



# UNDERGRADUATE CATALOG 2019-2020

2801 South University Avenue | Little Rock, Arkansas 72204 | 501.569.3000  
ualr.edu



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# CHANCELLOR'S WELCOME

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The University of Arkansas at Little Rock is a public university committed to providing convenient, high-quality educational opportunities to our students while helping move Arkansas forward.

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

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

The university also plays a critical role in advancing Arkansas's future. Through community partnerships and economic development initiatives, UA Little Rock helps the state compete in the global and increasingly knowledge-based economy. Our numerous partnerships with state and local government, businesses, and non-profit organizations can provide you with learning opportunities to develop and enhance your skills in regular job settings. UA Little Rock is uniquely positioned to provide you with the skills, knowledge, and experience you need to reach the next step on your path to success. I encourage you to take advantage of all the university has to offer.



Sincerely yours,

Andrew Rogerson, Chancellor

## ACCREDITATION

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The University of Arkansas at Little Rock is accredited by the Higher Learning Commission (hlcommission.org), a regional accreditation agency recognized by the U.S. Department of Education.

### **University of Arkansas at Little Rock**

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



### **The Higher Learning Commission**

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

## Accreditations and Affiliations

UA Little Rock is designated a Military Friendly® School by Victory Media, the leader in successfully connecting the military and civilian worlds.

Specific degree programs are also accredited or affiliated with many external accrediting/certifying bodies. A complete list is located on the Accreditation website ([ualr.edu/accreditation](http://ualr.edu/accreditation)).

# Academic Calendar

## 2019-2020

### Fall 2019 Registration Dates

<b>Priority Registration by class standing:</b>	Mar. 25 – Mar. 29
-Grad/Post-Baccalaureate/Senior/Special Groups*	Mar. 25 – 26
-Juniors	Mar. 27
-Sophomores	Mar. 28
-Freshmen	Mar. 29
<b>Regular Registration</b>	Mar. 30 – Aug. 18
Full Term Late Registration	Aug. 19 – 25, by 4 p.m.
<b>First 9 Week Term – 910</b>	
-Regular Registration	Mar. 30 – Aug. 18
-Late Registration	Aug. 19 – 25, by 4 p.m.
<b>Second 9 Week Term – 920</b>	
-Regular Registration	Mar. 30 – Sep. 22
-Late Registration	Sep. 23 – Sep. 29, by 4 p.m.
<b>First 7 Week Term – 710</b>	
-Regular Registration	Mar. 30 – Aug 18
-Late Registration	Aug. 19 – 21, by 4 p.m.
<b>Second 7 Week Term – 720</b>	
-Regular Registration	Mar. 30 – Oct. 14
-Late Registration	Oct. 15 – 17, by 4 p.m.
<b>First 5 Week Term – 510</b>	
-Regular Registration	Mar. 30 – Aug 18
-Late Registration	Aug. 19 – 20, by 4 p.m.
<b>Second 5 Week Term – 520</b>	
-Regular Registration	Mar. 30 – Sep. 24
-Late Registration	Sep. 25 – Sep 26, by 4 p.m.
<b>Third 5 Week Term – 530</b>	
-Regular Registration	Mar. 30 – Oct. 31
-Late Registration	Nov. 1 – 4, by 4 p.m.

*Special Groups\* include benefits eligible Military/Veterans, Donaghey Scholars, Athletes, and Science Scholars.*

## General Dates

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Undergrad Admission Application Deadline	Please visit the Office of Admission's website.
Campus Change Deadline (Main to Online/Online to Main)	Aug. 16
University Closed (Labor Day Holiday)	Sep. 2
Graduation Application Due	Oct. 4
Midterm Grade Entry Open	Oct. 1
GradFest (DSC Lower Level)	Oct. 8 & 9 (11:00 a.m. to 6 p.m.)
Fall Break (Students)	Nov. 25 – Dec. 1
University Closed (Thanksgiving)	Nov. 28 – Dec. 1
Commencement	Dec. 14 (9:30 a.m.)
University Closed (Holiday Break)	Dec. 20 – Jan. 1
Last Day to Remove "I" from any Fall 2019 Term <b><i>(Deadline to Remove Incomplete Grade Received in Fall 2019 for Undergraduate Students.)</i></b>	May 14, 2020

## All terms beginning August 19, 2019

### Fall Full Term (Regular Semester - 1) Aug. 19 - Dec. 10

Regular Registration	Mar. 30 – Aug. 18
Senior Citizen Registration	Aug. 16 – 25, by 4 p.m.
Classes Begin	Aug. 19
Late Registration	Aug. 19 – 25, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	Payment dates/refund schedule: <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	Payment dates/refund schedule: <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Oct. 15, by 5 p.m.
Last Day of Class	Dec. 2
Last Day to Withdraw From All Classes	Dec. 2, by 5 p.m.
Consultation Day	Dec. 3
Final Exams	Dec. 3 – 10
Grades Due (by instructor)	Dec. 12, by 12 noon

### First 9-Week Term (910) - Aug. 19 - Oct. 21

Regular Registration	Mar. 30 – Aug. 18
Senior Citizen Registration	Aug. 19 – 25, by 4 p.m.
Classes Begin	Aug. 19
Late Registration	Aug. 19 – Aug. 25, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	Payment dates/refund schedule: <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	Payment dates/refund schedule: <b><u>Bursar's Office Website.</u></b>

## All terms beginning August 19, 2019

### First 9-Week Term (910) - Aug. 19 - Oct. 21

Last Day to Drop an Individual Class	Sep. 24, by 5 p.m.
Last Day to Withdraw From All Classes	Oct. 18, by 5 p.m.
Last Day of Class	Oct. 21
Final Exams	Oct. 21
Grades Due	Oct. 23, by 12 noon

### First 7-Week Term (710) - Aug. 19 - Oct. 9

Regular Registration	Mar. 30 – Aug. 18
Senior Citizen Registration	Aug. 19 – 22, by 4 p.m.
Classes Begin	Aug. 19
Late Registration	Aug. 19 – 21, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund;	Payment dates/refund schedule:
	<b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 100% Refund;	Payment dates/refund schedule:
Last Day to Change Audit Status	<b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Sep. 18, by 5 p.m.
Last Day to Withdraw From All Classes	Oct. 8, by 5 p.m.
Last Day of Class	Oct. 9
Final Exams	Oct. 9
Grades Due	Oct. 11, by 12 noon



# All terms beginning August 19, 2019

## First 5-Week Term (510) - Aug. 19 – Sep. 23

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Regular Registration	Mar. 30 – Aug. 18
Senior Citizen Registration	Aug. 19 – 21, by 4 p.m.
Classes Begin	Aug. 19
Late Registration	Aug. 19 – 20, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	Payment dates/refund schedule: <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	Payment dates/refund schedule: <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class (510)	Sep. 6, by 5 p.m.
Last Day to Withdraw From All Classes (510)	Sep. 20 , by 5 p.m.
Last Day of Class (510)	Sep. 23
Final Exams (510)	Sep. 23
Grades Due (510)	Sep. 24, by 12 noon

<b>All terms beginning September 23, 2019</b>	
<b>Second 9-Week Term (920) Sep. 23 - Nov. 22</b>	
Regular Registration	Mar. 30 – Sep. 22
Senior Citizen Registration	Sep. 23 – Sep. 29, by 4 p.m.
Classes Begin	Sep. 23
Late Registration	Sep. 23 – Sep. 29, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Oct. 28, by 5 p.m.
Last Day to Withdraw From All Classes	Nov. 21, by 5 p.m.
Last Day of Class	Nov. 22
Final Exams	Nov. 22
Grades Due	Dec. 3, by 12 noon

<b>All terms beginning September 25, 2019</b>	
<b>Second 5-Week Term (520) Sep. 25 – Oct. 29</b>	
Regular Registration	Mar. 30 – Sep. 24
Senior Citizen Registration	Sep. 25 – Sep. 27, by 4 p.m.
Classes Begin	Sep. 25
Late Registration	Sep. 25 – Sep 26, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Oct. 14, by 5 p.m.
Last Day to Withdraw From All Classes	Oct. 28, by 5 p.m.
Last Day of Class	Oct. 29
Final Exams	Oct. 29
Grades Due	Oct. 30, by 12 noon

<b>All terms beginning October 14, 2019</b>	
<b>Second 7-Week Term (720) Oct. 14 - Dec. 10</b>	
Regular Registration	Mar. 30 – Oct. 13
Senior Citizen Registration	Oct. 14 – 17, by 4 p.m.
Classes Begin	Oct. 14
Late Registration	Oct. 14 – 17, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Nov. 12, by 5 p.m.
Last Day to Withdraw From All Classes	Dec. 9, by 5 p.m.
Last Day of Class	Dec. 10
Final Exams	Dec. 10
Grades Due	Dec. 12, by 12 noon

<b>All terms beginning October 31, 2019</b>	
<b>Third 5-Week Term (530) Oct. 31 - Dec. 11</b>	
Regular Registration	Mar. 30 – Oct. 30
Senior Citizen Registration	Oct. 31 – Nov. 5, by 4 p.m.
Classes Begin	Oct. 31
Late Registration	Oct. 31 – Nov. 4, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Nov. 19, by 5 p.m.
Last Day to Withdraw From All Classes	Dec. 10, by 5 p.m.
Last Day of Class	Dec. 11
Final Exams	Dec. 11
Grades Due	Dec. 12, by 12 noon

## Spring 2020 Registration Dates

### Priority Registration by class standing:

-Grad/ Post-Baccalaureate/Senior/Special Groups*	Oct. 28, 2019
-Juniors	Oct. 30, 2019
-Sophomores	Oct. 31, 2019
-Freshmen	Nov. 1, 2019

### Regular Registration For All Students

Late Registration For All Students Nov. 1, 2019 – Jan. 20, 2020

Jan. 21 – Jan. 27, by 4 p.m.

#### Full Term – 1

-Regular Registration	Nov. 1, 2019 – Jan. 20
-Late Registration	Jan. 21 – Jan. 27, by 4 p.m.
Senior Citizen Registration	Jan. 17 – Jan. 27, by 4 p.m.

#### First 9 Week Term – 910

-Regular Registration	Nov. 1, 2019 – Jan. 20
-Late Registration	Jan. 21 – Jan. 27, by 4 p.m.
Senior Citizen Registration	Jan. 17 – Jan. 27, by 4 p.m.

#### Second 9 Week Term – 920

-Regular Registration	Nov. 1, 2019 – Feb. 23
-Late Registration	Feb. 24 – Feb. 27, by 4 p.m.
Senior Citizen Registration	Feb. 21 – Feb. 27, by 4 p.m.

#### First 7 Week Term – 710

-Regular Registration	Nov. 1, 2019 – Jan. 20
-Late Registration	Jan. 21 – Jan. 23, by 4 p.m.
Senior Citizen Registration	Jan. 17 – Jan. 23, by 4 p.m.

#### Second 7 Week Term – 720

-Regular Registration	Nov. 1, 2019 – Mar. 15
-Late Registration	Mar. 16 – Mar. 18, by 4 p.m.
Senior Citizen Registration	Mar. 13 – Mar. 18, by 4 p.m.

#### First 5 Week Term – 510

-Regular Registration	Nov. 1, 2019 – Jan. 20
-Late Registration	Jan. 21 – Jan. 22, by 4 p.m.
Senior Citizen Registration	Jan. 17 – Jan. 22, by 4 p.m.

#### Second 5 Week Term – 520

-Regular Registration	Nov. 1, 2019 – Feb. 25
-Late Registration	Feb. 26 – Feb. 27, by 4 p.m.
Senior Citizen Registration	Feb. 25 – Feb. 27, by 4 p.m.

#### Third 5 Week Term – 530

-Regular Registration	Nov. 1, 2019 – Apr. 08
-Late Registration	Apr. 09 – Apr. 10, by 4 p.m.
Senior Citizen Registration	Apr. 08 – Apr. 10, by 4 p.m.

*Special Groups\* include benefits eligible Military/Veterans, Donaghey Scholars, Athletes, and Science Scholars.*

## General Dates

Undergrad Admission Application Deadline	Visit <a href="#">Office of Admission's website</a> .
Campus Change Deadline (Main to Online/Online to Main)	Jan. 17
University Closed (Martin Luther King, Jr. Day)	Jan. 20, 2020
Mid-Term Grade Entry	Feb. 27 – Mar. 17
Spring 2020 Graduation Application Deadline	March 9, 2020
GradFest (DSC Lower Level)	( TBA )
Spring Break	Mar. 23 – Mar. 29 (University Closed Mar. 27)
Commencement	May 16, 2020 (9:30 a.m. & 3 p.m.)
Last Day to Remove "I" from Any Spring 2020 Term <b><i>Deadline to Remove Incomplete Grade Received in Sprig 2020 for Undergraduate Students.</i></b>	December 17, 2020

<b>Spring Full Term (regular semester - 1) Jan. 21 - May 13</b>	
Regular Registration	Nov. 1, 2019 – Jan. 20
Senior Citizen Registration	Jan. 17 – Jan. 27, by 4 p.m.
Classes Begin	Jan. 21, 2020
Late Registration	Jan. 21 – Jan. 27, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Saturday Classes Begin	Jan. 25
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Mar. 17, by 5 p.m.
Last Day of Class	May 4
Last Day to Withdraw From All Classes	May 4, by 5 p.m.
Consultation Day	May 5, 2020
<u>Final Exams</u>	May 5 – May 12
Grades Due	May 14, by 12 noon

<b>First 9-Week Term (910) Jan. 21 - Mar. 30</b>	
Regular Registration	Nov. 1, 2019 – Jan. 20
Senior Citizen Registration	Jan. 17 – Jan. 27, by 4 p.m.
Classes Begin	Jan. 21, 2020
Late Registration	Jan. 21 – Jan. 27, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Saturday Classes Begin	Jan. 25
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Feb. 21, by 5 p.m.
Last Day to Withdraw From All Classes	Mar. 29, by 5 p.m.
Last Day of Class	Mar. 30
Final Exams	Mar. 30
Grades Due	Apr. 1, by 12 noon

