ENGL 1013 or equivalent.

An exploration of significant authors and themes in world literature.

Note: ENGL 2003 may be used to fulfill the general education humanities requirements.

## **ENGL 2013: Introduction to American Literature**

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ACTS Common Course - ENGL2653

Prerequisite: ENGL 1013 or equivalent.

An exploration of significant authors and themes in American literature.

Note: ENGL 2013 may be used to fulfill the general education humanities requirement.

## **ENGL 2023: Honors World Literature**

---

Prerequisites: Successful completion of ENGL 1013 or 1043 and admission to the Tech Honors Program, or permission of the Honors Program Director.

An honors course that explores significant authors and themes in world literature.

Note: ENGL 2023 may be used to fulfill the general education humanities requirement.

## **ENGL 2043: Introduction to Creative Writing**

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ACTS Common Course - ENGL2013

Prerequisite: ENGL 1023 or equivalent

Introduction to techniques of writing both fiction and poetry.

## **ENGL 2053: Technical Writing**

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ACTS Common Course - ENGL2023

Prerequisite: ENGL 1023 or equivalent

Practice in composing abstracts, instructions, visuals, proposals, questionnaires, letters, memos, and a variety of informal and formal reports.

## **ENGL 2063: Advanced Composition: Practice and Theory**

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Prerequisite: ENGL 1023 or equivalent

Practice with several types of expository writing. An introduction to research techniques and composition theory.

## **ENGL 2173: Introduction to Film**

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Cross-listed: Jour 2173

Prerequisite: ENGL 1013 or equivalent

A study of film as an art form with particular attention given to genres, stylistic technique and film's relation to popular culture.

Note: ENGL 2173 may be used to fulfill the General Education fine arts requirement.

Note: ENGL 2173 may not be repeated for credit after the completion of JOUR 2173.

## **ENGL 2183: Honor Introduction to Film**

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Prerequisites: Successful completion of ENGL 1013 or ENGL 1043 and admission to the Tech Honors Program or permission of the Honors Program Director.

A study of film as an art form with particular attention given to genres, stylistic technique and film's relation to popular culture.

## **ENGL 2213: Introduction to Drama**

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Prerequisite: ENGL 1013 or equivalent

A study of drama as literature; a study of terminology and elements of drama and the reading of selected works, including both classic and contemporary.

## **ENGL 2223: Introduction to Poetry**

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Prerequisite: ENGL 1013 or equivalent

A study of basic form, terminology and specific works.

## **ENGL 2233: Introduction to Fiction**

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Prerequisite: ENGL 1013 or equivalent

A study of form, terminology, and specific works of fiction.

## **ENGL 2263: Mythology**

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Prerequisite: ENGL 1013 or equivalent

An introduction to the Western mythologies and a study of their influence on Western literature.

## **ENGL 2283: Science Fiction and Fantasy**

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Prerequisite: ENGL 1013 or equivalent

A survey course which covers classics of the science fiction and fantasy genres. Approach to the works is both historical and thematic.

## **ENGL 2881: Practicum-Literary Journal Publication**

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Prerequisite: ENGL 1013 or equivalent

Students will work as staff members of NEBO: A Literary Journal.

Note: May be repeated for a maximum of five semester hours. Cumulative hours in ENGL 2881 and ENGL 4881-4 may not exceed nine.

## **ENGL 3013: Systems of Grammar**

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Prerequisite: ENGL 1023 or equivalent

Students are recommended to complete ENGL 3023 before enrolling in this course. A synthesis of the most useful elements of traditional, transformational, and structural grammar.

## **ENGL 3023: Introduction to Linguistics**

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Cross-listed: FR 3023, GER 3023, SPAN 3023, SPH 3023

Prerequisite: ENGL 1023 or equivalent

A study of basic concepts in language, comparative characteristics of different languages, and the principles of linguistic investigation.

## **ENGL 3043: Literary Editing and Publishing**

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Prerequisite: ENGL 2043

A study of literary editing and publishing in print and online.

## **ENGL 3083: Fiction Workshop**

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Prerequisite: ENGL 2043.

Concentration in the writing and evaluation of fiction.

Note: May be repeated once for credit as ENGL 3083.

## **ENGL 3093: Poetry Workshop**

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Prerequisite: ENGL 2043

Concentration in the writing and evaluation of poetry.

Note: May be repeated once for credit as ENGL 3093.

## **ENGL 3103: Literary Theory**

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Prerequisite: ENGL 1023 or equivalent

A study of contemporary critical approaches to literature.

## **ENGL 3173: Studies in Film**

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Prerequisite: ENGL 1023 or equivalent

A focused study of selected films. Course content will vary.

Note: May be repeated for credit as ENGL 3173 if course content differs.

## **ENGL 3183: Studies in Television**

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Prerequisite: ENGL 1023

A focused study of selected television shows. Course content will vary.

Note: This course may be repeated for credit as ENGL 3183 if course content differs.

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### **ENGL 3203: Modern Novel**

Prerequisite: ENGL 1023 or equivalent

Reading in representative novels written since 1900.

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### **ENGL 3223: Young Adult Literature**

Prerequisite: ENGL 1023 or equivalent

A survey of young adult literature.

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### **ENGL 3243: Early Novel**

Prerequisite: ENGL 1023 or equivalent

Reading in representative novels written before 1900.

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### **ENGL 3293: Studies in Literature and Language**

Prerequisite: ENGL 1023 or equivalent

A focused study of selected literary works or selected language topics. Course content will vary.

Note: May be repeated for credit as ENGL 3293 if course content differs.

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### **ENGL 3303: Literature of the South**

Prerequisite: ENGL 1023 or equivalent

Reading in representative works by writers in the South since the Civil War.

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### **ENGL 3313: American Literature to 1900**

Prerequisite: ENGL 1023 or equivalent

Readings in the works of colonial and nineteenth century American authors.

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### **ENGL 3323: Modern American Literature**

Prerequisite: ENGL 1023 or equivalent

Readings in the works of twentieth century American authors.

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### **ENGL 3413: British Literature to 1800**

Prerequisite: ENGL 1023 or equivalent

Readings in the works of selected early British authors.

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### **ENGL 3423: British Literature since 1800**

Prerequisite: ENGL 1023 or equivalent

Readings in the works of nineteenth-and twentieth-century British authors.

## **ENGL 3453: Chaucer**

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Prerequisite: ENGL 1023 or equivalent

A study of representative works.

## **ENGL 3463: Shakespeare**

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Prerequisite: ENGL 1023 or equivalent

A study of selected comedies, histories, and tragedies.

## **ENGL 3513: Methods of Research**

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Prerequisite: ENGL 2063, equivalent, or consent.

A study of techniques for research.

## **ENGL 4013: History of the English Language**

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Prerequisite: ENGL 3023, equivalent, or consent.

The development of English sounds, inflections and vocabulary.

## **ENGL 4023: Second Language Acquisition**

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Prerequisite: ENGL 1023, equivalent, or permission of the instructor.

An investigation and analysis of the theoretical foundations of learning a second language as a guide to the effective teaching of English to limited English proficiency (LEP) students.

## **ENGL 4083: Seminar: English Language**

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Prerequisite: ENGL 1023 or equivalent

Course content will vary.

Note: May be repeated for credit as ENGL 4083 or ENGL 5083 if course content differs.

## **ENGL 4093: Seminar in Creative Writing**

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Prerequisite: ENGL 2043

Course content will vary.

Note: May be repeated for credit as ENGL 4093 if course content varies.

## **ENGL 4173: Seminar in Film Studies**

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Prerequisite: ENGL 1023 or equivalent

Course content will vary.

Note: May be repeated for credit as ENGL 4173 or ENGL 5173 if course content differs.

## **ENGL 4213: American Folklore**

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Prerequisite: ENGL 1023 or equivalent

A study of the forms and subjects of American folklore, folklore scholarship and bibliography; field work in collecting folklore.

Note: May not be repeated for credit as ENGL 5213.

### **ENGL 4283: Seminar: World Literature**

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Prerequisite: ENGL 1023 or equivalent

Course content will vary.

Note: May be repeated for credit as ENGL 4283 or ENGL 5283 if course content differs.

### **ENGL 4383: Seminar: American Literature**

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Prerequisite: ENGL 1023 or equivalent

Course content will vary.

Note: May be repeated for credit as ENGL 4383 or ENGL 5383 if course content differs.

### **ENGL 4483: Seminar: British Literature**

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Prerequisite: ENGL 1023 or equivalent

Course content will vary.

Note: May be repeated for credit as ENGL 4483 or ENGL 5483 if course content differs.

### **ENGL 4683: Seminar In Gender Studies**

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Prerequisite: ENGL 1023 or equivalent

Course content will vary.

Note: May be repeated for credit as ENGL 4683 or ENGL 5683 if course content differs.

### **ENGL 4703: Teaching English as a Second Language**

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Prerequisite: ENGL 1023, equivalent, or consent.

An investigation and practice in teaching different levels of English grammar, oral communication, comprehension skills, reading, and composition to foreign students.

### **ENGL 4713: ESL Assessment**

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Prerequisite: ENGL 1023, equivalent, or consent.

An introduction to the tools, techniques, and procedures for evaluating the English proficiency and language development of ESL students.

### **ENGL 4723: Teaching People of Other Cultures**

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Prerequisite: ENGL 1023, equivalent, or consent.

An examination of cultural diversity in Arkansas and the United States, designed for prospective ESL teachers.

### **ENGL 4733: Teaching English in the Secondary School**

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Prerequisite: ENGL 2003, SPH 2003, and admission to Stage II of the teacher education program.

To be taken within one year before student teaching. An introduction to methods and materials used to teach secondary English.

### **ENGL 4813: Senior Project in Creative Writing**

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Prerequisites: Completion or concurrent enrollment in ENGL 3083 and ENGL 3093.

Completion of a significant creative writing project approved by the instructor.

### **ENGL 4881,4882,4883,4884: Practicum-Editing Literary Journal**

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Prerequisites: ENGL 3083, 3093, or consent.

To select and edit writing for publication and to direct staff members in the production of NEBO: A Literary Journal. Candidates for editorial positions must apply to the English Department at the start of the spring semester.

Note: May be repeated for a maximum of six semester hours. Cumulative hours in ENGL 2881 and ENGL 4881-4 may not exceed nine.

### **ENGL 4951,4952,4953,4954: Undergraduate Research in English**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **ENGL 4991,4992,4993,4994: Special Problems in English**

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Prerequisites: English major or minor and consent of instructor and department head.

Course content and credit are designed to meet the needs of the student.

# Finance Course Descriptions

## **FIN 2013: Personal Finance**

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Prerequisite: Sophomore standing

A course designed to provide students with the fundamental skills of personal financial planning and goal achievement. Topics covered include financial planning, cash and credit management, insurance, investment, and retirement and estate planning.

## **FIN 3043: Investments I**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course provides the fundamental concepts of the investment area including markets, stocks and bonds, investment environments, economic, industry and security analysis, and portfolio concepts.

Note: May not be taken for credit after successful completion of ECON 3043.

## **FIN 3063: Business Finance**

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Prerequisites: BUAD 2053. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Nature of business finance and its relation to economics, accounting, and law; role of the financial manager and financial markets; financial forecasting, planning, and budgeting; securities valuation, capital budgeting, and cost of capital; capital structure and working capital management; international finance.

Note: May not be taken for credit after successful completion of ECON 3063.

## **FIN 4023: Investments II**

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Prerequisites: FIN 3043 (ECON 3043). Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course provides further work with investment concepts involving derivative securities, specialized investment products, international investing, real estate, insurance products, construction of a portfolio, and work with computerized investment software.

Note: May not be taken for credit after successful completion of ECON 4023.

## **FIN 4043: Principles of Risk and Insurance**

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Prerequisites: FIN 3063 (ECON 3063). Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A course designed to provide an understanding of the insurance field. Course content includes a survey of the extent and types of risk in business; ways of dealing with business risk; and a survey of insurance for risk-bearing purposes.

Note: May not be taken for credit after successful completion of ECON 4043.

## **FIN 4053: Internship I in Economics/Finance**

---

Prerequisites: Permission of the Instructor, Department Head and Dean; Junior Standing; minimum 2.5 overall GPA. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A supervised, practical experience providing undergraduate ECON/FIN majors with a hands-on, professional experience in a position relating to an area of career interest. The student will work in a local cooperating business establishment under the supervision of a member of management of that firm. A College of Business faculty member will observe and consult with the students and the management of the cooperating firm periodically during the period of the internship. Students will be required to make a classroom presentation, maintain an internship log, and prepare a final term paper.

Note: Only three hours of internship may be used to satisfy the curriculum requirements for economics and finance electives. Additional hours may be used to satisfy the curriculum requirements for general electives.

## **FIN 4103: Special Topics in Finance**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course provides in-depth exploration of selected finance topics. The primary topic will vary from offering to offering; this, the course may be taken more than once.



# Fisheries Wildlife Biology Course Descriptions

## **FW 1001: Orientation to Fisheries and Wildlife Science**

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Offered: Fall

An introduction to professions in fisheries and wildlife science. Required of fisheries and wildlife students during their first fall term on the Tech campus.

## **FW 2003: Elements of Fish and Wildlife Management**

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Offered: Fall

Principles of fish and wildlife management for the non major, including fish and wildlife identification and the role of various natural resource organizations in conservation.

\$20 laboratory fee.

## **FW 2013: Natural Resources Communications**

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Offered: Spring

Prerequisite: ENGL 1023 or alternate

An investigation and practice of effective communication techniques typically used in natural resources management. The focus of this course is to teach students to effectively communicate complex scientific messages to diverse audiences. Specific types of communication explored will include construction of figures, graphs and tables, power point presentations, abstracts and technical reports specific to the natural resources discipline.

## **FW 2833: Introduction to Geographic Information Systems**

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Cross-listed: GEOG 2833

An introductory course dealing with computer organized spatial and attribute data. GIS is a system of specialized computer programs with the capability to manipulate and analyze data for problem solving.

## **FW 3053: Fisheries and Wildlife Administration**

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Offered: Fall of even years

Prerequisites: FW 1001 and junior standing, or permission of instructor.

Administration of fish and wildlife agencies, including organizational designs and policies, planning, directing, budgeting, personnel management, and public relations. Special consideration will be given to public, scientific, and economic considerations in the decision making process.

## **FW 3074: Habitat Evaluation**

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Offered: Fall of even years

Introduction to aquatic and terrestrial habitat mensuration and evaluation for field biologists, with emphasis on the description and demonstration of evaluation procedures and software.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **FW 3084: Ichthyology**

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Cross-listed: BIOL 3084

Prerequisite: BIOL 2124

Systematics, collection, identification, natural history, and importance of fishes.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

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## **FW 3114: Principles of Ecology**

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Cross-listed: BIOL 3114

Prerequisites: BIOL 2124, BIOL 2134, and one semester of chemistry.

Responses of organisms to environmental variables, bioenergetics, population dynamics, community interactions, ecosystem structure and function, and major biogeographical patterns.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

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## **FW 3144: Ornithology**

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Cross-listed: BIOL 3144

Prerequisite: BIOL 2124

An introduction to the biology of birds. The course covers aspects of anatomy, physiology, behavior, natural history, evolution, and conservation of birds. Laboratories address field identification and natural history of the birds of Arkansas.

Note: Students will be expected to participate in an extended 5-7day field trip.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

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## **FW 3154: Mammalogy**

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Cross-listed: BIOL 3154

Prerequisite: BIOL 2124

Taxonomy identification, ecology, and study natural history of the mammals.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

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## **FW 3173: Biostatistics**

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Offered: Fall

Prerequisite: one semester of statistics.

An analysis and interpretation of fisheries and wildlife data including descriptive statistics, hypothesis testing, analysis of variance, simple linear regression, correlation, goodness of fit, and contingency tables.

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## **FW 3204: Aquaculture**

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Offered: Spring

Prerequisite: BIOL 2124 or permission of instructor.

Course is designed to provide students with the essentials of successful warmwater aquaculture including crayfish and alligators. Basics of cool and coldwater aquaculture are also covered. Emphasis ranges from maintenance of brood stock and culture of fingerlings to production of market size fish.

Lecture three hours, laboratory two hours plus several full-day field trips that may involve weekend or overnight travel. \$20 laboratory fee.

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## **FW 3224: Herpetology**

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Cross-listed: BIOL 3224

Prerequisite: BIOL 2124.

The phylogeny, classification, physiology, behavior, and distribution of reptiles and amphibians. The Laboratory will stress identification of the species found in Arkansas.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **FW 4001: Senior Seminar in Fisheries and Wildlife Biology**

---

Offered: Fall

Prerequisite: Senior fisheries and wildlife biology major or by consent of instructor.

Designed to integrate various aspects of fisheries and wildlife biology by covering current topics and to acquaint students with areas not covered elsewhere in the curriculum.

## **FW 4003: Principles of Wildlife Management**

---

Offered: Spring

Prerequisite: FW(BIOL) 3114 or permission of instructor.

Principles of managing wildlife resources with emphasis on the history of wildlife resources in the United States, population ecology, wildlife values, and the administration of wildlife resources and resources agencies.

## **FW 4013: Wildlife Techniques**

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Offered: Fall

Prerequisite: FW(BIOL) 3114 or permission of instructor.

Instruction in current wildlife techniques including habitat evaluation and manipulation, estimation of wildlife abundance, capturing and marking, identification, aging, and scientific writing. Course is structured around a research project that requires use of popular wildlife techniques.

Lecture one hour, laboratory four hours. \$20 laboratory fee.

## **FW 4014: Forest Ecology and Management**

---

Offered: Fall

Prerequisite: FW(BIOL) 3114

An in-depth coverage of ecological interactions in forested ecosystems. Lectures cover biotic and abiotic factors that influence development and species compositions of forest stands. Wildlife habitat relationships in forested ecosystems will also be discussed. Laboratories will familiarize students with field techniques and management activities important in the major forest types of Arkansas.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **FW 4024: Limnology**

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Cross-listed: BIOL 4024

Prerequisite: FW(BIOL) 3114.

A study of physical and chemical processes in fresh water and their effects on organisms in lakes and streams. Laboratory sessions and field trips demonstrate limnological instrumentation and methodology.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **FW 4034: Geographic Information Systems in Natural Resources**

---

Offered: Spring

Prerequisite: a course in GIS or permission of instructor

Use of GIS technology in wildlife and fisheries management and research. Emphasis placed on creation, maintenance, and analysis of spatially explicit data.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

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## **FW 4043: Fisheries Techniques**

Offered: Spring

Prerequisites: FW(BIOL) 3114 and a computer science elective, or permission of instructor.

The techniques and practices of warmwater fish management. Major emphasis will be placed on survey techniques, data collection, and data analysis techniques.

Lecture one hour, laboratory four hours. \$20 laboratory fee.

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## **FW 4054: Waterfowl Ecology and Management**

Offered: Spring

Prerequisite: BIOL(FW) 3114.

Ecology and management of North American waterfowl and their habitats. Laboratory exercises will focus on identification, life histories, sex and age determination, and abundance survey methods. Lectures and discussions will cover behavioral ecology, reproductive ecology, winter ecology, harvest management, and habitat management and conservation.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

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## **FW 4064: Wetland Ecology and Management**

Offered: Fall of even years

Prerequisite: A course in ecology or permission of instructor

An in-depth coverage of wetlands including occurrence, morphology, hydrology, soils, ecology, and regulation. The types of wetlands and their functions are discussed, as are local, state and federal regulations pertaining to their use, management and protection. Laboratory focuses on identification of common wetland vegetation, delineation of wetland boundaries, as well as field techniques and management activities commonly used in Arkansas wetlands.

Lecture two hours, laboratory four hours. \$20 laboratory fee

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## **FW 4083: Principles of Fisheries Management**

Offered: Fall

Prerequisites: FW(BIOL) 3114, one semester of statistics, and one semester of calculus, or permission of instructor.

The principles and theory of warmwater fish management with major emphasis on the human dimension in fisheries management, fishery assessment, population dynamics, and common management practices.

---

## **FW 4103: Human Dimensions of Fisheries and Wildlife Management**

Offered: Spring

Prerequisite: BIOL(FW) 3114 or permission of instructor.

Exploration of the complex interactions of social, political, institutional, economic and ecological processes that contribute to natural resource use and management. The primary focus is on interactions and conflict resolution among various stakeholders, resource management agencies, and wildlife and fisheries resources. Topics covered include public attitudes and expectations; agency structure and policy; values of fishes, wildlife; and public relations.

## **FW 4112: Internship**

---

Prerequisite: Consent of program director.

A supervised, practical experience providing FW majors with a hands-on, professional experience related to their career interests. Approximately 200 clock hours, a proposal, a log book, and a written report are required.

Note: A maximum of four credit hours is allowed for FW internship.

## **FW 4114: Internship**

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Prerequisite: Consent of program director.

A supervised, practical experience providing FW majors with a hands-on, professional experience related to their career interests. Approximately 400 clock hours, a proposal, a log book, and a written and oral report are required.

Note: A maximum of four credit hours is allowed for FW internship.

## **FW 4163: Biodiversity and Conservation Biology**

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Cross-listed: BIOL 4163

Prerequisite: a course in ecology or permission of instructor

The concepts of, processes that produce, and factors that threaten biological diversity are introduced and examined. Further emphasis is placed on unique problems associated with small population size, management of endangered species and practical applications of conservation biology.

## **FW 4881,4882,4883,4884: Advanced Topics**

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Offered: On demand

Prerequisite: Consent of instructor. Open to junior and senior students only.

Offers special instruction on fisheries and wildlife topics that are not otherwise covered in the curriculum. The primary focus of the course will vary from offering to offering, thus the course may be taken more than once.

Note: FW 4884 includes a \$20 laboratory fee.

## **FW 4951,4952,4953,4954: Undergraduate Research in Fisheries and Wildlife**

---

Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

# French Course Descriptions

## FR 1013: Beginning French I

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ACTS Common Course - FR 1013

Training in the elements of French communication (speaking and writing) and comprehension (listening and reading) within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied French.

## FR 1023: Beginning French II

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ACTS Common Course - FR 1023

Prerequisite: FR 1013 or equivalent

Continued training in basic French communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied French.

## FR 2013: Intermediate French I

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ACTS Common Course - FR 2013

Prerequisite: FR 1023 or equivalent

Development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language at the intermediate level within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied French.

## FR 2023: Intermediate French II

---

ACTS Common Course - FR 2023

Prerequisite: FR 2013 or equivalent

Further development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to provide mastery of the fundamental tools in a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied the language.

## FR 3003: Conversation and Composition I

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Prerequisite: FR 2024 or permission of instructor

Development of advanced control of French communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient



in French.

## **FR 3013: Conversation and Composition II**

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Prerequisite: FR 3003 or permission of instructor

Continuation of FR 3003. Further development of advanced proficiency of French communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient in French.

## **FR 3023: Introduction to Linguistics**

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Cross-listed: ENGL 3023, GER 3023, SPAN 3023, SPH 3023

Prerequisites: ENGL 1023 or equivalent and FR 2024 or equivalent.

A study of basic concepts in language, comparative characteristics of different languages, and the principles of linguistic investigation.

## **FR 3113: Culture and Civilization**

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Prerequisite: FR 3013 or permission of instructor.

Development of an understanding of French life through study and analysis of French history and geography texts, film, advertising, and mass media.

## **FR 3143: Study Abroad**

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Prerequisite: Enrollment in a Tech-sanctioned study program in a French-speaking country, completion of FR 2024 or equivalent, and permission of the Study Abroad supervisor.

Study of the contemporary language and culture in a French speaking country.

Note: May substitute for FR 3003 or FR 3013, depending on the student's proficiency level.

## **FR 4701: Foreign Language Pedagogy**

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Cross-listed: GER 4701, SPAN 4701

Prerequisite: Admission to student teaching phase of the teacher education program.

Co-requisite: SEED 4909

Intensive on-campus exploration of the principles of curriculum construction, applied methods, professional collaboration, and evaluation as related to teaching French, German, or Spanish, followed by professional internship application of these principles under the supervision of a qualified departmental instructor.

## **FR 4703: Foreign Language Teaching Methods**

---

Cross-listed: GER 4703, SPAN 4703

Prerequisites: FR 3013 and FR 3113 or equivalent; admission to Stage II of the Secondary Education sequence or equivalent.

Survey of instructional methods with discussions and demonstrations of practical techniques for the teaching of foreign language.

## **FR 4801: Cultural Immersion and Research**

---

Prerequisites: Enrollment in French Immersion Weekend and permission of instructor.

Intensive study of French cultural topics followed by individual research projects. May be repeated for credit if content varies.

### **FR 4951,4952,4953,4954: Undergraduate Research in French**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **FR 4993: Special Problems in French**

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Prerequisites: FR 2024 and consent of the instructor and the department head.

Designed to provide advanced students with a course of study in an area not covered by departmental course offerings.

# Geography Course Descriptions

## **GEOG 2013: Regional Geography of the World**

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ACTS Common Course - GEOG2103

A survey of major regions with particular emphasis upon Europe, the Commonwealth of Independent States, the Orient, the Mid East, Africa, and Latin America.

## **GEOG 2023: Human Geography**

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ACTS Common Course - GEOG1113

A systematic treatment of the major concepts of human geography and their application to modern problems. consideration of population, cultural patterns and processes, political organization of space, agricultural and rural land use, industrialization and economic development, and cities and urban land use.

## **GEOG 2833: Introduction to Geographic Information Systems**

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Cross-listed: FW 2833

An introductory course dealing with computer organized spatial and attribute data. GIS is a system of specialized computer programs with the capability to manipulate and analyze data for problem solving.

## **GEOG 3033: Physical Geography**

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A description and interpretation of the physical features of the surface zone of the earth and how man interrelates with this complex natural environment.

## **GEOG 3113: Geography of the United States and Canada**

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A regional study emphasizing the physical and cultural aspects of Anglo America.

## **GEOG 3303: Geography of Latin America**

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A regional study of the lands and people of Latin America and their interrelationships. Particular attention will be given to Mexico, Brazil, and Argentina.

## **GEOG 3403: GIS II - Planning Applications**

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A GIS mapping course specializing in the collection and manipulation of spatial data in support of metropolitan planning and community development. Emphasis will be placed on techniques in editing, raster methods, spatial analysis, and GIS modeling.

## **GEOG 3413: Geography of Europe**

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A regional study of the physical and cultural aspects of Europe (including the C.I.S.) and their interrelationships.

## **GEOG 3703: Geography of Asia**

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A regional study of the lands and peoples of Asia and their interrelationships with particular emphasis on India, China, and Japan.

## **GEOG 3803: Historical Geography**

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A study of how space and place is transformed through time. Through a focus on the geographies of the past throughout North America, this course examines the ways humans interact with the environment to create a material-cultural landscape.

## **GEOG 4023: Economic Geography**

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A study of the resources at man's disposal and his economic activities in utilizing these resources. Special attention is given to industrial and agricultural resources of leading nations.

Note: May not be repeated for credit as GEOG 5023 or equivalent.

### **GEOG 4203: Place and Collective Memory**

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An examination of the way society remembers the past and portrays this collective memory through socially constructed monuments.

### **GEOG 4803: Seminar in Global Studies**

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A seminar on current world geographic influences that affect the nations of the world, such as demographics, complex environmental and physical changes, and political and economic relationships.

### **GEOG 4951,4952,4953,4954: Undergraduate Research in Geography**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **GEOG 4983: Geography Seminar:**

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A directed seminar in an area of cultural geography. The specific focus will depend upon research under way, community or student need, and the unique educational opportunity available.

May be repeated for credit if course content changes.  
(for a maximum of six hours)

### **GEOG 4993: Special Problems in Geography**

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Admission requires consent of department head.

# Geology Course Descriptions

## **GEOL 1004: Essentials of Earth Science**

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ACTS Common Course - PHSC1104

An introduction to the fundamental topics of earth science including physical and historical geology, oceanography, and meteorology. Laboratory exercises include the study of minerals, rocks, fossils, topographic and geologic maps, and oceanographic and meteorological phenomena. Laboratory work will stress the use of the scientific method of problem solving. This course is designed as a general education science requirement and for prospective early childhood and middle level school teachers.

Note: Duplicate credit for GEOL 1004 and GEOL 1014 will not be allowed.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **GEOL 1014: Physical Geology**

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ACTS Common Course - GEOL1114

A survey of the earth's features and forces which modify its surface and interior. Laboratory exercises include the study of minerals, rocks, and landforms through the use of topographic maps and aerial photography.

Note: Duplicate credit for GEOL 1014 and GEOL 1004 will not be allowed.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **GEOL 2001,3001,4001: Seminar**

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Offered: Fall

Prerequisites: GEOL 1014 and GEOL 2001

Participants will prepare oral and written reports and participate in discussions of the reports. Topics for the seminar will be determined by the instructors but will be subjects which are beyond the scope of other geology courses.

## **GEOL 2024: Historical Geology**

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ACTS Common Course - GEOL1134

Offered: Spring

Prerequisite: GEOL 1014

A survey of the physical and biological history of the earth. Laboratory exercises include the study of fossils, geologic maps, and cross sections.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **GEOL 2111: Environmental Seminar**

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Cross-listed: BIOL 2111, CHEM 2111

Offered: Spring of odd years

A seminar for students pursuing the environmental option of geology, biology, or chemistry and other students interested in environmental sciences.

## **GEOL 3004: Structural Geology**

---

Offered: Spring

Prerequisites: GEOL 1014 and GEOL 2024

A study and analysis of the structural features of the earth's crust.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **GEOL 3014: Mineralogy**

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Offered: Fall

Prerequisites: GEOL 1014, CHEM 1113, CHEM 1111 or CHEM 2124. GEOL 2024 recommend.

A study of crystallography, physical and chemical properties, origin, occurrence, and structure theory of minerals.

Lecture two hours, laboratory four hours. \$20 laboratory fee.

## **GEOL 3023: Geologic Field Techniques**

---

Offered: Fall

Prerequisites: GEOL 1014, GEOL 2024 and GEOL 3004

Interpretation of aerial photographs; mensuration techniques using the Brunton compass, hand level, and Jacob's staff, measurement and description of stratigraphic sections; construction of and geologic maps; collecting, sampling, and collation procedures.

Lecture/laboratory four hours. \$20 laboratory fee.

## **GEOL 3044: Geomorphology**

---

Offered: Fall

Prerequisites: GEOL 1014, GEOL 2024, GEOL 3004

A study of land forms and the processes which shape the earth's surface. Special emphasis will be placed on slope forming and fluvial processes.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **GEOL 3053: Geology of Ore Deposits**

---

Offered: Fall of even years

Prerequisites: GEOL 1014, GEOL 3014, and GEOL 3164

A study of the principal earth materials essential to local and national economies. Location, genesis, methods of extraction, and primary utilization and conservation are emphasized.

## **GEOL 3083: Hydrogeology**

---

Offered: Fall of odd years

Prerequisites: MATH 1113 and GEOL 1014 or permission of the instructor.

The earth's hydrologic system is studied in terms of both empirical and quantitative aspects of the steady-state condition of groundwater and its interaction with surface water, as well as transient behavior from the influence of wells. Basic water chemistry is also covered along with transport and fate of pollutants in groundwater.

## **GEOL 3111: Environmental Seminar**

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Cross-listed: BIOL 3111 and CHEM 3111

Offered: Spring of odd years



A seminar for students pursuing the environmental option of geology, biology, or chemistry and other students interested in environmental sciences.

## **GEOL 3124: Invertebrate Paleontology**

---

Offered: Spring of odd years

Prerequisite: GEOL 2024

A systematic study of invertebrate fossils and their geologic significance.

Lecture laboratory six hours. \$20 laboratory fee.

## **GEOL 3153: Environmental Geology**

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Offered: Fall

Prerequisite: GEOL 1014

A study of the geological factors which influence the pollution of land, water, and biological resources; the role of rock and soil in the geobiological community; hydrology; land sliding and faulting in the human environment, natural resource problems; urban and land use planning based on geological data.

## **GEOL 3164: Petrology**

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Offered: Spring

Prerequisite: GEOL 3014

A study of the classification, origin, geologic occurrence, physical and chemical properties of igneous, sedimentary, and metamorphic rocks.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **GEOL 3174: Computer Applications in Geology**

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Offered: Spring of odd years

Prerequisites: GEOL 1014, GEOL 2024, FW/GEOG 2833, COMS 1003

Participants will focus on mastering common geotechnical, oil and gas, and Geographic Information Systems (GIS) software utilized throughout the geologic profession. Course will include techniques on GIS analysis; generating stratigraphic sections, cross-sections, structure contours, fence diagrams, rose diagrams, and other geologic documents; geologic data management.

\$20 course fee.

## **GEOL 4006: Field Geology**

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Offered: Each summer by arrangement

Prerequisites: GEOL 1014, GEOL 2024, GEOL 3004, GEOL 3014, GEOL 3023, GEOL 3124, and GEOL 3164

A six week summer course of instruction in the use of geologic mapping instruments, interpretation of aerial photographs and their use in the construction of geologic maps, development of techniques necessary in geological field work, recognition and interpretation of geologic phenomena, and potentially in environmental evaluation. The course is offered through arrangements with various universities. Students have the option of picking the field camp that best meets their interest from a list of pre-approved camps.

Note: Field camp expenses will vary, but the average cost for room/board and tuition is \$3,000.

\$20 laboratory fee.

## **GEOL 4023: Principles of Stratigraphy and Sedimentation**

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Offered: Spring of even years

Prerequisites: GEOL 3124 and GEOL 3164

A study of sedimentary rocks and their stratigraphic relationships.

## **GEOL 4034: Subsurface Geology**

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Offered: Spring of even years

Prerequisites: GEOL 3004, GEOL 3164, GEOL 4023, MATH 1113

A study of analytic procedures in selected topics in geophysics, well logging, and subsurface geological relationships.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **GEOL 4043: Geochemistry**

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Prerequisites: GEOL 3164 and CHEM 2124

Co-requisite: CHEM 2134

Primarily low-temperature geochemistry with some high-temperature geochemical principles: aqueous geochemistry (including carbonate equilibria), biogeochemical cycles, basic organic chemistry, thermodynamics, phase diagrams, major and trace-element geochemistry, stable and radiogenic isotopic geochemistry (as applied primarily to low-, but also to high-temperature geochemistry). Applications to fresh surface water, ground water, oceans, air (climate), interactions with solid rock, as well as geochemical evolution of the Earth.

## **GEOL 4111: Environmental Seminar**

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Cross-listed: BIOL 4111, CHEM 4111

Offered: Spring of odd years

A seminar for students pursuing the environmental option of geology, biology, or chemistry and other students interested in environmental sciences.

## **GEOL 4433: Advanced Topics in Geology**

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Prerequisite: Consent of Instructor

Various advanced topics from any specialty area in geology.

Note: May be repeated for credit if course content differs.

## **GEOL 4951,4952,4953,4954: Undergraduate Research in Geology**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **GEOL 4991,4992: Special Problems in Geology**

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Open to geology majors with the approval of the department head.

# German Course Descriptions

## GER 1013: Beginning German I

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ACTS Common Course - GERM 1013

Training in the elements of German communication (speaking and writing) and comprehension (listening and reading) within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied German.

## GER 1023: Beginning German II

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ACTS Common Course - GERM 1023

Prerequisite: GER 1013 or equivalent

Continued training in basic German communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied German.

## GER 2013: Intermediate German I

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ACTS Common Course - GERM 2013

Prerequisite: GER 1023 or equivalent

Development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language at the intermediate level within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied German.

## GER 2023: Intermediate German II

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ACTS Common Course - GERM 2023

Prerequisite: GER 2013 or equivalent

Further development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to provide mastery of fundamental tools in a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied German.

## GER 3003: Conversation and Composition I

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Prerequisite: GER 2024 or permission of instructor

Development of advanced control of German communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient

in German.

## **GER 3013: Conversation and Composition II**

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Prerequisite: GER 3003 or permission of instructor

Continuation of GER 3003. Further development of advanced proficiency of German communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient in German.

## **GER 3023: Introduction to Linguistics**

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Cross-listed: ENGL 3023, FR 3023, SPAN 3023, SPH 3023

Prerequisites: ENGL 1023 or equivalent and GER 2024 or equivalent

A study of basic concepts in language, comparative characteristics of different languages, and the principles of linguistic investigation.

## **GER 3113: Culture and Civilization**

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Prerequisite: GER 3013 or permission of instructor

Study of the geography, history, arts, institutions, customs, and contemporary life of the German speaking peoples.

## **GER 3143: Study Abroad**

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Prerequisites: Enrollment in a Tech-sanctioned study program in a German-speaking country, completion of GER 2024 or equivalent, and permission of the Study Abroad supervisor.

Study of the contemporary language and culture in a German speaking country.

Note: May substitute for GER 3003 or GER 3013, depending on the student's proficiency level.

## **GER 3213: Advanced Grammar and Usage**

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Prerequisite: GER 3013 or permission of instructor.

The course is designed to build writing competence and strengthen grammatical competence. Grammar will be studied within the context of writing assignments. The course will deepen the knowledge of the language through the usage of applied linguistics, syntax, grammar, and semantics.

## **GER 3223: Short Story**

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Prerequisite: GER 3013 or permission of instructor.

An introductory study of German short stories. Students will analyze short texts to strengthen their reading and text interpretation skills and to increase their knowledge of vocabulary.

## **GER 4003: Oral Communication**

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Prerequisite: GER 3013 or permission of instructor.

This course is designed to strengthen students' oral communication skills by enabling them to converse easily with native speakers on everyday topics in preparation for the oral proficiency interview (OPI).

\$134 interview fee.

## **GER 4213: German Literature to 1832**

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Prerequisite: GER 3223 or permission of instructor.

A survey of major writers and representative works from early Middle Ages through the Age of Goethe.

## **GER 4223: German Literature since 1832**

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Prerequisite: GER 3223 or permission of instructor.

A survey of major writers and representative works since the Age of Goethe.

## **GER 4701: Foreign Language Pedagogy**

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Cross-listed: FR 4701, SPAN 4701

Prerequisite: Admission to student teaching phase of the teacher education program.

Co-requisite: SEED 4909

Intensive on-campus exploration of the principles of curriculum construction, applied methods, professional collaboration, and evaluation as related to teaching French, German, or Spanish, followed by professional internship application of these principles under the supervision of a qualified departmental instructor.

## **GER 4703: Foreign Language Teaching Methods**

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Cross-listed: FR 4073, SPAN 4703

Prerequisites: GER 3013 and GER 3113 or equivalent; admission to Stage II of the Secondary Education sequence or equivalent.

Survey of instructional methods with discussions and demonstrations of practical techniques for teaching of foreign language.

## **GER 4951,4952,4953,4954: Undergraduate Research in German**

---

Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **GER 4993: Special Problems in German**

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Prerequisites: GER 2024 and consent of the instructor and the department head.

Designed to provide advanced students with a course of study in an area not covered by departmental course offerings.

# Health Education Course Descriptions

## **HLED 1513: Personal Health and Wellness**

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ACTS Common Course - HEAL1003

The course is designed to motivate students toward an individual responsibility for their health status and an improved quality of life. An introspective study of personal lifestyle behavior is encouraged. The interrelationship of the multi causal factors which directly affect health status and the various dimensions of personal health are addressed.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **HLED 3203: Consumer Health Programs**

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A study of current health services and the products offered by health providers to the health consumer and an examination of various diseases and disorders.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **HLED 4303: Methods and Materials in Health for Grades K-12**

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Exploration of teaching methods and strategies, use of school and community resources, and evaluation related to teaching health in grades K 12.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **HLED 4403: Nutrition and Physical Fitness**

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Prerequisite: PE 2653

A health education course which is designed to familiarize students with food as it relates to optimal health and performance. Focus is on nutrition as it affects the physical work capacity of humans from resting states to high output performance.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **HLED 4991,4992,4993: Special Problems in Health**

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Prerequisite: Consent of department head

Independent work on approved health topics under the individual guidance of a faculty member.



# Health Information Management Course Descriptions

## **HIM 1001: Health Information Management Orientation**

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Offered: Fall

An introductory course with emphasis on the basics of health information management as related to career choices, giving the student a better understanding of opportunities in the field. The course will also focus on helping the student develop good study skills, career goals, and understand policies and information needed for a successful college career.

## **HIM 2033: Coding Principles Medical Office**

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Prerequisites: AHS 2013, 1023, BIOL 2004, or permission of instructor.

A study of medical coding using ICD-9-CM and CPT codes in the medical office. Students will be taught to evaluate patients' medical records to correctly assign both diagnostic and procedural codes required for healthcare reimbursement in the medical office setting.

## **HIM 3023: Introduction to Health Information Management**

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Offered: Fall

Prerequisite: Admission to the HIM Program.

A study of the history of health records, professional ethics, the functions of a health information department, retention of records, medical forms, health information practices, and responsibilities to healthcare administration, medical staff, and other medical professionals.

## **HIM 3033: Basic Coding Principles**

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Offered: Fall

Prerequisites: BIOL 2004, AHS 2013, or permission of instructor.

An in depth study of the principles of disease and procedural coding using the ICD 9 CM classification system. Areas emphasized during the course include: the purpose of coding, the definition of key terms, accurate application of coding principles, methods to assure quality data, and a review of the impact of prospective reimbursement on the function of coding.

## **HIM 3043: Advanced Concepts in Health Information**

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Offered: Fall

Prerequisite: HIM 3023

A study of such advanced concepts as quality improvement, utilization review, licensure and accreditation standards, medical staff, and interdisciplinary relationships.

## **HIM 3132: Health Data and Statistics**

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Offered: Spring

Prerequisite: HIM 3023 or permission of instructor.

A study of the methods of recording diagnoses and operations by recognized systems of disease, procedural and pathological nomenclatures and classification systems, manual and computerized systems of indexing and abstracting, research and statistical techniques, and health information data handling.

## **HIM 3133: Alternative Health Records**

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Offered: Spring

Prerequisite: HIM 3023

A study of health record requirements in non- traditional settings such as cancer programs, ambulatory care facilities, mental health centers, and long term care facilities.

## **HIM 3153: Current Issues in Health Information Management**

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Prerequisite: HIM 3023

An in-depth study of the latest issues affecting the field of health information management. Specific topics will vary to reflect emerging technology including such topics as eHIM, electronic health records, personal health records and HIPAA privacy concepts.

## **HIM 4034: Advanced Coding Principles**

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Offered: Spring

Prerequisite: HIM 3033

A continuation of HIM 3033, dealing with advanced principles of coding using ICD-9-CM and CPT-4. Experience with coding of health records as well as DRG grouping and the administrative aspects of coding will be emphasized.

Note: May not be taken for credit after completion of HIM 4032.

\$20 laboratory fee.

## **HIM 4063: Organization and Administration**

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Offered: Fall

Prerequisites: HIM 3023 and senior standing.

A study of the application of the principles of organization, administration, supervision, human relations, work methods, and organizational patterns in the health information department. The duties and relationships of the health information manager and the social forces affecting the department and current trends in hospital and medical care are investigated.

## **HIM 4073: Legal Concepts for the Health Fields**

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Offered: Spring

Prerequisites: HIM 3023 and senior standing, or permission of instructor.

A study of the principles of law as applied to the health field. Consideration is given to the importance of health records as legal documents as well as a general introduction to the law, administration of the law, legal aspects of healthcare facility and medical staff organization, release of information, confidential communication and consents and authorizations.

## **HIM 4083: Health Organization Trends**

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Offered: Spring

Prerequisites: HIM 3023 and senior standing, or permission of instructor.

A comprehensive review of the trends and changes in the healthcare field. Historical aspects of healthcare organization and governmental health agencies are reviewed. Emphasis is placed on current events in the healthcare arena.

## **HIM 4093: Research in Health Information Management**

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Offered: Spring

Prerequisites: HIM 3023 and senior standing.

A study of the specific research methodology used in a health information management setting. Emphasis will be given to

hands on performance of research in conjunction with area health care facilities and agencies. Formal presentation of research will also be a component of the course.

## **HIM 4153: Principles of Disease**

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Offered: Spring

Prerequisites: AHS 2013, BIOL 2004, and permission of instructor.

An introduction to medical science, including the etiology, treatment and prognosis of various diseases. Emphasis is given to the medical information as viewed from the standpoint of a health information management professional.

## **HIM 4182: Professional Practice Experience I**

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Offered: Fall

Prerequisites: HIM 3023, HIM 3043, HIM 3133, HIM 3132 and HIM 3033

Active participation within an actual health information management department providing a supervised learning experience through which the student develops insight, understanding, and skills in health information procedures, accepts responsibilities and recognizes the need for confidentiality.

\$20 laboratory fee.

## **HIM 4203: Healthcare Reimbursement**

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Prerequisites: HIM 3033 and HIM 4034

This course covers the various systems used for reimbursement methods in a range of healthcare facility types. A review of the regulations and role of coding systems surrounding healthcare reimbursement will also be investigated.

## **HIM 4292: Professional Practice Experience II**

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Offered: Spring

Prerequisite: HIM 4182

A supervised learning experience through which the student learns to recognize the contribution of and learns to work with other professional and non professional personnel, learns to recognize and deal with personnel problems in a health information department.

\$20 laboratory fee.

## **HIM 4892: Seminar in Health Information**

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Offered: First summer term

Co-requisite: HIM 4895

A seminar, utilizing the case method approach, on problem situations encountered in the field of health information management. This course includes discussion of problems that arise during their affiliation experience.

## **HIM 4895: Affiliation**

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Offered: First summer term

Prerequisites: Successful completion of all required HIM courses except HIM 4892.

Provides the student with a four-week management experience in the activities and responsibilities of the health information management professional. Augments theoretical instruction received during previous courses. Student is actively involved in the management process while under direct supervision of a qualified health information management professional.

Note: Although every effort is made to secure a convenient locale, the student must assume full financial responsibility for

this assignment.

\$20 laboratory fee.

### **HIM 4951,4952,4953,4954: Undergraduate Research in Health Information Management**

Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **HIM 4983: Systems Analysis for Health Information Management**

Offered: Fall

Prerequisites: COMS 1003, COMS 2003, HIM 3023, and senior standing.

A course designed to provide a detailed study of the relationship between health information management departments and computerized information systems. Students will learn from a variety of projects related directly to the clinical setting.

### **HIM 4991,4992,4993,4994: Special Problems in Health Information Management**

Open to health information management senior students only. The problems will vary to fit the needs of the student and reflect the continual changes in the allied health field.

## History Course Descriptions

### **HIST 1503: World History to 1500**

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ACTS Common Course - HIST1113

The history of humanity from prehistoric times to the sixteenth century.

### **HIST 1513: World History since 1500**

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ACTS Common Course - HIST1123

The history of humanity from the sixteenth century to the present.

### **HIST 1543: Honors World History to 1500**

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Prerequisite: Admission to University Honors or permission of Honors Director.

The history of humanity from prehistoric times to the sixteenth century with an emphasis on the critical analysis of primary source documents and the methods by which historians and other scholars interpret historical evidence.

### **HIST 1903: Survey of American History**

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Survey of American History. An overview of American history from the pre-colonial period to the present.

Note: May not be taken for credit after completion of HIST 2003 or 2013.

### **HIST 2003: United States History to 1877**

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ACTS Common Course - HIST2113

The study of the development of the American nation to the Civil War and Reconstruction Era.

### **HIST 2013: United States History since 1877**

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ACTS Common Course - HIST2123

The study of the development of the American nation since the Civil War and Reconstruction Era.

### **HIST 2043: Honors United States History to 1877**

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Prerequisite: Admission to University Honors or permission of Honors Director.

History 2043 concentrates on the development of the American nation with emphasis upon the winning of independence, the origin of the Constitution, the rise of Jeffersonian Democracy, European influence up America, Jacksonian Democracy, westward expansion, the emergence of sectionalism, and the Civil War.

### **HIST 2153: Introduction to Arkansas History**

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An introductory course on the history of Arkansas. Lectures, discussions, and applied activities will be central to this course.

Note: This course is a professional education requirement for Early Childhood and Middle Level Education majors, and may not be counted toward the History degree, the Public History degree, or the Social Studies for teacher licensure degree.

Note: Students may not take this course after completion of HIST 4153.

### **HIST 2203: Introduction to Public History**

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An introduction to the theory and disciplines of public history, including museum studies, historic preservation, archive and

manuscript management, and historical editing. The course also explores the current theoretical and practical issues confronting public historians.

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## **HIST 2513: Sources and Methods in History**

This course is designed as an introduction to the field of historical research. This course introduces techniques and methods of historical research, basic historiography, bibliographical aids, and the study and writing of history. It is a hands-on course where students will use the skills learned to evaluate social science research

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## **HIST 3013: Colonial America**

The European background, the settlement of British colonies, the development of provincial institutions, and the emergence of an American civilization in the seventeenth and eighteenth centuries.

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## **HIST 3023: The Era of the American Revolution**

The deterioration of empire relationships from 1763 to 1776, with an examination of the causes and consequences of the American Revolution and the post war problems leading to the establishment of a new government under the Constitution in 1789.

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## **HIST 3033: The Early American Republic**

The social, cultural, economic, and political climate in which Jeffersonian Jacksonian democracy developed.

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## **HIST 3043: Civil War and Reconstruction**

The social, political, economic, and intellectual backgrounds of the war; the military operations; analysis of Reconstruction.

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## **HIST 3063: The Gilded Age/Progressive Era, 1877-1914**

Explores the major issues associated with Gilded Age America (immigration, industrialization, urbanization, imperialism, rise or organized labor) and examines the origins, goals, and legacies of the Populist and Progressive reform movements.

Note: May not be taken for credit after completion of HIST 3053.

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## **HIST 3073: The United States: 1914-1945**

Examines the American entry and contribution in World War One; the post-war settlement; the various social, economic, and political trends of the 1920s; the Great Depression; the New Deal; American foreign policy in the inter-war era; and the American role in World War Two, and its effects on American society and culture.

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## **HIST 3083: The United States: 1945-Present**

Explores the origins of and American responses to the Cold War, the rise of various reform movements in the 1950s-60s, the New Frontier and Great Society programs, the Vietnam War, and the rise of the New Right.

Note: May not be taken for credit after completion of HIST 4003.

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## **HIST 3103: The Old South**

A survey of the political, social, and economic development of the American South before the Civil War.

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## **HIST 3123: The New South**

A survey of the political, social, and economic development of the American South from the end of the Civil War to the present.

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## **HIST 3223: Local and Oral History**

The course has two main, inter-related themes, local history and oral history. This course examines the nature and practice of local history and explores the various methods and approaches central to local history research. In addition, this course



introduces students to the literature and theory of oral history and trains them in related fieldwork methodologies.

### **HIST 3243: Archive and Manuscript Management**

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An introduction to the administration of archival and manuscript collections in various types of institutions. This course explores the basic theoretical principles and archival practices of appraisal, acquisition, accessioning, arrangement, description, preservation, and user services. Topics will include: records management programs, collecting archives programs, legal and ethical issues, public programming and advocacy, and the impact of the new information technologies for preservation and access.

### **HIST 3281: Grant Writing for Historians**

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An introductory course designed to provide students with the basic tools necessary to successfully compete for external grant funds. The focus of the course is public history grants, although the skills and knowledge presented will also benefit historians who propose professional development proposals on research and study plans.

### **HIST 3283: Historical Editing**

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An introduction to historical editing in both print and electronic applications. Students will gain practical experience by editing documents and surveying the relevant literature.

### **HIST 3291: Practicum in Public History**

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Practicum facilitating the integration, synthesis, and application of theories, concepts, and skills associated with public history.

Note: Course requires 75 clock hours of supervision in the museum.

### **HIST 3313: Colonial Latin America**

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A survey of the political, economic, social and cultural aspects of Latin America to 1825. Emphasis is on cross-cultural accommodation and the role of indigenous, African, and European cultures in shaping Latin American development.

### **HIST 3323: Modern Latin America**

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A survey of the political, economic, social and cultural aspects of Latin America since 1825. Emphasis is on cultural values and structures from the colonial period, continuing patterns of authoritarianism, the struggle to establish democratic institutions, and Latin America's role in world affairs.

### **HIST 3413: History of Classical Greece and Rome**

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The origins and development of Classical civilization in ancient Greece, the rise of the Roman Republic, and the ascendancy and decline of the Roman Empire.

### **HIST 3423: History of the Middle Ages, 300-1300**

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Decline of the ancient Roman civilization; rise, ascendancy, and decline of medieval civilization; emphasis upon the Christian church and the rise of national monarchies.

### **HIST 3433: The Renaissance and European Expansion, 1300-1550**

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Fuelled by a growing urban economy and despite the setbacks of the Black Death, Europeans during the Renaissance revived and adapted models of classical learning, created new forms of artistic and vernacular expression, forged national identities, opened up new trade routes, and encountered a New World.

### **HIST 3443: The Reformation and Early Modern Europe, 1500-1688**

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A study of the social, political, intellectual and cultural impact of the Protestant Reformation, the Roman Catholic response, the sixteenth and seventeenth-century Wars of Religion, the development of confessional cultures, and the continued rise of the European nation-state in both its absolutist and constitutional forms.

## **HIST 3463: The Enlightenment, French Revolution, and Napoleonic Eras**

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This upper-division course will address the intellectual, social, and political events of the turbulent eighteenth century in Europe, a period known for the Enlightenment, as well as for the French Revolution and the rise and fall of Napoleon's Empire. Historians often argue that this period ushered in many of the hallmarks of the modern world, including nationalism, open class conflict, and popular democracy. The intent of this course is to examine the period in the context of its long-lasting influence upon world events.

## **HIST 3483: Reaction and Reform, 1815-1871**

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A study of the changes in the political, cultural, intellectual, and social environments which characterized Europe during the period between the Congress of Vienna through the rise of the modern nation states.

## **HIST 3493: The Age of Empire, 1871-1919**

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A study of the changes in the political, cultural, intellectual, and social environments which characterized Europe during the period between the rise of the modern nation states to the end of the First World War.

## **HIST 3503: Europe Between the Wars, 1919-1939**

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A study of the changes in the political, cultural, intellectual, and social environments which characterized Europe during the period between the end of the First World War to the beginning of the Second World War.

## **HIST 3513: Europe Since 1939**

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A study of the changes in the political, cultural, intellectual, and social environments which characterized Europe during the period between the beginning of the Second World War to the present.

## **HIST 3533: History of Russia**

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A study of the cultural and political history of Russia from the reign of Peter the Great to the present, emphasizing trends in the nineteenth century which culminated in the Bolshevik Revolution.

Note: May not be repeated for credit as HIST 5463 or equivalent.

## **HIST 3563: History of England**

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A study of the history of England from national origins to modern times.

## **HIST 3573: History of Eastern Europe**

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A study of the cultural and political history of eastern Europe from the Napoleonic Wars to the present.

## **HIST 3603: History of Modern East Asia**

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This course deals with the history of East Asia after 1800. The major stress is placed upon the history of China, Korea, and Japan.

## **HIST 3613: History of Japan**

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The History of Japan with an emphasis on the social, cultural, and political roots of Modern Japan.

## **HIST 3623: History of India**

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The History of India and the South Asian subcontinent with an emphasis on the social, cultural, and political development leading to modern India.

## **HIST 3633: History of China**

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The History of China with an emphasis on the social, cultural, and political roots of Modern China.

## **HIST 3703: History of Modern Africa**

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A treatment of African history since 1600, dealing with the development of African states in sub Saharan Africa up to present African nations.

Note: May not be repeated for credit as HIST 5703 or equivalent.

## **HIST 3803: History of the Middle East**

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Political, social, and cultural survey of the history of the Middle East from the rise of Islam to modern times.

## **HIST 4013: American Military History**

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A study of the American military from its colonial origins to the present, including the development of the military establishment and its relationship with American society.

Note: May not be repeated for credit as HIST 5013 or equivalent.

## **HIST 4023: Vietnam War**

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A study of the American involvement in Vietnam, from 1945 until 1975. Emphasis will rest on the actual period of war in Vietnam.

Note: May not be taken for credit after completion of the equivalent course under HIST/POLS 4983 nor be repeated for credit as HIST 5023.

## **HIST 4033: The Frontier in American History**

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Study of the American frontier as a place, as a process, and as a state of mind influential in shaping institutions and attitudes during the expansion of this nation westward from Atlantic to Pacific.

Note: May not be repeated for credit as HIST 5033 or equivalent.

## **HIST 4053: U.S. Business History**

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A study of the major economic forces which have helped influence, and been influenced by, United States history. Particular emphasis will be given to the development of agriculture, business, industry, and labor in their American setting.

Note: May not be repeated for credit as HIST 5053 or equivalent.

## **HIST 4073: American Diplomatic History, 1776-1912**

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This course is a study of America's diplomatic relationships with other nations and peoples from 1776 to 1912. Of particular emphasis will be the changes in international affairs brought about by the evolving economic and political conditions. This course follows the United States' early struggles in diplomacy through its expansion and eventual emergence as a world power.

## **HIST 4083: American Diplomatic History, 1912 to the Present**

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This course is a study of America's diplomatic relationships with other nations and peoples from 1912 to the present. Of particular emphasis will be the changes in international affairs brought about by the evolving economic and political conditions. This course follows the United States from its emergence as a world power through two world wars, a cold war, and a war on terrorism.

## **HIST 4093: American Culture Since 1800**

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The history and development of American regional and national culture from the early republic to the present. Topics include antebellum nationalism and regional cultures, slave and slaveholding culture, the rise of consumerism, popular and intellectual aesthetic and artistic development, and the evolution of American mass, commercial, and popular culture through the nineteenth and twentieth centuries.

## **HIST 4103: American Political Ideas**

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The background and development of American political ideas from the colonial period to the present. Emphasis is placed on colonial political theory, the Founding, conflict and consensus prior to the Civil War, the response to industrialization, the rise of the positive state, nationalism, the New Left and New Right, and current trends.

## **HIST 4123: African American History**

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This course examines the unique role and contribution of African Americans in the overall development of American history from the colonial era to the present. Topics include African societies; black colonial life; the institution of slavery, and African American responses to slavery; the free black community; African American cultural, political, and economic development; issues of assimilation, separatism, and African American responses to institutional racism; the Civil Rights Movement, and recent developments.

Note: May not be repeated for credit as HIST 5123.

## **HIST 4133: Latinos in the United States**

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This course is an analysis of the historical and cultural heritage of Latinos who have lived or are currently living in the United States. This course includes the colonial origins of Latino groups and their general migration patterns to the United States. This course also explores the development of Latino communities as well as the relationship between Latinos and social institutions.

Note: May not be repeated for credit as HIST 5133 or equivalent.

## **HIST 4143: Native American History**

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A survey of Native American history from the Archaic period to the present. This course will present an interpretation of the historical experience of the diverse nations native to North America utilizing an ethno- historical approach. Some emphasis will be placed on the formation and operation of United States government policy regarding Native Americans in both the 19th and 20th centuries.

Note: May not be repeated for credit as HIST 5143.

## **HIST 4153: History of Arkansas**

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A study of the history of Arkansas from prehistoric times to the present, noting political, social, economic, and cultural trends.

Note: May not be repeated for credit as HIST 5153 or equivalent.

## **HIST 4163: American History Through Film**

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This course examines 20th century American history through the study of American film, and film as cultural and historical text. Subjects for analysis include the Great Depression, World War II, the Cold War and Cold War culture, the 1960s, Vietnam, and the Reagan era. Emphasis will be on the uses of film as both primary and secondary source material for the study of history.

## **HIST 4173: History of American Disasters**

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A comparative examination of the greatest disasters in American history, the response to them, and how they affected the future of the nation.

## **HIST 4183: American Legal History**

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This course concerns the history and development of law, legal institutions, and legal culture in the United States from its colonial origins to the present day, with emphasis on constitutional case law and the interaction of law with the overall development of American society.

## **HIST 4193: American Labor History**

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This course examines the history of working people-men and women, paid and unpaid, of various racial and ethnic groups, in diverse geographic regions-primarily from the Early Republic to the present. This study will include a review of changes in work environments due to industrialization, unionization, and legal decisions.

## **HIST 4203: Women in American History**

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A treatment of women in Western and American social history in their lifestyles and economic and family roles.

Note: May not be taken for credit after completion of HIST 3203 nor repeated for credit as HIST 5203 or equivalent.

## **HIST 4213: Southern Women's History**

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A social history of the lives of women in the American South from approximately 1700 to the present which examines their lifestyles, economic, and family roles. This study includes, but is not limited to, experiences of Arkansas women.

## **HIST 4293: Historic Preservation**

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Upper-level survey of historic preservation in the United States. Course examines the theory, philosophy, and methods of maintaining the culture of the past. An introduction to the wide range of ideas underpinning the practice of preservation is covered through readings, discussions, presentations, class projects and field trips.

## **HIST 4403: Interpretation/Education through Museum Methods**

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Cross-listed: ANTH 4403, MUSM 4403

Prerequisite: Senior or Graduate standing, or permission of instructor.

Museum perspectives and approaches to care and interpretation of cultural resources, including interpretive techniques of exhibit and education outreach materials, and integrating museum interpretation/education into public school and general public programming. Class projects focus on special problems for managing interpretive materials in a museum setting.

## **HIST 4483: History of Capitalism**

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World Economic History traces the development of the modern global economy from the late middle ages to the present. Special attention is given to the emergence of capitalism in Europe and its migration to other parts of the world.

Note: May not be repeated for credit as HIST 5483 or equivalent.

## **HIST 4503: History of Christianity**

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A study of Christianity, from its beginnings to the present day, focusing especially on ancient Mediterranean, medieval European, and modern American Christian traditions. Emphasis will be on the interaction between individual beliefs, group identity, and institutional forces, how each have been shaped by broader social, political and cultural contexts, and finally how these interactions have resulted in profound changes for the Christian religion.

## **HIST 4513: History of Science**

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A study of the origins, nature, and development of Western science and its social, economic, and cultural context.

Note: May not be repeated for credit as HIST 5513.

## **HIST 4714: Social Studies Methods for Secondary Teachers**

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Prerequisites: SEED 2002 and the completion of 36 hours in the Social Sciences.

A course in subject-matter applications for secondary teacher education candidates (grades 7-12) in social studies. The course will incorporate a variety of instructional models, activities, and examples, as well as the integration of traditional and non-traditional resource materials.

Note: Must be completed prior to student teaching.

## **HIST 4813: World War II**

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A study of World War II, 1939 through 1945, in its origins and spread through world theaters.

Note: May not be taken for credit after completion of the equivalent course under HIST/POLS 4983 nor repeated for credit

as HIST 5813.

## **HIST 4823: Nationalism**

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The course looks at the development of the idea of nation in European and World history in the last two centuries. By using historical examples the course will introduce the students to the current theoretical debate on ethnicity and nationalism. The special attention will be placed on the relationship between state power and the nation. The course will look at ethnicity in history before and after the emergence of effective means of communication, such as the printing press, radio, and television. It will also look at the role culture plays in the formation of national consciousness and how the past was used and abused to drum-up political support.

## **HIST 4951,4952,4953,4954: Undergraduate Research in History**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **HIST 4963: Senior Seminar**

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Prerequisites: HIST 1503, 1513, 2003, and 2013

Required course for History and Social Studies Education majors. Course content will cover a directed seminar in specified American or European History. Research techniques will be emphasized.

## **HIST 4971: Internship**

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Cross-listed: POLS 4971

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/ trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

## **HIST 4972: Internship**

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Cross-listed: POLS 4972

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/ trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

## **HIST 4973: Internship**

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Cross-listed: POLS 4973

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/ trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock



hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

## **HIST 4974: Internship**

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Cross-listed: POLS 4974

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/ trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

## **HIST 4975: Internship**

---

Cross-listed: POLS 4975

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/ trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

## **HIST 4976: Internship**

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Cross-listed: POLS 4976

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/ trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

## **HIST 4983: History Seminar**

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A directed seminar in an area of historical study. The specific focus will depend upon research under way, community or student need, and the unique educational opportunity available.

Note: May be repeated for credit if course content changes.

## **HIST 4991,4992,4993,4994: Special Problems in History**

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Prerequisite: Consent by department head.

A course for majors and minors only.

## Honors Program Course Descriptions

### **HONR 1003: Freshman Honors Seminar**

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Prerequisite: Acceptance into the honors program, approval of Honors Program Director.

An introductory course to the honors program, teamwork and multidisciplinary problem solving.

### **HONR 4093: Senior Honors Project**

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Prerequisites: Approval of the Director of Honors Program (if used for departmental requirement, all applicable prerequisites also apply).

A team or individual independent research project will be completed. Projects will include some aspect of academic investigation appropriate to the subject area chosen. Presentation of project findings at annual Senior Honors Symposium will be required.

# Hospitality Administration Course Descriptions

## HA 1013: Sanitation Safety

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Cross-listed: CUL 1013

This course provides knowledge of food safety, potable water, bioterrorism and risk management particularly in the areas of food service and storage. The student will gain knowledge on safe food handling from; receiving and storage through preparing and serving food. This course will also analyze ethical considerations with regards to food and water safety and food service. ServSafe certification from the NRAEF will result upon successful completion of standardized exam.

## HA 1043: Introduction to Hospitality Management

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The history and development of the hospitality industry which comprises food, lodging, and tourism management, an introduction to management principles and concepts used in the service industry, and career opportunities in the field.

## HA 1063: Hospitality Technology

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Prerequisite: COMS 1003

This course will focus on the fundamental features and components of computerized hotel, restaurant, and tourism management systems. The selection and implementation of technology applications to specific hotel, restaurant, and tourism management systems will be presented and discussed.

## HA 1923: Introduction to Food and Beverage Management

---

Cross-listed: CUL 1923

This course introduces the practical skills and knowledge necessary for the effective management of food and beverage operations encompassing the historical timeline of food and beverage, non-alcoholic beverages, the identification of meats, fishes, fruits, vegetables, dairy products and proteins. This course also introduces the front-of-the-house essentials for food and beverage operations encompassing glassware, service ware and other front-of-the-house equipment.

## HA 2003: Cost Controls

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Prerequisite: MATH 1003 or MATH 1113

This course will study the role of cost control management on overall profitability of hospitality entities. Basic principles of purchasing food, beverage, and non-food items with regards to maintaining an operation's competitive advantage within the industry will be covered.

## HA 2023: Hospitality Supervision and Leadership

---

Cross-listed: CUL 2023

This course provides comprehensive coverage of the principles, theories, human-relations techniques, leadership styles, and decision-making skills that are required to manage a team to profitable results in the food service and lodging industries.

## HA 2043: Front Office Management

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A survey of the lodging industry to include its history, growth and development, and future direction. Emphasis on front office procedures and interpersonal dynamics from reservations through the night audit.

## HA 2053: Work Experience

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Cross-listed: CUL 2053

Prerequisites: HA/CUL major or HA minor; sophomore standing or permission of instructor.

Placement in selected hospitality settings as a student worker under professional guidance of both agency and faculty. Students are given the opportunity to take part in meaningful work experiences in actual work situations and managerial

observation.

Minimum of 200 clock hours of work experience.

## **HA 2063: Guest Service Management**

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Cross-listed: CUL 2063

The analysis and development of guest services management skills including leadership behavior, motivation, communication, training, staffing, etiquette, and professional service.

Lecture two hours, lab minimum of four hours depending on the special event requirements.

Note: \$100 lab fee which helps to cover your meal costs.

## **HA 2133: Introduction to Travel and Tourism**

---

Cross-listed: RP 2133

The introduction to travel and tourism, its components and relationship to the recreation and hospitality industry. The course will explore the current and future trends in travel and tourism and the effects on the economy, as well as the social and political impacts of travel and tourism.

## **HA 2813: Basic Human Nutrition in Hospitality Administration**

---

Cross-listed: CUL 2813

Study of the relationship between nutrition and health as a basis for food choices of all ages; the application of nutrient functions in human life processes and cycles; how balanced eating promotes healthy lifestyles. Current concepts and controversies are highlighted.

## **HA 2913: Principles of Food Preparations**

---

Cross-listed: CUL 2913

Prerequisite: CUL (HA) 1013, CHEM 1113 and CHEM 1111

Co-requisites: CUL (HA) 2813

Upon completion of this course the student should be able to demonstrate skills in basic cooking techniques and methods, recipe conversion, and professional food preparation and handling. Additionally, the student should be able to recognize and safely operate common foodservice equipment used in commercial kitchens and demonstrate proficient culinary knife skills.

This course is 2 hours lecture and a 4 hour lab depending upon special event requirement(s).

Note: \$100 lab fee required. Additional costs: professional uniforms are required and are to be considered additional out-of-pocket expenses to the student.

## **HA 3133: Tourism Planning**

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Cross-listed: RP 3133

An examination of the tourism planning process and techniques. Topics include tourism as a system, levels of planning, environmental, cultural and economic components, attractions, transportation, infrastructure and marketing.

## **HA 3143: Executive Housekeeping**

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Prerequisite: HA 2043

This course evaluates the role of housekeeping, the planning and organization of various organizing tasks, and the importance of maintaining and training quality housekeeping staff. This course will evaluate managing inventories, controlling expenses and monitoring safety and security functions.

This class is 3 hours lecture and additionally will require students to have a minimum of 15 contact hours throughout the semester under supervision in a hotel housekeeping environment.

## **HA 4001: Internship Preparation**

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Cross-listed: RP 4001

Prerequisites: PRHA major, senior standing, and completion of RP 3043 or HA 2053 or permission of department head.

Preparation for the internship experience. This course is graded Pass/Fail.

## **HA 4013: Hospitality Marketing and Sales**

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The organization of the marketing function and its role and responsibility in developing an integrated marketing program. Special attention to convention sales and management, and the role of travel related services to the marketing function.

## **HA 4023: Hospitality Facilities Management and Design**

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Prerequisites: Junior standing plus nine hours of HA courses or by permission.

The fundamental principles of facilities planning, facilities management, and maintenance for all segments of the hospitality industry. Application principles in the preparation of a typical layout and design.

## **HA 4033: Legal Aspects of Hospitality Administration**

---

Prerequisites: Senior standing or permission of instructor.

Examination of the laws regulating the hospitality industry. Development of an appreciation of the interrelationship between the law and the hospitality industry. Exploration of how legal principles apply in the global environment of the hospitality industry.

## **HA 4053: Meetings and Conventions Management**

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Prerequisites: Junior standing plus nine hours of HA courses or by permission.

Planning and managing meetings and conventions in the hospitality industry.

## **HA 4063: Beverage Management**

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Prerequisites: 21 years of age, HA major or permission of the instructor.

Selection, storage, and service of beverages with emphasis on controls, merchandising, pricing, history, social and legal concerns. Successful completion of standardized exam results in Serv Safe Alcohol certification from the National Restaurant Association Educational Foundation.

Lecture two hours, lab two hours. \$50.00 Lab fee required.

## **HA 4073: Hospitality Financial Analysis**

---

Prerequisites: ACCT 2003 and 2013

Accounting principles and procedures for the Hospitality Industry as an aid in management planning, decision making and control, financial statements, statement analysis, flow of funds, cash analysis, accounting concepts, cost accounting budgets, capital expenditures, and pricing decisions.

## **HA 4093: Resort Management**

---

Cross-listed: RP 4093

Prerequisites: Junior standing and nine hours of RP or HA courses or by permission.

An in-depth study of resorts with respect to their planning, development, organization, management, marketing, visitor

characteristics, and environmental consequences.

## **HA 4113: Personnel Management in Parks, Recreation, and Hospitality Administration**

---

Cross-listed: RP 4113

Prerequisites: Junior standing and nine hours of RP or HA courses.

An overview of personnel considerations in various Recreation and Park agencies and the Hospitality industry. Laws, legal issues, structure, staffing, motivation, training, conduct, policies and other aspects of agency/industry personnel relations will be examined using case-studies, as well as other methods.

## **HA 4116: Internship**

---

Cross-listed: RP 4116

Prerequisites: Parks, Recreation, and Hospitality Administration major; senior standing; current certifications in CPR; Standard and Advanced First Aid; consent of department head and completion of all other courses applicable to degree.

Placement in selected agency settings as a student intern under professional guidance of both agency supervisor and faculty. Emphasis will be placed on application of classroom theory to agency requirements which fulfill student's individual career interest. No prior experience credit will be granted. Minimum of 560 clock hours during a minimum of 12 weeks/maximum 15 weeks of supervised internship is required. Student cannot document more than 40 hours of work experience per week. A written report is required within two weeks of internship completion.

\$100 supervisor travel fee required.

## **HA 4203: Hospitality Operational Problem Solving**

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Prerequisites: Senior standing, MGMT 3003

Solving practical hospitality and tourism management problems through planning, establishment of policy, analysis and application of qualitative and/or quantitative methods.