<b>First 7-Week Term (710) Jan. 21 - Mar. 11</b>	
Regular Registration	Nov. 1, 2019 – Jan. 20
Senior Citizen Registration	Jan. 17 – Jan. 23, by 4 p.m.
Classes Begin	Jan. 21, 2020
Late Registration	Jan. 21 – Jan. 23, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates or refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Saturday Classes Begin	Jan. 25
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates or refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Feb. 17, by 5 p.m.
Last Day to Withdraw From All Classes	Mar. 10, by 5 p.m.
Last Day of Class	Mar. 11
Final Exams	Mar. 11
Grades Due	Mar. 13, by 12 noon

<b>First 5-Week Term (510) Jan. 21 - Feb. 24</b>	
Regular Registration	Nov. 1, 2019 – Jan. 20
Senior Citizen Registration	Jan. 17 – Jan. 22, by 4 p.m.
Classes Begin	Jan. 21
Late Registration	Jan. 21 – Jan. 22, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates or refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Saturday Classes Begin	Jan. 25
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates or refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Feb. 6, by 5 p.m.
Last Day to Withdraw From All Classes	Feb. 23, by 5 p.m.
Last Day of Class	Feb. 24
Final Exams	Feb. 24
Grades Due	Feb. 25, by 12 noon

<b>All terms beginning Feb. 24, 2020</b>	
<b>Second 9-Week Term (920) Feb. 24 - May 01</b>	
Regular Registration	Nov. 1, 2019 – Feb. 23
Senior Citizen Registration	Feb. 21 – Feb. 27, by 4 p.m.
Classes Begin	Feb. 24
Late Registration	Feb. 24 – Feb. 27, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Saturday Classes Begin	Feb. 29
Last Day to Drop or Withdraw for 50% Refund	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Last Day to Drop an Individual Class	Apr. 02, by 5 p.m.
Last Day to Withdraw From All Classes	Apr 30, by 5 p.m.
Last Day of Class	May 01
Final Exams	May 01-02*
*Finals may be scheduled on May 10-12 as required for the course schedule	
Grades Due	May 03, by 12 noon

<b>All terms beginning Feb. 26, 2020</b>	
<b>Second 5-Week Term (520) Feb. 26 - Apr. 7</b>	
Regular Registration	Nov. 1, 2019 – Feb. 25
Senior Citizen Registration	Feb. 25 – Feb. 27, by 4 p.m.
Classes Begin	Feb. 26
Late Registration	Feb. 26 – Feb. 27, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Saturday Classes Begin	Feb. 29
Last Day to Drop or Withdraw for 50% Refund	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Last Day to Drop an Individual Class	Mar. 13, by 5 p.m.
Last Day to Withdraw From All Classes	Apr. 6, by 5 p.m.
Last Day of Class	Apr. 7
Final Exams	Apr. 7
Grades Due	Apr. 08, by 12 noon



<b>All terms beginning Mar. 16, 2020</b>	
<b>Second 7-Week Term (720) Mar. 16 - May 11</b>	
Regular Registration	Nov. 1, 2019 – Mar. 15
Senior Citizen Registration	Mar. 13 – Mar. 18, by 4 p.m.
Classes Begin	Mar. 16
Late Registration	Mar. 16 – Mar. 18, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Saturday Classes Begin	Mar. 21
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Apr. 17 by 5 p.m.
Last Day to Withdraw From All Classes	May 10, by 5 p.m.
Last Day of Class	May 11
Final Exams	May 11
Grades Due	May 13, by 12 noon

<b>All terms with beginning Apr. 09, 2020</b>	
<b>Third 5-Week Term (530) Apr. 11 - May 15</b>	
Regular Registration	Nov. 1, 2019 – Apr. 08
Senior Citizen Registration	Apr. 8 – Apr. 10, by 4 p.m.
Classes Begin	Apr. 09
Late Registration	Apr. 09 – Apr. 10, by 4 p.m.
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Saturday Classes Begin	Apr. 11
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Apr. 27, by 5 p.m.
Last Day to Withdraw From All Classes	May 12, by 5 p.m.
Last Day of Class	May 13
Final Exams	May 13
Grades Due	May 14, by 12 noon

## Summer 2020 Registration Dates

### Priority Registration by class standing:

- Grad/ Post-Baccalaureate/Senior/Special Groups\*
- Juniors
- Sophomores
- Freshmen

Mar. 30 – Apr. 3  
 Mar. 30 – Apr. 3  
 Apr. 1  
 Apr. 2  
 Apr. 3

### 9 Week Term – 1

- Regular Registration
- Late Registration
- Senior Citizen Registration

Apr. 3 – May 25  
 May 26 – May 28, by 4p.m.  
 May 22 – May 28, by 4 p.m.

### First 5 Week Term – 2

- Regular Registration
- Late Registration
- Senior Citizen Registration

Apr. 3 – May 25  
 May 26 – May 27, by 4p.m.  
 May 22 – May 27, by 4 p.m.

### 7 Week Term – 3

- Regular Registration
- Late Registration
- Senior Citizen Registration

Apr. 3 – Jun. 7  
 Jun. 8 – 10, by 4 p.m.  
 Jun. 5 – 10, by 4 p.m.

### Second 5 Week Term – 4

- Regular Registration
- Late Registration
- Senior Citizen Registration

Apr. 3 – Jul. 5  
 Jul. 6 – Jul. 7 , by 4 p.m.  
 Jul. 2 – Jul. 7, by 4 p.m.

*Special Groups\* include benefits eligible Military/Veterans, Donaghey Scholars, Athletes, and Science Scholars.*

## General Dates

Undergrad Admission Application Deadline  
[website.](#)

Please visit the [Office of Admission's](#)

Campus Change Deadline (Main to Online/Online to Main)

May 22

University Closed (Memorial Day)

May 25

University Closed (Independence Day )

July 3

Graduation Application Due

July 5, by 5 p.m.

Last Day to Remove "I" Received in Summer 2020

Dec. 17, 2020

Last Day to Remove "I" Received in any Summer 2020 Term  
**(Deadline to Remove Incomplete Grade Received  
 in any Summer 2020 term for Undergraduate Students.)**

December 17, 2019

## All terms beginning May 26, 2020

<b>Summer 1 - 9-Week Term May 26 - Jul. 28</b>	
Regular Registration	Apr. 3 – May 25
Late Registration	May 26 – 28, by 4 p.m.
Senior Citizen Registration	May 22 – 28, by 4 p.m.
Classes Begin	May 26
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Jun. 26, by 5 p.m.
Last Day to Withdraw From All Classes	Jul. 27, by 5 p.m.
Last Day of Class	Jul. 28
Final Exams	Jul. 28
Grades Due	Jul. 30, by 12 noon

<b>Summer 2 - First 5-Week Term May 26 - Jun. 29</b>	
Regular Registration	Apr. 3 – May 25
Late Registration	May 26 – 27, by 4 p.m.
Senior Citizen Registration	May 22 – May 27 by 4 p.m.
Classes Begin	May 26
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment dates</u> or <u>refund schedule</u> please visit the <b><u>Bursar's Office Website.</u></b>
Last Day to Drop an Individual Class	Jun. 11, by 5 p.m.
Last Day to Withdraw From All Classes	Jun. 26, by 5 p.m.
Last Day of Class	Jun. 29
Final Exams	Jun. 29
Grades Due	Jul. 1, by 12 noon

<b>All terms beginning Jun. 08, 2020</b>	
<b>Summer 3 - 7 Week Term Jun. 08 - Jul. 29</b>	
Regular Registration	Apr. 3 – Jun. 7
Late Registration	Jun. 8 – 10, by 4 p.m.
Senior Citizen Registration	Jun. 5 – 10, by 4 p.m
Classes Begin	Jun. 8
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Last Day to Drop an Individual Class	Jul. 6, by 5 p.m.
Last Day to Withdraw From All Classes	Jul. 28 , by 5 p.m.
Last Day of Class	Jul. 29
Final Exams	Jul. 29
Grades Due	Jul. 31 by 12 noon

<b>All terms beginning Jul. 6, 2020</b>	
<b>Summer 4 - Second 5-Week Term Jul. 6 - Aug. 7</b>	
Regular Registration	Apr. 3 – Jul. 5
Late Registration	Jul. 6 – 7, by 4 p.m.
Senior Citizen Registration	Jul. 2 – 7, by 4 p.m
Classes Begin	Jul. 6
Last Day to Drop or Withdraw for 100% Refund; Last Day to Change Audit Status	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Last Day to Drop or Withdraw for 50% Refund	For <u>payment</u> <u>dates</u> or <u>refund</u> <u>schedule</u> please visit the <b><u>Bursar's Office</u></b> <b><u>Website.</u></b>
Last Day to Drop an Individual Class	Jul. 22, by 5 p.m.
Last Day to Withdraw From All Classes	Aug. 6, by 5 p.m.
Last Day of Class	Aug 7
Final Exams	Aug 7
Grades Due	Aug. 10, by 12 noon

## About the Undergraduate Catalog

The Undergraduate Catalog is an official publication of UA Little Rock published annually by the Office of the Provost in conjunction with the Office of Records and Registration.

Curriculum and policy revision is regulated by the Undergraduate Council, Graduate Council, and Council on Core Curriculum and Policies of the Faculty Senate in conjunction with the Office of the Provost while adhering to rules and regulations of applicable accreditation organizations.

The online version of the catalog is a snapshot of the printed version also updated annually or when substantive mistakes are identified.

**Please note:** The printed version is a replica of the Adobe PDF version available online and is used to determine graduation requirements.

Copies of previous catalogs (Archived Versions) may be found on the catalog archive website and hard copies of every year are kept in the Office of Records and Registration.

This catalog establishes the graduation requirements set forth by a specific program of study within each college. Typically, students who enter a program within UA Little Rock, follow the program of study listed for the academic year the catalog is published. Each college within UA Little Rock reserves the right to change graduation requirements for their program. Students should meet regularly with their academic advisors to be certain that they are aware of any changes in graduation requirements that may apply to them.

Admission to UA Little Rock in any program of study does not guarantee that the university will continue to offer that program of study indefinitely. UA Little Rock reserves the right to change, phase out, or discontinue any program at any time in the best interest of the University.

The Undergraduate Catalog provides information about degree programs, course offerings, and academic regulations that affect undergraduate students. The catalog is compiled and edited by the Office of the Provost, with assistance from college associate deans and department chairpersons.

## Right to Change

Any policy, course listing, website, catalog, or class schedule is only intended to announce available courses and applicable policies. If a course appears in this catalog or any other publication, it should not be regarded as a guarantee. Keeping within standards set by other universities with the University of Arkansas System, UA Little Rock reserves the right to:

- add or delete courses or programs from its offerings,
- change times, locations, or instructors of courses or programs,
- modify academic calendars without notice,
- cancel any course for insufficient student registrations, or
- revise regulations, charges, fees, schedules, courses, requirements for degrees, and any other policy or regulation affecting students whenever it is considered to be in the best interests of UA Little Rock.

## How to Get Help

Often the information you need can be obtained on the UA Little Rock website at [ualr.edu](http://ualr.edu) or by telephone at 501-569-3000. Departmental numbers are included in their respective sections within the Catalog.

For other numbers, consult the University Directory and search for the office title that matches your needs; the Office of Undergraduate Admissions and the Office of Records and Registration are most often needed by incoming students.

These offices are located on the second floor of the Charles W. Donaldson Student Services Center.

The Trojan Academic Advising and Support Center provides advice on the selection of required courses and programs for undeclared majors. All students who are undecided about a specific field of study must contact this office, located on the third floor of the Student Services Center.

If you have decided on a major or have narrowed your choice to a few areas, contact the academic advisor or chairperson of the appropriate department or the dean of the college or school.

If you have a problem or concern regarding student life on campus or have a question about student judicial affairs, start at the Student Experience Center, located on the upper level of the Donaghey Student Center.

The Information Center is also located in the Donaghey Student Center on the first floor across from the bookstore; personnel there can assist you with specific questions.

Department chairpersons and deans are appropriate people to contact for any academic problem at any time. All academic units are under the direction of the provost and executive vice chancellor.

The Catalog provides you with background information about the university and available programs. You will also find other important information to assist you. Information can be accessed via college and departments sections and via program listings and course descriptions. Each of these sections describes the requirements for major and/or minor programs. Most courses are scheduled at least once every two years. The Interdisciplinary Studies section lists degree programs that involve work in more than one department or college.

## University Policies

All UA Little Rock policies are posted on the Policy website.

### Equal Access for Students with Disabilities

In compliance with federal regulations, it is the policy of UA Little Rock to respond to student requests for course accommodation, substitution, and other adjustments because of a documented disability on an individual basis and in a manner that does not result in discrimination. Where requests are complex and not easily handled through the regular course substitution procedures, the Disability Resource Center will review the case and make a determination in conjunction with academic departments when appropriate. The Disability Resource Center will work through the interactive process with the student to determine accommodations. Students who wish to request academic adjustments because of a disability should consult the academic adjustment procedures printed in the UA Little Rock Student Handbook, or contact the Disability Resource Center at 501.569.3143.

The syllabus for each UA Little Rock course should include the following statement:

Students with Disabilities: Your success in this class is important to me, and it is the policy and practice of the University of Arkansas at Little Rock to create inclusive learning environments consistent with federal and state law. If you have a documented disability (or need to have a disability documented), and need an accommodation, please contact me privately as soon as possible, so that we can discuss with the Disability Resource Center (DRC) how to meet your specific needs and the requirements of the course. The DRC offers resources and coordinates reasonable accommodations for students with disabilities. Reasonable accommodations are established through an interactive process among you, your instructor(s), and the DRC. Thus, if you have a disability, please contact me and/or the DRC, at 501.569.3143 or 501.683.7629. For more information, please visit the DRC website, telephone (501) 569-3143.