## **HA 4243: Advanced Lodging Operations Management**

---

Prerequisites: HA 3143 and HA 4113

An in-depth study of hotel and lodging operations management. The analysis of competitive strategies, leadership styles, teamwork, technology and creativity in the hotel and lodging industry.

\$50 course fee.

## **HA 4253: Club Management**

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Prerequisites: Junior standing and nine hours of HA courses, or permission of instructor.

This course analyzes the organizational diversity of clubs exploring governance, management and operations of profit and non-profit clubs.

## **HA 4951,4952,4953,4954: Undergraduate Research in Hospitality Administration**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **HA 4983: Advanced Food Production**

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Prerequisite: HA 2913

Upon completion of this course the student should be able to demonstrate advanced level cooking techniques and methods, recipe conversion, and professional food preparation and handling as well as managerial competencies.

This course is one hour lecture and a minimum five hour lab depending on the event requirements. Advanced preparation may be required the day before or the day of an event. \$100 lab fee required which helps to cover your meal costs.

## **HA 4991,4992,4993: Special Problems and Topics**

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Offered: On demand

Investigative studies and special problems and topics related to hospitality administration.

## Humanities Course Descriptions

### **HUM 2001,2002,2003: Topics in Arts and Humanities**

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This course offers instruction in an area of the arts and humanities not otherwise covered in the curriculum.

Note: The focus of the course will vary from semester to semester, thus the course may be repeated.

# Japanese Course Descriptions

## JPN 1013: Beginning Japanese I

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Training in the elements of Japanese communication (speaking and writing) and comprehension (listening and reading) within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Japanese.

## JPN 1023: Beginning Japanese II

---

Prerequisite: JPN 1013 or equivalent

Continued training in basic Japanese communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Japanese.

## JPN 2013: Intermediate Japanese I

---

Prerequisite: JPN 1023 or equivalent

Development of language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language at the intermediate level within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Japanese.

## JPN 2023: Intermediate Japanese II

---

Prerequisite: JPN 2013 or equivalent

Further development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to provide mastery of fundamental tools in a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Japanese.

## JPN 3003: Conversation and Composition I

---

Prerequisite: JPN 2024 or permission of instructor.

Development of advanced control of Japanese communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient in Japanese.

## JPN 3013: Conversation and Composition II

---

Prerequisite: JPN 3003 or permission of instructor

Continuation of JPN 3003. Further development of advanced proficiency of Japanese communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient in Japanese.

### **JPN 3113: Culture and Civilization**

---

Prerequisite: JPN 2024 or equivalent.

Study of the economic, political, and social structure of Japan and an introduction to Japanese history and culture.

### **JPN 3143: Study Abroad**

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Prerequisites: Enrollment in a Tech-sanctioned study program in a Japan, completion of JPN 2024 or equivalent, and permission of the Study Abroad supervisor and Department Head.

Study of the contemporary language and culture in a Japan. May substitute for JPN 3003 or JPN 3013, depending on the student's proficiency level.

### **JPN 4903: Foreign Language Internship**

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Prerequisites: Advanced foreign language proficiency; permission of the instructor and the department head.

The Foreign Language Internship is intended primarily for majors in foreign languages or international studies. It is designed to provide outstanding students the opportunity to perfect their language proficiency and to acquire specific training and skills overseas. The overseas sponsor and the foreign language instructor of record will supervise the intern. Performance evaluations and a research paper will be required.

### **JPN 4991,4992,4993,4994: Special Problems in Japanese**

---

Prerequisite: completion of JPN 2024 or equivalent, permission of the instructor and Department Head.

This course is designed to provide advanced Japanese students with a course of study in an area not covered by the departmental course offerings.

## Journalism Course Descriptions

### **JOUR 1163: Basic Digital Photography**

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Cross-listed: ART 1163

Basic Digital Photography, an introduction to the medium, its history, techniques and theory. This course will teach students the basics of photographic composition, lighting, camera and lens operation, editing and printing using the digital format.

### **JOUR 1411,1421,2411,2421,3411,3421,4411: Print Practicum**

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Students will learn practical skills in the areas of writing, layout and design and photography while working an assigned number of hours each week for the student newspaper.

### **JOUR 1811,1821,2811,2821: Broadcast Practicum**

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Practical work experience in the studios of KXRJ FM and Tech television productions.

Note: Only four hours count for the journalism major.

### **JOUR 1911,1921,2911,2921,3911,3921,4911,4921: Multimedia Practicum**

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Practical work experience in the multimedia lab including work as Web news manager, producer, Web content director.

### **JOUR 2133: Introduction to Mass Communication**

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An introduction to the mass communication process and industry.

### **JOUR 2143: News Writing**

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A study of and practice in writing news stories.

### **JOUR 2153: Introduction to Telecommunication**

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A study of the technical, legal, programming, advertising and journalistic aspects of the telecommunication industry with practical exercises in radio, television and the Internet.

### **JOUR 2163: Introduction to Multimedia**

---

Prerequisite: JOUR 2133

Introduction to Digital Multimedia is designed to teach fundamental principles of multimedia to give students a working understanding of digital media formats and their applications.

### **JOUR 2173: Introduction to Film**

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Cross-listed: ENGL 2173

Prerequisite: ENGL 1013 or equivalent.

A study of film as an art form with particular attention to genres, stylistic technique and film's relation to popular culture.

Note: JOUR 2173 may be used to fulfill the fine arts General Education requirement.

Note: JOUR 2173 may not be repeated for credit after the completion of ENGL 2173.

### **JOUR 3111,3121: Editorial Conference**

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Prerequisite: Permission of instructor.

Student news executives meet regularly with faculty to critique publication and broadcast products.

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### **JOUR 3133: Publications Management**

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An analysis of the problems in managing newspapers, magazines and other mass media.

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### **JOUR 3143: News Reporting**

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Prerequisite: ENGL 1013 or 1043 and JOUR 2143

A study of news gathering and writing techniques.

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### **JOUR 3153: Feature Writing**

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Prerequisite: Permission of the instructor.

A study of and practice in writing of newspaper features and magazine articles.

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### **JOUR 3163: News Photography**

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Prerequisite: ENGL 1013 or 1043

A study of the use of the camera, communication through pictures, news value in pictures, and the history of photojournalism.

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### **JOUR 3173: Public Relations Principles**

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A study of public opinion and the role of the mass media in shaping it, including practice in public opinion research, communications techniques and solving public relations problems.

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### **JOUR 3183: Broadcast News Writing**

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Prerequisite: JOUR 2143 or 3143

Principles and techniques of writing and production of radio and television news.

Two hour class, two hour laboratory.

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### **JOUR 3193: New Media News Gathering**

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Prerequisite: JOUR 2143, JOUR 3183 or consent of instructor.

Study and practice in producing news packages, including training and experience in new and traditional news gathering, preparing scripts and digital video, and operating cameras, editing decks, and other studio and field equipment.

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### **JOUR 3273: Public Relations Writing**

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Prerequisites: JOUR 3173.

Provides the knowledge and skill training for students to become effective public relations writers. The course will focus on style and content of writing news releases, speeches, newsletters, brochures, annual reports and other public relations communications.

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### **JOUR 3811,3821: Broadcast Practicum**

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Practical work experience in the studios of KXRJ FM and Tech television productions, including work as manager, producer, or director.

Note: Only four hours count for the journalism major.

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### **JOUR 4011,4012,4013: Practical Editing**

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Actual experience editing news. Arranged with an instructor.

Note: May be taken for a maximum of three hours.

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## **JOUR 4023: Social Media**

This course offers students a solid understanding of social media, its roots and how to effectively utilize this culture from personal and corporate perspectives.

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## **JOUR 4033: Community Journalism**

A study of journalism as practiced in weeklies, small dailies, and broadcast stations in small towns and cities, including the relationship of the media to the community.

Note: For majors and non-majors.

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## **JOUR 4043: Journalism Ethics**

A study of ethical theory and basic principles needed in solving ethical challenges facing media professionals.

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## **JOUR 4053: Mass Communication Seminar**

Prerequisite: Permission of instructor.

Studies of the relationship of mass communication to social, political, technical, and economic issues. Course content will vary.

Note: May be repeated for credit as JOUR 4053 or 5053 when course content changes.

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## **JOUR 4073: Graphic Communication**

Prerequisites: JOUR 3173 and JOUR 3273

Presents the elements of effective print design as well as the other decision making processes involved with creating an effective visual communication (type, art and illustration, basic design principles, paper and ink, printing processes, etc.). Students will create visually appealing projects using the industry standard design and photo manipulation software programs.

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## **JOUR 4083: Computer Mediated Communication**

A study of communication processes in the Digital Age. Discussions and content will include contemporary emerging communication technologies and exploration into the impact those technologies have and will likely have on an individual and diverse social communities.

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## **JOUR 4091,4092,4093,4094: Internship**

Credit for work in professional journalistic settings. Credit hours will be based on hours on the job.

Note: May be taken for a total of four hours.

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## **JOUR 4111,4121: Editorial Conference**

Prerequisite: Permission of instructor.

Student news executives meet regularly with faculty to critique publication and broadcast product.

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## **JOUR 4113: History of American Journalism**

Prerequisite: Permission of instructor.

A survey of the history of American journalism and mass media and their relationships to technical, economic, political, and other aspects of American society.

Note: May not be repeated for credit as JOUR 5113.

## **JOUR 4114: News Editing**

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Prerequisites: JOUR 2143, 3143.

A study of copy reading, headline writing, design, and problems and policies of editing the news.

Three hours lecture, two hours laboratory arranged.

## **JOUR 4123: Laws of Communication**

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A study of the development of freedom of press and speech, laws of libel, contempt, privacy and copyright in their relation to press, radio, television, and films.

## **JOUR 4133: Television News Production**

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Prerequisite: JOUR 3193 or consent of instructor.

Study and practice in shooting, writing, editing, and producing news, sports and feature packages. Stories will be aired during live news programming on Tech TV and placed in student video portfolios. Practical experience will focus on operating field and studio gear, including digital cameras and editing decks, and use of new media news gathering equipment.

## **JOUR 4143: Advanced Reporting**

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Prerequisites: JOUR 2143 and 3143 or permission of instructor.

Study of advanced news gathering techniques and practice in researching and writing difficult types of stories.

## **JOUR 4153: Editorial, Column, and Review Writing**

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Study of and practice in writing editorials, columns, and reviews. Includes research and discussion of the function of opinion writing in the mass media.

## **JOUR 4163: Advanced Digital Photography**

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Cross-listed: ART 4163

Prerequisite: JOUR (ART) 1163 or consent of instructor.

Advanced techniques in digital photography are explored to expand the student's understanding of the digital processes as they relate to computer editing, manipulation and printing of digital images. Students will also study current theories of visual communication that relate to the field of digital photography.

## **JOUR 4173: Public Relations Project**

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Prerequisites: JOUR 3173, JOUR 3273, JOUR 4073, or consent of instructor.

Planning, preparation and execution of a public relations program for a specific project.

## **JOUR 4193: Communication Research Methods**

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Introduction to the methodologies of behavioral science applied to communication research including design, measurement, data collection, and analysis. Explores the use of surveys, content analysis, focus groups, and experiments in studies of communication processes and effects.

## **JOUR 4243: Journalism Writing Seminar**

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A concentrated fundamentals writing course that deals with traditional techniques and various formats for journalistic writing such as editorials, feature stories, columns, reporting, press releases, and interviews.

## **JOUR 4421: Print Practicum**

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Students will learn practical skills in the areas of writing, layout and design and photography while working an assigned number of hours each week for the student newspaper.

## **JOUR 4811,4821: Broadcast Practicum**

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Practical work experience in the studios of KXRJ FM and Tech television productions, including work as manager, producer, or director.

Note: Only four hours count for the journalism major.

## **JOUR 4883: Mass Communication Theory**

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Prerequisite: 15 semester hours of Journalism.

This course provides an examination of the major theories and domains of mass communication research, emphasizing mass media effects. Students are acquainted with the assumptions, propositions, and empirical research foundations of these theories. The course covers the historical evolution and recent trends in mass communication theory as well as the application of theories to specific contexts such as marketing or organizational communication.

## **JOUR 4951,4952,4953,4954: Undergraduate Research in Journalism**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **JOUR 4991,4992,4993,4994: Special Problems in Journalism**

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This course, for majors only, requires advanced approval by the instructor and is restricted to second semester juniors and seniors. It is designed to provide certain advanced students with further concentration in a particular area. One, two, three, or four hours may be taken as appropriate.

## Latin Course Descriptions

### **LAT 1013: Beginning Latin I**

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Instruction in the fundamentals necessary to read and write the language.

Note: Advanced placement and credit by examination are available to students who have previously studied Latin.

### **LAT 1023: Beginning Latin II**

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Prerequisite: LAT 1013 or equivalent.

A continuation of LAT 1013.

## Library Media Course Descriptions

### **LBMD 2001: Introduction to Library Resources**

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An introduction to the organization and function of resource collections, with practical experience in location, retrieval, and use of reference and research materials; emphasis placed on subject materials.

Note: Course will not count toward licensure.

# Management Course Descriptions

## **MGMT 3003: Management and Organizational Behavior**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Basic principles of management and organizational behavior including planning, organizing, leading, controlling, staffing, decision making, ethics, interpersonal influence, and group behavior; conflict management; job design; and organizational change and development.

## **MGMT 3103: Operations Management**

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Prerequisites: MGMT 2013, BUAD 2053, and MGMT 3003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of the overall operations management task. Critical issues include its integration of market issues, the development of operations strategies, and the management of people. Specific attention is given to the design and development of services and products and the systems by which they are produced and delivered. Factors central to the operations management task include capacity, technology, scheduling and execution, quality, inventory, the significant role of managing the supply chain, and process and delivery system reliability and maintenance.

## **MGMT 3113: Managerial Process Analysis**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course is a study of the analysis, mapping, and improvement of business processes using standard symbols, popular software tools, metrics, and general systems theory. Examples of sample business processes and topics include customer service, sales management, scheduling, manufacturing, supply chain management, logistics, hiring/job search, process mapping diagrams, organizational charts, workflow and environment layout, cause and effect analysis, systems analysis and design, collection and analysis of process data, and optimization. Software tools are used for process diagramming, concept mapping, physical facilities layout, project planning and management, and data filtering and analysis.

## **MGMT 3123: Business Ethics**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course is an interdisciplinary study of business ethics and the social responsibility of business organizations in society. The course will consider professional and applied ethics, law and organizational behavior. The focus of the course is on the individual managerial decision making process in response to ethical issues arising in the business context. Students will explore the role of business in society; discuss general theories of ethics; explain and apply key ethical theories in business; and develop and defend their own ethical positions.

## **MGMT 4013: Management Information Systems**

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Prerequisites: BUAD 2003, BUAD 2053, MGMT 2013 or BDA 2003, MGMT 3003, and MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of information processing, the systems concept, the analysis and design of information systems, and database hardware and software technology as they apply to producing information to be used in business decision making. Emphasis will be given to practical application for business.

## **MGMT 4023: Personnel/Human Resource Management**

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Prerequisites: MGMT 3003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of that function performed in organizations which facilitates the most effective use of people (employees) to achieve organizational and individual goals. Topics covered include the law and personnel/human resource management, personnel analysis, planning, and staffing; performance evaluation and compensation, training and developing of human



resources; labor relations, employee safety and health; work scheduling; evaluation of personnel/ human resources management.

### **MGMT 4033: Internship I in Management**

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Prerequisites: Permission of the Instructor, Department Head and Dean; Junior Standing; minimum 2.5 overall GPA. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A supervised, practical experience providing undergraduate MGMK majors with a hands-on professional management/marketing experience in a position relating to an area of career interest. The student will work in a local cooperating business establishment under the supervision of a member of management of that firm. A College of Business faculty member will observe and consult with the students and the management of the cooperating firm periodically during the period of the internship. Students will be required to make oral reports in the classroom, maintain an internship log, and prepare a final term paper.

Note: Only three hours of internship may be used to satisfy the curriculum requirements for management or marketing electives. Additional hours may be used to satisfy the curriculum requirements for general electives.

### **MGMT 4043: Internship II in Management**

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Prerequisites: Internship I, permission of the Instructor, Department Head and Dean; Junior Standing; minimum 2.5 overall GPA. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

To be taken after completion of Internship I. A supervised, practical experience providing undergraduate MGMK majors with a hands-on professional management/marketing experience in a position relating to an area of career interest. The student will work in a local cooperating business establishment under the supervision of a member of management of that firm. A College of Business faculty member will observe and consult with the students and the management of the cooperating firm periodically during the period of the internship. Students will be required to make oral reports in the classroom, maintain an internship log, and prepare a final term paper.

Note: Only three hours of internship may be used to satisfy the curriculum requirements for management or marketing electives. Additional hours may be used to satisfy the curriculum requirements for general electives.

### **MGMT 4053: Small Business Management**

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Prerequisites: MGMT 3003, MKT 3043, and senior standing. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Application of business management principles to the creation and operation of small scale enterprises. Emphasis on the preparation and implementation of business plans for such enterprises.

### **MGMT 4063: Entrepreneurial Development**

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Prerequisites: Approval from instructor. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

The course is designed to increase the students' understanding of critical entrepreneurial and venture creation concepts through practical applications and through textual readings. Specifically, students will take preliminary small business plans and develop and formalize plans that will be submitted for competition consideration at the annual Donald W. Reynolds Governor's Cup business plan competitions.

### **MGMT 4073: Special Topics in Management**

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Prerequisite: MGMT 3003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

In-depth exploration of selected management topics. The primary topic will vary from offering to offering; thus, the course may be taken more than once.

### **MGMT 4083: Business Policy**

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Prerequisites: Senior standing and completion of all junior-level College of Business core courses except for FIN 3063. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

As the capstone course in the College of Business core, this course examines the application of strategic management processes, including top management's role in situational analysis, strategy selection, strategy implementation, and strategic control, under conditions of uncertainty.

## **MGMT 4093: Human Behavior in Organizations**

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Prerequisites: MGMT 3003. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of individual and group behavior in organizations. Topics covered include personality and individual differences, personal systems, values and ethics, perception, attribution theory, goal setting, reinforcement theory, theories of motivation and leadership, group systems, power and social influence, and organizational structure.

## **MGMT 4113: Managerial Issues in Electronic Commerce**

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Prerequisites: MGMT 3003, and MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of managerial issues and strategies involved in Internet-based buying and selling activities. The course examines appropriate business models and best practices in generating revenue, market share, and profit from wholesaling and retailing activities in business-to-consumer, business-to-business, and consumer-to-consumer venues. Topics include initiation and management of electronic commerce operations, technological infrastructure and tools, marketing, customer relationship management, electronic payment, security, staffing, social impacts, ethics, regulation, and international markets.

## **MGMT 4203: Project Management**

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Prerequisites: BUAD 2053, MGMT 3003, MGMT 4013, MKT 3043, or instructor approval. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Project Management is studied from a practical perspective. In this course, students explore techniques of organizing the three main elements of project management: cost, schedule and scope, as well as how to manage the most important aspect of Project Management: PEOPLE. Students will learn to utilize software that aids in the visualization of the project management process. The emphasis of this special topic in management will be aimed toward an understanding of Project Management for future business leaders and engineers. The course will culminate with a month-long, graded, practical exercise with industry where students will be organized into teams or as individual developers and sent to explore all aspects of a problem, conduct a project initiation workshop, and then present a project management plan to the leadership of that participating industry.

## **MGMT 4213: Business Leadership**

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Prerequisites: MGMT 3003, MKT 3043, or instructor approval. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

The course is an overview of the concepts and issues associated with contemporary leadership. It outlines the challenges, methods, and responsibilities of leading in our society. It covers what every informed citizen should know about leading in a variety of settings: the processes, styles, and pitfalls. We will address leader development, and discuss ethical issues related to leading. Guest speakers and student presentations will provide real world contemporary experiences for comparison to the text materials. Students are expected to be active participants in class. The final paper will serve as a roadmap for leadership development for each student for the next ten years.

## **MGMT 4223: Leadership: Ideas and Images in Art, Film, History, and Literature**

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Prerequisites: Junior standing or instructor permission. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

This course probes the definition, meaning, practice, and paradox of leadership by exploring ideas and images found in diverse domains such as film, art, literature, and history. These ideas and images are used as a platform for examining leadership challenges and for developing personal insights into leadership practice, issues and values.

# Marketing Course Descriptions

## **MKT 3043: Principles of Marketing**

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Prerequisites: Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Marketing fundamentals, the ultimate consumer, the retailing and wholesaling systems, marketing functions, marketing policies, marketing costs, critical appraisal of marketing, marketing and the government.

## **MKT 3163: Consumer Behavior**

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Prerequisites: MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of the development of consumer decision making processes and the factors which influence them. Psychological, sociological, economic, cultural, and situational factors are examined. Their impact on marketing formulation, both domestic and international, is emphasized.

## **MKT 4033: Internship in Marketing I**

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Prerequisites: Permission of the Instructor, Department Head and Dean; Junior Standing; minimum 2.5 overall GPA. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A supervised, practical experience providing undergraduate MGMK majors with a hands-on professional management/marketing experience in a position relating to an area of career interest. The student will work in a local cooperating business establishment under the supervision of a member of management of that firm. A College of Business faculty member will observe and consult with the students and the management of the cooperating firm periodically during the period of the internship. Students will be required to make oral reports in the classroom, maintain an internship log, and prepare a final term paper.

Note: Only three hours of internship may be used to satisfy the curriculum requirements for management or marketing electives. Additional hours may be used to satisfy the curriculum requirements for general electives.

## **MKT 4053: Sport and Event Marketing**

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Prerequisites: MKT 3043, or instructor approval. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

To apply marketing concepts to sporting, cultural, historical, and charitable activities and events. To examine the performance, production, and promotional segments of the sport and event markets.

## **MKT 4063: Advertising**

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Prerequisites: MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

The "how" and "why" of advertising: principal problems faced by advertisers and advertising agencies, approaches, policies, and procedures as related to successful marketing techniques.

## **MKT 4093: International Marketing**

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Prerequisites: MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Analysis of opportunities, distinctive characteristics and emerging trends in foreign markets, including exploration of alternative methods and strategies for entering foreign markets; organizational planning and control; impact of social, cultural, economic and political differences; and problems of adapting American marketing concepts and methods.

## **MKT 4103: Special Topics in Marketing**

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Prerequisites: MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

In-depth exploration of selected marketing topics. The primary topic will vary from offering to offering, thus, the course may be taken more than once.

### **MKT 4143: Marketing Management**

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Offered: Fall

Prerequisites: MKT 3043, MGMT 3003 and senior standing. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Advanced study of decisions facing a marketing executive. Topics covered include product planning, consumer behavior, promotion, sales management, and pricing.

### **MKT 4153: Research Methods**

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Offered: Spring

Prerequisites: BUAD 2053, MKT 3043. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A study of the development of the basic methodology in research design for primary and secondary data, including requirements for collection, analysis, editing, coding, and presentation of data to support marketing decisions.

## Mathematics Course Descriptions

(A grade of "C" or better must be earned in the course used to satisfy the general education mathematics requirement.)

### **MATH 0903: Beginning and Intermediate Algebra**

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The purpose of this course is to prepare for college level mathematics those students whose mathematics background is inadequate. Content of the course is the language of algebra, fundamental operations, signed numbers, various equations, problem solving, special products and factoring, fractions, functions, graphs, exponents, and systems of linear equations.

Note: The grade in the course will be computed in semester and cumulative grade point averages, but will not be calculated in earned hours. The course may not be used to satisfy general education requirements nor provide credit toward any degree.

Note: The course is repeatable allowing hours for financial aid purposes. All attempts of the course will be included in the semester and cumulative grade point average. Students earning the grade of D\*, F\*, or FE may repeat the course and petition the Registrar's Office to have the quality hours and quality points removed from the in semester and cumulative grade point averages.

Note: A student must achieve a grade of A\*, AQ\*, B\*, BQ\*, C\*, or CQ\* to satisfy the requirements to enroll in MATH 1003. A student must achieve a grade of A\*, B\*, or C\* to satisfy the requirements to enroll in MATH 1113. A student earning a grade of AN\*, BN\*, CN\*, D\*, F\*, or FE will be required to reenroll in MATH 0903.

### **MATH 1003: College Mathematics**

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ACTS Common Course - MATH1113

Prerequisites: Score of 19 or above on the mathematics sub score of the Enhanced ACT, score of 460 or above on the quantitative portion of SAT, score of 41 or above on the quantitative portion of the COMPASS mathematics section, or make a grade of A\*, AQ\*, B\*, BQ\*, C\*, or CQ\* in MATH 0903.

The course focuses upon the mathematics of contemporary life. Topics include Planning and Scheduling schemes from Management Science, Data Analysis, Probability and Inference from Statistics, Voting Systems and Division Schemes from the science of Social Choice, and various Growth Models.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

### **MATH 1113: College Algebra**

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ACTS Common Course - MATH1103

Prerequisites: Score of 19 or above on the mathematics portion of the ACTE exam, or score of 460 or above on the quantitative portion of SAT, or score of 41 or above on the COMPASS mathematics section, or grade of A\*, B\*, or C\* in MATH 0903.

Exponents and radicals, introduction to quadratic equations, systems of equations involving quadratics, ratio, proportion, variation, progressions, the binomial theorem, inequalities, logarithms, and partial fractions.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

Note: May not be taken for credit after completion of MATH 2703 or any higher level mathematics course.

### **MATH 1203: Plane Trigonometry**

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ACTS Common Course - MATH1203

Prerequisite: Math ACTE score of 22 or higher, MATH 1113, or consent of Mathematics Department.

A study of the properties of the trigonometric functions and their graphs, solution of right and oblique triangles, formulas and identities, inverse functions, and trigonometric equations.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 1914: Precalculus**

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ACTS Common Course - MATH1305

Prerequisites: Completion of high school algebra I and II with a grade of C or better and a score of 19 or above on the mathematics portion of the ACTE exam, or score of 460 or above on the quantitative portion of the SAT, or score of 41 or above on the COMPASS mathematics section, or a grade of A\*, B\*, or C\* in MATH 0903.

This course is designed to provide additional mathematical background before enrolling in the calculus sequence.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2033: Mathematical Concepts I**

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Prerequisite: MATH 1113, elementary education major

Elementary set theory, numeration systems, elementary number theory and the real number system.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2043: Mathematical Concepts II**

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Prerequisites: MATH 2033, elementary education major

A continuation of MATH 2033, including a study of the elementary concepts of probability and statistics, and an informal study of geometry.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2163: Introduction to Statistical Methods**

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ACTS Common Course - MATH2103

Prerequisites: MATH 1003, MATH 1113, or consent of the instructor.

Descriptive statistics, random variables, probability and sampling distributions, estimation, hypothesis testing, regression, analysis of variance, non parametric techniques.

Note: May not be taken for credit after completion of MATH 3153.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2223: Quantitative Business Analysis**

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Prerequisites: Completion of high school algebra I and II with a grade of "C" or better and a score of 22 or higher on the mathematics portion of the ACTE exam or MATH 1113.

This course is designed to develop the ability to use quantitative methods in accounting, business, and economics; it includes models of cost, revenue, and profit, linear programming, and probability.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2243: Calculus for Business and Economics**

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## ACTS Common Course - MATH2203

Prerequisites: Completion of high school algebra I and II with a grade of C or better and a score of 22 or higher on the mathematics portion of the ACTE exam or MATH 1113.

An introduction to the concepts of differentiation and integration. Emphasis will be placed on applications of calculus in business, economics, accounting, social sciences, and life sciences.

Note: May not be taken for credit after completion of MATH 2914 or equivalent.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2703: Discrete Mathematics**

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Prerequisite: MATH 1113

A study of graph theory, trees, combinatorics, logic, and Boolean Algebra.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2914: Calculus I**

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ACTS Common Course - MATH2405

Prerequisites: Math ACTE score of 24 or higher, or a grade of C or higher in MATH 1914 or MATH 1203 or consent of instructor.

This is the first of two courses covering the calculus of functions of a single variable. The content covers differentiation of all single variable functions and introduces integration of functions.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2924: Calculus II**

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ACTS Common Course - MATH2505

Prerequisite: MATH 2914 or equivalent

This is the second of two courses covering the calculus of functions of a single variable.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 2934: Calculus III**

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ACTS Common Course - MATH2603

Prerequisite: MATH 2924 or equivalent

This is the third course in the elementary calculus sequence. It covers the calculus of functions of several variables.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 3003: Foundations of Number Systems**

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Prerequisite: MATH 2703

A brief review of elementary set theory, followed by the construction of the natural numbers, the integers, the rational numbers, the real numbers and the complex numbers accompanied by a development of the order and field properties.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 3033: Methods of Teaching Elementary Mathematics**

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Prerequisite: MATH 2043 and admission to Stage II.

A course on methods of teaching the mathematics of the elementary school using mathematical concepts and principles taught in these grades.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 3123: College Geometry**

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Prerequisite: MATH 2924

A formal approach to plane geometry with coordinates; sets, points, lines, planes, distance, and coordinate systems, angles, congruence, parallelism, and similarity.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 3153: Applied Statistics I**

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Prerequisite: MATH 2924

A balanced approach emphasizing both theory and applications will be taken. Topics include descriptive statistics, exploratory data analysis, probability and probability models, discrete and continuous random variables, confidence intervals, hypothesis testing, and control charts. Students will be required to collect data, use a current statistical software package to analyze the data, and make inferences based upon the data analysis as part of an individual and/ or group project.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 3173: Math Methods for Engineers**

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Offered: Annually

Cross-listed: ELEG 3173

Prerequisite: MATH 3243

This course is designed to give the undergraduate student an introduction to a variety of advanced mathematical techniques used in solving engineering problems. The course will cover linear algebra, complex variables, discrete mathematics, and applied statistics.

### **MATH 3203: Introduction to Analysis**

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Prerequisite: MATH 3003

A careful development of the real number system and the theory of calculus on the real line.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 3243: Differential Equations I**

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Prerequisite: MATH 2924

A study of differential equations of the first order; linear equations of higher order including the methods of undetermined coefficients and variation of parameters; linear equations with constant coefficients; special equations of order two and systems of linear first-order differential equations using matrices.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4003: Linear Algebra I**

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Prerequisite: MATH 2924

Matrices and matrix algebra, systems of linear equations, determinants, eigenvalues, eigenvectors, general vector spaces, linear transformations.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4033: Abstract Algebra I**

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Prerequisite: MATH 3003

A study of Groups and other algebraic structures. Topics include sub-groups, normal sub- groups, abelian groups, groups of permutations, homomorphisms, kernels, and range.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4103: Linear Algebra II**

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Prerequisites: MATH 4003 or the consent of the Department of Mathematics.

A continuation of MATH 4003 with emphasis on abstract vector spaces, inner product spaces, linear transformations, kernel and range, and applications of linear algebra.

Note: MATH 5103 may not be taken for credit after completion of MATH 4103 or equivalent.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4113: History of Mathematics**

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Prerequisite: MATH 2934

A study of selected topics from the history and nature of mathematics from ancient to modern times. Emphasis will be placed on the historical development of mathematics through a study of biographies of prominent mathematicians and the evolution of some important mathematical concepts. The fundamental role of mathematics in the rise, maintenance, and extension modern civilization will be considered.

Note: MATH 5113 may not be taken for credit after completion of this course.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4123: Mathematical Modeling**

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Prerequisites: MATH 2703 and MATH 3243

This course provides an introduction to the mathematical modeling process and applies this process to problems that may be modeled with pre senior level mathematics. Emphasis will be placed on connections of mathematics to application areas such as business, industry, economics, physical sciences, biological sciences, medicine and social sciences.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4153: Applied Statistics II**

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Prerequisite: MATH 3153

This course is a continuation of MATH 3153 with emphasis on experimental design, analysis of variance, and multiple regression analysis. Students will be required to design and carry out an experiment, use a current statistical software package to analyze the data, and make inferences based upon the analysis.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4173: Advanced Biostatistics**

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Prerequisites: An introductory statistics course or permission of instructor.

This course will include analysis of variance, one factor experiments, experimental design with two or more factors, linear and multiple regression analysis, and categorical data analysis.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4243: Differential Equations II**

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Prerequisites: MATH 3243 and MATH 4003 or consent of the instructor.

A continuation of MATH 3243 with emphasis on higher order and systems of differential equations.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4263: Mathematical Statistics**

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Prerequisite: MATH 3153

This is an introductory course in mathematical statistics. Topics include distribution functions (both discrete and continuous), multivariate distributions, distributions of functions of random variables, and statistical inference.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4273: Complex Variables**

---

Prerequisite: MATH 2934

An introduction to complex variables. This course will emphasize the subject matter and skills needed for applications of complex variables in science, engineering, and mathematics. Topics will include complex numbers, analytic functions, elementary functions of a complex variable, mapping by elementary functions, integrals, series, residues and poles and conformal mapping.

Note: MATH 5273 may not be taken for credit after completion of this course.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4343: Introduction to Partial Differential Equations**

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Prerequisites: MATH 2934 and MATH 3243

This course is an introduction to partial differential equations with emphasis on applications to physical science and engineering. Analysis covers the equations of heat, wave, diffusion, Laplace, Dirichlet and Neumann equations. Course is suitable for senior level or first year graduate students in Mathematics, Physics, and Engineering.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4703: Special Methods in Mathematics**

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Prerequisites: SEED 2002 and junior standing or permission of the instructor.

This course, designed for prospective junior and senior high mathematics teachers, will provide the student with knowledge of current research and practice in mathematics education, a setting in which to apply that knowledge, and the opportunity to assess their teaching performance and formulate a plan for improvement.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

### **MATH 4772: Mathematics Teaching Practicum**

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A course designed to provide mathematics education majors with experience in teaching mathematics and assessing student performance.

Note: A grade of C or better must be earned in the course used to satisfy the general education mathematics requirement.

## **MATH 4951,4952,4953,4954: Undergraduate Research in Mathematics**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

## **MATH 4971: Mathematics Senior Seminar**

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Prerequisites: MATH 3203 or MATH 4033, or departmental approval.

Students will engage in a research project under the guidance of faculty research advisors. The research area will depend on the interests of the students and available expertise of faculty advisors. The students will present their findings before their peers, faculty advisors, and members of the Mathematics Department Assessment Committee.

## **MATH 4991,4992,4993,4994: Special Problems in Mathematics**

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The content and credit for this course will be designed to meet the needs of the student.

Note: A grade of C or better must be earned in this course if being used to satisfy the general education mathematics requirement.

# Mechanical Engineering Course Descriptions

## **MCEG 1002: Engineering Graphics**

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General course in the most important types of engineering drawings. A foundation course in lettering, geometrical exercises, orthographic projections, including auxiliary views, sections, pictorial representation. The computer is introduced as a drafting tool.

Lecture and laboratory four hours.

## **MCEG 1012: Introduction to Mechanical Engineering**

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An introductory course to acquaint students with the technical and ethical aspects of engineering, the analytic approach to problem solving, measurements and calculations.

Two hours lecture/lab

## **MCEG 2013: Statics**

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Prerequisites: MATH 2924 and PHYS 2114

Principles of statics, resultants, equilibrium, and analysis of force systems. Structure analysis, forces in space, friction, centroids, and moments of inertia.

## **MCEG 2023: Engineering Materials**

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Prerequisite: CHEM 2124

A study of the mechanical and physical properties, micro structure, and the various testings of engineering materials (metals, plastics, woods, and concrete) from the viewpoint of manufacture and construction.

## **MCEG 2033: Dynamics**

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Prerequisite: MCEG 2013

A continuation of MCEG 2013. Study of problems of unbalanced force systems. Kinematics and kinetics of rigid bodies. Work and energy, impulse and momentum.

## **MCEG 2203: Computational Methods in Engineering**

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Prerequisites: MCEG 1012 and MATH 2914

An introduction to common computational methods, tools, and procedures used in the solution of common engineering problems. A standard solution methodology is introduced along with instruction in units systems, spreadsheet and calculator computations and the use of engineering software.

## **MCEG 3003: Engineering Modeling and Design**

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Cross-listed: ELEG 3003

Prerequisites: COMS 2803 or MCEG 2203 and MATH 3243

Reduction of engineering systems to mathematical models; methods of analysis using computers; interpretation of numerical results; optimization of design variables. Examples are drawn from various engineering disciplines.

## **MCEG 3013: Mechanics of Materials**

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Prerequisite: MCEG 2013

Fundamental stress and strain relationships, torsion, shear and bending moments, stresses and deflections in beams; introduction to statically indeterminate beams, columns, combined stresses, and safety factors.

## **MCEG 3023: Manufacturing Processes**

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Prerequisites: MCEG 2023 and 3013

Morphological aspects of manufacturing processes, testing of engineering metals, metal working processes, metal forming processes, machining, non-destructive inspection methods, statistical process control, control charts, and total quality management concepts.

## **MCEG 3313: Thermodynamics I**

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Prerequisites: MATH 2924 and PHYS 2114

An introduction to thermodynamics, including thermodynamic properties of pure substances, heat and work, the first and second laws of thermodynamics, and entropy with applications to power and refrigeration cycles.

## **MCEG 3333: Alternative Energy Systems**

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A study of the design and implementation of alternative energy sources in power production and other applications. Renewable sources are emphasized.

## **MCEG 3403: Machine Dynamics**

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Prerequisite: MCEG 2033 and MATH 3243

The study of the relative motion of machine components, force systems applied to these components, the motions resulting from these forces, and their effect on machine design criteria.

## **MCEG 3413: Fundamentals of Mechanical Design**

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Prerequisites: MCEG 2033, 3013, and MATH 3243

Analysis of machines and components through application of basic fundamentals and principles.

## **MCEG 3442: Mechanical Laboratory I**

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Prerequisites: MCEG 2023 and MCEG 3013

A study of the basic materials testing procedures and instrumentation. Emphasis will be placed on proper laboratory techniques including data collection, data reduction, and report preparation.

Lecture one hour, laboratory three hours.

## **MCEG 3503: Basic Nuclear Engineering**

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Prerequisites: MATH 2924, CHEM 2124 and PHYS 2114

An introduction to atomic and nuclear processes and to nuclear science and engineering fundamentals, including the nature of nuclear radiation, the nuclear chain reaction, criticality, power reactor types, and applications of nuclear technology.

## **MCEG 3512: Radiation Detection Laboratory**

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Prerequisites: MATH 2914, CHEM 2124 or consent.

A study of each of the common kinds of nuclear radiation, including the detection and analysis methods and applications to nondestructive assays. Use of computers in analyses.

Lecture one hour, laboratory three hours.

## **MCEG 3523: Radiation Health Physics**

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Prerequisites: MATH 2914, CHEM 2124, or consent.



A study of the protection of individuals and population groups against the harmful effects of ionizing radiation. Included in the study is: (1) radiation detection and measurement, (2) relationships between exposure and biological damage, (3) radiation and the environment, (4) design criteria for processes, equipment, and facilities so that radiation exposure is minimized, and (5) environmental impact of nuclear power plants.

## **MCEG 3991,3992,3993,3994: Special Problems in Engineering**

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Prerequisite: Minimum of three hours at the junior level in area of study.

Individual or specialized study in advanced area under the direction of a faculty advisor.

## **MCEG 4042: Metallurgy Laboratory**

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Co-requisite: MCEG 4043

Laboratory experiments in heat treating, phase transformation, plastic deformation, work hardening and creep. Concepts and topics from MCEG 4043 are emphasized in the lab exercises. Failure analysis modes and examples are included.

Lecture one hour, lab three hours.

## **MCEG 4043: Physical Metallurgy**

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Prerequisites: MCEG 2023, 3013, 3313

This course provides the student with an in-depth background to the mechanisms and applications of dislocation motion, crystal plasticity, phase transformations and solidification processes. Common industrial and experimental processes are studied for both ferrous and non-ferrous materials.

## **MCEG 4053: Corrosion Principles**

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Prerequisites: MCEG 2023, 3013, 3313

A study of the fundamental causes of corrosion and corrosion damage in metals and metallic components. Electrochemistry is used to explore the basic reactions governing environmental corrosion while thermodynamics and kinetics are used to investigate the rate of controlling steps of environmental attack. Includes an overview of techniques commonly used to control corrosion damage in industry and architecture.

## **MCEG 4202: Engineering Design**

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Cross-listed: ELEG 4202

Prerequisites: MCEG major, senior standing and MCEG 3413.

This course serves as the first part of a two course sequence in which the student completes a senior design project. Design methodologies and tools including real world design considerations such as environmental impact, engineering ethics, economics, safety, product costing and liability are introduced. Design for manufacture, project management, scheduling and proposal writing will be covered. Successful completion of this course shall require completion of a proposal for a senior design project being accepted by the faculty design project review process.

## **MCEG 4323: Power Plant Systems**

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Prerequisite: MCEG 3313 or consent.

Co-requisite or Prerequisite: MCEG 4403

A study of the design and operation of steam electric power plant components and systems. Fossil and renewable energy plants are emphasized.

## **MCEG 4332: Thermal Systems Laboratory**

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Prerequisites: MCEG 3313, 4403

Co-requisites: MCEG 4433, 4443

Advanced laboratory experiments in heat transfer and thermal systems. Conduction, convection and radiation heat transfer phenomena, power and refrigeration cycle operation, psychrometrics.

Lecture one hour, laboratory three hours.

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## **MCEG 4343: Internal Combustion Engines**

Prerequisites: MCEG 3313 and MCEG 4403

A study of the operating and design principles of internal combustion engines. The course will cover combustion cycles, emissions, and performance analysis and testing.

Lecture three hours with lab exercises.

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## **MCEG 4403: Mechanics of Fluids and Hydraulics**

Prerequisites: MCEG 2033 and 3313

A study of statics and dynamics of incompressible fluids. Major topics include the basic fluid flow concepts of continuity, energy and momentum, dimensional analysis, viscosity, laminar and turbulent flows, and flow in pipes.

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## **MCEG 4413: Finite Element Analysis**

Prerequisites: ELEG 2103, MCEG(ELEG)3003, and MCEG 3013

Introduction to approximate methods using finite elements. Development of the finite element method using variational formulations. Applications include machine design, mechanical vibrations, heat transfer, fluid flow and electromagnetics.

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## **MCEG 4423: Machine Component Design**

Prerequisites: MCEG 3413

Design and analysis of specific machine components including gears, clutches, springs, and bearings.

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## **MCEG 4433: Thermodynamics II**

Prerequisites: MATH 2934, 3243 and MCEG 3313

A continuation of MCEG 3313. The study of thermodynamics is extended to the investigation of relations for simple substances, non-reacting mixtures, reacting mixtures, chemical reactions and a study of availability analysis. Power and refrigeration cycles are studied in more depth.

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## **MCEG 4442: Mechanical Laboratory II**

Prerequisite: MCEG 4403

A study of fluid mechanics and thermodynamics experimentation techniques. Laboratory projects will be assigned with student responsibility for procedure development and test program implementation. Formal laboratory reports will be required.

Lecture one hour, laboratory three hours

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## **MCEG 4443: Heat Transfer**

Prerequisite: MCEG 4403

Basic thermal energy transport processes, conduction, convection, and radiation, and the mathematical analysis of systems involving these processes in steady state and time dependent cases.

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## **MCEG 4453: Energy Management**

Prerequisite: MCEG 3313

Energy management in commercial building and industrial plants. Utility rate structures. Sources of primary energy. Energy conversion devices. Prime movers of energy. Heat. Electricity. Lighting. HVAC Equipment. Building envelope. Electric motors. Estimating energy savings. Economic justification. Energy auditing.

### **MCEG 4463: Heating, Ventilating, and Air-Conditioning Design**

---

Prerequisites: MCEG 3313 or permission of instructor

A study of the principles of human thermal comfort including applied psychometrics and air-conditioning processes. Fundamentals of analysis of heating and cooling loads and design of HVAC systems.

### **MCEG 4473: Mechanical Vibrations**

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Prerequisites: MCEG 2033, MATH 3243

The study of free and forced vibration of single degree-of-freedom systems, response to harmonic, periodic and non-periodic excitations. Multi-degree-of-freedom systems and matrix methods are explored. Computational techniques for predicting system response continuous systems are introduced.

### **MCEG 4493: Mechanical Design Project**

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Prerequisites: MCEG(ELEG) 3003, 4202, MCEG 4423, senior standing and consent of instructor.

An independent or group project in mechanical engineering design. Where appropriate, a team approach will be employed. Emphasis will be placed on designing a mechanical system or sub system with due regard for: safety, environmental concerns, reliability, longevity, ease of manufacturing, maintainability, and cost effectiveness. Both a written and oral report are required.

### **MCEG 4503: Nuclear Power Plants I**

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Prerequisites: MCEG 3503, MCEG 4403

A study of the various types of nuclear reactor plants including the methods used for energy conversion. Relative advantages/disadvantages of various plant types investigated.

### **MCEG 4991,4992,4993,4994: Special Problems in Engineering**

---

Prerequisite: Minimum of three hours at the junior level in area of study.

Individual study in advanced area of the student's choice under the direction of a faculty advisor.

# Medical Technology Course Descriptions

(Medical Technology courses are offered at affiliated institutions.)

## **MEDT 4001,4002,4003,4004,4005,4006,4007,4008,4009: Medical Technology Professional Coursework**

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Prerequisite: Acceptance by one of our affiliated MEDT schools for the senior year of professional courses.

This generalized course designation is used to represent specific coursework offered by affiliated schools of medical technology in areas such as clinical chemistry and instrumentation, bodily fluids, microbiology, hematology, immuno-hematology, serology, parasitology, and associated lectures and seminars.

## **MEDT 4012: Clinical Microscopy and Body Fluids**

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(Medical Technology courses are offered at affiliated institutions.)

Use of the microscope in laboratory diagnostic procedures and introduction to body fluid chemistry, particularly blood, urine and spinal fluids. Emphasis on pathological conditions resulting from abnormal concentrations of substances.

## **MEDT 4029: Hematology**

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(Medical Technology courses are offered at affiliated institutions.)

Consideration of typical and atypical medical laboratory procedures in hematology with emphasis on principles, methodology, sources of error, and clinical application. Supervised training in standard and special laboratory techniques.

## **MEDT 4035: Immuno-hematology**

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(Medical Technology courses are offered at affiliated institutions.)

Consideration of typical and atypical medical laboratory procedures in immuno hematology and blood banking with emphasis on principles, methodology sources of error, and clinical application. Supervised training in standard and special laboratory techniques.

## **MEDT 4048: Clinical Chemistry and Instrumentation**

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(Medical Technology courses are offered at affiliated institutions.)

Consideration of methods of determining chemical composition of body fluids and analysis using standard and special laboratory instruments. Study of design, construction, and operation of instruments such as balances, centrifuges, pH meters, autoanalyzers, null balances, others.

## **MEDT 4057: Microbiology**

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(Medical Technology courses are offered at affiliated institutions.)

Consideration of typical and atypical medical laboratory procedures in microbiology with emphasis on diagnostic medical bacteriology virology, and mycology. Supervised training in standard and special laboratory techniques.

## **MEDT 4064: Parasitology**

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(Medical Technology courses are offered at affiliated institutions.)

Consideration of typical and atypical medical laboratory procedures in parasitology with emphasis on methodology and clinical application. Supervised training in standard and special laboratory techniques.

## **MEDT 4073: Serology**

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(Medical Technology courses are offered at affiliated institutions.)

Consideration of typical and atypical medical laboratory procedures in serology with emphasis on methodology, sources of error, and clinical application. Supervised training in standard and special laboratory techniques.

## **MEDT 4082: Special Topics**

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(Medical Technology courses are offered at affiliated institutions.)

Subject matter may include the following: hospital orientation, laboratory management, radioisotope techniques, laboratory safety, special projects, special techniques, quality control procedures, and seminars on various subjects deemed necessary by hospital personnel.

## Middle Level Education Course Descriptions

### **MLED 2003: Introduction to Education**

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Prerequisites: Stage I course and will be taken before admittance to the Middle Level Teacher Education Program.

Introduction to philosophy of education and to the concept of education as a career with an emphasis on middle-level education. The format will include a weekly lecture and on-site field experiences in a public school setting. This course will also provide potential middle-level teachers with an overview of the social and historical aspect of the American Education System.

### **MLED 3012: Research Foundations**

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Prerequisite: Admission of Stage II to the Middle Level Teacher Education Program.

Presentation of the knowledge base and practice in the skills needed to locate educational research information; analyze, synthesize, and evaluate the compiled materials; and write a professional research report based on the composite findings.

### **MLED 3024: Psychological Foundations for the Nature and Needs of Middle Level Students**

---

Prerequisite: Admission to Stage II of the Middle Level Teacher Education Program.

General principles of the physical, social, emotional, intellectual, and moral development of early adolescents and the developmental implications on curriculum and instruction, learning, the learner's potentialities with attention to individual differences, the environment of effective learning, application of psychology to educational problems.

### **MLED 3034: Literacy Development in the Middle Grades**

---

Prerequisite: Admission to Stage II of the Middle Level Teacher Program.

Presentation of the knowledge base and methodology needed to guide students in the middle grades toward competency and maturity as readers and writers and practice in the teaching/learning strategies related to reading in all content area disciplines.

### **MLED 3041: School to Home Communication**

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Prerequisites: Admission to Stage II of the Middle Level Teacher Education Program.

Presentation of methods of communication between the home and school for the classroom teacher will be explored. The use of classroom management software for school reports, student information sheets, newsletters, electronic mail, and letters to home as well as telephone skills will be practice. Exploration of the use of community resources and evaluation as related to meeting the needs of middle level students and families.

### **MLED 3062: Tests & Educational Measurements**

---

Prerequisites: Admission to Stage II of the Middle Level Program.

A survey of test theory with particular emphasis upon the use of assessment techniques in the middle level classroom as an educational decision-making tool.

### **MLED 3072: Diversity in the Classroom**

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Prerequisites: Admission to Stage II of the Middle Level Teacher Education Program.

A study of the major areas of exceptionalities including the learning disabled, mentally retarded, physically handicapped, and the gifted, and their special needs in a school program.

### **MLED 3102: Reading Through Literature in the Middle Ages**

---

Prerequisites: Admission to Stage II of the Middle Level Teacher Education Program.

A study of the development and source of literature for the middle childhood/early adolescent student. Emphasis will be on integrating literature across the curriculum and on methods of encouraging reading as a lifelong pleasurable pursuit.

## **MLED 4004: Middle Level Curriculum and Pedagogy**

---

Prerequisites: Admission to Stage II of the Middle Level Teacher Program.

A study of the developmental curriculum, instruction and pedagogy for teaching the middle level student. Emphasis will be on an interdisciplinary approach to curriculum design.

## **MLED 4023: Guided Field Experiences**

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Prerequisites: Admission to Stage II of the Middle Level Teacher Education Program.

Co-requests: MLED 3012 and MLED 3034

MLED 4023 Guided Field Experiences is a series of 45 hours of observation, participation, and teaching experiences ranging from individual to large group settings conducted in selected middle level settings designed to prepare the teacher candidate for a smooth transition to internship in a clinical setting. A survey of school law designed to give teacher candidates an awareness of legal rights and responsibilities of teachers, students, and public schools is presented at the beginning of the course before students begin practicum hours.

## **MLED 4912: Internship**

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Prerequisites: Admission to and Internship.

(Twelve hour course) MLED 4912 Internship is a minimum of fifteen weeks of reflective clinical internship at the middle level. In a select setting under supervision of experienced middle level professionals, teacher candidates will prepare, facilitate, and evaluate an appropriate curriculum experience for instruction of the early adolescent.

\$100 course fee.



# Military Science ROTC Course Descriptions

(For further information concerning military science courses, contact CPT Michael Bennett at (479) 498-6066.)

## MS 1101: Leadership I

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Offered: Fall

Introduces cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, goal setting, time management, physical/mental fitness (resiliency training) related to leadership, officership, and the Army profession. Focus is on developing basic knowledge and comprehension of Army leadership dimensions while gaining a big picture of understanding the ROTC program, its purpose in the Army, and its advantages for the student.

Lecture/Laboratory

## MS 1111: Leadership II

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Offered: Spring

Overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Cadets explore dimensions of leadership attributes and core leader competencies in the context of practical, hands-on, and interactive exercises. Continued emphasis is placed on recruitment and retention of Cadets. Cadre role models and the building of stronger relationships among the Cadets through common experience and practical interaction are critical aspects of the MS 1111 experience.

Lecture/Lab

## MS 2312: Military Organization/Tactics I

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Offered: Fall

Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework (trait and behavior theories). Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. Focus is on continued development of the knowledge of leadership attributes and core leader competencies through an understanding of Army rank, structure, duties and basic aspects of land navigation and squad tactics. Case studies provide tangible context for learning the Soldier's Creed and Warrior Ethos.

Lecture/Lab

## MS 2402: Military Organization/Tactics II

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Offered: Spring

Examines the challenges of leading tactical teams in the operational environment. The course highlights dimensions of terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army Leadership Requirements Model explores the dynamics of adaptive leadership in the context of military operations. MS 2402 prepares Cadets for MS 3503. Cadets develop greater self awareness as they assess their own leadership styles and practice communication and team building skills. Case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios.

Lecture/Lab

## MS 3503: Advanced Leadership and Tactics I

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Offered: Fall

Challenges Cadets to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own self-evaluations, Cadets continue to develop their leadership and critical thinking abilities. Focus is on developing Cadets' tactical leadership abilities to enable them to

succeed at ROTC's summer Leadership Development and Assessment Course (LDAC).

Lecture/Lab.

## **MS 3603: Advanced Leadership and Tactics II**

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Offered: Spring

Continuation of MS 3503. Course uses increasingly intense situations applying team leadership challenges to build Cadet awareness and skills in leading tactical operations at the small unit level. Cadets review aspects of full spectrum operations. They also conduct military briefings and develop proficiency in the operation orders process. Focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in the contemporary operating environment (COE). MS 3603 Cadets are evaluated on what they know and do as leaders as they prepare to attend the ROTC summer Leader Development Assessment Course (LDAC).

Lecture/Lab

## **MS 4013: United States Military History**

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A study of the American military from its colonial origins to the present, including the development of the military establishment and its relationship with American society.

## **MS 4703: Applied Leadership and Management I**

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Offered: Fall

Transitions the focus of student learning from being trained, mentored and evaluated as an MS III Cadet, to learning how to train, mentor and evaluate underclass Cadets. MS IV Cadets will learn the duties and responsibilities of an Army staff officer and apply the Military Decision Making Process (MDMP), the Army Writing Style and the Army's Training Management and METL Development processes during weekly Training Meetings to plan execute and assess battalion training events. Cadets will learn how to safely conduct this training by understanding and employing the Composite Risk Management Process. MS IV Cadets will learn how to use the Comprehensive Soldier Fitness (CSF) program to reduce and manage stress. Cadets will learn about the special trust proposed by the U.S. Constitution to Army Officers - a trust above and beyond other professions. Cadets will learn Army Values and Ethics and how to apply them to everyday life as well as in Operating Environments. The MS IV Cadet will learn about the officer's role in the Uniform Code of Military Justice, with Counseling Subordinates, Administrative Discipline and Separations, and methods for Officer Career Management.

Lecture/Lab

## **MS 4803: Applied Leadership and Management II**

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Offered: Spring

Continuation of MS 4703. Explores the dynamics of leading Soldier's in Full Spectrum Operations in the Contemporary Operating Environment (COE). Cadets examine differences in Customs and Courtesies, Principles of War, and Rules of Engagement in the face of Terrorism. They also explore aspects of interacting with Non-Government Organizations, Civilians on the Battlefield, and Host Nation Support and explore Counterinsurgency Operations. Cadets will learn what Support Services are available to assist Soldiers and their families in times of need such as; Red Cross, CFC, AER, etc. MS IVs will develop and present a Battle Analysis and participate in a Staff Ride at an historic military site. The course places significant emphasis on preparing Cadets for their first unit of assignment. It uses case studies, scenarios, and "What Now, Lieutenant?" exercises to prepare Cadets to face the complex ethical and practical demands of leading as commissioned officers in the United States Army.

Lecture/Lab

## **MS 4903: Advanced Officership I**

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Prerequisites: MS 3503 or MS 4703 and approval of the Professor of Military Science.

Advanced Officership I is a special problems course on professional military related topics. The course will emphasize personal and professional goals for officers and related tactics involved in military history.

## Museum Course Descriptions

### **MUSM 4403: Interpretation/Education through Museum Methods**

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Cross-listed: ANTH 4403, HIST 4403

Prerequisites: Senior or Graduate standing, or permission of instructor.

Museum perspectives and approaches to care and interpretation of cultural resources, including interpretive techniques of exhibit and education- outreach materials, and integrating museum interpretation/education into public school and general public programming. Class projects focus on special problems for managing interpretive materials in a museum setting.

### **MUSM 4951,4952,4953,4954: Undergraduate Research in Museum**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## Music Course Descriptions

### **MUS 1000,3000: Recital Attendance**

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Offered on a pass/fail basis. Students are required to attend a specified number of recitals each semester and must pass at least six semesters to receive the B.A. degree in music or bachelor of music education.

### **MUS 1151: Class Guitar I**

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Prerequisite: Music major

Introductory class instruction in folk and popular styles of guitar playing with emphasis on guitar as a teaching tool for classroom music instruction.

### **MUS 1321: Jazz Piano**

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Offered: As needed

Prerequisites: MUS 1713, MUS 1201 or 1441, or instructor approval.

Materials and practices for typical jazz keyboard playing.

One hour per week.

### **MUS 1431: Class Piano**

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Non music majors. For students who have little or no music reading skills, this course concentrates on basic piano skills while learning to read music. At the end of the course students will play pieces using a chord based approach in several keys and styles.

\$20 applied music fee.

### **MUS 1441: Class Piano I, II, III, and IV**

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Prerequisite: Music major

A development of the fundamental skills of the piano, emphasizing those aspects most useful to non piano majors. A knowledge of chords is stressed, as is sight reading, improvising, playing in all keys and harmonizing melodies. The second year of class piano extends these skills adding the reading of multiple score parts, modulation, harmonizing with secondary chords, improvising in various composers' styles, playing a wide variety of literature, and accompanying.

\$10 applied music fee.

### **MUS 1713: Theory I**

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Co-requisites: MUS 1731, 1741

Study of scales, triads, seventh chords, diatonic harmonies, simple modulation. Introduction to small forms.

### **MUS 1723: Theory II**

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Co-requisites: MUS 1731, 1741

Study of scales, triads, seventh chords, diatonic harmonies, simple modulation. Introduction to small forms.

### **MUS 1731: Ear Training I**

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The elements of music fundamentals, both written and aural.

### **MUS 1741: Ear Training II**

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The elements of music fundamentals, both written and aural.

## **MUS 2003: Introduction to Music**

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ACTS Common Course - MUSC1003

An overall view of music history from Medieval to Contemporary times with a focus on relating musical happenings and concepts to the other arts.

## **MUS 2201: Accompanying Seminar**

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Prerequisites: Piano major or permission of instructor.

Development of basic accompanying techniques. Class coaching and presentation one hour weekly, plus assigned accompanying responsibilities in a variety of media.

Note: May be repeated three times.

## **MUS 2441: Class Voice**

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Offered: Fall

Prerequisite: Music major

Development of basic vocal techniques through group participation and solo singing. Emphasis is placed on understanding of vocal pedagogy.

Supervised practice two hours per week.

## **MUS 2451: Class Voice**

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Offered: Fall

(Non music majors) Development of basic vocal techniques through group participation and solo singing.

Supervised practice two hours per week.

## **MUS 2713: Theory III**

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Co-requisites: MUS 2731, 2741

More advanced harmonic concepts, modulation, chromatic harmonies. Further study of larger forms.

## **MUS 2723: Theory IV**

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Co-requisites: MUS 2731, 2741

More advanced harmonic concepts, modulation, chromatic harmonies. Further study of larger forms.

## **MUS 2731: Ear Training III**

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Further work in more advanced ear training and sight singing.

## **MUS 2741: Ear Training IV**

---

Further work in more advanced ear training and sight singing.

## **MUS 3281: Secondary Instrumental Methods and Materials I**

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Laboratory experience in conducting and performance of materials appropriate to teaching band in the public school.

## **MUS 3321: Practice of Improvisation**

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Prerequisites: Successful completion of MUS 3332 or instructor approval.

Laboratory experience in improvisation in all jazz styles.

Note: This course may be repeated for credit.

## **MUS 3322: Theory of Improvisation (Jazz)**

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Prerequisites: MUS 1713, 1723, 1441, and/or instructor approval.

Music theory, materials and practices for improvising or extemporaneous playing.

Note: May not be repeated for credit. May not be taken for credit after completion of MUS 3332.

One hour class, two hour laboratory per week.

## **MUS 3332: Theory of Improvisation (Jazz)**

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Prerequisite: Successful completion of MUS 3322

Advanced music theory, materials and practices for improvising or extemporaneous playing.

Note: May not be repeated for credit.

One hour class, two hour laboratory per week.

## **MUS 3401: Brass Instruments**

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Prerequisite: Music major

A study of the instruments of the brass family to the extent that scales and grade one and two solos can be played on selected instruments.

Class two hours, practice two hours.

## **MUS 3421: Woodwind Instruments, Double Reeds**

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Prerequisite: Music major

A study of playing and teaching techniques of the woodwind family (oboe, bassoon). Playing of selected instruments will be developed through major scales and grade one and two solos or methods.

## **MUS 3431: Woodwind Instruments, Single Reeds**

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Prerequisite: Music major

A study of playing and teaching techniques of the woodwind family (flute, clarinet, saxophone). Playing of selected instruments will be developed through major scales and grade one and two solos or methods.

## **MUS 3441: Instrumental Concepts**

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Prerequisites: Vocal or Keyboard major

A study designed to give non-instrumental music education majors functional knowledge of band and orchestral instruments.

## **MUS 3442: Piano Pedagogy**

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Offered: Spring

A study of pedagogical principles involved in the teaching of private and class piano, with emphasis on outside reading, class discussion, and observation of actual lessons and classes.

## **MUS 3481: Stringed Instruments**

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Prerequisite: Music major

A study of instruments of the string family (violin, viola, cello, and string bass) with emphasis on the fundamentals of good tone production and bowing techniques to the extent that scales and grade one and two orchestra music can be played on selected instruments.

## **MUS 3692: History of Music III**

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Prerequisite: MUS 2723, music major or permission of instructor.

A study of 20th century music. Includes one unit of non-western music.

## **MUS 3702: Music Educational Technology**

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Prerequisites: Music major with junior standing.

Applications of Technology in Music Education. An overview of current technologies to enhance music instruction, assessment, and productivity by the music educator.

## **MUS 3712: Counterpoint**

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Offered: As needed

Prerequisite: MUS 2723

The contrapuntal techniques and forms of the Baroque era. Analysis of Canons, two and three part Inventions, and fugues of J.S. Bach plus written exercises in two voice counterpoint.

## **MUS 3762: Instrumental and Choral Arranging**

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An introduction to scoring for instrumental and choral groups to meet the needs of adapting music to meet the needs and ability levels of school performing groups and classroom situations.

## **MUS 3771,3772: Composition**

---

Offered: As needed

Prerequisites: 16 hours of music theory and senior standing or consent of instructor.

The study of basic compositional techniques of twentieth-century works and completion of composition project.

## **MUS 3773: History of Music I**

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Offered: Fall

Prerequisites: MUS 2723 (Theory IV) or permission of instructor.

A study of Western Art music from ancient civilization to A.D. 1750.

## **MUS 3783: History of Music II**

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Prerequisite: MUS 2723 or permission of instructor.

A study of classical and 19th century music.

## **MUS 3802: Principles of Conducting**

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Offered: Fall

Principles and practices of conducting; a study of music terminology and transpositions; development of baton techniques



based on the practice of outstanding choral and instrumental conductors.

## **MUS 3821: Secondary Choral Methods and Materials I**

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Choral conducting techniques, tone and diction styles and interpretation, rehearsal techniques, programs and concerts, planning and organization, and service information. Conducting of student ensembles and organizations. Methods and materials I will include review of literature for large and small ensembles appropriate for middle school, junior high, and smaller high school teaching situations.

## **MUS 3853: Music in the Elementary Classroom**

---

Prerequisites: MUS 2723, successful completion of Keyboard Exit Exam, and SEED 2002 or permission of instructor.

A study of current practices, methods, and materials for teaching general music to elementary school children with emphasis on curriculum development and diversity in the classroom.

## **MUS 4001: Senior Recital**

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Prerequisite: Six semesters of major applied study.

Required of all music education majors.

\$175 applied music fee.

## **MUS 4201: Accompanying Seminar**

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Prerequisite: Two semesters of MUS 2201 and/or permission of instructor.

Advanced accompanying techniques for piano majors. Class coaching and presentation one hour weekly, plus assigned responsibilities in a variety of media.

Note: May be repeated three times.

Note: May substitute for required 3000 level hour of major ensemble enrollment with assignment by instructor to successfully accompany major ensemble or recital.

## **MUS 4281: Secondary Instrumental Methods and Materials II**

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Laboratory experience in conducting and performance of materials appropriate to teaching band in the public school.

## **MUS 4461: Percussion Instruments**

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Prerequisite: Music major

A study of the instruments of the percussion family to the extent that scales and/or rudiments and grade one and two solos can be played on selected instruments. Designed as a practical preparation for public school teachers.

Two hours weekly.

## **MUS 4701: Special Methods in Music**

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Offered: Spring

Prerequisites: Admission to Stage II of the Teacher Education program.

Intensive on campus exploration of the principles of curriculum construction, teaching methods, use of community resources, evaluation as related to teaching music, and dealing with diversity in the classroom.

## **MUS 4712: Form and Analysis**

---

Offered: Fall

Prerequisite: MUS 2723

A study of the standard forms of the Classical period with emphasis on instrumental forms and genres developed in the period 1750-1825 and the continuation and expansion of those forms in the nineteenth century.

### **MUS 4803: History of American Music: Jazz and Folk**

---

Open to all students. An in-depth study of folk music and the relationship between these forms and American life. Research, aural activity, and analysis are used to explore a variety of musical forms, composers, and performers.

### **MUS 4811: Keyboard Literature**

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Offered: Fall

A survey of piano or organ literature with emphasis on historical development, analysis of selected compositions, and listings of suitable pedagogical materials.

### **MUS 4821: Secondary Choral Methods and Materials II**

---

Choral conducting techniques, tone and diction styles and interpretation, rehearsal techniques, programs and concerts, planning and organization, and service information. Conducting of student ensembles and organizations. Methods and materials II will include a review of historically important choral works and the music of the master composers of each musical epoch. Sight singing methods for group sight reading will be reviewed.

### **MUS 4832: Vocal Pedagogy**

---

Offered: Spring

Prerequisites: Pass Vocal Sophomore Barrier and Keyboard Barrier

A study of pedagogical principles involved in the teaching of singing, with emphasis on outside reading, class discussion, and laboratory teaching of actual voice students.

### **MUS 4853: Music of the World's Peoples**

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Cross-listed: ANTH 4853

Open to students in all majors. A survey of predominantly non-Western world music cultures with attention to sonic structures, musicians, musical instruments, and socio-cultural contexts of music making. Listening emphasized.

### **MUS 4951,4952,4953,4954: Undergraduate Research in Music**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **MUS 4991,4992,4993: Special Problems in Music**

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Offered: As needed

Prerequisites: Senior standing and permission of the instructor.

Additional work in an area of the student's choice under the direction of the faculty member competent in that area.

## Music Course Descriptions

### **MUS 1000,3000: Recital Attendance**

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Offered on a pass/fail basis. Students are required to attend a specified number of recitals each semester and must pass at least six semesters to receive the B.A. degree in music or bachelor of music education.

### **MUS 1151: Class Guitar I**

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Prerequisite: Music major

Introductory class instruction in folk and popular styles of guitar playing with emphasis on guitar as a teaching tool for classroom music instruction.

### **MUS 1321: Jazz Piano**

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Offered: As needed

Prerequisites: MUS 1713, MUS 1201 or 1441, or instructor approval.

Materials and practices for typical jazz keyboard playing.

One hour per week.

### **MUS 1431: Class Piano**

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Non music majors. For students who have little or no music reading skills, this course concentrates on basic piano skills while learning to read music. At the end of the course students will play pieces using a chord based approach in several keys and styles.

\$20 applied music fee.

### **MUS 1441: Class Piano I, II, III, and IV**

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Prerequisite: Music major

A development of the fundamental skills of the piano, emphasizing those aspects most useful to non piano majors. A knowledge of chords is stressed, as is sight reading, improvising, playing in all keys and harmonizing melodies. The second year of class piano extends these skills adding the reading of multiple score parts, modulation, harmonizing with secondary chords, improvising in various composers' styles, playing a wide variety of literature, and accompanying.

\$10 applied music fee.

### **MUS 1713: Theory I**

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Co-requisites: MUS 1731, 1741

Study of scales, triads, seventh chords, diatonic harmonies, simple modulation. Introduction to small forms.

### **MUS 1723: Theory II**

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Co-requisites: MUS 1731, 1741

Study of scales, triads, seventh chords, diatonic harmonies, simple modulation. Introduction to small forms.

### **MUS 1731: Ear Training I**

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The elements of music fundamentals, both written and aural.

### **MUS 1741: Ear Training II**

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The elements of music fundamentals, both written and aural.

## **MUS 2003: Introduction to Music**

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ACTS Common Course - MUSC1003

An overall view of music history from Medieval to Contemporary times with a focus on relating musical happenings and concepts to the other arts.

## **MUS 2201: Accompanying Seminar**

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Prerequisites: Piano major or permission of instructor.

Development of basic accompanying techniques. Class coaching and presentation one hour weekly, plus assigned accompanying responsibilities in a variety of media.

Note: May be repeated three times.

## **MUS 2441: Class Voice**

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Offered: Fall

Prerequisite: Music major

Development of basic vocal techniques through group participation and solo singing. Emphasis is placed on understanding of vocal pedagogy.

Supervised practice two hours per week.

## **MUS 2451: Class Voice**

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Offered: Fall

(Non music majors) Development of basic vocal techniques through group participation and solo singing.

Supervised practice two hours per week.

## **MUS 2713: Theory III**

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Co-requisites: MUS 2731, 2741

More advanced harmonic concepts, modulation, chromatic harmonies. Further study of larger forms.

## **MUS 2723: Theory IV**

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Co-requisites: MUS 2731, 2741

More advanced harmonic concepts, modulation, chromatic harmonies. Further study of larger forms.

## **MUS 2731: Ear Training III**

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Further work in more advanced ear training and sight singing.

## **MUS 2741: Ear Training IV**

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Further work in more advanced ear training and sight singing.

## **MUS 3281: Secondary Instrumental Methods and Materials I**

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Laboratory experience in conducting and performance of materials appropriate to teaching band in the public school.

## **MUS 3321: Practice of Improvisation**

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Prerequisites: Successful completion of MUS 3332 or instructor approval.

Laboratory experience in improvisation in all jazz styles.

Note: This course may be repeated for credit.

## **MUS 3322: Theory of Improvisation (Jazz)**

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Prerequisites: MUS 1713, 1723, 1441, and/or instructor approval.

Music theory, materials and practices for improvising or extemporaneous playing.

Note: May not be repeated for credit. May not be taken for credit after completion of MUS 3332.

One hour class, two hour laboratory per week.

## **MUS 3332: Theory of Improvisation (Jazz)**

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Prerequisite: Successful completion of MUS 3322

Advanced music theory, materials and practices for improvising or extemporaneous playing.

Note: May not be repeated for credit.

One hour class, two hour laboratory per week.

## **MUS 3401: Brass Instruments**

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Prerequisite: Music major

A study of the instruments of the brass family to the extent that scales and grade one and two solos can be played on selected instruments.

Class two hours, practice two hours.

## **MUS 3421: Woodwind Instruments, Double Reeds**

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Prerequisite: Music major

A study of playing and teaching techniques of the woodwind family (oboe, bassoon). Playing of selected instruments will be developed through major scales and grade one and two solos or methods.

## **MUS 3431: Woodwind Instruments, Single Reeds**

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Prerequisite: Music major

A study of playing and teaching techniques of the woodwind family (flute, clarinet, saxophone). Playing of selected instruments will be developed through major scales and grade one and two solos or methods.

## **MUS 3441: Instrumental Concepts**

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Prerequisites: Vocal or Keyboard major

A study designed to give non-instrumental music education majors functional knowledge of band and orchestral instruments.

## **MUS 3442: Piano Pedagogy**

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Offered: Spring

A study of pedagogical principles involved in the teaching of private and class piano, with emphasis on outside reading, class discussion, and observation of actual lessons and classes.