### Family Educational Rights and Privacy Act (FERPA)

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

## HIV

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

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

#### • Access

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

#### • Prevention and Education

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

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

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

#### • Support Services

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

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

## • Policy Implementation and Review

The University Health and Wellness Committee will be responsible for implementation of this policy. They will review this policy semi-annually or as scientific information emerges and submit revisions to the University Assembly for approval. (Adopted by the Faculty Senate, 4/19/96)

## Name Changes

### • U.S. citizens

In order to comply with a number of government agency reporting requirements, the University must record each student's name as it appears on his/her social security card. Students who need to change their names on UA Little Rock records must complete a name change form (available at the Office of Records and Registration) and present a social security card and picture identification when submitting the form. After the change is implemented, the name on the UA Little Rock transcript, diploma, and other documents will read as printed on the social security card. If the social security card is incorrect, students must change their records with the Social Security Administration Office first. No changes will be made to the UA Little Rock record until a new Social Security Card is issued and presented to the Office of Records and Registration.

### • International students

International students who need to change their names on UA Little Rock records should consult with the Director of Records and Registration, who will specify appropriate documentation.

## Nondiscrimination

UA Little Rock adheres to a policy that enables all individuals, regardless of race, color, gender, national origin, age, religion, sexual orientation, veteran's status, or disability, to work and study in an environment unfettered by discriminatory behavior or acts. Harassment of an individual or group will not be condoned, and any person (student, faculty, or staff member) who violates this policy will be subject to disciplinary action.

Any person who believes they have been discriminated against should contact the Human Resources Office to obtain assistance and information concerning the filing of complaints, (501) 569-3180.

Harassment that is considered discriminatory includes actions or conduct (verbal, graphic, gestural, or written) directed against any person or group with the intent to demean or create a hostile or threatening environment. It is not the intent of this policy to infringe upon or limit educational, scholarly, or artistic expression. Any person

who believes he or she has been discriminated against should contact the Office of Human Relations to obtain assistance and information concerning the filing of a complaint.

At the same time the university prohibits discriminatory practices, it promotes equal opportunity through affirmative action. Non-discriminatory affirmative action equal opportunity policies apply to recruitment, hiring, job classification and placement, work conditions, promotional opportunities, demotions/transfers, terminations, training, compensation, choice of contractors and suppliers of goods and services, educational opportunities, disciplinary action, recreational and social activities, use of facilities, housing and university-sponsored programs.

Policy 201.1 appears on the policy website: [ualr.edu/policy/home/admin/non-discrimination](http://ualr.edu/policy/home/admin/non-discrimination).

## Prohibiting Sexual Harassment

The University of Arkansas at Little Rock is committed to providing an environment that emphasizes the dignity and worth of every member of its community and that is free from harassment and discrimination based on race, color, religion, sexual orientation, gender identity, national origin, service in the uniformed services (as defined in state and federal law), veteran status, sex, age, pregnancy, physical or mental disability, or genetic information. Such an environment is necessary for a healthy learning, working, and living atmosphere. Accordingly, all acts of discrimination, harassment, retaliation, and sexual misconduct as defined by this policy are prohibited.

Title IX protects the university community from sexual discrimination, harassment, and misconduct in a school's education programs and activities. Title IX protects the university community in connection with all academic, educational, extracurricular, athletic, and other university programs, whether those programs take place on university property, in university transportation, at a class or training program sponsored by the university at another location, online, or elsewhere.

This policy is not intended to restrict curriculum or prohibit or abridge the use of particular textbooks or curricular materials, nor shall it be construed to restrict constitutionally protected expression or freedom of scientific investigation.

Consistent with state and federal law, reasonable accommodation will be provided to persons with disabilities.

All complaints or any concerns about conduct that may violate this policy should be submitted to the Title IX



Coordinator or Deputy Title IX Coordinator. All references to the Title IX Coordinator in this policy implicitly include the Deputy Title IX Coordinator or designee.

UA Little Rock's complete policy for Title IX – UA Little Rock Policy for Sex\_ and Gender-Based Discrimination, Harassment, and Misconduct Complaints, and Complaint Retaliation – 401.7 appears on the policy website: [ualr.edu/policy/home/facstaff/title-ix](http://ualr.edu/policy/home/facstaff/title-ix).

## Smoke-Free Campus

Smoking on UA Little Rock campuses is regulated under the authority of the Arkansas Clean Air Act, A.C.A. §6-60-801 et. seq., and Act 847 of 2015.

In accordance with Arkansas state law, UA Little Rock is a smoke-free campus. Smoking, including the use of e-cigarettes or vapor devices, is strictly prohibited on all locations of the University, including the main campus, the William H. Bowen School of Law, and the UA Little Rock Benton Center.

Any person who is convicted of a violation of this law may be punished by a fine. Additionally, students, staff, and faculty who fail to comply with this policy are subject to the disciplinary actions of the university. (Chancellor's Office, 8/16/09)

## Academic Requirements, Regulations, & Policies

**Please Note:** Policies are reviewed often and are subject to change.

### Academic Year

The academic year includes two regular semesters in the fall and spring and a summer session of three terms. Some courses are also available between semesters during spring interim and winter interim.

The unit of credit is the semester hour. This unit is defined as credit earned for the completion of one hour per week in class for one semester. Two or more hours of laboratory work per week for one semester equals one semester hour of credit. UA Little Rock offers night and weekend courses, web-based courses, courses on campus and at various off-campus locations. Admission requirements, fees, and academic performance for night and weekend classes are the same as for day classes. Web-based courses are charged an additional fee.

Continuing education courses are offered as a service to specific professional and vocational groups of the community. These are available on both a credit and non-credit basis

### Baccalaureate Degree Requirements

To receive a baccalaureate degree, a student must complete 120 hours (academic majors and colleges may specify additional and/or more restrictive requirements) of which 30 hours must be in residence and 45 must be upper-level (3000 level or above). At least 15 upper-level hours must be completed in residence. A baccalaureate degree program may require more than 120 semester hours of college credit if prior approval has been granted by the Board of Trustees or it is a requirement of an independent licensing or accrediting body. Except for majors that must adhere to standards established by national accrediting agencies, students must select at least 12 elective hours outside their program in addition to the UA Little Rock Core Curriculum.

These required hours must include:

- A minimum of a 2.0 cumulative grade point on all work attempted at the university.
- A minimum of a 2.0 cumulative grade point on all work attempted in the academic major.

- A core curriculum which must include a 3-hour course in U.S. History or U.S. Government and a 3-hour course in College Algebra, College Math, or higher level math course. See Core Requirements for Bachelor Degrees.
- A major.
- A baccalaureate degree-seeking student in the process of completing more than one major may have one calendar year following graduation with one major to complete the additional declared major(s) if (1) the student has a valid degree plan on file which specifies requirements for more than one major and (2) if the student completes an application for graduation which indicates that a total of seven (7) or fewer hours remain to complete the additional major(s).

## Associate Degree Requirements

Except for certain programs as specified by the program, all students receiving the associate degree (the AA or AS) must successfully complete at least 60 hours. Graduation with an associate degree requires a C average (2.0 cumulative grade-point average) on all work attempted at the University; completion of at least 20 hours above the freshman level, unless specified otherwise in the program; and completion of the final 15 hours (excluding credit by examination) in residence. Hours earned as credit by examination are counted as hours toward graduation but are not counted as hours in residence. See "Credit by Examination."

Courses completed for an associate degree at UA Little Rock will be counted toward the appropriate requirements for the baccalaureate degree.

## Second Associate Degree

An associate degree may be conferred as a second degree when the first degree is either a baccalaureate or another associate degree, subject to these provisions:

- The second associate degree must be in a different discipline from the first degree.
- Students must complete at least 15 credit hours in residence (excluding credit by examination) beyond their first degree.
- Only credit earned at UA Little Rock after completing the first degree will normally apply toward the second degree. However, students in their final semester of studies toward the first degree may complete the course load for that semester with courses applicable to the second degree. Students must file a written statement of their intent to seek a second degree

with the Office of Records and Registration at the time of registration.

- A major must be completed. Courses completed within the previous degree that satisfy requirements for the second major may be accepted as satisfying course requirements, but not as hours toward the second degree. These hours do not count as part of the 30, except as specified in Item 3 above.
- The core curriculum component in the second associate degree is not required. However, if not taken as a part of another baccalaureate degree, a course in United States History or Government (HIST 2311, HIST 2312, or POLS 1310) must be completed. See "Policy 503.3 – General Education Requirements for Baccalaureate and Associate Degrees – U.S. Traditions: United States History or Government Requirement."

## Post-Baccalaureate Students

### Second Baccalaureate Degree

All students who have received a bachelor's degree from a regionally accredited institution, including UA Little Rock graduates, and who wish to pursue an additional undergraduate degree or certificate at UA Little Rock are required to apply for undergraduate admission to the university by the published deadline. After all admission requirements have been met, these students will be admitted into Post-baccalaureate status. This policy also applies to International students who received an equivalent degree (as determined by UA Little Rock) from an institution outside the U.S. and who wish to pursue a 2nd undergraduate degree at UA Little Rock.

Additional baccalaureate degree(s) may be conferred subject to these provisions:

- Students must complete at least 30 credit hours in residence, including courses completed previously at UA Little Rock, but excluding transfer credit, credit-by-examination, experiential credit, and repeated courses.
- A different major must be completed for each additional baccalaureate degree. Courses completed within the previous degree(s) that satisfy requirements for additional major(s) may be accepted as satisfying major requirements for additional degree(s), subject to approval by the major department.
- A minor is not required for additional baccalaureate degrees.
- If not taken as a part of another baccalaureate degree, a course in United States History or Government (HIST 2311, HIST 2312, or POLS 1310) must be completed, see "Policy 503.3 General

Education Requirements for Baccalaureate and Associate Degrees – U.S. Traditions: United States History or Government Requirement." However, other general education requirements are not applicable to additional baccalaureate degrees.

(Academic majors and colleges may specify additional and/or more restrictive requirements. There is no second language proficiency requirement for students seeking additional baccalaureate degrees.)

## **Test Score Placement Guide and Course Eligibility Standards**

Test scores on the ACT, SAT, and COMPASS serve two purposes. The first is to serve as criteria for admission, and the second is to help decide the placement of students into the appropriate courses.

For course eligibility standards and developmental course options, check the Test Score Placement Guide from the Office of Testing. The most current information can be found on their website at [ualr.edu/testing](http://ualr.edu/testing).

## ACADEMIC LITERACY AND COMPOSITION

**Note:** All UA Little Rock students are eligible to take placements tests.

	RHET 0321, Academic Literacy <i>MUST</i> enroll if place in: 1) developmental reading only, <i>OR</i> 2) both developmental reading and writing, <i>OR</i> 3) have an ACT English score of 13 or less.	EXEMPT RHET 0321, Academic Literacy	LINKED RHET 0310, Composition Fundamentals and RHET 1311, Composition I <i>MUST</i> enroll, <i>or</i> take Composition Placement Test <i>if</i> : 1) earned any of these scores, <i>AND</i> 2) are <i>NOT</i> required to complete Academic Literacy.	RHET 1311, Composition I	EXEMPT RHET 1311, Composition 1 <i>MAY</i> enroll in RHET 1312, Composition II	RHET 1320, Honors Composition
ACT English	13 or less		14-18	19+	29+	27+ <i>and</i> A or B in HS Engl
ACT Reading	18 or less	19+				
ACCUPLACER Classic Reading	77 or less	78+				
ACCUPLACER Classic Sentence Skills	66 or less		67-82	83-99	100+	
ACCUPLACER Nxt-Gen Reading	254 or less					
ACCUPLACER Nxt-Gen Writing	235 or less		236-260	261-281	282-300	282-300
ACCUPLACER WritePlacer	0-2		3-4	5-6	7-8	7-8
COMPASS Composition	38 or less		79 or less	80+	99+	98+ <i>and</i> A or B in HS Engl
COMPASS Reading	82 or less	83+				
Critical Reading SAT Old	469 or less	470+				
SAT Old Writing	359 or less		449 or less	450+	650+	610+ <i>and</i> A or B in HS Engl
SAT New Reading	25 or less	26+				
SAT New Writing	20 or less		25 or less	26+	35+	33+ <i>and</i> A or B in HS Engl

## MATHEMATICS

- Note:** 1.) All UA Little Rock students are eligible to take placements tests.  
 2.) If a student places into MATH 1321 or MATH 1302, the student may also enroll in the connected courses, if desired.

	Quantitative and Mathematical Reasoning Track			College Algebra Track				
<b>ACT</b> Math	MATH 0330, Fundamentals of Quantitative & Mathematical Reasoning	MATH 1321 Quantitative & Mathematical Reasoning <i>and</i> MATH 0121, lab co-requisite	MATH 1321, Quantitative Mathematical Reasoning	MATH 0332, Foundations of College Algebra	MATH 1302, College Algebra <i>and</i> MATH 0102, lab co-requisite	MATH 1302, College Algebra <i>or the</i> Accuplacer College-level Math Placement Test	MATH 1303, Trigonometry <i>or</i> MATH 1342, Pre-Calculus <i>or</i> MATH 1401, Applied Calculus	MATH 1451, Calculus I
	15 or less	16-18	19+	17 or less	18-20	21+	24+	
<b>ACCUPLACER Classic</b> Elementary Algebra	59 or less	60-76	77+	69 or less	70-79	80+		
<b>ACCUPLACER Classic</b> College-Level Math		42+	47+		45+	50+	63+	103+
<b>ACCUPLACER Nxt-Gen</b> Quantitative Reasoning, Algebra & Statistics	236 or less	237-249	250+	245 or less	246-255	256+		
<b>ACCUPLACER Nxt-Gen</b> Advanced Algebra	210 or less	211-236	237+	219 or less	220-249	250-262	263-275	276+
<b>COMPASS</b> Algebra	40 or less	41-43	44+	42 or less	43-44	45+		
<b>COMPASS</b> College Algebra						50+	67+	46+
<b>COMPASS</b> Trigonometry								
<b>SAT Old</b> Math	429 or less	430-479	480+	449 or less	450-499	500+	560+	
<b>SAT New</b> Math	469 or less	470-514	515+	489 or less	490-529	530+	580+	

## Regulations

These provisions apply to baccalaureate degrees:

- Hours earned as credit by examination are counted as hours toward graduation but are not counted as hours in residence. See "Policy 503.5 – Credit by Examination."
- A student may elect to graduate under the provisions of the UA Little Rock Undergraduate Catalog in effect during any semester in residence at UA Little Rock before qualifying for a degree. Students who interrupt their enrollment at UA Little Rock for more than five consecutive calendar years must use the catalog current at the time of readmission or later. A student transferring to UA Little Rock from regionally accredited four-year institutions, community colleges, or junior colleges with 13 or more hours of accepted credit may graduate under the provisions of a UA Little Rock Undergraduate Catalog in effect during any semester of the previous five years in which they were enrolled at the other institution. Note: At no time may a student follow the provisions of a UA Little Rock Undergraduate Catalog that is more than five years old at the time of the student's entry into UA Little Rock.
- A student enrolled at UA Little Rock who intends to enroll concurrently or a transient student at another accredited institution should obtain advance approval.
- A senior may participate in commencement exercises prior to the completion of all degree requirements if the student has:
  - A cumulative 2.0 grade-point average on all work attempted at UA Little Rock.
  - A cumulative 2.0 grade-point average in the academic major and in the academic minor.
  - No more than nine hours remaining to complete degree requirements.
  - Submitted a graduation application following prescribed procedures. See "Graduation Procedure" in the UA Little Rock Undergraduate Catalog.