## **MUS 3481: Stringed Instruments**

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Prerequisite: Music major

A study of instruments of the string family (violin, viola, cello, and string bass) with emphasis on the fundamentals of good tone production and bowing techniques to the extent that scales and grade one and two orchestra music can be played on selected instruments.

## **MUS 3692: History of Music III**

---

Prerequisite: MUS 2723, music major or permission of instructor.

A study of 20th century music. Includes one unit of non-western music.

## **MUS 3702: Music Educational Technology**

---

Prerequisites: Music major with junior standing.

Applications of Technology in Music Education. An overview of current technologies to enhance music instruction, assessment, and productivity by the music educator.

## **MUS 3712: Counterpoint**

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Offered: As needed

Prerequisite: MUS 2723

The contrapuntal techniques and forms of the Baroque era. Analysis of Canons, two and three part Inventions, and fugues of J.S. Bach plus written exercises in two voice counterpoint.

## **MUS 3762: Instrumental and Choral Arranging**

---

An introduction to scoring for instrumental and choral groups to meet the needs of adapting music to meet the needs and ability levels of school performing groups and classroom situations.

## **MUS 3771,3772: Composition**

---

Offered: As needed

Prerequisites: 16 hours of music theory and senior standing or consent of instructor.

The study of basic compositional techniques of twentieth-century works and completion of composition project.

## **MUS 3773: History of Music I**

---

Offered: Fall

Prerequisites: MUS 2723 (Theory IV) or permission of instructor.

A study of Western Art music from ancient civilization to A.D. 1750.

## **MUS 3783: History of Music II**

---

Prerequisite: MUS 2723 or permission of instructor.

A study of classical and 19th century music.

## **MUS 3802: Principles of Conducting**

---

Offered: Fall

Principles and practices of conducting; a study of music terminology and transpositions; development of baton techniques

based on the practice of outstanding choral and instrumental conductors.

## **MUS 3821: Secondary Choral Methods and Materials I**

---

Choral conducting techniques, tone and diction styles and interpretation, rehearsal techniques, programs and concerts, planning and organization, and service information. Conducting of student ensembles and organizations. Methods and materials I will include review of literature for large and small ensembles appropriate for middle school, junior high, and smaller high school teaching situations.

## **MUS 3853: Music in the Elementary Classroom**

---

Prerequisites: MUS 2723, successful completion of Keyboard Exit Exam, and SEED 2002 or permission of instructor.

A study of current practices, methods, and materials for teaching general music to elementary school children with emphasis on curriculum development and diversity in the classroom.

## **MUS 4001: Senior Recital**

---

Prerequisite: Six semesters of major applied study.

Required of all music education majors.

\$175 applied music fee.

## **MUS 4201: Accompanying Seminar**

---

Prerequisite: Two semesters of MUS 2201 and/or permission of instructor.

Advanced accompanying techniques for piano majors. Class coaching and presentation one hour weekly, plus assigned responsibilities in a variety of media.

Note: May be repeated three times.

Note: May substitute for required 3000 level hour of major ensemble enrollment with assignment by instructor to successfully accompany major ensemble or recital.

## **MUS 4281: Secondary Instrumental Methods and Materials II**

---

Laboratory experience in conducting and performance of materials appropriate to teaching band in the public school.

## **MUS 4461: Percussion Instruments**

---

Prerequisite: Music major

A study of the instruments of the percussion family to the extent that scales and/or rudiments and grade one and two solos can be played on selected instruments. Designed as a practical preparation for public school teachers.

Two hours weekly.

## **MUS 4701: Special Methods in Music**

---

Offered: Spring

Prerequisites: Admission to Stage II of the Teacher Education program.

Intensive on campus exploration of the principles of curriculum construction, teaching methods, use of community resources, evaluation as related to teaching music, and dealing with diversity in the classroom.

## **MUS 4712: Form and Analysis**

---

Offered: Fall



Prerequisite: MUS 2723

A study of the standard forms of the Classical period with emphasis on instrumental forms and genres developed in the period 1750-1825 and the continuation and expansion of those forms in the nineteenth century.

### **MUS 4803: History of American Music: Jazz and Folk**

---

Open to all students. An in-depth study of folk music and the relationship between these forms and American life. Research, aural activity, and analysis are used to explore a variety of musical forms, composers, and performers.

### **MUS 4811: Keyboard Literature**

---

Offered: Fall

A survey of piano or organ literature with emphasis on historical development, analysis of selected compositions, and listings of suitable pedagogical materials.

### **MUS 4821: Secondary Choral Methods and Materials II**

---

Choral conducting techniques, tone and diction styles and interpretation, rehearsal techniques, programs and concerts, planning and organization, and service information. Conducting of student ensembles and organizations. Methods and materials II will include a review of historically important choral works and the music of the master composers of each musical epoch. Sight singing methods for group sight reading will be reviewed.

### **MUS 4832: Vocal Pedagogy**

---

Offered: Spring

Prerequisites: Pass Vocal Sophomore Barrier and Keyboard Barrier

A study of pedagogical principles involved in the teaching of singing, with emphasis on outside reading, class discussion, and laboratory teaching of actual voice students.

### **MUS 4853: Music of the World's Peoples**

---

Cross-listed: ANTH 4853

Open to students in all majors. A survey of predominantly non-Western world music cultures with attention to sonic structures, musicians, musical instruments, and socio-cultural contexts of music making. Listening emphasized.

### **MUS 4951,4952,4953,4954: Undergraduate Research in Music**

---

Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **MUS 4991,4992,4993: Special Problems in Music**

---

Offered: As needed

Prerequisites: Senior standing and permission of the instructor.

Additional work in an area of the student's choice under the direction of the faculty member competent in that area.

## Music Course Descriptions

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior-level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

### **MUS 1001,3001: Applied Music - Trumpet**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

### **MUS 1002,3002: Applied Music - Trumpet**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

### **MUS 1011,3011: Applied Music - French Horn**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

### **MUS 1012,3012: Applied Music - French Horn**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied

music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

### **MUS 1021,3021: Applied Music - Trombone**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

### **MUS 1022,3022: Applied Music - Trombone**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

### **MUS 1031,3031: Applied Music - Euphonium**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

### **MUS 1032,3032: Applied Music - Euphonium**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

### **MUS 1041,3041: Applied Music - Tuba**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

### **MUS 1042,3042: Applied Music - Tuba**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

### **MUS 1051,3051: Applied Music - Clarinet**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

### **MUS 1052,3052: Applied Music - Clarinet**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

### **MUS 1061,3061: Applied Music - Oboe**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1062,3062: Applied Music - Oboe**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1071,3071: Applied Music - Flute**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1072,3072: Applied Music - Flute**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1081,3081: Applied Music - Saxophone**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1082,3082: Applied Music - Saxophone**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1091,3091: Applied Music - Bassoon**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1092,3092: Applied Music - Bassoon**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1101: Applied Music - Violin**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1111: Applied Music - Viola**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1121: Applied Music - Cello**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1131: Applied Music - Bass**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1141,3141: Applied Music - Percussion**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1142,3142: Applied Music - Percussion**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1201,3201: Applied Music - Piano**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level



courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1202,3202: Applied Music - Piano**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1211,3211: Applied Music - Harpsichord**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1212,3212: Applied Music - Harpsichord**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1221,3221: Applied Music - Organ**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1222,3222: Applied Music - Organ**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1231,3231: Applied Music - Voice**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$60 applied music fee.

## **MUS 1232,3232: Applied Music - Voice**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$120 applied music fee.

## **MUS 1601,3601: Orchestral Repertoire**

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Prerequisite: Permission of instructor

A study of the landmarks of orchestral repertoire for winds and percussion sections through the preparation and rehearsal of the literature.

Note: Each course may be repeated three times.

## **MUS 3003: Applied Music - Trumpet**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3013: Applied Music - French Horn**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3023: Applied Music - Trombone**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3033: Applied Music - Euphonium**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3043: Applied Music - Tuba**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3053: Applied Music - Clarinet**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours

of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3063: Applied Music - Oboe**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3073: Applied Music - Flute**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3083: Applied Music - Saxophone**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

### **MUS 3093: Applied Music - Bassoon**

---

Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

## **MUS 3143: Applied Music - Percussion**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

## **MUS 3203: Applied Music - Piano**

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Musical performance includes private study, class piano, class voice, and ensembles. In numbering applied music courses, the first digit, numeral 1, is used for freshman and sophomore level courses; the numeral 3 for junior and senior level courses. The second and third digits indicate applied concentration area (e.g. 20 = piano) and the final digit indicates hours of semester credit.

Applied Music (private instruction) requires permission of the department head and is required of all music majors. Applied music students may be assigned participation in designated ensembles in addition to required ensembles. Ensembles are given in the curricula in Music and Music Education.

To qualify for three hours per semester, a student must have a minimum 3.50 cumulative GPA in applied music, a 3.00 cumulative GPA in total hours, junior standing and recommendation of the instructor.

\$180 applied music fee.

## Music Course Descriptions

In numbering ensemble courses, the first digit, numeral 1, is used for freshman and sophomore level courses, the numeral 3 for junior and senior-level courses.

### **MUS 1301,3301: Opera Workshop**

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Prerequisite: Permission of instructor

The course of study will involve selected scenes from standard opera literature prepared for dramatic presentation. Research will be required pertaining to the historical setting, appropriate costumes, and mannerisms of the period being studied. Staging techniques and set building will be included as deemed necessary to each presentation.

### **MUS 1311,3311: Jazz Ensemble**

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Membership selected by audition. Study and performance of big band jazz styles from the 1930's to present.

\$25 applied music fee.

### **MUS 1501,3501: Band**

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Open to students who can satisfy audition requirements. Marching Band, fall semester, or permission of instructor is a prerequisite for Concert Band, spring semester. Fall semester stresses marching band. Spring semester stresses symphonic and concert bands in the study and performance of quality literature.

\$25 applied music fee.

### **MUS 1511,3511: Brass Choir**

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Membership selected by audition. Study and performance of representative brass literature.

Rehearsal 3 hours weekly.

### **MUS 1521,3521: Woodwind Ensembles**

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Open to all students. Membership selected by audition.

Two hours weekly.

### **MUS 1531: Brass Ensembles**

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Open to all students. Membership selected by audition.

Two hours weekly.

### **MUS 1541: Percussion Ensembles**

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Open to all students. Membership selected by audition.

Two hours weekly.

### **MUS 1551: String Ensembles**

---

Open to all students. Membership selected by audition.

Two hours weekly.

### **MUS 1571: University Choir**

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Open to all students. A select vocal group of approximately sixty members selected by audition. Study and performance of choral literature of all periods.



\$25 applied music fee.

## **MUS 1581: Chamber Choir**

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Open to all students by audition. A select choral ensemble of approximately sixteen voices specializing in the performance of chamber choral music from all historical periods.

Note: Two or three concerts are presented on campus each semester. Off-campus performances include tours and public relations functions for the university.

\$25 applied music fee.

## **MUS 1611,3611: Music Theatre Workshop**

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Prerequisite: Permission of instructor

Selected songs from standard musical theatre literature will be prepared for public performance with an emphasis on popular professional performance techniques.

Note: Credit will be given for one leading part or for a series of supporting parts.

Two hours weekly.

## **MUS 1621,3621: Music Theatre Practicum**

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Offered: As needed

Prerequisite: Permission of instructor

Credit will be given for participation that results in a public performance of a major production. Vocal, instrumental, and/or audiovisual technological participation will be accepted.

A minimum of 28 hours participation is required.

## **MUS 1631,3631: Symphonic Wind Ensemble**

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Prerequisite: Audition

The Symphonic Wind Ensemble is the premiere wind-performing ensemble at Arkansas Tech University performing a balanced mix of traditional and new repertoire. Emphasis is placed on the highest artistic standards, professionalism in performance excellence while offering pedagogy for the advanced musician.

Note: Membership is determined by an annual audition and is open to all majors.

\$25 applied music fee.

## **MUS 1681,3681: Concert Chorale**

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Open to all students by audition. A select choral ensemble of choral music from all historical periods.

Two or three major concerts are presented each semester.

\$25 applied music fee.

## **MUS 3531: Brass Ensembles**

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Open to all students. Membership selected by audition.

Two hours weekly.

## **MUS 3541: Percussion Ensembles**

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Open to all students. Membership selected by audition.

Two hours weekly.

### **MUS 3551: String Ensembles**

---

Open to all students. Membership selected by audition.

Two hours weekly.

### **MUS 3571: University Choir**

---

Open to all students. A select vocal group of approximately sixty members selected by audition. Study and performance of choral literature of all periods.

\$25 applied music fee.

### **MUS 3581: Chamber Choir**

---

Open to all students by audition. A select choral ensemble of approximately sixteen voices specializing in the performance of chamber choral music from all historical periods.

Note: Two or three concerts are presented on campus each semester. Off-campus performances include tours and public relations functions for the university.

\$25 applied music fee.

# Nursing Course Descriptions

## **NUR 1001: Orientation to Nursing**

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A one hour elective course for students interested in pursuing nursing as a professional career. The student is introduced to the history of nursing, issues and trends, basic nursing education, advanced education for nurses, and nursing career opportunities. Students interested in nursing or a career in science are encouraged to take this course during the fall semester of their freshman year.

## **NUR 2023: Introduction to Professional Nursing**

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Prerequisite: MATH 1113 and permission of Admission and Progression Committee.

A non clinical, three hour course which introduces the student to selected basic concepts in professional nursing. Purpose of the course is to introduce nursing concepts to nursing majors. The course focuses on nursing as a caring profession, nurses' roles and functions, ethics, standards, legal aspects, holism, wellness, health care settings, communication, teaching/learning, critical thinking, and the nursing process. The Conceptual Framework and Philosophy of Tech's Department of Nursing will be explored.

Testing fee \$122

## **NUR 2303: Nutrition**

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Principles of normal nutrition at all stages of the life cycle are emphasized. Growth and development needs are incorporated into the maintenance, restoration of nutritional health, and in the prevention of nutritional deficit. Exploration is conducted of the social, religious, and cultural factors which affect the family's nutritional health.

## **NUR 3103: Nursing Skills I**

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Prerequisite: Admission into upper division nursing courses.

The course provides the student with theory and guided practice of basic psychomotor and math nursing skills in a multimedia simulated laboratory setting.

Lecture 2 hours, laboratory 3 hours equal to one credit hour. \$60 course fee.

## **NUR 3204: Theories and Concepts in Nursing I**

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Prerequisites: NUR 2023, 3103, 3303, 3803 and admission into upper level junior nursing courses.

Co-requisite: NUR 3404

This course is an introduction to the cognitive framework of the curriculum which emphasizes holistic man, environment, and nursing as an interacting system. The course focuses on bio psycho social and spiritual behaviors as indicators of health throughout the life cycle. The nursing process and the scientific method of problem solving are presented as systematic approaches to nursing care. Further emphasis is placed on assessment of health needs and health practices of individuals in structured episodic health care settings. Beginning concepts of professionalism and care of clients with self-limiting alterations to health are integral parts of this course.

Lecture four hours. \$91 testing fee.

## **NUR 3213: Care of the Older Adult**

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Prerequisites: NUR 3103, NUR 2023, and PSY 3813

This course will include a study of communication with individuals, families and groups. It will also provide the foundational basis for the professional care of older adults and thier families. Care of the older adult introduces trends, theories and multidimensional changes of aging and addresses issues related to wellness, health promotion, and disease prevention in older adults.

## **NUR 3303: Health Assessment**

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Prerequisite: Departmental permission or admission to upper division.

The student uses the nursing process to assess the client by the utilization of observation, palpation, percussion, and auscultation skills. The language of Health Assessment is taught and methods of proper documentation are emphasized. The course provides guidance in specific assessment techniques and enables the student to recognize normal findings throughout the life cycle. The student collaborates with members of the healthcare team in the sharing of health findings in order to make a specific nursing diagnosis.

Lecture 2 hours, laboratory 3 hour. \$20 laboratory fee.

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## **NUR 3402: Pharmacology I**

Prerequisites: NUR 2023 and 3103

This course focuses on the relationships between the action of drugs, their effects and the contraindications for their administration. The relationship between specific patient needs and the type of drugs that would be effective to meet those needs will be analyzed. The nursing care related to each type of drug and the rationales for care will be included.

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## **NUR 3404: Practicum in Nursing I - Nursing the Individual Client**

Prerequisites: NUR 2023, NUR 3103, and NUR 3303

Co-requisite: NUR 3204

Practicum facilitating the integration, synthesis, and application of theories, concepts, and psychomotor nursing skills taught in NUR 3103, 3204, 3304 and 3513. The student uses maintenance nursing behaviors to assist individuals to reach functional adaptation.

12 Clinical hours equal to 4 credit hours. \$20 laboratory fee.

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## **NUR 3503: End-of-Life Care**

This course is designed to offer basic skills and knowledge needed to recognize and intervene with a client at the end of life. Emphasis is to implement the nursing process with clients at the end of life. Students will apply concepts, theories, principals and techniques gained from their general education and previous nursing courses.

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## **NUR 3513: Nursing Skills II**

Prerequisite: NUR 3103

A continuation of NUR 3103. A guided practice of intermediate level theory and skills in a multimedia simulation laboratory.

Lecture 1 hour, laboratory 3 hours equal to one credit hour. \$20 course fee.

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## **NUR 3606: Theories and Concepts in Nursing II**

Prerequisites: NUR 3204, 3402, 3404, 3513

Co-requisite: NUR 3805

This course, utilizing the nursing process, builds upon NUR 3204 and includes the bio psycho social and spiritual needs of the family. The course emphasizes family development, the childbearing experience, and the child's unique response to the internal and external environment.

Lecture six hours. \$91 testing fee.

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## **NUR 3792: Theoretical Competency I**

Prerequisite: Departmental permission

This course is a theory course designed to enable a student to prove theoretical competence. Students who have failed a junior level practicum course but have passed the accompanying theories and concepts course must prove theoretical competence in order to progress to the next level. For the student who has failed, NUR 3792 would be taken the same

semester the student is repeating the accompanying practicum course. Students who have been absent from the upper division of the nursing curriculum must prove theoretical competence at the level of the corresponding theory class.

## **NUR 3802: Pharmacology II**

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Prerequisites: NUR 3204, NUR 3402, NUR 3404

This course is a continuation of Pharmacology I and focuses on the relationships between the action of drugs, their effects and the contraindications for their administration. The relationship between specific patient needs and the type of drugs that would be effective to meet those needs will be analyzed. The nursing care related to each type of drug and the rationales for the care will be included.

## **NUR 3803: Applied Pathophysiology**

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Cross-listed: BIOL 3803

Prerequisites: BIOL 2014 or BIOL 2404 and BIOL 2414 or BIOL 3074

This course focuses on the mechanisms and concepts of selected pathological disturbances in the human body. Emphasis is placed on how the specific pathological condition effects the functioning of the system involved, as well as its impact on all other body systems.

## **NUR 3805: Practicum in Nursing II - Nursing the Family**

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Prerequisites: NUR 3204, 3402, 3404, 3513

Co-requisites: NUR 3606

A practicum course which facilitates the integration, synthesis, and application of the theories, concepts, and skills taught in NUR 3103, NUR 3513, NUR 3606 and NUR 3703.

15 clinical hours equal to 5 credit hours. \$20 laboratory fee.

## **NUR 3892: Clinical Competency I**

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This course is required to demonstrate competence for practicum/laboratory courses as described in the progression policy of the Department of Nursing. For students requiring demonstration of competence, NUR 3892 would be taken the same semester the student is repeating an accompanying theoretical course. Students who have been absent from the upper division of the nursing curriculum must prove clinical/laboratory competence at the level of the last practicum/laboratory course they successfully completed before they can re-enter upper division.

\$20 laboratory fee.

## **NUR 4206: Theories and Concepts in Nursing III**

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Prerequisites: NUR 3606, 3802, 3805

The course focuses on the prevention of illness, maintenance of health and the restoration of wellness in the care of clients and families experiencing major dysfunctions in adaptation. The nursing process is the methodology used to assist clients and families toward achieving optimal health. Principles of growth and development throughout the life cycle, utilization of research findings, principles of communication in crisis, and the role of the nurse in crises situations are included in the course. Psycho social theories and concepts relevant to the care of the emotionally disturbed client and family are explored in depth.

Lecture six hours. \$91 testing fee.

## **NUR 4303: Nursing Research**

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Prerequisites: Admission to upper division nursing, senior standing or consent of instructor.

This introductory research course focuses on the validity and applicability of research findings for the improvement of nursing practice. Emphasis is on scientific inquiry and the role of the nurse as an intelligent consumer of research.

## **NUR 4405: Practicum in Nursing III – Nursing Clients in Crisis**

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Prerequisites: NUR 3606, 3802 and 3805

Co-requisites: NUR 4206

This is a clinical nursing course which provides the opportunity for the integration of theories and concepts in the application of the nursing process in the care of the emotionally and/or physically dysfunctional client, family or group who are undergoing adaptation difficulties due to major deviations from wellness. The health care is delivered according to scientific principles, research findings, and accepted standards of care. Nursing behaviors and nursing roles are emphasized which are appropriate to the level of the students. Learning experiences are gained through caring for clients.

15 clinical hours equal to 5 credit hours. \$20 laboratory fee.

## **NUR 4502: Principles of ACLS**

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Prerequisite: Departmental permission or consent of the instructor.

This course is designed to offer the student the knowledge and skills necessary to provide appropriate early treatment for cardiopulmonary arrest in the adult patient utilizing current ACLS protocols as guidelines for emergency care.

## **NUR 4606: Theories and Concepts in Nursing IV**

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Prerequisites: NUR 4206, 4303, and 4405

The course focuses on the prevention of illness, maintenance of health, and the restoration of wellness of individuals, families, and communities. Concepts of epidemiology, prevention, decision making, and collaboration are utilized to organize and deliver distributive nursing care in complex situations. Theories and techniques of management are studied which relate to self, team members, and care of groups of clients. The emerging role of the professional nurse is explored.

Lecture six hours. \$91 testing fee.

## **NUR 4792: Theoretical Competency II**

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Prerequisite: Departmental permission

This course is a theory course designed to enable a student to prove theoretical competence. Students who have failed a senior level practicum course but have passed the accompanying theories and concepts course must prove theoretical competence in order to progress to the next level. For the student who has failed, NUR 4792 would be taken the same semester the student is repeating the accompanying practicum course. Students who have been absent from the upper division of the nursing curriculum must prove theoretical competence at the level of the corresponding theory class.

## **NUR 4804: Practicum in Nursing IV - Nursing in the Community**

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Prerequisites: NUR 4206 and 4405

Co-requisites: NUR 4606 and 4903

A clinical course which integrates theories and concepts from all nursing courses and provisions for practice in predominantly distributive healthcare settings. Emphasis is on the utilization of the nursing process, the prevention of illness, maintenance of health, and the restoration of wellness of individuals, families, and communities, experiencing adaptation to complex health problems. Management skills and techniques are utilized in the delivery of holistic nursing care. Activities are provided which facilitate the role transition from student to professional nurse. Clinical experiences occur in a variety of distributive healthcare settings.

12 clinical hours. \$20 laboratory fee. \$64 testing fee.

## **NUR 4892: Clinical Competency II**

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This course is required to demonstrate competence for practicum/laboratory courses as described in the progression policy of the Department of Nursing. For students requiring demonstration of competence, NUR 4892 would be taken the same semester the student is repeating an accompanying theoretical course. Students who have been absent from the upper division of the nursing curriculum must prove clinical/laboratory competence at the level of the last practicum/laboratory

course they successfully completed before they re-enter upper division.

\$20 laboratory fee.

## **NUR 4903: Synthesis of Clinical and Theoretical Nursing**

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Synthesis of clinical and theoretical nursing knowledge occurs throughout the course. Students will be required to use all previously learned clinical and theoretical knowledge in the management of a diverse client population for which they are planning and providing a full-range of needed health care. Theory and clinical application of nursing knowledge must be integrated in order to prioritize, delegate, and ensure the delivery of comprehensive health care to clients in a variety of institutional and community-based settings. Students work closely with designate professional nurse preceptors and faculty in carrying out these learning activities.

\$50 testing fee.

## **NUR 4951,4952,4953,4954: Undergraduate Research in Nursing**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **NUR 4971: Pharmacology Review**

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Prerequisite: Admission to upper division nursing

One hour credit course that reviews basic pharmacology, medication administration and drug calculations utilizing dimensional analysis.

## **NUR 4981: Introduction to Oncology**

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Prerequisite: Admission to upper division nursing

This course is an overview of the different aspects of treatment of patients with cancer. It will include a short synopsis on the cellular changes that occur with cancer, the different preventives and diagnostics that are done, the modalities of treatment and management of side effects, as well as the emotional and psychological impact of cancer on the patient and their significant others. This course builds upon and expands core knowledge of human anatomy, physiology, and psychology.

## **NUR 4983: Nursing Perspectives on Aging**

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Prerequisite: Admission to upper division nursing

As the "baby boom" generation turns 65 the percentage of older Americans will increase to over 30% of the population by 2030. This course will prepare nurses to meet the needs of this increasing population in Arkansas and the U.S. Content will focus on preserving health and promoting wellness in aging individuals. The course will also build a knowledge base for nurses' participation in managing health care problems and developing strategies for promoting well ness in aging individuals.

## **NUR 4991,4992,4993,4994: Independent Study**

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Prerequisites: Departmental permission or NUR 4303

Faculty and student collaborate on the selection, development, and evaluation of an individual project or topic in an area of nursing or health.

15 clock hours per credit hour.



# Nursing for Registered Nurses Course Descriptions

## **NURN 4002: Nursing Informatics**

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Prerequisite: Admission to Upper Division or consent of instructor.

This practicum course establishes competency in using information resources within a professional nursing context. The course incorporates utilizing online resources available at ATU, Arkansas state, federal, and organizational web sites. In addition to becoming familiar with these resources, the student will identify and utilize online health-related resources.

## **NURN 4003: Scope of Professional Practice**

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Prerequisite: Admission to Upper Division or consent of instructor.

This course will enable the RN-BSN student to recognize how history and modern economic forces have shaped current professional practice. The student will examine the development of Nurse Practice Acts and how states use these Acts to manage professional licenses and scope of professional practice. The student will examine the variety of roles and setting in which the professional nurse can work.

## **NURN 4013: Laws, Ethics, and Issues in Professional Nursing Practice**

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Prerequisite: Admission to Upper Division or consent of instructor.

This course will enable the RN-BSN student to examine the legal, ethical, and policy-making traditions that frame the health care industry. This course will emphasize the integration of personal values, institutional cultures, law, and ethical decision-making in professional practice.

## **NURN 4024: Community Health Nursing**

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Prerequisite: Admission to Upper Division or consent of instructor.

This course will introduce the RN-BSN student to the concepts and principles relevant to the promotion, support, and restoration of health for clients of all ages in a variety of settings with particular emphasis upon the health of populations or groups. The student will perform a community assessment which involves the collection and analysis of data from a selected community to plan appropriate educational interventions.

## **NURN 4034: Leadership and Management in Professional Practice**

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Prerequisite: Admission to Upper Division or consent of instructor.

This course will enable the RN-BSN student to recognize the principles and concepts of change theory and leadership/management strategies in professional practice. The student will examine how current leadership and management strategies are implemented within the health care settings and how effective and efficient these strategies are to health care delivery and consumer health. Management and leadership issues significant to nurse managers will be examined and discussed.

## **NURN 4045: Professional Practicum Synthesis**

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Prerequisite: NURN 4024 and admission to Upper Division or consent of instructor.

This practicum course enables the RN-BSN student to integrate the skills and insights gained from this program in a population or group-based application. This capstone course demonstrates the cognitive and affective growth achieved while in the RN-BSN Completion Program.

## **NURN 4303: Nursing Research**

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This introductory research course focuses on the validity and applicability of research findings for the improvement of nursing practice. Emphasis is on scientific inquiry and the role of the nurse as an intelligent consumer of research.



# Philosophy Course Descriptions

## **PHIL 2003: Introduction to Philosophy**

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ACTS Common Course - PHIL1103

A survey of basic problems in the major areas of philosophical inquiry—metaphysics, epistemology, ethics, esthetics, and philosophy of religion.

## **PHIL 2013: Religions of the World**

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An examination of the major historical religions according to their basic scripture, their historical development, and their contemporary ideas and practices.

## **PHIL 2043: Honors Introduction to Philosophy**

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Prerequisites: Admission to University Honors or permission of University Honors Director.

A survey of basic problems in the major areas of philosophical inquiry—metaphysics, epistemology, ethics, esthetics, and philosophy of religion. Special emphasis will be placed on critical thinking and in-class discussion.

## **PHIL 3003: Ancient Philosophy**

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An examination of the thought of the leading philosophers of ancient Greece and Rome - the Pre Socratics, Socrates, Plato, Aristotle, and representatives of the Stoic and Epicurean traditions.

## **PHIL 3013: Modern Philosophy**

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A survey of the history of philosophical thought and its impact upon western civilization from the Renaissance to the twentieth century.

## **PHIL 3023: Ethics**

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An introduction to the problems of formulating and validating principle definitive of "the good" in respect to ends, means, and norms of human behavior.

## **PHIL 3033: Esthetics**

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An investigation of representative historical theories of beauty, the nature and social significance of art, standards of criticism, and epistemological aspects of the creative process.

## **PHIL 3053: Philosophy of Religion**

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A consideration of historical and contemporary studies in religious thought basic conceptions of the divine, the human engagement with the divine, and the nature and destiny of man within diverse eschatological perspectives.

## **PHIL 3063: Modern Political Thought**

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Cross-listed: POLS 3063

An examination of the major contributions to political thought during the Modern Era.

Note: Completion of POLS 2253 recommended.

## **PHIL 3103: Logic**

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A study of the principles of deductive reasoning. Topics include immediate inference, the syllogism, truth functions, natural deduction, quantification, and fallacies.

## **PHIL 3113: Contemporary Philosophy**

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A survey of some of the major philosophical trends of the twentieth century.

### **PHIL 3203: Medieval Philosophy**

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Historical study of the main philosophical ideas of the period from St. Augustine to the Renaissance.

### **PHIL 3253: Classical Political Thought**

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Cross-listed: POLS 3253

An examination of the major contributions to political thought during the Classical Age, the Medieval Era, and the Renaissance.

Note: Completion of POLS 2253 recommended.

### **PHIL 4093: American Philosophy**

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An examination of the main currents of American philosophical and religious thought from the earliest times to the present.

### **PHIL 4103: Advanced Logic**

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Prerequisites: COMS 2903 or MATH 2703 or PHIL 3103

A study of selected topics in advanced logic. Emphasis will be placed on proof theory, quantification theory, semantic tableaux, logicism, theories of completeness and consistency, and some consideration of the logical foundations mathematics.

### **PHIL 4951,4952,4953,4954: Undergraduate Research in Philosophy**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **PHIL 4991,4992,4993,4994: Special Problems In Philosophy**

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Admission requires consent of department head.

# Physical Education Course Descriptions

## Activities

The activities service program of the Department of Health and Physical Education is designed for the individual who is not majoring in health and physical education. The courses are designed to develop physical skills, physical fitness, and aesthetic value for movement and experience, and to learn the rules and strategy of the activities.

Students enrolled in activity classes must furnish their own clothing for the class. The proper dress attire for the class will be shirts, shorts, and gym shoes. Students enrolled in bowling classes will pay a \$77.50 bowling fee.

### **PE 1051: Volleyball**

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Designed for beginning volleyball players. The student will learn the fundamental skills, knowledge of the rules, and terminology associated with volleyball.

### **PE 1101: Folk and Square Dance**

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Course content will include the origin and factors which influence development of folk and square dance. Basic steps, basic positions, and dance movements will be introduced to the students.

### **PE 1121: Social Dance**

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Techniques of leading and following, basic positions, and a variety of dance steps will be introduced throughout the course.

### **PE 1301: Beginning Ballet I**

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These courses are designed for those students that have little or no ballet training but have an interest in pursuing dance. Ballet forms the basis for all dance arts and offers specific training in all muscle groups of the body. These courses offer students beginning-level technical and performance training in ballet. Flexibility, strength, body alignment and coordination lay a foundation for the introduction of more advanced aspects of dance artistry including more difficult steps, musicality, mobility, and balance.

### **PE 1311: Beginning Ballet II**

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These courses are designed for those students that have little or no ballet training but have an interest in pursuing dance. Ballet forms the basis for all dance arts and offers specific training in all muscle groups of the body. These courses offer students beginning-level technical and performance training in ballet. Flexibility, strength, body alignment and coordination lay a foundation for the introduction of more advanced aspects of dance artistry including more difficult steps, musicality, mobility, and balance.

### **PE 1321: Intermediate Ballet I**

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These courses offer intermediate level training in ballet technique and performance for proficient dancers. It stresses the physical and mental skills necessary to make the transition to more advanced dance work. These include physical stamina, strength, flexibility, articulation, coordination, musicality, and phrasing; an understanding of basic physical concepts underlying clear and efficient movement; the capacity to assimilate new movement material; and an awareness of the center of gravity and its role in the mobilization and control of the body.

### **PE 1331: Intermediate Ballet II**

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These courses offer intermediate level training in ballet technique and performance for proficient dancers. It stresses the physical and mental skills necessary to make the transition to more advanced dance work. These include physical stamina, strength, flexibility, articulation, coordination, musicality, and phrasing; an understanding of basic physical concepts underlying clear and efficient movement; the capacity to assimilate new movement material; and an awareness of the center of gravity and its role in the mobilization and control of the body.

### **PE 1341: Intermediate Ballet III**

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These courses offer intermediate level training in ballet technique and performance for proficient dancers. It stresses the physical and mental skills necessary to make the transition to more advanced dance work. These include physical stamina,

strength, flexibility, articulation, coordination, musicality, and phrasing; an understanding of basic physical concepts underlying clear and efficient movement; the capacity to assimilate new movement material; and an awareness of the center of gravity and its role in the mobilization and control of the body.

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### **PE 1361: Advanced Ballet I**

These courses are a continuation and refinement of the skills achieved in Intermediate Ballet I-IV. The courses offer advanced level training in ballet technique and performance for proficient dancers. They stress the physical and mental skills necessary to make the transition to professional dance work. These include physical stamina, strength, flexibility, articulation, coordination, musicality, and phrasing; an understanding of basic physical concepts underlying clear and efficient movement; the capacity to assimilate new movement material; and an awareness of the center of gravity and its role in the mobilization and control of the body.

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### **PE 1401: Archery and Recreational Games**

The student will learn the fundamental skills in archery, including care and selection of archery tackle. Recreational games will include table tennis, giant volleyball, three way volleyball, box hockey, pin ball, scooter soccer, variety ball, indoor soccer, and horse shoes.

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### **PE 1411: Badminton**

Designed for beginning badminton players. The student will learn the fundamental skills and a knowledge of the rules and terminology associated with badminton.

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### **PE 1431: Bowling**

The bowling classes are structured for the beginning bowler. Fundamental skills and general bowling knowledge and etiquette will be introduced to the student.

\$77.50 course fee.

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### **PE 1481: Tennis**

Constructed to aid the beginning tennis player to learn the fundamental skills for tennis. The student will gain a knowledge of the rules and strategy in tennis.

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### **PE 1851: Tennis and Basketball**

Designed for the average student. Fundamentals in basketball and tennis will be introduced along with knowledge of the rules and strategies of play.

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### **PE 1991: Racquetball**

Designed to introduce the rules and strategy of racquetball and develop the basic skills needed to play racquetball successfully.

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### **PE 2301: Beginning Golf**

Designed for individuals who wish to learn the basic fundamentals in golf. Course includes the fundamentals of the full swing and the fractional swing in golf. It also includes the knowledge of rules and courtesies of golf.

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### **PE 2861: Rhythmic Aerobic Activities**

This course will include motor skills put to music, rope jumping, step aerobics, kickboxing, senior fitness, childrens fitness, sport aerobics, sculpting, and aerobic dance activities.

# Physical Education Course Descriptions

Academic

## **PE 1201: Orientation to Health, Physical Education, and Wellness Science**

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This course provides an introduction to the HPE/WS curriculum, as it affects the student. Emphasis will be given to resources, services and opportunities available to the student through the University, which will help him or her grow as a professional. This is a pass or fail class.

## **PE 2101: Methods of Teaching Team Activities**

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This course is designed to assist in teaching students to be skilled and knowledgeable in selected team activities. Emphasis will be placed on developing and evaluating the student's skills and knowledge.

Laboratory three hours (includes a skill lab scheduled outside of class meeting times).

Note: A grade of C or better is required for Health and Physical Education Majors.

## **PE 2111: Methods of Teaching Individual Activities**

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This course is designed to assist in teaching students to be skilled and knowledgeable in selected individual activities. Emphasis will be placed on developing and evaluating the student's skills and knowledge.

Laboratory three hours (includes a skill lab scheduled outside of class meeting times).

Note: A grade of C or better is required for Health and Physical Education Majors.

## **PE 2513: First Aid**

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Standard and advanced course in first aid. This course includes CPR instruction.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **PE 2523: Foundations in Health and Physical Education**

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A study of history, philosophy, and principles of health and physical education in grades K 12 as applied to each area.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **PE 2653: Anatomy and Physiology**

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Prerequisite: BIOL 1014, must earn a grade of C or better.

The structure and function of the human body with emphasis on the bodily systems important to teachers and practitioners of wellness, fitness, and physical education.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 3051: Methods of Teaching Fitness and Wellness Concepts**

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This course is designed to provide the student with knowledge needed to implement a sound fitness and wellness program that will yield the desired results. The emphasis is on teaching students how to take control of their own personal health and lifestyle habits so that they can make a deliberate effort to stay healthy and achieve the highest potential for well-being.

Laboratory three hours (includes a skill lab scheduled outside of class meeting times). \$25 Tech Fit fee.

Note: A grade of C or better is required for Health and Physical Education Majors.

## **PE 3101: Methods of Teaching Rhythmic and Gymnastic Movements**

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Methods and activities to develop rhythm, folk dance, and gymnastic skills related to teaching physical education.

Laboratory two hours.

Note: A grade of C or better is required for Health and Physical Education Majors.

### **PE 3103: Methods of Teaching Movement Patterns and Activities for Children**

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Prerequisite: Admission to Stage II or permission of department head.

Methods and activities to develop basic movement patterns, primary and lead-up game skills, and knowledge related to teaching elementary physical education.

Lecture one hour, laboratory four hours.

Note: A grade of C or better is required for Health and Physical Education Majors.

### **PE 3413: Coaching Theory**

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The course exposes students to the theory of coaching, relevant to athletics. Emphasis is placed on organization, management, and content involved in coaching a variety of sports.

Note: A grade of C or better is required for Health and Physical Education Majors.

### **PE 3512: Coaching Strategies: Football & Baseball**

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Principles of coaching football and baseball, including off-season training programs, team organization, offense, defense, scouting, and use of visual aids.

One hour lecture and one hour laboratory.

Note: A grade of C or better is required for Health and Physical Education Majors.

### **PE 3522: Coaching Strategies: Basketball & Track and Field**

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Principles of in-season and off-season training programs and team organization for track and field. Additionally, the course is designed to provide a systematic process for teaching basketball skill development and team strategies. Emphasis on fundamental skills and drills, rules and evolution of the game, offensive and defensive strategies used by various successful coaches are introduced. Extensive use of floor demonstrations and video presentations enhance the course content.

One hour lecture and one hour laboratory.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 3532: Coaching Strategies: Softball and Volleyball**

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This course will offer information relative to the following topics for both volleyball and softball: in-season and off-season training programs, team organization, offense, defense, special situations, scouting, and use of visual aids.

One hour lecture and one hour laboratory.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 3573: Prevention and Care of Athletic Injuries**

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Prerequisites: PE 2653, 3663

Development of techniques in prevention and treatment of athletic injuries.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 3583: Methods and Materials in Physical Education and Recreation for Kindergarten**

## **and Elementary Grades**

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Prerequisite: PE 3103

Methods, materials, supervision, school problems, rhythmical activities, movements exploration, and group games for kindergarten and elementary teachers.

Lecture two hours, laboratory two hours. Lecture, activity, and a field experience scheduled outside of class meeting times.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 3593: Methods of Teaching Health and Physical Education for K-6 Teachers**

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Develop knowledge of concepts of motor development and motor learning that includes manipulative skills and movement. Knowledge of activities to develop basic movement patterns, primary lead-up game skills, leisure activities, rhythmic skills and fitness in K-6 grades. Basic knowledge of safety and injury prevention including knowledge of health concepts, physical education development and how to integrate other subjects found in the K-6 curriculum into physical education activities.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 3603: Methods and Materials in Physical Education for Secondary Schools**

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Prerequisites: PE 2101, PE 2111 and admission to Stage II.

A course in program planning and techniques of teaching physical education in the secondary schools, critical analysis of methods now in use in physical education, and criteria for evaluation of programs.

Lecture two hours, laboratory two hours. Lecture, activity, and a field experience scheduled outside of class meeting times.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 3661: Laboratory Experiences in Anatomy/Physiology and Kinesiology**

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Prerequisite: PE 2653 or permission of department head.

The laboratory experience supplements Anatomy/Physiology and Kinesiology by providing practical experiences which enable students to bridge the gap between theory and practice.

Laboratory two hours.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 3663: Kinesiology**

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Prerequisite: PE 2653

Study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency and the influence of growth and development upon motor performance.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 4033: Basic Exercise Physiology**

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Prerequisites: PE 2653, 3663, and 3661, or permission of the department head.

Introduction to the basic effects of exercise on physiology of the systems of the body, and the principles of exercise prescriptions and programs.

Note: A grade of C or better is required for Health and Physical Education majors.

## **PE 4103: Principles of Adapted Physical Activity**

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Principles and methods of teaching special students with various types of physical and mental disabilities which require adapting the learning process.

Lecture two hours, laboratory two hours (includes activity), and a field experience scheduled outside of class meeting times.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 4203: Methods of Teaching Adapted Physical Education in the Schools**

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Prerequisites: PE 3103, PE 3583 or permission of the department head.

Principles and methods of teaching students with disabilities in the schools.

Lecture two hours, laboratory two hours. Lecture, activity, and a field experience schedule outside of class meeting times.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 4513: Organization and Administration of Health and Physical Education**

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Organization and administration problems in grades K 12 to be treated as a single administrative unit.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 4523: Measurement and Evaluation in Health and Physical Education**

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Prerequisite: Admission to Stage II or permission from department head.

Research methods, measurement, and evaluation in health, physical education, and recreation with an analysis of their practical application.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 4701: Special Methods in Health and Physical Education**

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Prerequisites: Admission to student teaching phase of the teacher education program.

Co-requisite: Enrollment in SEED 4503 and SEED 4809

Intensive on campus exploration of the principles of curriculum construction, teaching methods, use of community resources, and evaluation as related to teaching health and physical education.

Note: A grade of C or better is required for Health and Physical Education majors.

### **PE 4991,4992,4993: Special Problems in Health and Physical Education**

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Prerequisite: PE 4523

Open to physical education majors and minors of outstanding ability. Course content will include readings and research and the setting up and carrying out of a piece of research which will include review of literature, the problem, and conclusion.

# Physical Science Course Descriptions

## PHSC 1001: Orientation to Physical Science

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Offered: Fall

Introduction to vital university affairs, department and university resources and curriculum. The course emphasizes information and skills that increase a student's likelihood of a successful college career. All students majoring in programs within the Department of Physical Sciences are strongly encouraged to take this course during their first fall semester on the Arkansas Tech University campus.

## PHSC 1004: Principles of Environmental Science

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Cross-listed: BIOL 1004

This course is designed to bring the student to a basic but informed awareness of and responsible behavior toward our environment and the role of the human race therein. The content will include a study of the philosophical and scientific basis for the study of ecosystems and the environment, the nature of ecosystems, the techniques used to study the environment, the origin and development of current environmental problems, the interdisciplinary nature of environmental studies, the processes of critical thinking and problem solving, and the moral and ethical implications of environmentally-mandated decisions.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## PHSC 1011: Orientation to Physical Science II

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Offered: Spring

Continuation of PHSC 1001. Introduction to programs of study and employment opportunities for students of the physical sciences. All students majoring in programs within the Department of Physical Sciences are strongly encouraged to take this course during their spring semester on the Arkansas Tech University campus.

## PHSC 1013: Introduction to Physical Science

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ACTS Common Course - PHSC1004 (when taken with PHSC 1021)

Prerequisite: A score of 19 or above on the mathematics section of the ACTE exam or completion of MATH 0903, Intermediate Algebra, with a grade of "C" or better.

An introduction to the natural laws governing the physical world, with emphasis upon the discovery and development of these laws and their effect upon man. Includes topics in physics and chemistry and may include other topics from other disciplines in physical science such as astronomy, meteorology, and/or geology.

Note: May not be taken for credit after completion of two laboratory courses in the physical science disciplines.

Note: To enroll in an internet section (TC1) of this course, the prerequisite COMS 1003 or equivalent is required.

## PHSC 1021: Physical Science Laboratory

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ACTS Common Course - PHSC1004 (when taken with PHSC 1013)

Co-requisite or Prerequisite: To be taken concurrent with or following completion of PHSC 1013.

An introduction to laboratory experiences in the physical sciences, including physics, chemistry, earth sciences, and astronomy.

Note: To enroll in an internet section (TC1) of this course, the prerequisite COMS 1003 or equivalent is required.

Laboratory two hours. \$20 laboratory fee (Fee is not charged for online sections).

## PHSC 1051: Observational Astronomy Laboratory

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ACTS Common Course - PHSC1204 (when taken with PHSC 1053)

Offered: Fall

Prerequisites: A score of 19 or above on the mathematics section of the ACTE exam or completion of MATH 0903 with a grade of "C" or better.

Co-requisite: PHSC 1053 or consent of instructor.

An introduction to astronomical observations and techniques. Students will have the opportunity to use telescopes at the ATU astronomical observatory (weather permitting) to make observations and collect scientific data for analysis. This course includes telescope orientation, constellation recognition, identifying celestial objects, and interpreting astronomical data.

Note: When taken concurrently with PHSC 1053, this course satisfies the general education physical science laboratory requirement upon successful completion of both courses.

Note: Course PHSC 1051 will run simultaneously with PHSC 3051 and duplicate credit will not be allowed. Credit for PHSC 3051 requires completion of an observational research project for upper division students, but is not required of students enrolled in PHSC 1051.

Laboratory 3 hours; 1 credit hour. \$20 laboratory fee.

## **PHSC 1053: Astronomy**

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ACTS Common Course - PHSC1204 (when taken with PHSC 1051)

Offered: Fall

Prerequisites: A score of 19 or above on the mathematics section of the ACTE exam or completion of MATH 0903 with a grade of "C" or better.

Co-requisite: PHSC 1051 or consent of instructor.

A study of our universe; constellations, celestial motions, tools and methods of astronomical observations, the solar system, properties of stars and the interstellar medium, the birth, life and death of stars, our Milky Way galaxy, dynamics of stellar systems and other galaxies, and cosmology.

Note: When taken concurrently with PHSC 1051, satisfies general education physical science laboratory requirement upon successful completion of both courses.

Note: Course PHSC 1053 will run simultaneously with PHSC 3053 and duplicate credit will not be allowed. Credit for PHSC 3053 requires completion of several assignments, a term paper and a research project for upper division students, but is not required of students enrolled in PHSC 1053.

## **PHSC 1074: Physical Science Inquiry**

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Prerequisites: A score of 19 or above on the mathematics section of the ACTE exam or the completion of MATH 0903, Intermediate Algebra, with a grade of "C" or better.

This course is designed to model physical science teaching and learning through the process of inquiry. Topics explored are Interactions and Energy, Forces, Systems, Behavior of Gases, Physical Changes, and Chemical Changes. The focus is upon the construction of knowledge regarding science content and process skills essential to the preparation of teachers of physical science in early childhood education. It is recommended for early childhood education majors seeking to fulfill undergraduate requirements in preparation for upper level science methods courses and is equivalent to 3 hours of lecture and 3 hours of laboratory experience in physical science. However, the course requires that students participate as active learners in an activity-based, cooperative learning style curriculum.

\$20 laboratory fee.

## **PHSC 3033: Meteorology**

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Offered: Spring

Prerequisites: any physical science course (PHSC, GEOL, CHEM, PHYS)

A study of the weather, the physics of the atmosphere, and associated phenomena.

## **PHSC 3053: Astronomy**

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Offered: Fall

Prerequisite: MATH 1113

Optional co-requisite: PHSC 3051 or consent of instructor.

A study of our universe; constellations, celestial motions, tools and methods of astronomical observations, the solar system, properties of stars and the interstellar medium, the birth, life and death of stars, our Milky Way galaxy, dynamics of stellar systems and other galaxies, and cosmology.

Note: When taken concurrently with PHSC 3051, satisfies general education physical science laboratory requirement upon successful completion of both courses. Credit for PHSC 3053 requires completion of a term paper and a research project for upper division students.

Note: Duplicate credit for previously offered PHSC 3043 is not allowed.

## **PHSC 3213: Science Education in the Elementary School**

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Cross-listed: BIOL 3213

Prerequisites: Junior standing, ECED 2001, ECED 2002, and at least six credit hours in science.

An overview of the most recent and research-based strategies and techniques for planning, teaching, and assessing elementary science. Inquiry-based methods and other constructivist approaches as described in the National Science Education Standards will be emphasized. Design and execution of learning activities for an elementary school setting are required.

Note: To enroll in an internet section (TC1 or AT1) of this course, one of these prerequisite courses is required: COMS 1003, EDMD 3013, or equivalent.

Lecture two hours, laboratory two hours; three credit hours. \$20 laboratory fee (Fee is not charged for online sections).

## **PHSC 3223: Science Education in the Middle Level**

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Cross-listed: BIOL 3223

Prerequisites: 16 hours in science and MLED 2001.

This course is designed to provide pre-service teachers with an integrated approach to the teaching of science in the middle grades. Theoretical and practical aspects of teaching science will be explored and students will develop curricular materials based on their explorations.

Lecture two hours, laboratory 2 hours. \$20 laboratory fee.

## **PHSC 3233: Science Education in the Secondary School**

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Cross-listed: BIOL 3233

Prerequisites: 16 hours in biology or 16 hours in physical science and SEED 2002.

This course will examine the issues of nature and history of science, developing lessons and assessments, and science education standards for the prospective secondary school teacher. Curriculum development, including assessment and planning skills, utilizing various instructional media and inquiry methodology are emphasized. Design and execution of learning activities for a secondary school setting are required.

Lecture two hours, laboratory two hours. \$20 laboratory fee.

## **PHSC 3243: Integrating the Three Dimensions of Science**

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Cross-listed: BIOL 3243

Prerequisites: Junior Standing and at least 8 hours of science.

This course integrates the three major areas of discipline in science: physical science, life science and earth science, using as a focus the processes and cross-cutting concepts of science, technology, engineering and mathematics (STEM).

\$20 laboratory fee.

## **PHSC 3252: The Nature and Context of Science**

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Cross-listed: BIOL 3252

Offered: Spring

Prerequisite: At least 12 hours of science courses.

This seminar course examines science from a holistic perspective. It will concentrate on examining how current science develops scientific knowledge including unifying concepts across scientific disciplines, the place of science within modern society, technology and its role in science and society, and current scientific methodology.

## **PHSC 3253: Teaching Methods for STEM**

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Cross-listed: BIOL 3253

Prerequisites: Junior Standing, ECED 2001, ECED 2002, PHSC 3243 and completion of at least 8 hours of science.

An overview of strategies and techniques for planning, teaching, and assessing elementary science. An emphasis will be placed on best practices, crosscutting concepts, and core ideas outlined in current National Science Frameworks developed in conjunction with the National Research Council. Current adopted standards such as the Next Generation Science Standards (NGSS) and Common Core State Standards will be emphasized in designing learning experiences that integrate science, technology, math, and engineering (STEM) with language arts skills. Inquiry-based methods and other constructivist approaches as described in the National Science Education Frameworks will be emphasized. Design and execution of learning activities for an elementary school setting are required.

Lecture two hours, laboratory two hours; three credit hours. \$20 laboratory fee.

## **PHSC 4701: Special Methods in Physical Science**

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Offered: On demand

Prerequisites: Admission to student teaching phase of the teacher education program.

Co-requisite: SEED 4909

Intensive on campus exploration of the principles of curriculum construction, teaching methods, use of community resources, and evaluation as related to teaching physical science.

# Physics Course Descriptions

## PHYS 1114: Applied Physics

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Offered: Spring

A survey of selected topics in physics. The "scientific method", mechanics, fluid mechanics, heat, electricity, sound, light, and nuclear radiation will be studied.

Note: May not be taken for credit after completion of PHYS 2014, PHYS 2024, PHYS 2114, or PHYS 2124.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## PHYS 2000: Physics Laboratory I

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Co-requisite: PHYS 2014 or PHYS 2114.

## PHYS 2010: Physics Laboratory II

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Co-requisite: PHYS 2024 or PHYS 2124.

## PHYS 2014: Physical Principles I

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ACTS Common Course - PHYS2014

Offered: Fall and summer (on demand).

Prerequisite: A grade of C or better in MATH 1113 or consent of the instructor.

Co-requisite: PHYS 2000

Open to freshmen. A broad survey course emphasizing the understanding of the principles of physics necessary for students not specifically interested in advanced work in physics, chemistry or engineering. Topics include mechanics, heat, sound, wave motion, and fluid mechanics.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## PHYS 2024: Physical Principles II

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ACTS Common Course - PHYS2024

Offered: Spring and summer (on demand).

Prerequisite: PHYS 2014 or permission of instructor.

Co-requisite: PHYS 2010

Continuation of PHYS 2014, covering electricity and magnetism, light, relativity, particle physics, and quantum effects.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## PHYS 2114: General Physics I

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ACTS Common Course - PHYS2034

Prerequisite or co-requisite: MATH 2924

Co-requisite: PHYS 2000

Introductory mechanics, heat and thermodynamics, kinetic theory, and sound.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **PHYS 2124: General Physics II**

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ACTS Common Course - PHYS2044

Prerequisite: Permission of instructor; prerequisite or co-requisite, MATH 2934.

Co-requisite: PHYS 2010

Introductory electricity and magnetism, wave motion, optics, and elementary quantum concepts.

Lecture three hours, laboratory three hours. \$20 laboratory fee.

## **PHYS 3003: Optics**

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Offered: Spring even years

Prerequisite: PHYS 2124 or consent of instructor.

Introduction to geometrical and physical optics.

Lecture two hours, laboratory two hours. \$20 laboratory fee.

## **PHYS 3023: Mechanics**

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Offered: Fall even years

Prerequisite: PHYS 2114

Co-requisite: MATH 3243

The conservation laws. Euler's angles. Lagrange's and Hamilton's equations.

## **PHYS 3042: Intermediate Physics Laboratory**

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Offered: On demand

Prerequisites: PHYS 2114 and 2124

For physical science education majors. This course expands and refines essential content and laboratory skills through the modeling and experimental investigation of topics in both classical and modern physics.

Note: Will not satisfy the physics elective requirement for students majoring in physical science.

Laboratory three hours. \$20 laboratory fee.

## **PHYS 3133: Theory of Electricity and Magnetism**

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Offered: Fall of even years

Prerequisite: PHYS 2124

Gauss's law, potential, Laplace's and Poisson's equations in rectangular, cylindrical, and spherical coordinates, inductance, capacitance, moving charges, dielectric phenomena, and Maxwell's equations.

## **PHYS 3153: Solid State Physics**

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Offered: Fall odd years

Prerequisites: PHYS 2114, 2124; CHEM 2124.

Co-requisite: MATH 3243

An introduction to the physics governing the crystalline state of matter. Modern theories describing lattice vibrations, energy



bands, crystal binding, and optical properties are presented. These ideas are then applied to the understanding of technologically important areas such as superconductivity, doped semiconductors, ferroelectric materials, and photorefractivity.

\$20 laboratory fee.

## **PHYS 3213: Modern Physics**

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Offered: Fall of odd years

Prerequisite: PHYS 2124

Introduction to relativity, wave-particle interactions, atomic structure, quantum mechanics, quantum theory of the hydrogen atom, statistical mechanics, nuclear structure, and elementary particles.

## **PHYS 3991,3992,3993: Special Problems in Physics and Astronomy**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to significant problems in physics and astronomy. Supervised by faculty member. Formal report and presentation required. One to three credits depending on problem selected and effort made.

## **PHYS 4003: Thermodynamics and Statistical Mechanics**

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Offered: Spring of odd years

Prerequisite: PHYS 2124; Prerequisite or co-requisite, MATH 3243.

Applications of the three laws of thermodynamics, partition functions and transport phenomena.

## **PHYS 4013: Quantum Mechanics**

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Offered: Spring of even years

Prerequisites: PHYS 3213 and MATH 3243

A formal course in wave and matrix mechanics, designed to enable a student to set up and solve the elementary practical problems of quantum mechanics.

## **PHYS 4113: Advanced Physics Laboratory**

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Offered: Spring odd years

Prerequisite: PHYS 3213

An application and investigation of advanced physical topics in the laboratory. Techniques of experimental [engineering] physics, such as computerized instrumentation, vacuum technology, optics, and electron optics will be applied to investigate various areas of advanced physics. Proper data reduction and analysis will be used to yield meaningful measurements. Intended as a culminating course, previous course work is applied to solve problems in the laboratory.

Lecture one hour, laboratory five hours. \$20 laboratory fee.

## **PHYS 4213: Advanced Topics in Physics and Astronomy**

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Offered: On Demand

Prerequisite: PHYS 2024 or PHYS 2124

Introduction to relativity, elementary particle physics, quantum dynamics, big-bang cosmology, atomic nucleosynthesis, and large scale structure and exotic states of matter such as black holes. Forces and interactions between the building blocks

of matter in addition to cosmological models will be studied to gain insight into the complex universe we observe today.

Lecture two hours, laboratory two hours. \$20 laboratory fee.

### **PHYS 4951,4952,4953,4954: Undergraduate Research in Physics**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **PHYS 4991,4992,4993,4994: Special Problems in Physics and Astronomy**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to significant problems in physics and astronomy. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

# Political Science Course Descriptions

## **POLS 2003: American Government**

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ACTS Common Course - PLSC2003

A study of the principles and practices of American Government, explaining the origin and purpose of our governmental institutions in a broad sense, with consideration given to interstate and national state relations.

## **POLS 2013: Introduction to Political Science**

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The basic terms and concepts for the study of political science, including an understanding of democratic and authoritarian political systems and the methods for researching and writing a political science paper.

Note: This course is highly recommended for all students interested in political science.

## **POLS 2153: Introduction to Strategic Studies**

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An introduction to strategic studies focusing on the key theoretical principles that have played a major role in shaping Western understandings of strategy, with particular focus on the United States.

## **POLS 2253: Survey of Western Political Thought**

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An introduction to the subfield of political theory, examining the works of major political thinkers from ancient Greece to the present.

## **POLS 2403: Comparative Government**

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A study of the various political systems of the world, such as the governments of Western Europe, Socialist or Communist Systems, and developing world governments. The countries under examination are often selected to address important real-world circumstances.

## **POLS 2413: International Relations**

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A study of the theory and practice of international politics, with special emphasis upon the state system, decision-making, policy-making, war and arms control, ideology and nationalism, the global ecological system, interdependence, multinational institutions and corporations, and human rights.

## **POLS 2513: Research Design**

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This course is designed as an introduction to the field of political science research. This course teaches the scientific method as applied to political science, bibliographical aids, and the study and writing of political science. It is a hands-on course where students will use the skills learned to evaluate social science research.

## **POLS 3013: Recent American Foreign and Military Policy**

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The post World War II environment in which U.S. foreign and military policy functions; emphasis is on the formulation of policy, relationship of foreign policy and domestic affairs, problems of foreign and military policy coordination and control, and the military industrial complex.

## **POLS 3023: Judicial Process**

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Cross-listed: CJ 3023

The structure and operation of the state and national court systems. Emphasis upon the role of the criminal courts in the political system and the consequences of judicial policy making.

## **POLS 3033: American State and Local Government**

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A comparative study of the nature of the organization and operation of state and local governments in the United States

with emphasis on state and local government in Arkansas.

### **POLS 3043: Judicial Politics**

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This course examines the effect of the U.S. Supreme Court and its inferior courts on American politics, government and society, as well as the interactions and processes that determine judicial policy.

### **POLS 3053: Introduction to Public Administration**

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A study of public administration with attention devoted to organizational problems and pathology, leadership, communication, control, and the hiring, training, compensating, motivating, and firing of personnel. Numerous case studies are considered.

### **POLS 3063: Modern Political Thought**

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Cross-listed: PHIL 3063

An examination of the major contributions to political thought during the Modern Era.

Note: Completion of POLS 2253 recommended.

### **POLS 3083: Political Parties and Interest Groups**

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A study of American political parties and interest groups with emphasis on such topics as public opinion, the nature and history of parties and interest groups, organizational structures and procedures, public policy interest, nominations, and elections.

### **POLS 3123: American Political Behavior**

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A study of the individual's decision to participate in American political life and the impact those decisions have on policy formation. The course aims to understand the influences that lead to or retard individual political participation.

### **POLS 3133: United States Congress**

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Examination of the U.S. Congress in terms of its functions as both a lawmaking institution and a representative institution. Attention to the legislative process, congressional elections, party leadership, and executive-legislative relations.

### **POLS 3143: The United States Presidency**

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Analysis of the role of the presidency in the American political system. Topics include the theoretical and constitutional foundations of the president, the growth of the presidency as an institution, the evolving constitutional, political, and environmental restraints to presidential action, presidential leadership, and historical trends in the relationship between the presidency and the legislative and judicial branches of government.

### **POLS 3253: Classical Political Thought**

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Cross-listed: PHIL 3253

An examination of the major contributions to political thought during the Classical Age, the Medieval Era, and the Renaissance.

Note: Completion of POLS 2253 recommended.

### **POLS 3423: Problems in International Affairs**

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This course will examine approximately ten major issues in international affairs. It will examine the history, politics, conflicts, debates, and actors involved in each specific issue area. The specific topics are up to the instructor, and will vary from offering to offering depending on the situation and issues in international relations at the time of instruction.

### **POLS 3433: United Nations**

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Offered: Fall

Study of the organization and functioning of the United Nations, significant problems confronting world organization, weaknesses of the UN, and the future of world organization. Students will conduct research and write papers on significant international issues confronting the UN and on the foreign policy of selected members of the UN.

Note: Students will participate each week in a mock session of the UN and will attend, at their own expense, the annual session of the Arkansas Model United Nations, which normally meets on Friday and Saturday of the first week in December.

Note: Only one Model United Nations course may be taken for credit during a semester.

### **POLS 3473: National Security Policy**

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A study of national security policy making, with an emphasis on current national security issues.

### **POLS 3513: Research Methods**

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Introduction to elementary descriptive and inferential statistics, with an emphasis on applications in political science.

### **POLS 4043: American Constitutional Law**

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A comprehensive study of the United States Supreme Court's decisions in the evolution of American Government as seen in the leading cases dealing with judicial review, separation of powers, and federal systems; protection of personal rights, interstate commerce, taxation, and due process of law in economic regulation and control; and civil liberties and civil rights.

### **POLS 4163: Public Choice Theory**

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The purpose of this course is to familiarize students with formal theory, with a focus on the assumptions of rationality, spatial and game theoretic modeling, strategic games, and institutions.

### **POLS 4951,4952,4953,4954: Undergraduate Research in Political Science**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required.

Note: One to four credits depending on problem selected and effort made.

### **POLS 4963: Senior Seminar**

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A required course for senior Political Science majors. Course content will cover a directed seminar in a specified area of Political Science. Research techniques will be emphasized.

### **POLS 4971: Internship**

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Cross-listed: HIST 4971

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

### **POLS 4972: Internship**

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Cross-listed: HIST 4972

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

### **POLS 4973: Internship**

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Cross-listed: HIST 4973

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

### **POLS 4974: Internship**

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Cross-listed: HIST 4974

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

### **POLS 4975: Internship**

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Cross-listed: HIST 4975

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

### **POLS 4976: Internship**

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Cross-listed: HIST 4976

Prerequisites: Junior or Senior standing, 2.75 grade point average, and consent of department head.

A supervised placement in selected agency settings in student/trainee status under professional guidance of both an agency supervisor and a faculty member. Emphasis will be on providing hands-on experience in research, editing, cultural management, public service, or some other area related to the discipline. Written report required and minimum of 100 clock hours of supervision required per credit hour.

Note: May be repeated for a maximum of 6 hours credit.

### **POLS 4983: Political Science Seminar**

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A directed seminar in an area of political science. The specific focus will depend upon research underway, community or student need, and the unique educational opportunity available.

Note: This course may be repeated for credit if course content differs.

## **POLS 4991,4992,4993,4994: Special Problems in Political Science**

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Admission requires consent of department head.



# Professional Studies Course Descriptions

## PS 3001: Portfolio Development for Prior Learning Assessment

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Prerequisite: the student must have successfully completed 60 hours of credit which includes all general education requirements and 12 hours of coursework after being admitted to the Professional Studies degree.

The basis for requesting credit for prior learning is the development of a portfolio with assistance from a faculty advisor. Every student requesting credit for prior learning must enroll in this course and complete a portfolio which demonstrates the college-level learning that has resulted from experiences outside a formal academic framework. The student utilizes this method to document knowledge acquired which is equivalent to upper-division college-level credit.

Note: Credit for PS 3001 applies only to the Bachelor of Professional Studies degree and cannot be applied toward any other program. Grading is on a Pass/Fail basis.

## PS 3003: Project Design

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Prerequisites: Completion of PS 3143 and permission of the program advisor.

This course will provide an opportunity for the student to facilitate a process for identifying a specific problem in an actual industry or business environment relevant to the student's specialty area. The student will outline a formal plan of action for identifying the problem. The plan must include a broad scan of the specific area/operation selected including the names and titles of the individuals surveyed for input. The end product will be the development of a formal needs assessment which identifies deficiencies or areas of improvement. The needs should be prioritized on the basis of feasibility, cost, and urgency.

## PS 3023: Professional Communications

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Prerequisites: 6 hours of English Composition

This course supports career fields which require competencies in advanced professional communication. Course includes principles of effective professional communication using technology to generate professionally-prepared materials including formal correspondence, brochures, public relations materials, graphics, and technical documents.

## PS 3133: Applied Principles of Personnel Management

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This course supports the needs of professionals whose career fields require competencies in the area of human resources/personnel management. The focus of the course is on the practical application, essential theories, and process of personnel management from the perspective of a generalist. Course content will include the essential aspects of recruitment, selection, training, legal rights and responsibilities, compensation and appraisal.

## PS 3143: Applied Professional Research

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Prerequisite: Successful completion of General Education math requirement.

This course provides an overview of professional research fundamentals, including instruction in applying citations and appropriate statistics in professional settings. Topics covered include, but are not limited to, different types of research, the research process, ethics in research, reference citation models, and statistical concepts.

Note: This course must be taken as a prerequisite for PS 3003 unless waived upon advisor approval.

## PS 4003: Capstone Project

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Prerequisite: PS 3003

This course capstones the process conducted in PS 3003 by requiring the student to demonstrate competencies required of a professional in the student's specialty area in an actual business or industry setting. The student will assume a leadership role in presenting the outcomes of the needs assessment to a group of company stakeholders. On the basis of empirical research conducted throughout the assessment process, the student will recommend relevant strategies for addressing the identified problem/s. A review of the literature will serve to either validate or reject the strategies selected. A continuous process improvement model will be developed along with a detailed continuous process improvement plan which must be approved and accepted by all relevant stakeholders. The final component of the course will require the student to

demonstrate presentation ability, appropriate leadership styles, critical thinking, and communications skills in a formal presentation of the strategic plan to the group responsible for implementing the strategies.

## **PS 4143: Nonprofit Governance**

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This course examines the theoretical, philosophical, practical and ethical perspectives related to the effective management and leadership of nonprofit organizations in the twenty-first century. Upon completion of the course, the student will possess an understanding of 1) the historical development of the nonprofit sector, 2) the multiple rationales for the existence of the nonprofit sector, 3) the distinctive characteristics of nonprofit organizations, 4) the structures, processes and complexities of organizational governance shared by volunteer board members and professional staff, 5) the dynamic environment of the contemporary nonprofit organization, and 6) the current issues of importance to nonprofit decision makers.

## **PS 4201,4202,4203,4204,4205,4206,4207,4208,4209,4210,4211,4212: Prior Learning Assessment Credit**

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Prerequisite: PS 3001

Based on a recommendation from the BPS Director/instructor and reviewed by the dean of Community Education and the Registrar, the portfolio assessment completed in PS 3001 will determine the number of hours that can be awarded for prior learning. This variable-credit course provides the opportunity for the student to enroll in the number of hours that were approved through the portfolio up to a maximum of 12 hours. Regular tuition charges will be applied.

Note: Credit for PS 4201-12 applies only to the Bachelor of Professional Studies degree and cannot be applied toward any other program. Grading is on a Pass/Fail basis.

## **PS 4243: Planning for Adult Learners**

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This course provides the steps and processes required to apply a practical guide to planning education and training programs for adults in a variety of settings. The program planning model presented captures and reconfigures classical and current descriptions of the program planning process. The course explores, and applies, a comprehensive 12-component model, the Interactive Model of Program Planning, with a focus on the practicality and usefulness as a technical description of the planning process, the emphasis on people being the heart of the process, and the importance of context as a centering point for action.

## **PS 4343: Community Development**

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This course covers the basic principles and issues in community development in the United States. Topics include: the definition of community; community assessment; methods of planning and problem solving; community needs; community assets; and community activism; and evaluating community based organizations. Students will work individually and in groups to design a non-profit organization based on a community needs assessment. The focus will be on assessment, planning, leadership, financing, and evaluating a community-based organization.

## **PS 4443: Professional Leadership**

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This course provides an overview of various leadership styles practiced by professionals in the public and private sector. The focus of the leadership skills identified will focus on the following competency areas: operations management, technology applications, facilities planning and management, human resource management, fiscal management, and organizational behavior.

## **PS 4951,4952,4953,4954: Undergraduate Research in Professional Studies**

---

Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required.

Note: One to four credits depending on problem selected and effort made.

## **PS 4991,4992,4993,4994: Special Problems in Professional Studies**

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This course is designed to address current issues and topics relevant to professional disciplines in the workforce. Content will be determined by contemporary trends and timely issues.

# Psychology Course Descriptions

## PSY 2003: General Psychology

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ACTS Common Course - PSYC1103

An introduction to basic concepts in the study of behavior and to elementary principles of genetics, individual differences, motivation, emotion, personality, sensation, and perception.

## PSY 2023: Consumer Psychology

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An introduction to the application of psychological principles to the study of the acts of individuals involved in obtaining and using economic goods and services, including the decision making processes that precede and determine these acts. Emphasis is placed on the role of perception, learning, personality, and attitude change.

## PSY 2033: Psychology of Adjustment

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A course to provide a broad introduction to psychology as applied to human behavior. Focus is on the theoretical and experimental issues underlying the development and function of mental and emotional states. Emphasis is on normal functioning.

\$20 testing fee.

## PSY 2053: Statistics for the Behavioral Sciences

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Cross-listed: SOC 2053

Prerequisites: MATH 1003, or higher, and PSY 2003 or SOC 1003, or consent.

An introduction to descriptive and inferential statistical methods pertinent to behavioral sciences research, including correlation, sampling distributions, t-tests, chi square and analysis of variance. Emphasis is upon the logical and applied aspects.

## PSY 2063: Research Design for the Behavioral Sciences

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Cross-listed: SOC 2063

Prerequisite: PSY 2003 or SOC 1003

This course is designed to introduce you to the foundations of behavioral science, the logic of research design and the many possible modes of operation. This class focuses on teaching students in the behavioral sciences the basic principles that guide the research process, the elements of research design, how to read and critique research articles, and how to write a literature review for a research project.

## PSY 2074: Experimental Psychology

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Prerequisites: PSY 2003 and PSY(SOC) 2053

A study of research methods in psychology. Emphasis is placed upon developing skills in data gathering and analysis, report writing and application of basic research strategies.

Three hours lecture, two hours laboratory per week.

## PSY 2093: Human Sexuality

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A survey of the psychological themes associated with human sexuality. Topics include, but are not limited to: love and intimacy, sexual behaviors, sexual problems, gender, and sexual orientation.