(Academic majors and colleges may specify more restrictive requirements which supersede these regulations and are detailed in the academic section of the catalog.)

Policy 507.1 – Baccalaureate and Associate Degree Requirements, January 5, 2015.

## Commencement Participation

A senior may participate in commencement exercises prior to the completion of all degree requirements if the student has achieved the following:

- A cumulative 2.0 grade-point average on all work attempted at UA Little Rock.
- A cumulative 2.0 Grade point in the academic major and in the academic minor.
- No more than nine hours remaining to complete degree requirements.
- Submitted a graduation application following prescribed procedures. See "Graduation."

## Academic Adjustment

In compliance with federal regulations, it is the policy of UA Little Rock to respond to student requests for course accommodation, substitution, and other adjustments because of a documented disability on an individual basis and in a manner that does not result in discrimination. Where requests are complex and not easily handled through the regular course substitution procedures, an established committee will review the case and make a determination.

Students who wish to request academic adjustments because of a disability should consult the academic adjustment procedures, which are printed in the UA Little Rock Student Handbook, or contact Disability Resource Center at (501) 569-3143.

The syllabus for each UA Little Rock course should include the following statement:

Students with Disabilities: Your success in this class is important to me, and it is the policy and practice of the University of Arkansas at Little Rock to create inclusive learning environments consistent with federal and state law. If you have a documented disability (or need to have a disability documented) and require an accommodation, please contact me privately as soon as possible, so that we can discuss with the Disability Resource Center (DRC) how to meet your specific needs and the requirements of the course. The DRC offers resources and coordinates reasonable accommodations for students with disabilities. Reasonable accommodations are established through an interactive process among you, your instructor(s), and the DRC. Thus, if you have a disability, please contact me and/or the DRC, at 501.569.3143 (V/TTY) or 501.683.7629 (VP). For more information, go to [ualr.edu/disability](http://ualr.edu/disability).

## Academic Dishonesty

The student has the right to attend classes until the appeal is resolved. The student may not withdraw from a course while an allegation of academic dishonesty in that course is being adjudicated. If the student withdraws from a course after receiving notification of an allegation of academic dishonesty; the student will be reinstated, pending final adjudication of the allegation.

At the conclusion of the adjudication process:

- If academic dishonesty is found, a grade of "F" in the course is assigned, then the failing grade will be recorded and remain on the student's transcript.
- If academic dishonesty is found, and a penalty less than a grade of "F" for the course was assigned, then the student may continue in the course or withdraw from the course at that time.
- If academic dishonesty is not found, the student may continue in the course or withdraw from the course at that time.
- If the adjudication process is not completed before the end of the semester, a temporary grade not affecting the student's GPA will be submitted until the adjudication process is completed.

The student may retake a course in which a grade of "F" is assigned as a penalty for academic dishonesty. However, in such cases, the original grade of "F" will not be replaced but instead be included in the calculation of the student's cumulative GPA along with the subsequent grade received.

## Academic Hours

UA Little Rock students are encouraged to spend sufficient time outside of classes to master the subject content of their courses. Academic working hours include the time spent in classes as well as the time spent outside of classes on homework. The number of academic working hours can vary widely from student to student, depending on the preparation and ability of the student, the norms of different academic disciplines, and the expectations of individual faculty members.

However, an average academic workload can be estimated from the general thumb rule that at least two hours of homework per hour of classes are necessary for an average student to master subject content with average ('C') grades.

Thus, the minimum number of academic working hours per week can be estimated by multiplying total credit hours by a factor of three. For example, a full-time student taking

15 credit hours should plan to spend at least 45 academic working hours per week attending classes and doing homework, e.g., reading, writing, studying, etc. Mastering the subject content of courses with above average ('B') or superior ('A') grades may require more time and effort. Finally, since mastery of subject content is the goal, no amount of study time can guarantee academic success—course grades and course credits are awarded for mastery of subject content, not time on task.

## Academic Offenses

The most common offenses subject to grade penalty and/or disciplinary action are:

- **Cheating on an examination or quiz:** To give or receive, to offer or solicit information on any quiz or examination including (a) copying from another student's paper; (b) using prepared materials, notes, or texts other than those specifically permitted by the professor during an examination; (c) collaborating with another student during an examination; (d) buying, selling, stealing, soliciting, or transmitting an examination, or any material purported to be the unreleased content of an upcoming examination, or the use of such material; (e) substituting for another person during an examination or allowing such substitution for oneself; (1) bribing a person to obtain examination information.
- **Plagiarism:** To adopt and reproduce as one's own, to appropriate for one's own use and incorporate in one's own work without acknowledgment, the ideas of others or passages from their writings and works.
- **Collusion:** To obtain from another party, without specific approval in advance by the professor, assistance in the production of work offered for credit to the extent that the work reflects the ideas or skills of the party consulted rather than those of the person in whose name the work is submitted.
- **Duplicity:** To offer for credit identical or substantially unchanged work in two or more courses, without specific advance approval of the professors involved.

The university has developed certain regulations to make possible an orderly academic environment where all members of the community have the freedom to develop to the fullest extent.

Academic dishonesty cannot be condoned or tolerated in the university community. Such behavior is considered a student conduct violation and students found responsible of committing an academic offense on the campus, or in connection with an institution-related or sponsored activity, or while representing the university or academic department, will be disciplined by the university.

## Academic Probation and Suspension

Students will be placed on academic probation at the end of a term if their cumulative grade point average (GPA) drops below a 2.0 GPA. Students on academic probation are limited to a maximum of 13 credit hours each semester. Students will continue on academic probation as long as their cumulative GPA continues to remain below 2.0 GPA.

International Freshmen and International Transfer Students on academic probation will report to the Office of International Student Services. Student-athletes on academic probation will report to the Academic Advisor or their coach in Athletics. Non-Degree Seeking Students are exempt from this requirement. A mechanism for waiving the requirement on a case-by-case basis for other students for whom physically reporting to the Academic Success Center is a practical impossibility—for example, students taking all online courses from a great distance from Little Rock—will be implemented.

### Suspension (From UA Little Rock)

Suspension occurs after the third successive semester of academic probation. Students who have finished their academic suspension are required to contact the Office of Records and Registration. These students will be placed on academic probation, limited to 13 credit hours per semester while on probation, and placed in a single semester probation status.

This status requires that the student achieve a current term GPA of 2.0 or greater each term until the student's cumulative GPA is 2.0 or higher. Failure to achieve a term GPA of 2.0 or greater while in a single semester probationary status will result in academic suspension for two full semesters.

Students will remain in the program until their cumulative GPA rises above 2.0 or they are academically suspended (after three consecutive semesters on probation).

Program activities will be tailored to fit the needs of the individual student based on the outcome of the intake assessment and the student will be assigned to a mentor. A contract will be signed by the student and the mentor. Students needing fewer than 18 credit hours for graduation may request an exemption for the credit hours restriction to their academic advisor or department chairperson. Denial of this request may be appealed to the dean of the college and the provost.

Students admitted with academic deficiencies will be limited to a maximum of 13 credit hours each semester.

When such a student achieves a current term and cumulative GPA of 2.0 the limitation in hours is removed. If the student fails to obtain the required current term or cumulative GPA then the student is placed on academic probation. Such students will not be subject to academic suspension until the end of the third semester unless they were admitted on a single semester contract basis. A student suspended from UA Little Rock who earns academic credit from another accredited college or university during the period of suspension may receive credit for the course at UA Little Rock when readmitted if the course is transferable.

### Suspension (from an Institution Other than UA Little Rock)

A student under first academic suspension from an accredited college or university may be admitted to UA Little Rock and allowed to enroll in probationary status. The student may enroll for a maximum of 7 hours and must attain a cumulative GPA of at least 2.0. Failure to attain the minimum 2.0 GPA in the first semester will result in suspension from UA Little Rock.

### Advanced Placement Program

Advanced Placement (AP) examinations are administered by selected secondary schools. Students who take AP exams should have official score reports sent directly to the Office of Testing Services for evaluation. You may also contact the College Board at (888) 225-5427 to request scores be released to UA Little Rock. The school code for UA Little Rock is 6368.

A list of AP course eligibility, exemption, or credit by score may be found on the Testing Services and Student Life Research website.

### Attendance Requirements

Each faculty member has the prerogative of setting specific attendance requirements for classes. In some courses, active student participation is an integral part of the course, and the instructor may base a portion of the students' grades on attendance and participation. In general, students are expected to attend class regularly. Students who miss class are responsible for finding out about the material covered, homework assignments, and any announcements or examinations.

On the 10th day of classes, students who have not attended class will be administratively withdrawn by the instructor. Students may be administratively withdrawn from a class by the instructor for excessive absences during the semester.



## Auditing a Course

A student who may enroll in a course but not participate in the formal assignments of the class nor receive a grade or credit. Enrollment is entered on the student's permanent record. Criteria to receive the audit grade may be set forth by the instructor of the course. Auditing is subject to the professor's approval and the payment of the applicable fees. Auditors may not change their registration to credit after the deadline listed in the Academic Calendar, which is normally the end of the registration period.

## Changes in Enrollment (Course Drop Dates)

A student can drop a course up to the 5th day of classes through the schedule change process. Dropping a course in this time period will not result in a record of the drop on the student's transcript. From the 6th day through the 41st day of classes, a student wishing to drop a class must follow the course drop process as found on the Office of Records and Registration website. Courses cannot be dropped after the 41st day of classes. The cutoff dates in this paragraph refer to the day of classes in a 15-week semester (five days equals one week). In shorter semesters the cut-off dates will be adjusted proportionately. See the Academic Calendar for course drop dates.

## Clemency

Any undergraduate student who has previously attended UA Little Rock or its predecessor institutions (Little Rock Junior College or Little Rock University) and whose attendance at UA Little Rock or any institution of higher education has been interrupted for a period of at least two years may qualify to request academic clemency providing he or she meets all of the criteria specified below. Under this policy, a student may apply to have grades and credits earned at UA Little Rock previous to the separation removed from his or her grade point average. Approval of a request for clemency requires the signature of the student's advisor and the provost.

After re-entering UA Little Rock following a separation of at least two years from any institution of higher education, a student may request academic clemency at the Office of Records and Registration. The student shall specify the term(s) for which clemency is desired. The request will be forwarded, along with appropriate permanent record information, to the student's advisor for approval. The advisor shall forward the request to the provost.

Clemency shall cover all credits earned during the term(s) for which clemency is requested. A student who requests and receives academic clemency is ineligible to graduate

with honors. The student's complete record will remain on the transcript with the added notation of academic clemency received.

Any petition for academic clemency must be requested and granted prior to the awarding of a degree. Once the degree is awarded, the record is closed and the academic clemency policy cannot be invoked.

Academic clemency may be approved only once. For purposes of degree requirements, a student who receives clemency must follow the provisions of the Undergraduate Catalog in effect at the time of re-enrollment.

## Course Load and Enrollment Limits

UA Little Rock must define enrollment statuses by mandate of the U.S. Department of Education. These definitions are used to determine eligibility for financial aid and scholarships and are used consistently throughout the campus.

- A full-time undergraduate student must be enrolled for a minimum of 12 credit hours a semester. (**Note:** Some scholarships may require additional hours.)
- A three-quarter-time undergraduate student must be enrolled in 9 to 11 hours a semester.
- A half-time undergraduate student must be enrolled in 6, 7, or 8 hours a semester.

Undergraduate summer semester enrollment hours include hours from all summer terms. The full-time, three-quarter, and half-time enrollments are the same as fall or spring semesters. Course load definitions for graduate students are different and can be found in the UA Little Rock Graduate Catalog.

A student may not enroll for more than 18 credit hours in a regular semester (Fall or Spring) or more than 7 credit hours in a five-week Summer term without prior permission of the person who approves his or her degree plan.

Please see the "Academic Hours" section for an expectation of hours spent out of the classroom.

## Courses Taken at Other Colleges and Universities

Students may choose to enroll at another regionally accredited academic institution while attending UA Little Rock. In order to assure that the credit for coursework to be taken elsewhere meets UA Little Rock degree program requirements, students should contact the Office of Transfer Student Services if the course is to count toward

core requirements, and contact their major advisor and minor program coordinator if the course is to count toward major or minor requirements. This should be done prior to taking the coursework.

## Credit by Examination

UA Little Rock offers students the opportunity to obtain credit through examination in certain courses. There are currently six sources of examination credit:

- Departmental Examination Program (DEP)
- College Level Examination Program (CLEP)
- Excelsior College Examinations (formerly Regents College and ACT-PEP)
- Advanced Placement Program (AP)
- Defense Activity for Non-Traditional Education Support (DANTES)
- International Baccalaureate (IB)

All tests conform to these general regulations:

- Students who successfully test out of a course shall receive credit hours for that course with a credit grade (CR) but no grade points.
- The examination shall be administered at least once per semester and in such a manner as to facilitate access for the student.
- Departmental tests and CLEP subject examinations are administered at UA Little Rock. Excelsior College Examinations are computer-based tests administered at Pearson VUE Testing Centers. Any perspective, currently enrolled, or continuing student may take these tests.

Students who take CLEP, AP, DANTES, IB or Excelsior College Examinations should have official score reports sent directly to the Office of Testing Services for evaluation. Credit obtained through examination is recorded as approved hours on the student's official, permanent record without grade or grade points after the student has been enrolled at UA Little Rock for one semester. Additional information may be obtained from Testing Services by calling (501) 569-3198 or at [ualr.edu/testing](http://ualr.edu/testing).

## Developmental Courses

If a student does not meet the minimum score for eligibility in math, composition, and/or reading, that student must be enrolled in a developmental course to gain the skills necessary to be successful in those classes. The developmental courses at UA Little Rock are MATH 0321 Pre-Core Mathematics I, RHET 0310 - Composition Fundamentals, and RHET 0321 - Academic Literacy. The university admission policy requires that all developmental

courses be completed during a student's first 42 hours of course work.

Students may not take any developmental course at UA Little Rock more than twice. A student is considered to have taken a developmental course if he or she receives a grade of NC or W for the course. Students who have failed to pass a particular developmental course twice should speak to their advisors or the department offering the course to explore other options for covering the material. A student is not considered to have taken a developmental course if he or she has been granted academic clemency since that time.

## Developmental Courses and GPA

Grades from developmental courses will not be computed into a student's official grade point average (GPA). Credit hours earned from developmental courses do not count towards the minimum required for the student's degree.

## Final Examinations

Final examinations must be taken at the time scheduled. Makeup examinations may be given to students who, because of unforeseeable circumstances involving illness, accident, or serious family emergency, were unable to take the regular examination. Such exams will be given only on the approval of the instructor and the department chairperson.

## Grade Changes

All grade changes must be approved by the department chairperson under whose jurisdiction the course was taught. Forms for securing that approval are available in the departmental offices. Grades cannot be changed after a student graduates from UA Little Rock.

A final course grade may not be changed on the basis of a second final examination or additional course work undertaken or completed after a student's final course grade has been reported by the instructor to the Office of Records and Registration.

Students at UA Little Rock have the right to appeal any grade that they feel was undeserved. The formal process through which a student can appeal a decision on a final grade is described in detail in the "Grade Appeals" section of the UA Little Rock Student Handbook, which is available in the Office of Educational and Student Services, Dean of Students, [ualr.edu/deanofstudents](http://ualr.edu/deanofstudents).

## Grades and Grading System

Grade reports are made available online to each student at the end of each semester in residence by accessing BOSS. If written confirmation is needed, contact the Office of Records and Registration.

Permanent letter grades	Point Values
A – Superior work	4
B – Good work, above average	3
C – Average work	2
D – Passing work, below average	1
F – Failing work	0
I – Incomplete	
CR – Credit	
NC – No credit	
IP – In progress (Graduate Only)	

## Administrative Symbols:

AU Audit

MG Missing grade

W Withdrawal

Students may take one course each semester on a "CR/NC" basis with instructor approval arranged at the time of registration. The selection of courses is limited to electives. Courses in which a department requires "CR/NC" grading are not included in this limitation.

The designation of "I" or incomplete, is appropriate where the instructor deems that circumstances beyond the student's control prevented timely completion of course requirements. The designation normally is given by the instructor only after consultation with the student and after the student has been informed in writing; additionally, a copy of the written notice is filed with the department chairperson regarding work to be completed and the completion date.

The work must be completed and the "I" converted by the instructor to the appropriate grade within 90 days for undergraduate courses and within one year for graduate courses from the time the "I" was recorded. Failure to do

so will result in the "I" being administratively changed to an "F."

A request to extend the deadline to complete an "I" must be completed by the instructor and forwarded to the Office of Records and Registration prior to the 90-day expiration date. The request must include a specific date by which all course work will be completed.

## Graduation Process

Students must apply for fall, spring, or summer terms to be considered for graduation for that term. Refer to the Office of Records and Registration website for exact dates. If the student does not meet the original expected term graduation date, he or she must reapply.

To be included in the Fall or Spring Commencement Program, all fall or spring applicants must submit their application online. The application for graduation is completed by going to the secure portion of BOSS.

1. Go to BOSS and log in.
2. Once you login select "Student Services" and select "Student Request Menu" to complete the online application.

Program printing deadlines will not enable the University to include the names of students submitting applications after the deadline. Please refer to BOSS for more information.

Students pursuing a double major must submit two graduation applications.

## Graduation Term

In order to be awarded a degree in the term of graduation, a student must complete all requirements and obligations no later than the date grades are due as listed in the Academic Calendar. This includes but is not limited to grades of "I" "MG" and "IP." Students failing to meet this deadline must reapply for graduation and will be awarded their UA Little Rock degree the following term, provided all requirements have been met.

## Honors

### Chancellor's and Dean's List

Names of students whose academic performances have been superior are recorded on the Chancellor's and the Dean's Lists. This recognition is also noted on the student's grade report and on official transcripts. This status will be granted at the end of each semester in which the following qualifications have been met:

### Chancellor's List:

- At least nine hours for credit with a grade of A, B, C, or CR
- At least a 3.9 grade-point average for the semester
- No D, F, I, or NC grades on the semester grade report

### Dean's List:

- At least nine hours for credit with a grade of A, B, C, or CR
- At least a 3.5 grade-point average for the semester
- No D, F, I, or NC grades on the semester grade report

## Departmental Honors

Several departments at UA Little Rock offer honors programs to exceptional students. Admission to an honors program is generally tied to the student's grade point average and year standing and may require nomination by a faculty member. Such programs are distinct from graduation with honors; in addition to meeting and maintaining a certain grade-point average, qualifying students also take a special curriculum in the major. Requirements may include advanced study, seminars, or a research project and presentation. Departmental honors are posted on the student's academic transcript at graduation. Contact individual departments for more information.

## Graduation Honors

Graduation honors are calculated on all academic work including all UA Little Rock credit courses, all repeated courses and all work completed at all other institutions, whether accepted as transfer credit at UA Little Rock or not.

The bachelor's degree with honors will be conferred upon candidates who graduate and earn a minimum cumulative grade point on all courses taken (both transfer courses and credit courses at UA Little Rock. as follows:

- Summa cum laude: minimum grade point average of 3.90
- Magna cum laude: minimum grade point average of 3.70
- Cum laude: minimum grade point average of 3.50

A minimum of 30 hours in residence at UA Little Rock is required to qualify for a degree with honors. A student qualifies for honors based on the grade point average on all hours, including repeated courses at UA Little Rock and including transfer hours whether or not accepted for credit.

All academic work, including transfer courses and repeated courses, is included in the final calculation for honors. Some courses from institutions outside of the U.S. are calculated in the admissions process on a "pass/not pass" basis. In order for a student to be considered for honors, all credentials from institutions outside of the U.S. must be evaluated to determine an A, B, or C equivalency.

The associate degree with honors will be conferred upon candidates who at graduation have earned a minimum cumulative grade point on all college work (both transfer and residence credit) of 3.70. The recipient must have met all requirements for graduation with an associate degree and must not have completed more than 83 credit hours. A UA Little Rock student can be awarded graduation honors only once. Students who graduate from another college or university and pursue a second undergraduate degree at UA Little Rock are not eligible for honors. University and departmental honors (but not awards) may be posted on the academic transcript.

## Repeated Courses

If an undergraduate student repeats a course for credit, only the last grade will be computed into the cumulative grade point average. (The earlier grade will remain on the transcript with an "E" indicating exclusion from the grade point average.)

If there have been any changes in course numbers or titles, the student must first obtain the approval of the chairperson of the department offering the course to be assured it is an identical course.

All grades for repeated courses are included in calculations for graduation honors. Once a degree has been awarded, repeated courses will not be accepted.

## Student Classifications

### Level

**Freshman:** a student who has satisfactorily completed fewer than 30 credit hours.

**Sophomore:** a student who has satisfactorily completed at least 30 credit hours and fewer than 60 credit hours.

**Junior:** a student who has satisfactorily completed at least 60 credit hours and fewer than 90 credit hours.

**Senior:** a student who has satisfactorily completed at least 90 credit hours.

### Status

**Regular:** a student who is admitted as a degree candidate.

**Temporary:** a student who is admitted as non-degree seeking. See "Admissions" page for additional classifications.

**Transient:** a student who is admitted for one semester or summer and who is in good standing at his or her primary institution.

**Post-baccalaureate:** a student who has already earned a baccalaureate degree and is enrolled in undergraduate work for credit.

## Student Email

Student email accounts are created within 24 hours of class registration and are an official means of communication between the University and the student. Important University-related information will be sent to individual email accounts. Students are responsible for regularly reading email messages. Types of communication include but are not limited to: financial aid information, inclement weather closings, e-bills and payment deadlines, registration information, and library notices. The UA Little Rock email system can be accessed through your MyUA Little Rock portal or at [my.ua.lr.edu/](mailto:my.ua.lr.edu).

## Transcripts

Transcript requests require three days of processing regardless of how you submit your request.

You can submit a signed transcript request in one of the following ways:

1. Online
  - Log into your BOSS account
  - Read through the Important Dates page
  - Select Student Services
  - Select Student Records
  - Select Request an Official Academic Transcript

Follow the onscreen instructions to order your transcript. You cannot request that a transcript is held until a degree is awarded using this method.

2. By Mail  
University of Arkansas at Little Rock  
Attn: Office of Records and Registration  
2801 South University Avenue  
Little Rock, AR 722041099
3. By Fax  
(501) 569-8168
4. By Email  
[records@ualr.edu](mailto:records@ualr.edu) (Form must be signed and attached to email)
5. In Person  
Visit the Student Services Center, Room 218.

## Second Language Requirement

Some degree programs require a demonstration of proficiency in a second language. Different programs have unique foreign language requirements. Check with your advisor or the Chair of the Department of World Languages at (501) 569-3272 to see if your program has a language requirement.

Options for completing program language requirements include the following:

- Completing requisite coursework at UA Little Rock in French, Spanish, Arabic, Mandarin (offered through the World Languages Department) and American Sign Language-English (offered by the School of Counseling, Human Performance and Rehabilitation (CHPR)).
- Transferring foreign language credit from another college or university, including colleges or universities abroad.
- Testing out with the Computer Adaptive Placement Exam (CAPE) in French or Spanish, described in the Language Placement section below.
- Testing out with a score of 3 or higher on an Advanced Placement (AP) exam in a foreign language.
- Testing out with the College Level Examination Program (CLEP) in French or Spanish; contact the Department of World Languages for more information.

## American Sign Language (ASL)

Option for completing program language requirements include the following:

- Successfully completing a two-part test in American Sign Language administered by CHPR's Interpreter Education Program (IEP). The first part of the test is a written multiple-choice exam; the second part is an interview with program faculty conducted in ASL. Contact CHPR at (501) 569-3253.

## English as a Second Language

Options for completing program language requirements include the following:

- If your first language is not English, you can use the following core courses (9 credits) to satisfy a second language requirement: RHET 1311 - Composition I, RHET 1312 - Composition II, and

ENGL 2337 - World Literature or ENGL 2338 - World Literature Themes or PHIL 2320 - Ethics and Society.

- Students who complete the 9-credit Intensive English Language Program can use these credits to satisfy a language requirement.

Second language course waivers may be granted to students with verified disabilities after examination by a special committee. Students seeking such a waiver should contact the Associate Vice Chancellor for Academic Affairs at (501) 569-3204.

## Language Placement

If you studied a second language in high school or another college or university, or you have prior knowledge of a second language, you should take a placement exam before enrolling in a language course at UA Little Rock. The test is free, and your score is available immediately. The Computer Adaptive Placement Exam (CAPE) in Spanish and French is administered by the Office of Testing Services, located in Donaldson Student Services Center, Room 315. Scores are interpreted by the chair of the Department of World Languages. The CAPE exam is available in languages other than French and Spanish; contact World Languages at (501) 569-3272 for more information.

For placement in American Sign Language, contact the School of Counseling, Human Performance and Rehabilitation at (501) 569-3169 for more information.

## General Education Core Curriculum

General education nurtures in students the knowledge, skills, habits of mind, and values that provide a foundation for their baccalaureate program and for lifelong learning.

General education fosters intellectual breadth, serves as a context for more specialized study, and is essential to the full development of persons who wish to participate meaningfully in the various communities of which they are apart.

Given these goals, we endorse the following Educational Outcomes in the areas of Knowledge, Skills, and Citizenship. We recognize that certain specific aspects of these outcomes will be discipline specific, and we expect that the level of competence in each area will be defined and assessed according to the individual disciplines. The recommendations for core courses and other curriculum changes should be informed by these general outcomes. As programs develop, changes, deletions, or additions may be necessary, and this document outlines a process for making those changes.

### Educational Outcomes

#### Skills

- Communication (oral, written, visual, professional self-presentation).
- Critical thinking, quantitative reasoning, and solving problems individually and collaboratively.
- Information technology (locating, retrieving, evaluating, synthesizing).

#### Knowledge

- The concepts, methodologies, findings, and applications of mathematics and the social and natural sciences, engineering, and technology.
- Concepts, methodologies, and global cultural heritage of the arts and humanities.

#### Values

- Ethical and personal responsibility.
- Civic responsibility.
- Global and cultural understanding.

### General Education

The UA Little Rock Core Curriculum is 35-semester credits. These 35 credits will be divided in the following way: 29 credits in the Standard Core and 6 credits in the College Cores. The Standard and College cores together satisfy the Arkansas State Minimum Core. Some colleges, departments, or programs may have additional requirements.

### Test-out Option

Every course in the UA Little Rock Core Curriculum must have a test-out option. The test must be reviewed by appropriate program to ensure that it meets the needs of the UA Little Rock Core Curriculum.

### UA Little Rock Standard Core (29 hours)

The UA Little Rock Standard Core is intended to make available to students an introduction to the richness of human thought and creativity that find expression in the areas of the liberal arts, humanities, and social sciences. Additionally, the Standard Core serves as the starting point for students to achieve the UA Little Rock Educational Goals while providing a maximum of transferable credits among colleges to allow students to explore a variety of disciplines before selecting a major.

#### Communication – Written (6 credits)

Courses in this area focus on teaching students to develop ideas and express them clearly, adapt language to rhetorical situations, support ideas by integrating research, and build the skills needed to communicate ethically and effectively in their academic, professional, and civic arenas of life.