## PSY 2133: Cross-Cultural Psychology

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This course is designed to link basic principles in cross-cultural developmental psychology and practical everyday events

and questions as above ones together to help students cultivate a global and multicultural perspective on human behavior and gain an understanding of, and appreciation for, human development as it takes place in diverse cultural settings throughout the world. Experiential learning will be an important component of this course. Each student will have a chance to observe the behavior of a child/adolescent of different ethnic background from his or her own and develop their own cross-cultural viewpoint on human development.

## **PSY 3003: Abnormal Psychology**

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Prerequisite: PSY 2003

Emphasis will be placed upon the etiology, symptoms, and treatment of the neuroses, psychoses, and personality disorders.

## **PSY 3013: Psychosocial Aspects of Death and Dying**

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Cross-listed: SOC 3013

Prerequisite: Upper division standing.

This course studies the psychosocial and sociological aspects of death. The course will provide a basic insight into the dynamics surrounding death from the individual and societal level, its impact on survivors, and the effect death has on the living.

## **PSY 3033: The Criminal Mind**

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Cross-listed: CJ 3033

Prerequisite: PSY 2003 and CJ(SOC) 2003 or CJ(SOC) 2043

The course familiarizes students with various models, theories, and research regarding criminality from a psychological perspective. Genetic, constitutional, and biological factors will be emphasized, and some practical applications to dealing with criminals will be considered.

## **PSY 3053: Physiological Psychology**

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Prerequisites: PSY 2003, BIOL 2124, or BIOL 1014

An introduction to the physiological correlates of behavior, with emphasis upon the nervous system.

## **PSY 3063: Developmental Psychology I**

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Prerequisite: PSY 2003

A study of how the maturation process affects an individual's physical and psychological state from conception through adolescence. Representative topics include (but not limited to) genetic influences, child cognitive processes, moral reasoning, and testing.

## **PSY 3073: Psychology of Learning**

---

Prerequisite: Twelve hours of psychology.

An introduction to the basic processes in learning and conditioning, including human and animal experimental findings. Emphasis will be placed on conditioning paradigms, reinforcement principles, memory functions and their use in behavior change.

## **PSY 3083: Psychology of Women**

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The purpose of this course is to examine the lives of girls and women, including topics such as gender stereotypes, the development of gender roles, gender comparisons, women and work, love relationships, women's physical and mental health, violence against women, and women in later adulthood. Students who take this course should acquire an understanding of what it means to be female in North America.

## **PSY 3093: Industrial Psychology**

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Prerequisite: PSY 2003

A survey of psychological applications in industrial settings with emphasis upon selection, placement, and training techniques; organizational theory; and decision making processes.

## **PSY 3133: Self and Society**

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Cross-listed: SOC 3133

Prerequisite: SOC 1003 or PSY 2003

A sociological survey of the ways in which social structure and personality interact. Topics typically covered are: socialization, attitudes and value formation and change, and group influences upon self concept and self esteem.

## **PSY 3141,3142,3143,3144: Seminar in Psychology**

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A directed seminar in an area of psychology. The specific focus will depend upon research underway, student need, and current developments in the field of psychology.

Note: May be repeated for credit if course content differs.

## **PSY 3153: Theories of Personality**

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Prerequisite: Six hours of psychology.

An introduction to the various theoretical viewpoints of the normal personality structure and its development.

## **PSY 3163: Developmental Psychology II**

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Prerequisite: PSY 2003

The study of how the maturation process affects an individual's physical and psychological state from adolescence through old age. Representative topics include (but not limited to) early, middle, and late adulthood biological, psychosocial and cognitive development.

## **PSY 3173: Psychology of Consciousness**

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Prerequisite: Upper division standing.

An introduction to the various theoretical viewpoints as to the topic of consciousness and how it is investigated.

## **PSY 3184: Animal Behavior**

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Cross-listed: BIOL 3184

Prerequisite: sophomore standing in biology or psychology, or approval of instructor.

An introductory course in animal behavior covering behavioral responses in primitive and advanced animals exposed to a wide range of environmental and social conditions. Laboratory exercises will include field as well as in-lab exercises and will focus on observational techniques and analyses of behavioral patterns in vertebrates and invertebrates.

Lecture three hours, laboratory two hours. \$20 laboratory fee.

## **PSY 3813: Lifespan Development**

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Prerequisites: NURS major, PSY major with 90 earned hours, or instructor permission.

A study of the processes of human development from conception through the lifespan. Research, application, and other considerations for Nursing majors will be emphasized. Topics include, but are not limited to: how the maturation process affects an individual's physical and psychological state, genetic influences, child cognitive processes, moral reasoning, and

early, middle, and late adulthood biological, psychosocial, and cognitive developmental processes.

## **PSY 4003: Advanced Research Method and Lab for Psychology**

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Prerequisites: PSY 2003, 2053, and 2063

A study of research methods in psychology. Emphasis is placed upon developing skills in data gathering and analysis, report writing and application of basic research strategies.

## **PSY 4013: History of Psychology**

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Prerequisite: PSY 2003

A survey of the developments in psychology from the ancient Greeks to the emergence of psychology as a modern experimental science.

## **PSY 4033: Psychological Tests and Measurements**

---

Prerequisites: Twelve hours of psychology and PSY(SOC) 2053.

Theory of psychological testing, statistical procedures, and training in administration, scoring and profiling of various tests of ability, achievement, interests, and personality.

\$20 testing fee.

## **PSY 4043: Social Psychology**

---

Cross-listed: SOC 4043

Prerequisite: 9 hours of Sociology or permission.

The study of how individuals are influenced by the actual or implied presence of other persons. Emphasis is placed on attitudes, social cognition, social influence, aggression, altruism, self and other perception.

## **PSY 4053: Psychology of Perception**

---

Prerequisite: Nine hours of psychology or consent.

The study of general perceptual process. While the main senses will be covered, emphasis will be placed on visual functioning. The role of perception in organismic adaptation will be explored.

## **PSY 4073: Cognitive Psychology**

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Prerequisite: 60 hours including 9 hours of psychology or permission of instructor.

A study of the basic principles of mental processes, and their influence on behavior. Specifically, the course focuses on the conscious and unconscious processes involved in the acquisition, storage, transformation, and use of knowledge.

## **PSY 4133: Psychopharmacology**

---

Prerequisites: PSY 2003, 2053, or permission of instructor.

An introduction to the field of psychopharmacology. Representative topics include (but are not limited to) neuronal structures and processes, neurochemicals and neurotransmission, and the biological basis and pharmacological treatment of neurodegenerative diseases and mental illness.

## **PSY 4951,4952,4953,4954: Undergraduate Research in Psychology**

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Offered: On demand

Prerequisite: Departmental approval



## Reading Course Descriptions

### **READ 0103: College Reading Skills**

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A course designed to develop reading skills through perception training, vocabulary building, comprehension training, and active listening exercises. Individual diagnosis and prescription is emphasized.

Note: The grade in the course will be computed in semester and cumulative grade point averages, but the course may not be used to satisfy general education requirements nor provide credit toward any degree.

Note: A student who is placed in READ 0103 must repeat the course until he or she earns a grade of "C" or better. A student who makes a "D" or "F" in READ 0103 must repeat the course in each subsequent semester until he or she earns a grade of "C" or better.

# Reading Course Descriptions

## **RDNG 3003: Teaching Literacy Foundations**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

This course focuses on reading methods and specific techniques appropriate for emergent readers and developmental readers in the elementary grades, K-6. The focus will be teaching all children to read independently including struggling readers and ESL students.

## **RDNG 3163: Integrated Language Arts**

---

Prerequisite: Admission to Stage II of the Teacher Education Program.

Integrating language arts creates linguistic opportunities where literacy skills (reading, writing, listening and speaking) can be used together for real purposes and real audiences. Students in this course will explore, evaluate, create and apply a variety of integrated literacy strategies and activities, which will enhance their own as well as their future student's cognitive (critical thinking skills) and metacognitive (thinking about thinking) language art skills.

## **RDNG 4003: Literacy Assessment and Intervention**

---

Prerequisite: Admission to Stage II of the Teacher Education Program.

This course prepares teacher candidates to examine, assess and diagnose literacy development for the purpose of instructional planning and interventions. Teacher candidates will determine the nature of a reading problem by assessing the following components of a comprehensive literacy program: Phonological awareness, phonics, fluency, vocabulary, and comprehension. Candidates will investigate and practice applying a variety of methods and tools for diagnosing and assessing literacy problems using both formal and informal assessments. Data from the assessments will be used to analyze and evaluate results for instructional planning appropriate for struggling readers and writers with intervention strategies, activities, and technology that will monitor progress and increase literacy skills. A practicum will be required as part of the course of study in which students will assess, diagnose and teach students with reading and writing difficulties.

## **RDNG 4013: Child and Adolescent Literature**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

A study of issues and trends in literature for children/adolescents and its current practices in teaching literacy and other curricular practices.

## **RDNG 4023: Disciplinary Reading and Writing**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

Disciplinary literacy focuses on literacy skills in the content areas emphasizing the knowledge, skills and strategies unique to the various content areas focusing on the unique ways of thinking, knowing, and doing and the characteristic unique to the various disciplines (math, social studies, science, etc).

# Recreation/Park Administration Course Descriptions

## Coeducational Activities (May be taken for General Education credit)

### RP 1002: Backpacking

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This course is an introduction to basic backpacking skills, equipment, food, and backcountry travel. Day hikes and overnight hikes.

Note: Students will need to provide own personal equipment (backpack, sleeping bag, etc.) and be willing to share tents, stoves, cooking gear, etc. with other students in the course. Some students may need to borrow or purchase such gear depending on the equipment owned by members of the class.

\$50 course fee required.

### RP 1011: Sport Hunting

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An introduction to the fundamentals of sport hunting, materials, and personal skills. Emphasis on state game laws, personal equipment and usage, game species and their natural habitats, and firearm safety. Arkansas Hunter Safety certification awarded with successful completion.

### RP 1021: Boating Education

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This course will take students through the Arkansas Game and Fish Commission Boating Guide. Those who successfully complete the course will be awarded Boating Safety Certification. A variety of audio visual presentations will be used, and participation in one weekend day of actual boating experience is required. Certification is awarded upon completion.

### RP 1031: Introduction to Cycling

---

Introduction to Cycling is designed to introduce the beginner biker to the basics needed for lifelong enjoyment of this recreational activity and sport. Students will be introduced to techniques of road cycling and off-road cycling. Emphasis on choosing clothing and equipment, maintenance, and riding skills. Students will have riding opportunities at area trails, as well as classroom instruction.

Note: Participants are expected to provide their own bikes and associated gear and equipment.

\$50 fee required to cover transportation to area trails.

### RP 1041: Principles and Techniques of Fishing

---

This course provides an introduction to the sport of fishing. Students will learn to identify species of freshwater fish, emphasizing fish inhabiting Arkansas streams and lakes. Students will learn casting techniques, ethics, catch-and-release techniques, knot tying, and lure and bait selection. Cleaning and cooking your catch of the day will be covered.

Note: Arkansas fishing license required. Bring your own pole and tackle. Field trips to area fishing holes.

\$10 laboratory fee.

# Recreation/Park Administration Course Descriptions

## Academic Courses

### **RP 1001: Orientation to Recreation and Park Administration**

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Orientation to the university and recreation and park administration as a profession. Exploration of successful student and career paths.

Note: This course may be taken in place of TECH 1001.

### **RP 1013: Principles of Recreation and Park Administration**

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A study of the history of the recreation and park profession and the basic sociological and ecological intermix of contemporary recreation and park services.

### **RP 1993: Basic Forest Firefighting**

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This class is taught jointly by the U.S. Forest Service and ATU using classroom theory and weekend field exercises which will enable successful candidates to obtain the "Red Card" recognized by most federal and many state firefighting agencies as a minimum requirement for wildland fire firefighting certification. This class consists of the following wildland fire training courses recognized by the National Wildland Coordinating Group (NWCG): S-130 Basic Firefighting; S-190 Introduction to Fire Behavior; S-110 Wildland Fire Suppression Orientation; I-100 Introduction to Incident Command System; and Standards for Survival. These courses will be taught together to provide a complete picture of the basics of forest firefighting. This training is required before any person can participate on a wildland fire suppression crew for the U.S. Forest Service, other federal agencies and most other state wildland fire agencies. Instruction will be by U.S. Forest Service certified instructors and RP faculty.

### **RP 2003: Recreation Programming**

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Recreation program planning, supervision, and evaluation. This course examines the theory, principles, and leadership techniques of programming for individuals and groups in a variety of recreation settings, including community, institutions, and camps.

Note: May not be taken for credit after completion of RP 2002 and RP 2012.

### **RP 2013: Landscape Planning and Design**

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An introduction to the use of plants and other materials in the landscape planning process and environmental design.

### **RP 2033: Recreation Leadership**

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A study of the processes, methods, and characteristics of leadership and supervision in the delivery of leisure services.

### **RP 2133: Introduction to Travel and Tourism**

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Cross-listed: HA 2133

The introduction to travel and tourism, its components and relationship to the recreation and hospitality industry. The course will explore the current and future trends in travel and tourism and the effects on the economy, as well as the social and political impacts of travel and tourism.

### **RP 3013: Recreation for Special Populations**

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Development of an understanding of disabled sub populations and its relationship to recreation programming and administration for agencies at the local, state, and federal level of responsibilities.

### **RP 3023: Camp Administration**

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Theory and principles of camp administration, programming, leadership, and supervision in public, private, and school.

camps. Field trips, school camp.

### **RP 3033: Commercial Recreation**

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An introduction to the spectrum of planning, delivery and assessment of goods and services in the commercial sector of recreation.

### **RP 3034: Site Planning and Design**

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Fundamentals of the site planning process and application to park and recreation development, including consideration of factors both external (user preferences) and internal to the site (function, organization and aesthetic treatment). Emphasis on resource capabilities and potentials.

Lecture two hours, laboratory four hours.

### **RP 3043: Work Experience**

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Prerequisite: Departmental Approval

Supervised field application of class skills and knowledge in Parks and Recreation work situations. Students are given the opportunity to take part in meaningful management and work experiences in actual work situations under the supervision of both university faculty and professionals in the field.

Minimum of 100 clock hours of work experience is required.

### **RP 3053: Natural Resource Management and Planning**

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Study of the economic, social, political, and physical factors of the natural environment and methods to guide, direct, and influence orderly growth and development.

### **RP 3063: Outdoor Education**

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An introduction to outdoor education foundations, methods, and practice. Preparation and planning for teaching in, about and for the outdoors. Leadership of outdoor education programs.

\$25 transportation and supplies fee.

### **RP 3093: Interpretive Methods**

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An analysis of various interpretive techniques, interpretive planning, and utilization of interpretation to obtain management goals. Students will plan, design and implement interpretive programs using various media.

### **RP 3133: Tourism Planning**

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Cross-listed: HA 3133

An examination of the tourism planning process and techniques. Topics include tourism as a system, levels of planning, environmental, cultural and economic components, attractions, transportation, infrastructure and marketing.

### **RP 3403: Financing Recreation and Parks**

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Prerequisites: Junior standing and Recreation and Park Administration major.

An introduction to recreation and park Financial management including revenue and expenditure management.

### **RP 3503: Recreational Sport Management**

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An overview of recreational sport and event management in various settings. Topics include informal, intramural, club, extramural, instructional sports, and sporting events programming; values of recreational sports; administration and operation of recreational sports and sporting events; terminology and career opportunities in various sport settings.

### **RP 3763: Introduction to Turfgrass Management**

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An introduction to turf management emphasizing structure, growth, adaptation, and management of turfgrass. Methods for establishment, fertilization, mowing, cultivation, irrigation and pest management.

### **RP 3791: Turfgrass Management: Equipment**

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An introduction to turfgrass equipment. Visits to golf course or other turfgrass sites where students will examine and operate various types of turf equipment. Equipment maintenance discussed. Equipment design and selection discussed.

\$25 travel fee.

### **RP 3793: Turfgrass Pest Control**

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An introduction to the integrated management of pests affecting turfgrass. Maintenance practices related to pest and abiotic turfgrass problems, safety, and materials.

### **RP 3993: Wildland Fire Practices in Natural Resource Management**

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Prerequisites: RP 1993 or permission.

Advanced study of the organization, deployment, and techniques of fire suppression applicable to wildfires affecting residences, outbuildings, and other human-structure barriers in remote areas and outlying suburban locales. Particular emphasis on wildland structure and urban interface fire suppression problems. This is a science-based course. Emphasis is placed on: (1) uncontrolled wildland fire and the many positive and negative impacts with which fire personnel must deal; (2) planning and implementing controlled burn projects to attain desired future conditions and reduce fire hazards, and (3) the dilemma of ever-expanding wildland/urban interface issues. The overall purpose of this course is to provide the student with integral fire knowledge and skills necessary to become an effective member of a fire/natural resource management team.

Note: Weekend field exercises required.

### **RP 4001: Internship Preparation**

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Cross-listed: HA 4001

Prerequisites: PRHA major, senior standing, and completion of RP 3043 or HA 2053 or permission of department head.

Preparation for the internship experience. This course is graded Pass/Fail.

### **RP 4013: Recreation and Park Administration**

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Prerequisite: Six hours of RP courses.

A study of the administrative process of planning, organizing, staffing, directing, evaluating, budgeting, and coordinating of recreation and park agencies.

### **RP 4023: Research Methods**

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Prerequisite: Twelve hours of RP courses.

An introduction to the spirit and theory of research including the scientific method and its application to the recreation and parks profession.

### **RP 4042: Field Seminar in Interpretive Methods**

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This off-campus course will be of one-week duration conducted at recreation and park facilities in Arkansas and the nearby region. The course will center on discussion of interpretive facilities, techniques, problems and innovations with leading professionals on site.

A fee of \$100 will be assessed to cover transportation, food and entry fees for some sites. Lodging is usually provided by park agencies at the site free or at a very low cost.

### **RP 4053: Water Resources Development**

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A study of water resources with emphasis on surface supply and small watershed and reservoir recreation. Supply and pollution in federal, state, local and private water use allocation will be considered.

## **RP 4063: Park Operations**

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Prerequisite: COMS 1003 or equivalent.

Basic principles, practices, and problems pertaining to the management of public park systems with emphasis on maintenance and operation schedules, construction and maintenance equipment, employee safety, office procedures, law enforcement, personnel management, and public relations.

## **RP 4073: Principles and Techniques of Therapeutic Recreation**

---

Prerequisite: RP 3013 or permission of instructor.

A professional course which examines the foundation, theory, philosophy, and historical significance of therapeutic recreation. Emphasis on the therapeutic recreation process as it relates to program development and service delivery for individuals with illnesses and/ or disabilities in various clinical and community settings.

## **RP 4093: Resort Management**

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Cross-listed: HA 4093

Prerequisites: Junior standing and nine hours of RP or HA courses or by permission.

An in-depth study of resorts with respect to their planning, development, organization, management, marketing, visitor characteristics, and environmental consequences.

## **RP 4103: Recreation Law and Policy**

---

An examination of the relationship between recreation and the law. Specific topics include liability negligence, contracts, safety codes, law enforcement, insurance, and administration policy. Identification of legal decision making organizations and the court system, including the policy dimensions of land acquisition, personnel disputes, and current issues in land use.

## **RP 4113: Personnel Management in Parks, Recreation, and Hospitality Administration**

---

Cross-listed: HA 4113

Prerequisites: Junior standing and nine hours of RP or HA courses.

An overview of personnel considerations in various Recreation and Park agencies and the Hospitality industry. Laws, legal issues, structure, staffing, motivation, training, conduct, policies and other aspects of agency/industry personnel relations will be examined using case studies, as well as other methods.

## **RP 4116: Internship**

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Prerequisites: Parks, Recreation, or Hospitality Administration major; senior standing, current certifications in CPR, Standard and Advanced First Aid, consent of department head and completion of all other courses applicable to degree.

Placement in selected agency settings as a student intern under professional guidance of both agency supervisor and faculty. Emphasis will be placed on application of classroom theory to agency requirements which fulfill student's individual career interest. No prior experience credit will be granted. Minimum of 560 clock hours during a minimum of 14 weeks of supervised internship is required. Student cannot document more than 40 hours of work experience per week. A written report is required within two weeks of internship completion.

\$100 supervisor travel fee required.

## **RP 4173: Therapeutic Recreation Assessment and Documentation**

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Prerequisites: RP 4073 or permission of instructor.

This course is an examination of the various assessment tools, styles of documentation, and methods of assessment and



documentation utilized in therapeutic recreation services. The purpose of this course is to provide students with the basic skills and knowledge necessary to conduct therapeutic recreation assessments and to properly document health care information.

## **RP 4273: Administration and Operation of Therapeutic Recreation Programs**

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Prerequisites: RP 3013 and 4073 or permission of instructor.

Program design and planning for effective administration of client centered services for special populations. Management of therapeutic recreation services including standards of practice, clinical supervision, reimbursement, marketing, budgeting, and writing policies and procedures.

## **RP 4373: Interventions in Therapeutic Recreation**

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Prerequisites: RP 3013, RP 4073, or permission of instructor.

This course is designed to provide an understanding of the various interventions utilized in therapeutic recreation services and to develop technical competencies necessary for the provision of quality therapeutic recreation services. Emphasis will be placed on the skillful application of various processes and techniques utilized to facilitate therapeutic changes in the client.

## **RP 4473: Issues and Trends in Therapeutic Recreation**

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Offered: Spring of odd year

Prerequisites: RP 3013, RP 4073, RP 4173, and RP 4273 or permission of instructor.

This course provides an examination of current issues, trends, and professionalization concerns in therapeutic recreation, including professional organizations, ethics, current legislation, professional development, professional standards, credentialing, accreditation standards, improving organizational performance, and current controversies.

## **RP 4753: Sports Field Management and Design**

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A survey of design and management practices for turfgrass sports fields. Personnel and budgeting requirements for operations and maintenance.

\$25 travel fee.

## **RP 4763: Golf Course Operations and Design**

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Golf course turfgrass management as influenced by golf course design, including operations, financial analysis, personnel, and environment.

\$25.00 travel fee.

## **RP 4951,4952,4953,4954: Undergraduate Research in Recreation and Park Administration**

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Offered: On demand

Prerequisite: Departmental approval.

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **RP 4991,4992,4993: Special Problems and Topics**

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Offered: On demand.

Investigative studies and special problems and topics related to parks, recreation, and hospitality administration.

# Rehabilitation Science Course Descriptions

## **RS 2003: Introduction to Rehabilitation Services**

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A survey of the history, philosophy, and roles of the rehabilitation and social services movement. In addition, the course will focus on public attitudes toward people with disability, adjustment to disability, and an orientation to the various community resources which can be utilized toward the rehabilitation of people with disabilities.

## **RS 3004: Medical and Psychosocial Aspects of Disability**

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A study of the etiology, treatment and prognosis of various disabling conditions. Emphasis will be placed on medical information as received in medical reports, and as related to vocational functioning and to the everyday psychological and social adjustment problems associated with disability.

Note: This course may not be taken for credit after completion of RS 3003.

## **RS 3013: The World of Work**

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A survey of the world of work emphasizing the role of work in our society, how disability changes one's work role, how career choices are made, and placement techniques.

\$20 testing fee.

## **RS 3023: Principles and Techniques of Rehabilitation Services**

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Prerequisites: Junior standing and RS 2003.

An introduction to the casework process emphasizing principles of case management, interagency relations and interviewing skills.

## **RS 3033: Introduction to Vocational Rehabilitation and the Vocational Rehabilitation Process**

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An overview of the history, philosophy, and legal basis of vocational rehabilitation plus an in-depth study of the case process. This class will emphasize the vocational rehabilitation process through studying closed case files and case recording procedures.

## **RS 3043: Introduction to Social Services and the Social Service Case Process**

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An introduction to the history, philosophy, and legal basis of the social services movement. This class will also emphasize the social service case process and case management practices.

## **RS 3073: Organization and Structure in the Rehabilitation-Human Services Setting**

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This course will provide the student with an overview of organizational and administrative structure in the rehabilitation human services setting. Additionally, it will focus on the dynamics involved in developing a successful managerial style.

## **RS 3083: Supported Employment and Special Populations**

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Prerequisite: RS 3013 or consent.

An introduction to the ideas, philosophies, models, concepts, and issues that characterize supported employment. Applications with different disability populations will be reviewed.

## **RS 3093: Rehabilitation Programming and the Elderly**

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A study of aging and the elderly from a rehabilitation viewpoint. This course will focus on intervention strategies, actual and potential, that might enable other people to maximize their potential and affect the needs for institutionalization.

## **RS 3123: Ethics in Human Services**

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A study of personal values, CRCC, ACA, and APA professional guidelines, and decision making models that will assist future human service practitioners to effectively deal with ethical dilemmas. This course will emphasize critical thinking and problem solving, and will utilize instructor and student generated dilemmas.

### **RS 3133: Multicultural Issues in Human Services**

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Prerequisite: ANTH 1213 or ANTH 2003

An introduction to issues of multiculturalism and diversity and the importance of understanding these issues when working with individuals. This class will emphasize understanding one's own culture, examine various cultures including disability, and stress the importance of understanding each individual in relationship to his/her culture.

### **RS 3141,3142,3143: Rehabilitation Science Seminar**

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A directed seminar in an area of rehabilitation science. The specific focus will depend upon research underway, community or student need, and the unique educational opportunity available.

Note: May be repeated for credit if course content differs.

### **RS 3153: Assistive Technology in Rehabilitation Settings**

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Prerequisite: RS 2003 or consent.

A study of the types of technology devices and services available to individuals with disabilities. Emphasis will be placed on knowledge of resources, assessment of individual needs, funding of devices and services, and methods to use assistive technology to improve the quality of life for all individuals.

### **RS 3163: Addictions Assessment, Planning, and Treatment Strategies**

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Prerequisites: RS 2003 or consent of instructor.

A study and assessment of addiction disorders and related treatment planning approaches with an overview of evidence based intervention techniques and strategies. Group facilitation skills and meeting cultural issues in the group setting will be addressed.

### **RS 3173: Addictions and the Family**

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Prerequisites: RS 2003 or consent of instructor.

A study of the impact of addictions upon families, the social fabric of the nation. The course includes a review of family systems theory and family addictions counseling models.

### **RS 3243: Social Services for Individuals and Families**

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A study of the varied and numerous services offered by federal, state, and privately funded social service programs with an emphasis on protective services, foster care, and adoption services.

### **RS 4012: Internship in Rehabilitation Services**

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(Twelve hour course)

Prerequisites: RS 2003, grade of C or higher in RS 3023, rehab major, senior standing, 2.00 cumulative grade point average, and consent of the instructor.

A full-time, one semester supervised internship in a rehabilitation or social services setting, either public or private. Emphasis will be placed on the student acquiring first hand experience and entry level skills in practitioner roles such as case management, interviewing and counseling, and coordination of client services among the various community helping services.

Note: The purchase of professional liability insurance is required.

### **RS 4024: Field Placement in Rehabilitation Science**

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Prerequisites: RS 2003, grade of C or higher in RS 3023, junior standing, 2.00 grade point average and consent of the instructor.

A supervised 14 week field placement in which the student may either be placed in one agency setting or if a broader experience is desired may rotate among several agencies. Emphasis will be placed upon gaining an understanding of the community context and coordination of client services among the various rehabilitation and helping agencies.

Note: The purchase of professional liability insurance is required.

### **RS 4034: Field Placement Related to Vocational Rehabilitation**

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Prerequisites: RS 2003, grade of C or higher in RS 3023, junior standing, completion of at least six hours in the related emphasis area, 2.00 grade point average, and consent of the instructor.

A supervised 14 week field placement in a setting related to vocational rehabilitation. Emphasis will be placed on the student's acquiring first hand experience in practitioner roles such as case management, interviewing and counseling, and coordination of client services among the various community helping services.

Note: The purchase of professional liability insurance is required.

### **RS 4044: Field Placement Related to Aging**

---

Prerequisites: RS 2003, grade of C or higher in RS 3023, junior standing, completion of at least six hours in the related emphasis area, 2.00 grade point average, and consent of the instructor.

A supervised 14 week field placement in a setting related to aging. Emphasis will be placed on the student's acquiring first hand experience in practitioner roles such as case management, interviewing and counseling, and coordination of client services among the various community helping services.

Note: The purchase of professional liability insurance is required.

### **RS 4054: Field Placement Related to Corrections**

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Prerequisites: RS 2003, grade of C or higher in RS 3023, junior standing, completion of at least six hours in the related emphasis area, 2.00 grade point average, and consent of the instructor.

A supervised 14 week field placement in setting related to corrections and delinquency. Emphasis will be placed on management, interviewing and counseling, and coordination of client services among the various community helping services.

Note: The purchase of professional liability insurance is required.

### **RS 4064: Field Placement Related to Social Services**

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Prerequisites: RS 2003, grade of C or higher in RS 3023, junior standing, completion of at least six hours in the related emphasis area, 2.00 grade point average, and consent of the instructor.

A supervised 14 week field placement in a setting related to social services. Emphasis will be placed on the student's acquiring first hand experiences in practitioner roles such as case management, interviewing and counseling, and coordination of client services among the various community helping services.

Note: The purchase of professional liability insurance is required.

### **RS 4074: Field Placement for Psychology and Sociology Majors**

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Prerequisites: RS 2003, grade of C or higher in RS 3023, fifteen hours in major, senior standing, 2.00 grade point average, and mutual consent of the student's advisor, the supervising faculty member, and the director of Rehabilitation Science.

A jointly supervised field placement in a human services agency setting, either public or private. Emphasis will be placed on the student's acquiring first hand experience in practitioner roles as they relate to his major and special interest.

Note: The purchase of professional liability insurance is required.

## **RS 4084: Field Placement Related to Child Welfare Services**

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Prerequisites: RS 3043, RS 3243, grade of C or higher in RS 3023, senior standing, completion of at least six hours in the related emphasis area, 2.50 grade point average, and consent of the instructor.

A supervised 14-week field placement in a Division of Children and Family Services setting. Emphasis will be placed on the student's acquiring first-hand experiences in practitioner roles such as case management, interviewing, risk assessment, interagency collaboration, crisis management, and problem solving.

Note: The purchase of professional liability insurance is required.

## **RS 4094: Rehabilitation Science Field Placement in Addictions**

---

Prerequisites: RS 2003, RS 3023 (C or better), junior standing, completion of six hours in emphasis area (except RS 4024), 2.0 GPA and consent of instructor.

A supervised 10-14 weeks field placement in a setting related to addiction services. Emphasis will be placed on the student's acquiring first-hand experiences in practitioner roles such as case management, interviewing, risk assessment, interagency collaboration, crisis management, group services, motivational interviewing approaches, and client solution/change strategies.

## **RS 4123: Survey of Counseling Theories**

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Prerequisites: Nine hours of psychology to include PSY 2003, PSY 3063, and PSY 3003, or PSY 3153, senior standing, or consent of the instructor.

A comparative study of the major theories of counseling, stressing their philosophical views of mankind, assumptions, techniques, strengths, and weaknesses.

## **RS 4133: Seminar in Severe Disabilities**

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Prerequisites: PSY 2003, RS 2003, or consent.

A study of what makes a disabling condition a severe disability. This course will stress independent research and class presentations by the students dealing with the various severe disabilities.

## **RS 4143: Rehabilitation of the Developmentally Disabled**

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Prerequisites: PSY 2003, RS 2003, or consent.

A study of the delivery of services to, and the rehabilitation of, those handicapped individuals classified as being developmentally disabled, i.e., mental retardation, cerebral palsy, and epilepsy. Emphasis will be placed on prevocational, vocational, and community-living training for such individuals and the planning required for the provision of such services.

## **RS 4163: Substance Abuse**

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Prerequisites: RS 2003, PSY 2003, SOC 1003, or consent of the instructor.

A study of drug abuse emphasizing etiology, patterns of use and abuse, and problems related to research and approaches to treatment.

## **RS 4173: Family Centered Services**

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Prerequisites: RS 3023 and 3243 or consent of the instructor.

An advanced course focusing upon family and community strengths and child welfare practice.

## **RS 4183: Family Services Seminar**

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Prerequisites: RS 3023 and 3243 or consent of the instructor.

A capstone course for students emphasizing child welfare services.

## **RS 4951,4952,4953,4954: Undergraduate Research in Rehabilitation Science**

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Offered: On demand

Prerequisite: Departmental approval.

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

## **RS 4991,4992,4993,4994: Special Problems in Rehabilitation Science**

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Prerequisites: Twelve hours of rehabilitation science and prior approval of the Director of Rehabilitation Science.

Independent work under individual guidance of a staff member.



## Secondary Education Course Descriptions

### SEED 2002: Introduction to Secondary Education

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Prerequisite: Sophomore standing or departmental approval.

This course is designed to help secondary teacher candidates understand the field of education systemically and to understand the professional roles and ethical responsibilities required of the professional secondary educator. The course consists of classroom instruction and a guided field component.

Note: A grade of "C" or higher in the course is required in order to be eligible for admission into Stage II of Teacher Education.

### SEED 3552: Adolescent Development

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The primary purpose of this course is to prepare teacher education candidates for classroom interaction by tracing influences of normal human development in all domains and showing how heredity and environmental factors affect the individuals' capacity to learn and function in a school environment. The teacher candidate will examine current research, concepts and issues related to normal adolescent development as well as exceptionalities that may be present. A range of cultural, social, and cognitive factors will be explored through reading, discussion, observation, literature search, interviews and case studies.

### SEED 3702: Introduction to Educational Technology

---

This is a research-based course involving applications of media techniques to facilitate learning. Media presentations are planned and implemented using practical and theoretical considerations about learning characteristics, exceptionalities, and cultural differences. Various projection techniques as well as microcomputer applications are utilized.

### SEED 4052: Adolescent Exceptionalities

---

Prerequisite: Admission to Stage II of the teacher education program.

A study of the major areas of diversity including the mentally retarded, learning disabled, gifted, emotionally disturbed, children from economically disadvantaged homes, and their special needs in a school program.

Note: May not be taken for credit after completion of EDFD 5053, EDFD 4052 or repeated for credit as EDFD 5052 or equivalent.

### SEED 4503: Seminar in Secondary Education

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Prerequisites: Admission to Stage II and Student Teaching.

Co-requisite: SEED 4809 or SEED 4909

This course is designed to provide secondary teacher candidates with knowledge and understanding of the history of American Education, school law, and other contemporary education issues. This course will also address teaching/ learning strategies for content area learning and assessment.

### SEED 4556: Classroom Application of Educational Psychology

---

Prerequisite: Admission to Stage II of the Teacher Education Program.

This course introduces secondary teacher candidates to educational psychology as a research- oriented discipline and a science of practical application. The course also requires that students apply the theories and principles to instructional planning, teaching, managing and assessing students. The course consists of classroom instruction and a field component.

### SEED 4809: Teaching in the Elementary and Secondary School

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Prerequisites: Admission to Stage II and student teaching.

Co-requisite: SEED 4503



A minimum of twelve weeks of supervised full-time student teaching at both the elementary and secondary levels. Meets requirements for K 12 licensure in art and music and licensure at both the elementary and secondary levels for physical education.

\$100 course fee.

### **SEED 4909: Teaching in the Secondary School**

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Prerequisites: Admission to Stage II and student teaching.

Co-requisite: SEED 4503

A minimum of twelve weeks of supervised full-time student teaching at the secondary level.

\$100 course fee.

### **SEED 4991,4992,4993,4994: Special Problems in Secondary Education**

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Offered: Each semester on demand.

Prerequisites: Senior standing and approval of department head.

Individual study of significant topics or problems relating to education under the guidance of an assigned faculty member.

# Sociology Course Descriptions

## **SOC 1003: Introductory Sociology**

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ACTS Common Course - SOCI1013

An introduction to the nature of society, social groups, processes of interaction, social change, and the relationship of behavior to culture.

## **SOC 2003: Introduction to Criminal Justice**

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Cross-listed: CJ 2003

An overview of the criminal justice system and the workings of each component. Topics include the history, structure and functions of law enforcement, judicial and correctional organizations, their interrelationship and effectiveness, and the future trends in each.

## **SOC 2023: Sociology of the Ozark-Ouachita Region**

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Offered: Once per year

Prerequisite: SOC 1003

An introduction to the nature of society, social groups, social interaction, social change, and the relationship of behavior to culture in the Ozark-Ouachita region. The full range of sociological topics are covered, including crime and delinquency, marriage and family, social class and race, religion, and contemporary social movements.

## **SOC 2033: Social Problems**

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ACTS Common Course - SOCI2013

Cross-listed: CJ 2033

Prerequisite: SOC 1003

A sociological analysis of contemporary social problems including inequalities, deviance, population changes, and troubled institutions.