#### Fine Arts (3 credits)

Courses in this area offer a broad overview of one or more art forms, to teach concepts and methodologies involved in the study of the arts, including formal and stylistic analysis, and the use of technical, discipline-specific vocabulary in their own analyses of artworks. These courses enable students to expand their knowledge of the global diversity of cultures, both contemporary and historical, and their awareness of their own culture/s and private values. These courses also require students to experience arts performances and institutions within the larger community.

#### History of Civilization (3 credits)

Courses in this area are unique in that they bridge the humanities and social sciences. They convey knowledge of key historical people, events, and the contexts in which scientific and humanistic reasoning and discovery take (and have taken) place. These courses explore patterns of social and cultural change and transition over time, make connections between the past and present, and facilitate critical and analytical thinking and writing.

#### Humanities (3 credits)

Courses in this area emphasize the reading and interpretation of a broad survey of philosophical, literary, and other texts to focus on the examination and

representation of human thought and experience. These courses employ humanistic inquiry in order to interrogate the human experience, and the meanings and values that individuals and cultures assign to it.

### **Social Sciences (3 credits)**

Courses in this area address broad areas of individual, group, or societal behavior. These courses also focus on the application of theoretical perspectives and emphasize how scientific methods are applied to understanding behaviors of individuals, groups, or societies.

### **Science (8 credits)**

Courses in this area focus on teaching students the concepts, methodologies, findings, and applications of science while developing their inquiry and analysis skills. All courses in this area use the scientific method, apply quantitative reasoning, critical thinking, problem-solving, information technology, and foster a commitment to ethical behavior. All courses must include a lecture and a laboratory.

### **U. S. History/Government (3 credits)**

Courses in this area teach how our government is structured, the history of our nation, and how that history has shaped and is shaping, our government.

### **Communication – Spoken (0-3 credits)**

Courses in this area focus on developing student knowledge and skills in a variety of spoken communication contexts.

### **Mathematics (3 credits)**

Courses in this area focus on teaching students the concepts, methodologies, findings, and applications of mathematics while developing their inquiry and analysis skills. All courses in this area also address quantitative reasoning, critical thinking, problem-solving, and, a commitment to ethical behavior.

### **Interdisciplinary Studies\* (0-3 credits)**

Interdisciplinary core courses focus on at least two disciplines and must include at least one of the following curricular areas: Humanities, Social Sciences, or Communication – Spoken. Courses are team-taught by faculty who have expertise in these disciplines and explore strengths, limitations, and interaction among multiple disciplines, or how disciplines might collaborate to examine a problem.

## **UA Little Rock Core Requirements**

The UA Little Rock Core Curriculum is 35-semester credits. These 35 credits will be divided in the following way: 29 credits in the Standard Core and 6 credits in College Cores. The Standard and College cores together satisfy the Arkansas State Minimum Core. Some colleges, departments, or programs may have additional requirements.

### **UA Little Rock Standard Core (35 credits)\***

<b>Credits</b>	<b>Curricular Area</b>
<b>6</b>	<b>Communication – Written</b>
<b>3</b>	<b>Fine Arts</b>
<b>3</b>	<b>Flex**</b>
<b>3</b>	<b>History of Civilization</b>
<b>3</b>	<b>Humanities</b>
<b>3</b>	<b>Mathematics***</b>
<b>8</b>	<b>Science</b>
<b>3</b>	<b>Social Sciences</b>
<b>3</b>	<b>U. S. History/Government</b>

\*Donaghey Scholar courses must be accepted by all programs as meeting the Standard Core; however, the Donaghey Scholars program is not required to accept the university Standard Core courses in lieu of Donaghey Scholar program requirements.

\*\*Engineering programs must replace these 3 credits with 3 credits of Mathematics or Science. Students in the College of Business are required to take ACOM 1300.

\*\*\*Students in the College of Business cannot take MATH 1321 to satisfy Core requirements.



### College Core (6 credits)\*

Credits	Curricular Area
3	Mathematics (3 credits)
3	Humanities or Social Sciences or Communication–Spoken or Interdisciplinary **

\*Courses approved for the college cores are found in the individual college sections of this catalog.

\*\*Engineering programs replace these 3 credits with 3 credits of mathematics and/or science per the State Minimum Core.

### Core Transfer

1. Students who transfer from public Arkansas institution with a completed designated transfer degree (Associate of Arts, Associate of Science, or Associate of Arts in Teaching, or any future associate degree program approved by the Arkansas Department of Higher Education that includes a 35-hour state core curriculum have met all of the UA Little Rock core requirements.
2. The core will be transferred according to the core transfer policy and courses will be transferred according to the course transfer policy. Any additional credits that are not assigned by those two policies shall be awarded as general lower level elective credit up to 60 credit hours.
3. Students who transfer from public Arkansas institutions and transfer a course in the state ACTS system that matches a course in the UA Little Rock core meet the specific core requirement fulfilled by that course.
4. Students who transfer from public Arkansas institutions and transfer a course taken to meet a core curricular requirement at the sending institution meet the specific core requirement fulfilled by that course.
5. Students who transfer between UA Little Rock colleges and have officially declared a major in the sending college, and transfer a course taken to meet a core curricular requirement in the sending UA Little Rock college, meet the specific core requirement fulfilled by that course.
6. Students who transfer from regionally accredited out of state or private institutions, including those transferring in completed associate degrees, who have completed 35 credit course of courses work in the following distribution meet the core requirement in

that core curricular area and are only required to take coursework from the area(s) they are missing:

- English/Communications: 6-9 hours
- Math: 3 hours
- Science: 8 hours
- Fine Arts/Humanities: 6-9 hours
- Social Sciences: 9-12 hours, including 3 hours of US History or American National Government

### General Education Requirements for Associate Degrees

An associate degree must contain the courses from the UA Little Rock Core Curriculum in the following curricular areas:

- Communications – Written (6 credits)
- U. S. Traditions (3 credits)
- Mathematics (3 credits)
- Any associate of arts, associate of science, or associate of science in teaching degree which has been designated as a transfer degree per Act 182 of 2009 will adopt the UA Little Rock Core Curriculum. The Associate of Arts, Associate of Science, and Associate of Arts in Teaching will be designated as transfer degrees per Act 182 of 2009.

### U.S. Traditions: United States History or Government Requirement

Arkansas law requires that all students who receive an associate or baccalaureate degree successfully complete a course in U.S. history or U.S. government. This requirement can be met by HIST 2311 - U.S. History to 1877, HIST 2312 - U.S. History since 1877, or POLS 1310 - American National Government. Other United States history or government courses may also meet this requirement. However, the student should check with an advisor in the Department of History or the Department of Political Science before choosing to meet the requirement with any other course.

### UA Little Rock Core Curriculum Courses (General Education Requirement)

The Faculty Senate Council on Core Curriculum and Policies approves core courses. Every attempt is made to keep this page up to date. Since this is a dynamic process, the catalog page may not have the latest

approved courses. Please see the Council's page for the most up-to-date listing.

## General Education Requirements UA Little Rock Standard Core (29 hours)

### Communication – Written (6 credits)

- RHET 1311 - Composition I
- RHET 1312 - Composition II
- RHET 1320 - Honors Composition

### Fine Arts (3 credits)

- ARHA 2305 - Introduction to Visual Art
- ARHA 2306 - Introduction to Architecture
- MCOM 2306 - Introduction to Motion Pictures
- MUHL 2305 - Introduction to Music
- THEA 2305 - Introduction to Theatre & Dance

### Flex\* (3 credits)

\*Engineering programs must replace these 3 credits with 3 credits of Mathematics or Science.

\*Students in the College of Business are required to take ACOM 1300.

- Any Humanities course (see below)  
Any Social Sciences course (see below)
- ACOM 1300 - Introduction to Communication

### History of Civilization (3 credits)

- HIST 1311 - History of Civilization I
- HIST 1312 - History of Civilization II

### Humanities (3 credits)

- ENGL 2337 - World Literature
- ENGL 2339 - Mythology
- PHIL 2320 - Ethics and Society
- PHIL 2321 - Ethics and Society: Professional Applications
- RELS 2305 - World Religions

### Mathematics\*\* (3 credits)

\*\* Students in the College of Business cannot take MATH 1321 to satisfy Core requirements

- MATH 1302 - College Algebra
- MATH 1321 - Quantitative and Mathematical Reasoning
- MATH 1401 - Pre-Calculus

### Science (8 credits)

- ANTH 1415 - Physical Anthropology

- ASTR 1301 - Introduction to Astronomy
  - **and**
  - ASTR 1101 - Introduction to Astronomy Laboratory
  - BIOL 1400 - Evolutionary and Environmental Biology
  - BIOL 1401 - Science of Biology
  - BIOL 1433 - Essentials of Anatomy and Physiology
  - BIOL 2401 - Microbiology
  - CHEM 1400 - Fundamental Chemistry I
  - CHEM 1402 - General Chemistry I
  - CHEM 1406 - General Chemistry for Engineers
  - CHEM 1409 - Chemistry and Society
  - ERSC 1302 - Physical Geology
  - **and**
  - ERSC 1102 - Physical Geology Laboratory
  - ERSC 1304 - Earth and the Environment
  - **and**
  - ERSC 1104 - Earth and the Environment Lab
  - ERSC 2303 - Historical Geology
  - **and**
  - ERSC 2103 - Historical Geology Laboratory
  - PHYS 1321 - College Physics I
  - **and**
  - PHYS 1121 - College Physics I Laboratory
  - PHYS 1322 - College Physics II
  - **and**
  - PHYS 1122 - College Physics II Laboratory
  - PHYS 2321 - Physics for Scientists and Engineers I
  - **and**
  - PHYS 2121 - Physics for Scientists and Engineers I Laboratory
  - PHYS 2322 - Physics for Scientists and Engineers II
  - **and**
  - PHYS 2122 - Physics for Scientists and Engineers II Laboratory
- ### Social Sciences (3 credits)
- ANTH 2316 - Cultural Anthropology
  - CRJU 2300 - Introduction to Criminal Justice
  - ECON 2301 - Survey of Economics
  - ECON 2322 - Principles of Microeconomics
  - GEOG 2312 - Cultural Geography
  - GNST 2300 - Introduction to Gender Studies

- POLS 2303 - Introduction to International Politics
- PSYC 2300 - Psychology and the Human Experience
- SOCI 2300 - Introduction to Sociology

### **U. S. History/Government (3 credits)**

- HIST 2311 - U.S. History to 1877
- HIST 2312 - U.S. History since 1877
- POLS 1310 - American National Government

### **College Core (6 credits)**

#### **Mathematics (3 credits)**

- MATH 1302 - College Algebra
- MATH 1303 - Trigonometry
- MATH 1321 - Quantitative and Mathematical Reasoning
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- MATH 1401 - Pre-Calculus
- MATH 1451 - Calculus I
- STAT 2350 - Introduction to Statistical Methods

#### **Humanities/Social Sciences/Communication – Spoken/ Interdisciplinary (3 credits)**

- Communication – Spoken
- ACOM 1300 - Introduction to Communication
- Humanities – See Above
- Social Sciences – See Above
- Interdisciplinary – CNMG 1385 - Infrastructure, Environment, and Society

### **First-Year Experience Courses**

#### **First-Year Colloquium**

The First-Year Colloquium (FYC) is a graduation requirement for all entering, first-time, full-time freshmen and transfer students with fewer than 12 hours of credit (concurrent credit does not count towards the 12 transfer hours). All FYC courses carry full academic credit, are small in size, and are designed to provide a strong foundation for a successful transition to UA Little Rock.

The following table lists the FYC courses available for the 2018-19 academic year. Some FYCs are aimed at students intending to major in particular subject areas, while others are limited to students in special programs and to students receiving particular scholarships. Such students will be contacted through those programs and

scholarships as to the appropriate FYC for which they should register. Students intending to major in a subject area not listed in the table below may register for PEAW 1300 - The First Year Experience.

Students should consult their academic advisor before registering for an FYC or contact a Discovery Advisor in the Trojan Academic Advising and Support Center in the Student Services Center Building, room 320, (501) 569-3386.

<b>Intended for Declared Major</b>	<b>Course Number</b>
All majors except those listed below – First Year Experience	PEAW 1300
Business (Economics, Marketing, Finance, or Management)	BSAD 1100
Construction Management and Construction Engineering	CNMG 1101
Education (Teacher Prep Programs)	TCED 1100
Engineering TechnologyMechanical	ETME 1110
Engineering TechnologyTechnology/Computers	ECET 1302
Information Science/Computer Science	IFSC 1105
Mass Communications	MCOM 1300
Music	MUAP 1111
Systems Engineering	SYEN 1210
Theatre and Dance	THEA 1201
Donaghey Scholars	SCHL 1101

## Quick Start Guide

Have the heart of a Trojan? Join us and enjoy big-city living filled with some of the nicest people in the state! We offer world-class facilities, state-of-the-art-technology, knowledgeable professors, and great internship opportunities. This quick guide will get you started.

### Apply for Admission:

Complete an application for admission at [apply.ualr.edu](http://apply.ualr.edu) and pay the **\$40 application fee** online.

**Tip:** Your application will be reviewed by your admission counselor. We'll communicate with you via email, so be sure to provide correct addresses on your application so you don't miss updates.

### Submit Required Documents:

Your admissions counselor will review your application within 3-5 days. Log in as a returning user at [apply.ualr.edu](http://apply.ualr.edu) to view your application status and list of missing and submitted documents. Submit documents to:

UA Little Rock  
Office of Undergraduate Admissions  
2801 South University Ave.  
Little Rock, AR 72204-1099

**Tip:** Shot records can be sent via mail, emailed to [admissions@ualr.edu](mailto:admissions@ualr.edu), or faxed to 501-569-8956. Transcripts should come directly from the school's registrar.

**Tip:** Testing Services provides placement testing and credit by examination. Contact the Office of Testing Services at 501.569.3198 or visit them in the Student Services Center, Room 315.

### Get Your PIN or ID Number:

**Need your BOSS PIN?** Go to [boss.ualr.edu](http://boss.ualr.edu), click "Secure Login," select "Get PIN" and follow the prompts.

**Need your ID (T Number)?** Go to [boss.ualr.edu](http://boss.ualr.edu), click "Secure Login," enter your Social Security number in the "User ID field." You'll get a message that displays your T#.

If you still have questions, contact the Office of Admissions at 501.569.3127.

### Use Your Student Dashboard for Boss, Email, and Blackboard:

1. Go to [ualr.edu](http://ualr.edu), choose "Secure Login," and enter your T#. Click "Get PIN" and follow the prompts.
2. Click "Personal Information" then "List Accounts and Change Passwords."
3. Find your netID and write it down. You'll need it later.
4. Go to "Change Password" and click each box. Enter and confirm your password.
5. Enter and confirm your new password.
6. Now you can access your e-mail, BOSS, and blackboard using your netID and new password with a single sign-on at [my.ualr.edu](http://my.ualr.edu)

BOSS is your one-stop, online system for access to:

- Set your password for your UA Little Rock email
- View outstanding financial aid requirements
- Accept offered financial aid
- Register for classes
- Pay your bill
- Check your grades

Check your UA Little Rock email at [mail.ualr.edu](mailto:mail.ualr.edu) using your NetID and password created in BOSS. Choose the option to view your usernames/change your passwords to change your passwords.

**Tip:** Your email is a primary source of communication, so check it often.

**Tip:** Your instructors may use Blackboard for communication or assignments even if it's not an online class. Get more info at [ualr.edu/blackboard/orientation](http://ualr.edu/blackboard/orientation)

### Apply for Scholarships & Financial Aid

**Step 1:** See the options available to help you fund your education at [ualr.edu/financialaid/undergrad](http://ualr.edu/financialaid/undergrad) including federal financial aid and UA Little Rock merit and private scholarships.

**Tip:** UA Little Rock's FAFSA school code is 001101.

**Tip:** Pay attention to deadlines and required materials for each scholarship.

**Step 2:** Complete the YOUniversal application on the ADHE website for state financial aid programs like the Academic Challenge Scholarship.

If you are entitled to the GI Bill, contact our Office of Military Student Success at 501.569.8171 or [vavets@ualr.edu](mailto:vavets@ualr.edu).

## Apply for Housing

View on-campus housing options and policies at [ualr.edu/housing](http://ualr.edu/housing) and complete the application in BOSS— you'll need your UA Little Rock T number and PIN.

**Tip:** Applying early increases your chance of getting your preferred hall and roommate.

Parents: Visit our housing page just for you.

## Attend New Student Orientation

**Step 1:** Visit [ualr.edu/newstudents](http://ualr.edu/newstudents) for a list of scheduled new student orientation sessions.

**Step 2:** Sign up for the date that works best for you. Meet the people who will guide you to college graduation. You'll meet with your academic advisor, register for classes, get your UA Little Rock ID card and parking pass. You'll also get to know your new college home, meet new people and have fun!

**Tip:** Orientation is required for new freshmen and recommended for transfers.

**Tip:** The Disability Resource Center is available to assist you with accommodations if you need. Be sure to stop by to visit with them!

## Academic Advising and Registration

All degree-seeking students should meet with an academic adviser before registering for classes. Find your advisor at [ualr.edu/advising/who-is-my-advisor](http://ualr.edu/advising/who-is-my-advisor).

- **Freshmen** are advised at orientation.
  - As you sign up, check your email for your Orientation Advising Profile – it's

important to submit it ASAP to help your advisor get to know you!

- **Transfers** have the option to be advised before or at orientation.
  - As you sign up, check your email for your Orientation Advising Profile – it's important to submit it ASAP to help us get to know you.
- **Post-baccalaureate** students should make an appointment with their advisor.

**Tip:** Visiting and Non-degree seeking students don't require advising!

**Tip:** If you plan to take the Accuplacer placement test, schedule your test at [ualr.at/exam](http://ualr.at/exam). Be sure to submit any AP, CLEP or other placement test scores to Testing Services.

Your advisor may help you register during your advising appointment. After you've been advised, you have the option to register for classes or adjust your schedule online.

**Tip:** Our online registration guide has video tutorials and troubleshooting suggestions.

## Rent or Buy Books

Take your schedule to the UA Little Rock Bookstore to find the books you need. Renting is usually less expensive, and you may be able to use financial aid to pay for books. You can also check them out online.

**Tip:** The bookstore price matches Amazon and local competitors.

## Pay Your Bill

View your account balance in BOSS to pay in full or set up an installment payment plan.

Deadlines are available online at [ualr.edu/bursar](http://ualr.edu/bursar)

**Tip:** Pay before the semester's deadline so you won't be dropped from your classes.

Questions? Contact the Bursar's Office at 501-569-3450.

## Admissions

Office of Admissions | Donaldson Student Services Center, 2nd Floor | (501) 569-3127 | fax (501) 569-8956 | ualr.edu/admissions

### How to Apply for Undergraduate Admission to UA Little Rock

1. Visit [apply.ualr.edu](http://apply.ualr.edu) to complete an application for undergraduate admission and submit the \$40 non-refundable application fee.
2. Applicants with fewer than 12 transferable college credit hours should request that an official high school transcript or GED scores be sent to the Office of Admissions. Only official transcripts will be accepted and must be submitted in a sealed, stamped envelope from the issuing institution or sent via electronic data interchange from the high school.
3. Applicants with fewer than 12 transferable college credit hours may need to request official ACT or SAT scores from the testing agency (UA Little Rock ACT Code 0132; UA Little Rock SAT code 6368) if the official high school transcript does not include scores and the student did not indicate UA Little Rock as a score recipient at the time of testing. ACT, SAT, COMPASS or Accuplacer scores must be from tests taken within the last five years. Students have the option of taking the Accuplacer test available through UA Little Rock Testing Services.
4. Any applicant previously enrolled at another institution(s) must request that an official college transcript(s) be sent to the Office of Admissions. Only official transcripts will be accepted and must be submitted in a sealed, stamped envelope from the issuing institution or sent via electronic data interchange from the previous institution. Students may submit an official "In Progress" transcript from the institution at which s/he is currently enrolled for admission purposes, but will still be required to submit a final, official transcript once all grades have been posted. Freshmen who completed high school concurrent credit at an institution other than UA Little Rock must submit an official college transcript.
5. Students born after January 1, 1957, must submit proof of two MMR (measles, mumps, and rubella) immunizations.

## Admission Types

### Freshmen

Students who have no college credit or earned college credit while in high school or during the summer immediately after high school graduation are classified as first-time entering freshmen. High school students can be admitted for a future term (after graduation) as early as completion of the eleventh grade. These students are expected to continue their academic success in high school and submit a final transcript after graduation. In order to be considered for admission, first-time entering freshman applicants are required to submit:

- An application for admission and non-refundable \$40 application fee at [apply.ualr.edu](http://apply.ualr.edu).
- Proof of two MMR (measles, mumps, and rubella) immunizations. (required of all applicants born after January 1, 1957)
- An official high school transcript or GED scores.
- Official ACT, SAT, Accuplacer or COMPASS scores taken within the last five
- Freshmen who completed high school concurrent credit at an institution other than UA Little Rock must submit an official college transcript.

### Unconditional Admission

Students with all of the following academic qualifications will be unconditionally admitted:

- A cumulative high school grade point average of 2.5 on a 4.0 scale.
- An ACT composite score of 19 or a 990 SAT (test date March 2016 or later) or SAT I score of at least 910 combined Critical Reading/Math (test date prior to March 2016) or comparable Accuplacer or COMPASS score.
- Successful completion of the high school college preparatory core in effect at the time of graduation from high school.

Home-schooled graduates, online high school graduates, or those with a GED are unconditionally admitted if they have an ACT composite score of 19 or a combined verbal/math SAT I score of at least 910, or a comparable COMPASS score.

### Conditional Admission

Applicants who do not meet requirements for unconditional admission may be considered for conditional admission. Students who present one of the following qualifications will be conditionally admitted:

- An ACT composite score of 18 or higher, or

- An ACT composite of at least 15 combined with a cumulative high school GPA of at least a 2.6 on a 4.0 scale, or
- An ACT composite of at least 15 combined with 5 or fewer D's and F's in college preparatory courses on the final high school transcript.

## Freshmen Transfers

Students with fewer than 12 transferable college credit hours earned after high school are classified as freshman transfers. Freshman transfers are required to submit both freshman and transfer credentials. These students will be admitted if they are in good standing at their last college or university and meet freshman admission standards.

## Transfer Students

Transfer students who have been enrolled previously in a post-secondary institution and have earned at least 12 transferable college credit hours with a grade point average of at least 2.00 on all previous regionally accredited college coursework will be granted unconditional admission. Applicants must submit the following:

- An application for admission and non-refundable \$40 application fee at [apply.ualr.edu](http://apply.ualr.edu).
- Proof of two MMR (measles, mumps, and rubella) immunizations. (required of all applicants born after January 1, 1957)
- Official transcript(s) from each college previously enrolled submitted in a sealed, stamped envelope from issuing institution or sent via electronic data interchange from the previous institution.

UA Little Rock Office of Admissions  
2801 South University  
Little Rock, AR 72204

A previously enrolled student who has attended another institution since attending UA Little Rock must reapply for admission and submit the additional official transcript(s).

Any applicant whose admission is denied admission may, with the submission of additional information, request reconsideration by contacting the Office of Admissions.

## Provisional Admission of Transfer Students

Transfer students who have not submitted all official academic credentials necessary for admission may be admitted provisionally provided that unofficial or in-progress transcripts support admissibility. In such cases, the student will be admitted with the provision that he or she submits the official, complete credentials prior to being

permitted to register for a future term. Transfer work will be evaluated upon receipt of all required official academic transcript(s). If an evaluation of the final academic transcript shows that the provisionally admitted student does not meet UA Little Rock's minimum admission requirements, the student will be immediately placed on academic probation and required to earn a minimum 2.0 UA Little Rock grade point average in their first semester to continue enrollment.

Students who are granted provisional admission and do not submit the missing credentials by the end of the term will not be permitted to enroll in subsequent terms until the admission requirements have been satisfied. Students admitted provisionally may not be changed to non-degree seeking student status.

UA Little Rock cannot accurately evaluate transfer hours, advise, or release financial aid funding for which students may be eligible, or guarantee registration in degree appropriate courses until all final, official admission credentials have been received and processed.

## Dual Enrolled High School Students

Current high school students who wish to attend classes on the UA Little Rock campus may be considered for admission as dual-enrolled high school students with the following qualifications:

- Cumulative 3.0 high school grade point average, or
- An ACT composite score of 21 or a combined Critical Reading/Math SAT I score of at least 990 or comparable COMPASS score.
- Additional requirements or testing may be necessary.

Dual-Enrolled applicants must submit:

- An application for admission and non-refundable \$40 application fee at [apply.ualr.edu](http://apply.ualr.edu).
- Proof of two MMR (measles, mumps, and rubella) immunizations.
- An official high school transcript.
- Official ACT, SAT, or COMPASS scores.
- Letter of permission from parent/legal guardian.
- Letter of permission from the instructor of the course(s) in which she/he plans to register.

UA Little Rock is not responsible for guaranteeing high school diplomas under this arrangement; however, campus officials will cooperate with state or local school administrators concerning regulations for awarding a diploma to successful participants in this program. College credit earned as a dual-enrolled student may apply toward a degree at UA Little Rock. Students in this category are not eligible for scholarships or financial aid. Admission

under these guidelines does not guarantee that a student may be enrolled in a particular course. University departments may restrict enrollment into specific courses.

### **Concurrent High School Students**

UA Little Rock offers concurrent enrollment through a number of Arkansas high schools. High school concurrent students enroll in UA Little Rock courses offered on their high school campus. Prospective students for high school concurrent enrollment should contact the concurrent enrollment coordinator at their high school. Official academic credentials will be submitted to the Office of Admissions by the high school's concurrent enrollment coordinator.

Applicants must meet one of the following requirements to be eligible for high school concurrent enrollment:

- Completion of at least 50% of college preparatory courses with a minimum grade point average of 2.5, or
- Cumulative high school grade point average of 3.0 on a 4.0 scale, or
- An ACT composite of 21 or higher.

Admission under these guidelines does not guarantee that a student may be eligible for a particular course. University departments may restrict enrollment into specific courses.

### **Non-degree Seeking Students**

Non-degree seeking status is available on a limited basis to students who wish to enroll in courses for personal enrichment or career development and do not plan to earn a certificate or degree at UA Little Rock. Non-degree seeking students are not eligible for student financial aid or veteran's benefits. Students who later wish to be classified as degree-seeking must reapply for a future term and submit all required academic credentials for consideration.

Non-degree seeking applicants must submit the following:

- An application for admission and non-refundable \$40 application fee at [apply.uarl.edu](http://apply.uarl.edu).
- Proof of two MMR (measles, mumps, and rubella) immunizations. (required of all applicants born after January 1, 1957)

### **Post-baccalaureate Students**

Students who already have a bachelor's degree and wish to take additional undergraduate courses may be admitted as post-baccalaureate students.

Applicants must submit the following:

- An application for admission and non-refundable \$40 application fee at [apply.uarl.edu](http://apply.uarl.edu).
- Proof of two MMR (measles, mumps, and rubella) immunizations. (Required of all applicants born after January 1, 1957)
- Official transcript from the institution that granted the bachelor's degree with the date of degree conferral.

### **Reapplicants**

Students who have not enrolled at UA Little Rock for two years or longer must reapply for admission online at [apply.uarl.edu](http://apply.uarl.edu) and submit the non-refundable \$40 application fee. Students who have attended other institutions in the interim must apply as a transfer student.

### **Visiting Students**

Students enrolled in an institution of higher education to which they intend to return can be admitted as a visiting student. This status is limited to one semester. Further enrollment in this status is not permitted until the student has returned to his or her original institution, attended another institution before returning to UA Little Rock, or re-applied as a degree-seeking student at UA Little Rock. Applicants must submit the following:

- An application for admission and non-refundable \$40 application fee at [apply.uarl.edu](http://apply.uarl.edu)
- Official transcript indicating that the student is in good standing from the institution in which they are currently enrolled.