## **SOC 2043: Crime and Delinquency**

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Cross-listed: CJ 2043

Prerequisite: SOC 1003 or SOC(CJ) 2003

A study of the major areas of crime and delinquency; with emphasis on theories of crime and the nature of criminal behavior.

## **SOC 2053: Statistics for the Behavioral Sciences**

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Cross-listed: PSY 2053

Prerequisites: MATH 1003, or higher, and PSY 2003 or SOC 1003, or consent.

An introduction to descriptive and inferential statistical methods pertinent to behavioral science research, including correlation, sampling distributions, t-tests, chi square and analysis of variance. Emphasis is upon the logical and applied aspects.

## **SOC 2063: Research Design for the Behavioral Sciences**

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Cross-listed: PSY 2063

Prerequisite: SOC 1003 or PSY 2003.

This course is designed to introduce you to the foundations of behavioral science, the logic of research design and the many possible modes of operation. This class focuses on teaching students in the behavioral sciences the basic principles that guide the research process, the elements of research design, how to read and critique research articles, and how to write a literature review for a research project.

### **SOC 2073: History of Social Thought**

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A study of the historical development of social thought.

Note: May not be taken for credit after completion of SOC 4023, PHIL 4053, or equivalent.

### **SOC 2083: Sociological Theory**

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A survey course of sociological theories and theory development from the classical period to post-modernism.

### **SOC 3013: Psychosocial Aspects of Death and Dying**

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Cross-listed: PSY 3013

Prerequisite: Upper division standing.

This course studies the psychological and sociological aspects of death. The course will provide a basic insight into the dynamics surrounding death from the individual and societal level, its impact on survivors, and the effect death has on the living.

### **SOC 3023: The Family**

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Prerequisite: SOC 1003

A study of the American family institution with emphasis upon role relationships, norms, and models. Some attention is given to cross cultural comparisons.

### **SOC 3033: Environment and Society**

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Prerequisite: SOC 1003

This course focuses on the study of interrelationships between society and the natural environment from traditional to postindustrial forms. Topics in this class will include economic approaches to the natural environment, philosophical/ethical approaches to the natural environment, public opinion on the natural environment, the importance of the environmental movement and policy development on environmental issues.

### **SOC 3063: Communities**

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Prerequisite: SOC 1003

An exploration and analysis of the sociological concept of community from classical approaches to recent debates.

Note: May not be taken for credit after completion of SOC 2063.

### **SOC 3083: Social Deviance**

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Cross-listed: CJ 3083

Prerequisite: SOC 1003 or SOC(CJ) 2003

An introduction to the sociological and criminological study of human deviance. Various theories of deviance will be examined and applied to real life examples.

### **SOC 3093: Sociology of Education**

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Prerequisite: SOC 1003

A study of education as a social system, its organizational characteristics, and its inter relationships with other social systems such as the family, religion, economics, government, and politics.

### **SOC 3103: The Juvenile Justice System**

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Cross-listed: CJ 3103

Prerequisite: SOC(CJ) 2003

An in-depth look at the juvenile justice system including the structure, statuses and roles as well as current issues, problems, and trends.

### **SOC 3113: Social Movements and Social Change**

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Prerequisite: SOC 1003

An examination of past and current social movements and their effects on social policy and social change. Topics will include classical and contemporary theories of social movements and social change.

### **SOC 3133: Self and Society**

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Cross-listed: PSY 3133

Prerequisite: SOC 1003 or PSY 2003

A sociological survey of the ways in which social structure and personality interact. Topics typically covered are: socialization, attitudes and value formation and change, and group influences upon self concept and self esteem.

### **SOC 3153: Prison and Corrections**

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Cross-listed: CJ 3153

Prerequisites: SOC 1003 and SOC(CJ) 2033

An introduction to and analysis of contemporary American corrections. Emphasis will be on current and past correctional philosophy, traditional and modern correctional facilities, correctional personnel and offenders, new approaches in corrections, and the relationship of corrections to the criminal justice field.

### **SOC 3163: Introduction to Social Research**

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Prerequisites: SOC 1003 and SOC(PSY) 2053

An introduction to research methodology, with emphasis upon conceptualization, design, and processes.

### **SOC 4003: Minority Relations**

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Prerequisite: SOC 1003

A study of minority groups with emphasis upon discrimination, socio historical characteristics and processes of change. Minorities considered include racial, ethnic, and gender.

### **SOC 4013: Drugs in Society**

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Cross-listed: CJ 4013

Prerequisite: SOC 1003 or CJ 2003

This course presents a comprehensive study of the history and prohibition of drug use in the United States, as well as the effects of drugs on society in the form of crime, prison and treatment. The main focus of this class is on the history of drug use, how certain drugs become illegal, and the intended and unintended consequences of drug prohibition for communities and society.

## **SOC 4023: Sociology of Gender**

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Prerequisite: SOC 1003

This course addresses definitions of gender, gendered identities, how gender is created and maintained as a social construct, and the importance of gender in our daily lives. This class mainly focuses on the theoretical and empirical literature that encourages critical thinking about gender and challenges students to move beyond their preconceived notions/assumptions about gender.

## **SOC 4043: Social Psychology**

---

Cross-listed: PSY 4043

Prerequisite: Upper division standing or permission.

The study of how individuals are influenced by the actual or implied presence of other persons. Emphasis is placed on attitudes, social cognition, social influence, aggression, altruism, self and other perception.

## **SOC 4053: Sociology of Health and Illness**

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Prerequisite: SOC 1003

An in-depth look at the sociology of health and illness including an examination of the social structures related to the medical system, the social psychology of health and illness, a comparative analysis of sick role behavior as well as the study of social causes and consequences of health and illness.

## **SOC 4063: Social Stratification**

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Prerequisite: SOC 1003

A study of social class and consequences for society and individuals.

## **SOC 4073: Sociology of Religion**

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Prerequisite: SOC 1003.

A study of the various theoretical explanations of religion, including its relationship to the larger society and the world system.

## **SOC 4143: Seminar in Sociology**

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A directed seminar in an area of sociology. The specific focus will depend upon research underway, community or student need, and the unique educational opportunity available.

Note: May be repeated for credit if course content differs.

## **SOC 4183: Social Gerontology**

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Prerequisite: SOC 1003

An introduction to the sociology of aging: content provides general and specific knowledge regarding the aging process. Implications for economic, political, and family institutions are emphasized.

## **SOC 4206: The Law in Action**

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Cross-listed: CJ 4206

Offered: Summer only

Prerequisites: SOC/CJ 2043, 9 hours of Criminal Justice coursework, senior classification, and instructor permission.

An examination of sociological theories of law and main currents of legal philosophy is followed by participant observation of

actual community legal agencies, including police, courts, and others as available.

### **SOC 4283: Sociology Capstone**

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Prerequisites: All required sociology courses (lower and upper division) and 9 hours of upper division electives in sociology, or consent of instructor.

This course must be completed by all sociology majors prior to graduation. The course content/topic is determined by the professor and current issues in the local community, which may vary semester to semester. Emphasis will be placed on linking theory, research methods, and social action to community defined problems in the form of applied sociology.

### **SOC 4951,4952,4953,4954: Undergraduate Research in Sociology**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **SOC 4991,4992,4993,4994: Special Problems in Sociology**

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Prerequisite: Prior approval by instructor

Content will be determined by specific curriculum review and student need.

# Spanish Course Descriptions

## **SPAN 1013: Beginning Spanish I**

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ACTS Common Course - SPAN 1013

Training in the elements of Spanish communication (speaking and writing) and comprehension (listening and reading) within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Spanish.

## **SPAN 1023: Beginning Spanish II**

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ACTS Common Course - SPAN 1023

Continued training in basic Spanish communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language within a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Spanish.

## **SPAN 1063: Basic Spanish for Medical and Social Services**

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Prerequisites: SPAN 1014 and 1024

Useful terminology and expressions for the medical and social service situation, with an emphasis on intercultural and professional issues. Students will also be able to demonstrate awareness of basic grammatical concepts.

## **SPAN 2013: Intermediate Span I**

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ACTS Common Course - SPAN 2013

Prerequisite: SPAN 1023 or equivalent

Development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to increase proficiency in the language at the intermediate level within a variety of cultural contexts.

Three hours of applied course work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Spanish.

## **SPAN 2023: Intermediate Span II**

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ACTS Common Course - SPAN 2023

Prerequisite: SPAN 2013 or equivalent

Further development of the language skills necessary for communication (speaking and writing) and comprehension (listening and reading) skills to provide mastery of the fundamental tools in a variety of cultural contexts.

Three hours of applied class work and one hour of foreign language lab per week is required.

Note: Advanced placement and credit by examination are available to students who have previously studied Spanish.

## **SPAN 3003: Conversation and Composition I**

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Prerequisite: SPAN 2024 or permission of instructor

Development of advanced control of Spanish communication and comprehension through conversation and composition



based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient in Spanish.

## **SPAN 3013: Conversation and Composition II**

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Prerequisite: SPAN 3003 or permission of instructor

Continuation of SPAN 3003. Further development of advanced proficiency of Spanish communication and comprehension through conversation and composition based on analysis of authentic short texts and media.

Three hours of applied course work.

Note: Advanced placement and credit by examination are available to students who have previously studied or are proficient in Spanish.

## **SPAN 3023: Introduction to Linguistics**

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Cross-listed: ENGL 3023, FR 3023, GER 3023, SPH 3023

Prerequisites: ENGL 1023 or equivalent and SPAN 2024 or equivalent.

A study of basic concepts in language, comparative characteristics of different languages, and the principles of linguistic investigation.

## **SPAN 3113: Business Spanish**

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Prerequisite: SPAN 3003 or permission of instructor.

The study of business culture, terminology, presentations and cases in the Hispanic world. This course will present a detailed examination of business practices in Latin America and other Spanish speaking countries. Emphasis will be given to business protocols when conducting business correspondence, personal interviews, and appointments, among others. Attention will also be given to the use of technology in business.

## **SPAN 3123: Spanish Civilization and Culture**

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Prerequisite: SPAN 3013 or permission of instructor.

Study of the geography, history, arts, institutions, customs and contemporary life of the Spanish people.

## **SPAN 3133: Spanish-American Civilization and Culture**

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Prerequisite: SPAN 3013 or permission of instructor.

Study of the geography, history, arts, institutions, customs, and contemporary life of the peoples of Spanish America, with some attention to the major pre-Colombian civilizations.

## **SPAN 3143: Study Abroad**

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Prerequisites: Completion of SPAN 2023 or equivalent and permission of the World Languages Study Abroad supervisor.

Study of the contemporary language and culture in a Spanish speaking country.

Note: May substitute for SPAN 3003 or SPAN 3013, depending on the student's proficiency level.

## **SPAN 3163: Community Internship Experience**

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Prerequisite: Completion of SPAN 2024 or equivalent.

Study of contemporary language and culture in a Spanish- speaking community or setting.

Note: May be taken instead of SPAN 3143 to meet degree requirements.

### **SPAN 3213: Advanced Grammar and Usage**

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Prerequisite: SPAN 2023

The course is designed to build writing competence and strengthen grammatical competence. Grammar will be studied within the context of writing assignments. The course will deepen the knowledge of the language through the usage of applied linguistics, syntax, grammar, and semantics.

### **SPAN 3382: Principles of Interpretation**

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Prerequisite: Completion of or concurrent enrollment in SPAN 3003.

Theory and practice based course on English-Spanish interpretation for health care and court settings.

### **SPAN 4003: Oral Communication**

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Prerequisite: SPAN 3013 or permission of instructor.

This course is designed to strengthen students' oral communication skills.

\$134 interview fee.

### **SPAN 4023: Introduction to Spanish Linguistics**

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Prerequisites: SPAN 3003 and 3213

The purpose of this course is to provide students with the fundamental knowledge of Spanish linguistics as the basis for future application of linguistic principles. This course explores Spanish phonetics, phonology, morphology, syntax and semantics.

### **SPAN 4203: Short Story**

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Prerequisite: SPAN 3003

An analysis of Spanish-language short stories.

### **SPAN 4213: Spanish Literature**

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Prerequisite: SPAN 3013

A survey of the literature of Spain with readings from representative works.

### **SPAN 4223: Spanish-American Literature**

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Prerequisite: SPAN 3013

A survey of Spanish American literature with readings from representative works.

### **SPAN 4283: Seminar in Spanish**

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Prerequisite: SPAN 3003

Course content will vary. May be repeated for credit if course content varies.

### **SPAN 4701: Foreign Language Pedagogy**

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Cross-listed: FR 4701, GER 4701

Prerequisite: Admission to student teaching phase of the teacher education program.

Co-requisite: SEED 4909

Intensive on-campus exploration of the principles of curriculum construction, applied methods, professional collaboration, and evaluation as related to teaching French, German, or Spanish, followed by professional internship application of these principles under the supervision of a qualified departmental instructor.

### **SPAN 4703: Foreign Language Teaching Methods**

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Cross-listed: FR 4703, GER 4703

Prerequisite: SPAN 3013 and SPAN 3123 or SPAN 3133 or equivalent; admission to Stage II of the Secondary Education sequence or equivalent.

Survey of instructional methods and discussions and demonstration of practical techniques for the teaching of a foreign language.

### **SPAN 4803: Spanish-Language Film**

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Prerequisites: SPAN 3123 or SPAN 3133 or equivalent.

An introduction to Spanish-language film theory and major films.

### **SPAN 4813: U.S. Latino/a Literature and Culture**

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Prerequisite: SPAN 1024

This survey course offers an overview of the history of U.S. Latino/a literature, introducing the major trends and placing them into a historical framework stretching from the nineteenth century to today. Topics to be discussed include the construction of identity in terms of race, gender, sexuality, and class; bilingualism and code-switching; the experiences of exile, the immigrant, the marketing of the Latino/a identity; and the relationship of the artist to his or her community.

### **SPAN 4951,4952,4953,4954: Undergraduate Research in Spanish**

---

Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **SPAN 4991,4992,4993: Special Problems in Spanish**

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Prerequisites: SPAN 2024 and consent of the instructor and the department head.

Designed to provide advanced students with a course of study in an area not covered by departmental course offerings.

## Special Education Course Descriptions

### **SPED 3023: Development & Characteristics of Diverse Learners**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

This course covers characteristics of children with exceptional learning needs. An emphasis will be placed on typical and atypical development, an overview of various exceptionalities including Giftedness, and the special needs of children from different cultures and language backgrounds. A field experience is required.

### **SPED 3033: Foundations of Special Education**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

This course explores the development of the current administrative system for serving students with diversity. It shows how and why the present system for children with disabilities, children with giftedness, and children of other diversities is used for the benefit of those students. SPED3003 students become prepared not only for teaching diverse populations but also for serving on the IEP and other committees that make important decisions that will affect their futures.

### **SPED 3153: Planning, Instruction, and Assessment for Students with Disabilities**

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Prerequisite: Admission to Stage II of the Teacher Education Program.

The primary purpose of this course is to empower elementary (K-6) teacher education candidates to respond effectively to the broad range of needs found in today's classrooms. Student diversity will be considered within the context of an educational framework, focusing specifically on an array of exceptionalities but also taking into consideration other influences, such as: culture, class, gender, language, etc. The need and means to provide effective learning opportunities for all students through varied teaching and learning in the classroom will be cultivated. Through a variety of hands-on activities, students will focus on the evaluation, creation and application of effective, research based planning, instruction and assessments strategies for creating classrooms which foster educational equality for all exceptional children.

# Speech Course Descriptions

## **SPH 1003: Introduction to Speech - Communication**

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ACTS Common Course - SPCH1003

The purpose of this course is to develop within each individual an understanding of the utilitarian and aesthetic dimensions of speech communication and to increase ability to function effectively with others in a variety of communication situations.

## **SPH 1111,1121: Individual Events Practicum**

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Prerequisite: Consent of instructor.

Preparation and performance of a variety of public speaking events.

## **SPH 2003: Public Speaking**

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Prerequisites: ENGL 1013 or equivalent.

Fundamentals of composition, delivery, and logical reasoning. Effective utilization of basic visual aids will be included.

## **SPH 2013: Voice and Diction**

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A course for majors and non majors. A study of the effective use of the voice, improvement of diction, development of vocabulary, use of the dialects, techniques of radio television announcing, recognition of basic speech disorders.

## **SPH 2023: Communication Research and Writing**

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This course teaches majors the fundamentals of conducting scholarly research, accepted citation standards, and effective writing techniques for the communication discipline. Course includes a survey of the sub-areas of the discipline and lecture, discussion, research, presentations, and writing scholarly papers.

## **SPH 2111,2121: Debate Practicum**

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Prerequisite: Consent of instructor.

Case research and participation in public debate.

## **SPH 2173: Business and Professional Speaking**

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An oral communication course for individuals in business, industry and the professions. Human communication theories and behavioral research are used as a framework for generating competencies in interviewing, briefings, conference leadership, and intergroup coordination.

## **SPH 3003: Interpersonal Communication**

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This course emphasizes interpersonal aspects of communication. Central topics are choice making, personal knowledge, creativity and interpersonal relationships. Increased self awareness, understanding of interpersonal relationships and improvement of interpersonal skills are primary goals.

## **SPH 3013: Intercultural Communication**

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An examination of communication variables in different cultures and how to better understand and more effectively communicate across diverse cultures.

## **SPH 3023: Introduction to Linguistics**

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Cross-listed: ENGL 3023, FR 3023, GER 3023, SPAN 3023

Offered: Fall

Prerequisite: ENGL 1023 or equivalent.

A study of basic concepts of language, comparative characteristics of different languages, and the principles of linguistic investigation.

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### **SPH 3033: Interviewing Principles and Practices**

Prerequisite: SPH 2003 or consent of instructor.

A course for both majors and nonmajors that uses interviewing theory as a framework for developing skills in preparing for and practicing various types of interviews.

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### **SPH 3043: Advanced Public Speaking**

Prerequisite: SPH 2003 or consent of the instructor.

Focuses on enhanced preparation and delivery of advanced forms of public address. Critical analysis of various forms of public discourse and effective utilization of multi-media speech aids will be stressed.

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### **SPH 3063: Oral Interpretation**

Theory and practice of intelligent and effective oral reading of prose and poetry.

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### **SPH 3073: Group Communication**

Examines theory and procedures used when communicating in groups and teams. Areas of inquiry include principles of group formation and development, working in teams, leadership, conflict management, and discussion methods involving decision-making and policy implementation.

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### **SPH 3111,3121: Debate Practicum**

Prerequisite: Consent of instructor.

Case preparation, brief writing, and participation in public debate.

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### **SPH 3123: Argumentation**

Prerequisites: SPH 1003, SPH 2003 or equivalent, or consent of instructor.

Designed to develop research, critical thinking, and persuasive speaking ability. Includes lecture, discussion, research, study of debates, classroom debates, and presentations.

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### **SPH 3163: Writing for Performance**

Students will learn to communicate orally through the medium of aesthetic texts such as monologues and plays. This course teaches skills necessary to all forms of dramatic writing, with emphasis on plot structure, character development, and dialogue.

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### **SPH 3223: Nonverbal Communication**

This course provides an examination of the various methods in which nonverbal communication is utilized in the communication process. Included in the examination will be historical contexts, as well as the effects of physical appearance, touch, proxemics, eye contact, kinesics, and voice.

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### **SPH 4003: Human Communication Theory**

Prerequisite: SPH 1003, 2003, and 2023, or consent of instructor.

This capstone theory class integrates learning about speech communication in various contexts. It is an in-depth study of contemporary and traditional perspectives of human communication, and synthesizes major concepts in human communication theory development.

## **SPH 4053: Speech Communication Seminar**

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Prerequisite: Junior standing

A course for both majors and non majors who want to investigate the relationship between human communication and contemporary social, political, and economic issues.

## **SPH 4063: Organizational Communication**

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Theories of organizational communication are examined in terms of their practical application to various organizational contexts, including social, political, profit, and nonprofit organizations. Includes lecture, discussion, research, and group projects.

## **SPH 4111,4121: Individual Events Practicum**

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Prerequisite: Consent of instructor.

Preparation and performance of a variety of interpretive events.

## **SPH 4123: Rhetorical Criticism**

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This course will provide the principles of rhetorical theories as they have developed throughout history, and apply them to the critical analysis of various communication events.

## **SPH 4153: Persuasive Theory and Audience Analysis**

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Survey of classical and social science theories of persuasion. Particular emphasis is given to analysis of persuasive strategies, preparation of persuasive appeals, ethics of persuasion, and audience analysis. A consideration of social movements and persuasive campaigns is also included.

## **SPH 4173: Internship in Speech Communication**

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Prerequisites: Fifteen semester hours of Speech and SPH 4063, which can be taken concurrently; university grade point average of at least 2.50.

A course that focuses on career goals of students through classroom discussions and places students in communication positions within public and private organizations.

## **SPH 4701: Special Methods in Speech**

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Prerequisites: Admission to student teaching phase of the teacher education program.

Co-requisite: SEED 4909

Intensive on campus exploration of the principles of curriculum construction, teaching methods, use of community resources, and evaluation as related to teaching speech.

## **SPH 4951,4952,4953,4954: Undergraduate Research in Speech**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made

## **SPH 4991,4992,4993,4994: Special Problems in Speech-Communication**

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A course for majors only. Students are accepted by invitation of the instructor.



## TECH Course Descriptions

### **TECH 1001: Orientation to the University**

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A course designed to provide information and enhance skills that will enable students to take responsibility for a successful transition to college. The course will expose students to college resources and requirements and promote the development of practical skills for college success.

# Theatre Course Descriptions

## TH 2203: Play Analysis

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A course designed for the theatre major. Contains techniques and vocabulary essential for doing a production-based analysis for the student actor, designer or director.

## TH 2273: Introduction to Theatre

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ACTS Common Course - DRAM1003

Prerequisite: ENGL 1013 or equivalent.

A study of theatre as an art form with particular attention to scenic, dramatic, literary and historic elements.

Note: TH 2273 may be used to fulfill the fine arts general education requirement.

## TH 2301: Introduction to Theatrical Dance

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An introduction to the basic skills and discipline of stage movement and the steps and vocabulary of jazz, tap and ballet.

Note: This course counts as a PE activity credit in degree programs that are not intended for teacher licensure.

## TH 2331: Advanced Theatrical Dance

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Prerequisite: TH 2301

This course provides a continuation of the skills development for stage movement, and the steps, vocabulary, and discipline of ballet, tap, jazz, modern dance, and basic partnering.

Note: This course counts as a PE activity credit in degree programs that are not intended for teacher licensure.

## TH 2511,2521: Practicum in Set Construction and Lighting

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Credit will be given for forty hours of participation in these elements of stagecraft.

## TH 2513: Introduction to Theatrical Design and Production

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An introduction to the field of technical theatre.

## TH 2611,2621: Practicum in Costume and Makeup

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Credit will be given for forty hours of participation in these elements of stagecraft.

## TH 2703: Acting Theories and Techniques

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An introduction to standard acting techniques, including method acting.

## TH 2711: Acting Practicum

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Prerequisite: Consent of instructor

Credit will be given for a large part in a major production or for a small part preceded by a series of smaller parts in previous productions.

## TH 2713: Intermediate Acting

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Prerequisite: TH 2703 or equivalent

Emphasis on character development, character interaction, and scene work, with special attention to comedy.

## **TH 2721: Acting Practicum**

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Prerequisite: Consent of instructor

Credit will be given for a large part in a major production or for a small part preceded by a series of smaller parts in previous productions.

## **TH 3513: Stagecraft Techniques**

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An introductory course for both majors and non majors who want to learn the technical aspects of dramatic productions. A study of construction fundamentals and skills involved in scenic art. This course also introduces the student to the production process, theatre job descriptions, professional hierarchy, and technical specialist collaboration.

This course requires a weekly lab in addition to the class for supervised practice of class skills.

## **TH 3523: Principles of Theatrical Lighting**

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Prerequisite: TH 3513, or consent of instructor.

An introduction to lighting design, including the history of theatrical lighting, electrical theory and practice, lighting control systems, color theory and creative process. This course requires a weekly lab in addition to the class for supervised practice of class skills and familiarization with the production process.

## **TH 3703: Advanced Acting: Styles**

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Prerequisite: TH 2713 or equivalent.

The analysis and performance of scenes from plays from various historical periods, with attention to vocal and kinesthetic qualities appropriate to different styles.

## **TH 3711,3721,4711,4721: Practicum in Stage Management**

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Prerequisite: Consent of Instructor

Student will be given credit for stage-managing a full-length production or a slate of one-acts.

Note: Each number may be taken for credit one time with a maximum of 7 practicum credits counted toward the major.

## **TH 3731,3741,4731,4741: Practicum in Acting**

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Prerequisite: Consent of Instructor

Credit will be given for a large part in a major production or for a small part preceded by a series of smaller parts in previous productions.

## **TH 3803: Directing Theories and Techniques**

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An introduction to standard directing techniques.

## **TH 3811,3821: Directing Practicum**

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Prerequisite: Consent of instructor

Credit will be given for directing a one act play.

## **TH 3833: Advanced Directing**

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Prerequisites: TH 3811, and consent of instructor.

Credit will be given for directing a full length play.

## **TH 4091,4092,4093,4094: Internship**

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Credit for work in professional theatre settings. Credit hours will be based on hours on the job.

Note: May be taken for a total of four hours.

### **TH 4243: Senior Project in Theatre History**

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Research project approved by the department to facilitate graduate school application.

### **TH 4263: Theatre History I: Antiquity to 1564**

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A historical survey of the development of drama and theatre from classical Greece through the sixteenth century.

### **TH 4273: Theatre History II: 1564 to 1900**

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A historical survey of the development of drama and theatre from the seventeenth to the nineteenth centuries.

### **TH 4283: Children's Theatre: Techniques and Practicum**

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Prerequisites: Consent of instructor

The philosophy of teaching acting to children, in theory and in practice. The course is designed for theatre majors, teachers, and others interested in child development. The semester equivalent of two hours of class lecture is combined with the semester equivalent of two hours of supervised laboratory experience in a children's theatre setting.

Note: May not be taken for credit after completion of SPH 5283 or equivalent.

### **TH 4313: Theatre History III: 1900 to 1960**

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The development of theatre during the first part of the twentieth century, including realism, expressionism, symbolism, epic theatre, and theatre of the absurd.

Note: May not be repeated for credit.

### **TH 4323: Theatre History IV: 1960 to the Present**

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The development of theatre during the latter part of the twentieth century, including neo realism, post modernism, feminism, political theatre, and collective creation.

Note: May not be repeated for credit as TH 5323.

### **TH 4503: Scene Design**

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Prerequisite: TH 3513, or permission of instructor.

A study of the elements of design for the stage, from conception to finished production models, focusing on line, form, mass, and color.

Note: May not be repeated for credit as TH 5503 or equivalent.

### **TH 4511,4521: Practicum in Set Construction and Lighting**

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Prerequisite: Consent of Instructor

Student will be given credit for 40 hours of set construction participation.

### **TH 4513: Drafting for the Stage**

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Prerequisite: TH 3513 or permission of the Instructor.

Introduction to the United States Institute for Technical Theatre drafting techniques and language. Production of floor plans, elevations, construction drawings and perspectives for theatrical construction.

This course requires a weekly lab in addition to the class skills and familiarization with the production process.

### **TH 4523: Advanced Stagecraft**

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Prerequisites: TH 3513, TH 4513 or permission of instructor.

A course for technical theatre emphasis majors that trains the student for managing a theatre shop. Teaches advanced construction techniques, welding, pyrotechnics, and people managing skills.

This course requires a weekly lab in addition to the class for supervised practice of class skills and production process.

### **TH 4543: Senior Project in Design**

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Portfolio creation project approved by the department to facilitate graduate school application process or professional placement.

### **TH 4611,4621: Practicum in Costume and Makeup**

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Prerequisite: Consent of Instructor

Student will be given credit for 40 hours in costume or makeup participation.

Note: Each course number may only be taken for credit 1 time with a maximum of 7 practicum hours counting toward the major.

### **TH 4613: Introduction to Costuming**

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An examination of the history, theory and practice of costume design. It makes use of lecture, practical experience and personal exploration through a variety of artistic media to help each student understand both the art and technology of costume design.

### **TH 4821,4831: Practicum in Directing**

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Prerequisite: Consent of Instructor

Student will be given credit for the assistance in the directing of a full-length production or for the independent directing of a one-act.

### **TH 4843: Senior Project in Theatrical Performance**

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Portfolio creation project approved by the department to facilitate graduate school application or professional placement.

### **TH 4951,4952,4953,4954: Undergraduate Research in Theatre**

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Offered: On demand

Prerequisite: Departmental approval

Advanced students carry out independent research activity relating to a significant problem in a major field of study. Supervised by faculty member. Formal report and presentation required. One to four credits depending on problem selected and effort made.

### **TH 4983: Theatre Seminar:**

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Prerequisites: Twelve credits in theatre and junior standing.

A directed seminar dealing with a selected topic in theatre studies. May be repeated for credit for different topics.

Note: May not be repeated for credit as TH 5983 unless topic is different.

### **TH 4991,4992,4993,4994: Special Problems in Theatre**

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For majors only. Students are accepted by invitation of the instructor.

## Vocational Business Education Course Descriptions

### **VOBE 4023: Methods of Teaching Vocational Business**

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Prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

A methods course designed to prepare the beginning business educator for effective teaching in the contemporary vocational business education classroom. Teaching methodologies for the business education occupational clusters are presented and practiced.

### **VOBE 4701: Special Methods in Vocational Business**

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Prerequisite: Admission to student teaching phase of the teacher education program. Additional prerequisites for 3000 and 4000 level courses are listed in the College of Business section of this catalog.

Co-requisite: SEED 4909

Intensive on-campus exploration of the principles of curriculum construction, teaching methods, use of community resources, and evaluation as related to teaching vocational business.



# Wellness Science Course Descriptions

## Activities

### **WS 1002: Physical Wellness and Fitness**

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The course provides students with the opportunity to assess their current lifestyle and consider the possible consequences for the present and the future. The class provides a mechanism for change by actively involving the student in self-analysis and a trial exercise program.

Note: This course will satisfy two credit hours of PE activity.

Two scheduled class meetings and two hours arranged. \$25 laboratory fee.

### **WS 1031: Food, Exercise, and Body Composition**

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The course provides the student with the opportunity to assess their current lifestyle pertaining to the nutrients consumed in the diet and the amount and type of aerobic exercise participation. Special emphasis is placed on developing an internal locus of control by actively involving the student in self-analysis activities, developing an understanding of nutrient intake and the culminating effects on personal health, and participation in an appropriate aerobic exercise program.

\$25 laboratory fee.

### **WS 1061: Muscle Fitness for Women**

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Structured to provide for the development of insights and practices associated with resistive activity as the student accomplishes an individually predicted level of muscle fitness.

\$25 laboratory fee.

### **WS 1081: Muscle Fitness for Men**

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Structured to provide for the development of insights and practices associated with resistive activity as the student accomplishes an individually predicted level of muscle fitness.

\$25 laboratory fee.

### **WS 1091: Fitness Walking/Jogging**

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The course provides the student with the opportunity to assess his or her personal physical fitness level with trained personnel. Special emphasis is placed on improving the physical fitness level of the student through participation in appropriately designed walking or jogging activity. Students who enroll in the class will submit themselves to the physical fitness protocol administered by the HPE and Wellness faculty members and upper-level majors.

\$25 laboratory fee.

# Wellness Science Course Descriptions

## Academic

(Additional prerequisites for WS Academic courses are listed in the Wellness and Fitness Programs Option section of this catalog.)

### **WS 2003: Field-Based Experience in Wellness**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

The class provides the prospective Wellness/Fitness professional with an opportunity to observe on-site a community-based wellness/fitness agency or business. A combination of classroom and on-site experiences will direct the student's focus to various aspects of commercial or institutional programs and services aimed at lifestyle enhancement.

Specific lecture-class meetings and at least 30 hours of observation in an agency or business setting will be required.

Note: A grade of C or better is required for Health and Physical Education majors.

### **WS 2031: Directing Food, Exercise, and Body Composition Programs**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

The course provides the student with the opportunity to assess their current lifestyle pertaining to the nutrients consumed in the diet and the amount and type of aerobic exercise participation. Special emphasis is placed on the methodology of teaching about the development of an internal locus of control by actively involving the student in self-analysis activities, developing an understanding of nutrient intake and the culminating effects on personal health, and participation in an appropriate aerobic exercise program. The course is structured to provide for the development of knowledge and practices of directing food, exercise, and body composition programs employed to accomplish an individually predicted level of physical fitness.

Laboratory two hours. \$25 laboratory fee.

Note: A grade of C or better is required for Health and Physical Education majors.

### **WS 2043: Applied Fitness Assessment and Development**

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Prerequisites: PE 2653 and PE 3663; level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

A survey and application of the knowledge and experiences in assessing and developing all components of physical fitness.

Note: A grade of C or better is required for Health and Physical Education majors.

### **WS 2081: Directing Muscle Fitness Programs**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

Structured to provide for the development of knowledge and practices of directing resistance training activities used to accomplish an individually predicted level of muscle fitness.

Laboratory two hours. \$25 laboratory fee.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 2091: Directing Fitness Walking/Jogging Programs**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

The course provides the Wellness/Fitness major student with the opportunity to assess the physical fitness level of individuals under the supervision of trained personnel. The course is structured to provide for the development of knowledge and practices of directing fitness walking and jogging activities employed to accomplish an individually predicted level of aerobic fitness. Students who enroll in the class will submit themselves to the physical fitness protocol as well as help administer various evaluation measures to members of a corresponding wellness activity class.

Laboratory two hours. \$25 laboratory fee.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 3003: Exercise Prescription**

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Prerequisites: WS 2043 or consent of department head; level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

A course designed to expose the student to the aspects of health-related and skill-related physical fitness, with particular attention given to prescribing exercise programs. Attention will be given to choosing appropriate fitness assessments, along with development of appropriate goals for clientele.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 3023: Exercise Behavior and Adherence**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

The course provides the student with the opportunity to learn about the components which impact exercise behaviors and adherence to physical exercise programs. Emphasis is placed on the identification of components which directly impact on personal motivation for the development of appropriate exercise behaviors, and the development of incentives which assist in adherence to health enhancement programs.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 4003: Advanced Professional Seminar**

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Prerequisites: Completion of all 1000- and 2000-level Wellness Science required classes; level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

This course provides the advanced wellness/fitness major with a setting in which research and contemporary topics critical to the profession may be explored. The student will perform literature research, data gathering, and professional writing/presentation throughout the class.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 4012: Wellness and Fitness Program Management Internship**

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Twelve hour course

Prerequisites: Admission to internship program and 2.00 grade point average; level 3 requires completion of all WS, PE, and HLED content area courses with a grade of C or better and a cumulative GPA of 2.00 or better.

Intensive on-campus classroom exploration of professional principles and procedures used in the areas of health and fitness promotion for the first three weeks of the semester. The remaining portion of the semester is spent in a supervised full-time internship at a designated site.

\$25 course fee.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 4013: Wellness Science Practicum**

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Prerequisites: WS 2031, 2043, and 3003

This program is designed to expose majors to training in a community or corporate wellness setting. Students will organize, develop, market, and implement wellness programming for Arkansas Tech University students and employees.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 4023: Principles of Strength and Conditioning**

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Offered: Fall

Prerequisites: PE 2653 and 3661

This course is designed to provide a comprehensive overview of strength and conditioning. Emphasis is placed on the exercise sciences (including anatomy, exercise physiology, and biomechanics) and nutrition, exercise technique, program design, organization and administration, and testing and evaluation. Additionally, this course is designed to prepare students for the nationally accredited Certified Strength and Conditioning Specialist (CSCS) certification exam.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 4063: Wellness and Fitness Programming**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

The course is designed to provide the student with the opportunity to discover various methods employed in planning and implementing wellness and fitness programs in multiple settings. Special emphasis is placed on the administration of client-specific health enhancement programs designed for persons in corporate settings, fitness center clientele, and patients in physical rehabilitation.

Note: A grade of C or better is required for Health and Physical Education majors.

## **WS 4991,4992,4993: Special Problems in Wellness Science**

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Prerequisites: Level 2 courses require completion of the following with a grade of C or better: PE 1201, WS 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and SPH 2173.

Independent work on approved wellness science topics under the individual guidance of a faculty member. Admission requires the consent of the department head.