### **International Students**

International students must apply online and submit complete credentials before being considered for admission. The application and credential deadlines are as follows: Fall semester – July 15, Spring semester – November 15, and Summer semester – May 15.

### **International Freshman**

Applicants must submit the following:

- An application for admission to at [uarl.edu](http://uarl.edu).
- Non-refundable \$40 application
- Proof of two MMR (measles, mumps, and rubella) immunizations. (required of all applicants born after January 1, 1957). This document must be in English, signed by a physician, and list the dates of the two MMR immunizations.
- Proof of English language proficiency (see the following section)
- Freshman applicants: Official high school transcript or official secondary school completion



- Online Immigration Verification Form at [ualr.edu/international/ivinstructions](http://ualr.edu/international/ivinstructions). See International Student Services for more information.

## International Transfer Students

Applicants must submit the following:

- An application for admission at [apply.ualr.edu](http://apply.ualr.edu).
- Non-refundable \$40 application
- Proof of two MMR (measles, mumps, and rubella) immunizations. (required of all applicants born after January 1, 1957). This document must be in English, signed by a physician, and list the dates of the two MMR immunizations.
- Proof of English language proficiency (see the following section)
- Online Immigration Verification Form at [ualr.edu/international/ivinstructions](http://ualr.edu/international/ivinstructions) (See International Student Services for more information.)
- Transfer applicants: Official course-by-course transcript evaluation from all post-secondary institutions from WES (or other evaluation service approved by Director of Admissions)
- Freshman applicants: Official high school transcript or official secondary school completion credential.
- Transfer applicants: Official course-by-course transcript evaluation from all post-secondary institutions from WES (or other evaluation service approved by Director of Admissions.)

## Proof of English Language Proficiency for International Students

- Applicants whose native language is not English must submit proof of English language and academic skill proficiency before admission to UA Little Rock. All other admission criteria must be met. Students may satisfy the English language requirement in one of the following ways:
- A score of at least 525 (paper-based) or 61 (iBT) earned within the last two years on the Test of English as a Foreign Language (TOEFL) (UA Little Rock Code is 6368); or
- A score of at least 6 on the IELTS earned within the last two years; or
- Completion of Composition I and II at a regionally accredited post-secondary U.S. institution with a grade of C or better; or
- Attendance at a U.S. school for the past six years; or
- Successful completion of the UA Little Rock Intensive English Language Program through the final level.

(Please call (501) 569-3467 for additional information.); or

- An official ACT score of at least 19 on both the English and Reading sections of ACT earned with the last five years; or
- An official SAT score of at least 510 Critical Reading and 490 Writing; or
- Citizenship of an exempt country: Canada (except Quebec), Ireland, United Kingdom, Australia, New Zealand, or the Commonwealth Caribbean.

## Senior Citizens

Arkansas residents who are at least 60 years of age and have been admitted as a student at UA Little Rock are eligible for a tuition waiver by submitting proof of age to the Bursar's Office. Students qualifying for the waiver will be permitted to register only on the last day of the regular and late registration periods each academic term. If a course section has no available slots and additional students are attempting to register, students receiving the waiver may be removed from that course section. Exceptions may be granted to students who agree to forgo the waiver of tuition.

## Residency

Student residency status is governed by the UA Board of Trustees policy 520.8.

Students classified as nonresidents of Arkansas must pay non-resident tuition in addition to regular registration fees. Residents of contiguous states who are admitted unconditionally as degree-seeking may be eligible for a waiver of the out-of-state portion of their tuition charges (excludes Bowen School of Law).

Residency information regarding reclassification and residency appeals is available at [ualr.edu/admissions/residency](http://ualr.edu/admissions/residency). Questions regarding residency should be directed to the Director of Admissions.

## Veterans

### Application Fee Waiver And Special Tuition Rate

All military students, (i.e., active-duty, guard, reserve, and veterans who were separated under honorable conditions) are eligible to receive a waiver of the \$40 admission fee and a special tuition rate which excludes most fees associated with enrollment (Technology Lab Fees and the Nursing Lab Fee will still be assessed).

During completion of the undergraduate admission application, the military fee waiver form will become available to print. Complete the application until payment is requested, then close the application and submit this

form to the Office of Admissions with a copy of one of the following documents:

- Military ID
- Military orders
- DD Form 214

Once you apply, have any military transcripts (CCAF or JST) and/or transcripts from other institutions sent to this address:

University of Arkansas at Little Rock  
Office of Admissions  
2801 S. University Ave.  
Little Rock, AR 72204

### **Residency Status and Fees for Veterans and Military Personnel and their Spouses and Dependents**

Per UA Board Policy 520.7, members of the armed forces, honorably discharged veterans, spouses, and some dependents are eligible for the in-state rate for the purpose of tuition and fees applicable for all programs of study, including distance learning programs.

### **Transfer Student Services**

Charles W. Donaldson Student Services Center,  
Suite 218 | (501) 682-1273 | Toll-free Voice: (888) 848-7188 | fax: (501) 569-8168  
| Email: [transfer@ualr.edu](mailto:transfer@ualr.edu) | [ualr.edu/transfer](http://ualr.edu/transfer)

The University of Arkansas at Little Rock welcomes transfer students and is committed to making their transition to campus and transfer of credit a smooth process. The Office of Transfer Student Services (OTSS) was established to expedite the articulation of general transfer credit and provide dynamic student service to meet the transfer credit evaluation needs of transfer students. Our main goal is to make transferring to UA Little Rock easier for students to accomplish and the transfer process easier to understand. We provide a friendly starting place for transfer students to connect with essential information and resources.

**IMPORTANT NOTE:** UA Little Rock cannot accurately evaluate transfer hours, advise, release financial aid funding for which students may be eligible, or guarantee registration in degree appropriate courses until ALL final admission credentials have been received and processed. Students may receive an unofficial evaluation of general core curriculum transfer credits prior to admission to UA Little Rock by requesting an evaluation from the Office of Transfer Students Services (OTSS) online at [ualr.edu/transfer/future-students/ask-a-transfer-specialist](http://ualr.edu/transfer/future-students/ask-a-transfer-specialist).

Unofficial evaluations require submission of transcripts to OTSS.

## **Transferring Credit to UA Little Rock**

Credit can be transferred to UA Little Rock in a variety of ways, but please be aware that UA Little Rock does not accept the following types of credits:

- Remedial/developmental/study skill courses. (These course(s) are posted to the UA Little Rock transcript but no credit hours are transferred.)
- Courses marked "in progress."
- Courses from post-secondary institutions which do not have accredited or candidacy status in a regional accrediting association. (See Accreditation Requirements for details.)
- Courses designated as credit/no credit, pass/fail, audit or satisfactory.
- Earlier attempts of a course repeated at a transfer college or university (for courses not otherwise designated as repeatable courses). Only the credit hours earned on the latest attempted course will transfer.

## **Transfer Credit Policies**

### **D Transfer Policy**

Only courses with grades of C or greater will transfer automatically; however, a student may request to transfer as many as 6 credit hours with a grade of D from any regionally accredited college or university. Credit for the hours will be accepted as transfer credit if the course satisfies a degree program requirement and if the student would be allowed to earn a grade of D were the class offered at UA Little Rock. A student may take advantage of this policy at any time prior to the awarding of an undergraduate degree. For more information on the transfer of D grades, please see UA Little Rock Policy 501.10.

### **Limitations on Transfer Credit**

There is no limit on a number of credits that a student may transfer to UA Little Rock, but students graduating with four-year degrees (baccalaureate) must earn 30 hours in residence at UA Little Rock. Students graduating with two-year degrees (associate) must earn 15 hours of credit in residence at UA Little Rock. Please note that some degree programs may have restrictions on the number of upper-level courses that may be used to satisfy major or minor program requirements. For certain degree programs, some credits may not be applied to satisfy a degree

requirement due to when the course was earned or content changes over time.

## Transfer Students and Undergraduate Catalog Choice

Transfer Students may choose to follow requirements of an older undergraduate catalog of requirements at UA Little Rock. A student transferring to UA Little Rock from regionally accredited four-year institutions, community colleges, or junior colleges with 13 or more hours of accepted credit may graduate under the provisions of a UA Little Rock Undergraduate Catalog in effect during any semester of the previous five years in which they were enrolled at the other institution. Note: At no time may a student follow the provisions of a UA Little Rock Undergraduate Catalog that is more than five years old at the time of the student's entry into UA Little Rock.

## Accreditation Requirements

UA Little Rock recognizes academic credits earned at other regionally accredited post-secondary institutions. Regional accreditation means that an institution of higher learning is accredited by one of the six regionally stipulated accreditation agencies approved by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA), including: Higher Learning Commission, Middle States Association of Colleges and Schools Commission on Higher Education, New England Association of Schools and Colleges Commission on Institutions of Higher Education, North Central Association of Colleges and Schools Commission on Institutions of Higher Education, Northwest Association of Schools and Colleges Commission on Colleges, Southern Association of Colleges and Schools Commission on Colleges, and Western Association of Colleges and Schools Accrediting Commission. Transcripts from institutions not accredited by the regional accrediting associations will be handled at the discretion of the Registrar. Students presenting such transcripts may appeal for consideration of credit transfer to the Registrar. Only official transcripts including complete records of the courses taken and sent to UA Little Rock by the institution(s) attended will be accepted for evaluation. The Registrar may also request that a course description or syllabus be presented.

## Core Transfer Reciprocity Policy

1. Transfer students from public Arkansas institutions shall be deemed to have met all UA Little Rock core requirements and shall not be required to complete any additional core courses if they transfer in a completed designated transfer degree (an AA, AS, or

AAT) or 60 completed hours that include 35 hours of the state minimum core.

2. Transfer students from public Arkansas institutions shall be deemed to have met a specific core requirement and shall not be required to complete an additional core course for that requirement if they transfer in a course included in the Arkansas Course Transfer System (ACTS) that matches a course in the UA Little Rock core.
3. Transfer students from public Arkansas institutions, including students transferring between UA Little Rock colleges, shall be deemed to have met the requirements of a specific core curricular area and shall not be required to complete an additional core course in that area if they transfer in a course taken to meet a core curricular area requirement at the sending institution or UA Little Rock college.
4. Transfer students from regionally accredited out of state or private institutions, including those transferring in completed associate degrees, who have completed 35 credit hours of coursework in the following distribution shall be deemed to have met the core requirement in that core curricular area and shall only be required to take coursework from the area(s) they are missing:
  - English/Communications: 6-9 hours
  - Math: 3 hours
  - Science: 8 hours
  - Fine Arts/Humanities: 6-9 hours
  - Social Sciences: 9-12 hours, including 3 hours of US History or American National Government
1. A "designated transfer degree" is an Associate of Arts, Associate of Science, or Associate of Arts in Teaching – or any future associate degree program approved by ADHE—that includes a 35-hour state core curriculum.
2. "Core curricular area" refers to one of the five categories established in the State Minimum Core Curriculum by Act 98 of 1989: English/Communications, Math, Science, Fine Arts/Humanities, and Social Sciences.
3. This policy shall not keep individual programs from requiring students to complete specific core courses as (1) degree program requirements, (2) prerequisites for degree program requirements, or (3) licensing requirements.

## Special Transfer Credit

### Transferring Credit by Examination

Students who take CLEP, AP, DANTEs, International Baccalaureate, and Excelsior College Examinations must have official score reports sent directly to the UA Little

Rock Office of Testing Services for evaluation. Credit obtained through examination is recorded as approved hours on the student's official transcript without a grade. Course credit from examinations will not count toward residency requirements or GPA calculation. A maximum of 30 hours may be awarded for all forms of Credit by Examination. Because there are a variety of ways whereby a student may achieve credit for a specific course (for instance (IB, AP, CLEP, placement test, concurrent, transfer course, UA Little Rock course) under no circumstances should a student receive multiple credits for the same course. Additional information may be obtained from Testing Services by calling (501) 569-3198 or on the Testing Services website.

### **Transferring Military Service Credit**

In 2008, the Faculty Senate by unanimous vote approved accepting military credit certified by ACE as equivalent to college-level courses for transfer to UA Little Rock. Official transcripts must be provided for evaluation and should be requested based on the branch of service (Joint Services Transcript). Military transcripts should be submitted to UA Little Rock's Office of Admission, which after document imaging will forward on to the Office of Transfer Services, to evaluate for the awarding of potential academic credit. Please note that UA Little Rock does not automatically transfer military credits based on evaluations by other universities.

### **Transferring Technical and/or Vocational Credit**

UA Little Rock does not automatically transfer technical and/or vocational credits from other universities. Students with technical and/or vocational credits who would like this credit considered for application toward a specific degree program may consult with their departmental advisor after officially declaring a major. Any transfer of technical and/or vocational credit requires the signature of a departmental advisor on a Request to Receive Credit for Technical and/or Military Credit form to be submitted to the Office of Records and Registration for processing.

### **Transferring International Credit**

Students who have earned college-level credit at an international college or university should submit officially evaluated post-secondary school transcripts to the Office of Admissions (If obtained from a foreign institution, transcripts must be evaluated and translated by International Education Evaluations, Inc. ([foreigntranscripts.com](http://foreigntranscripts.com)) or a NACES approved agencies ([naces.org](http://naces.org)) with a document by document/course by course evaluation). International transfer students must meet additional admission requirements as detailed in the Office of Admissions portion of this catalog.

After international transfer credits are verified and posted to the UA Little Rock transcript, and once all admission credentials have been received and processed, the student's file will be forwarded to the Office of Transfer Student Services to evaluate the application of transfer credits. In order for international transfer credits to be articulated, the student must provide English translations of course descriptions to the Office of Transfer Student Services.

### **Transferring Occupational Programs Credit**

UA Little Rock will accept up to 16 hours of lower-level undesignated elective credit for occupational programs from accredited institutions. Students to whom this might apply should consult with their major degree program advisor to see if this is an option for them, and submit transcripts to the Office of Records and Registration (501) 569-3110. An evaluation of credit will not be made until after a student is enrolled at UA Little Rock.

### **Transferring Credit after Enrollment at UA Little Rock**

UA Little Rock students may choose to enroll at another regionally accredited academic institution while attending or intending to return to UA Little Rock as a degree-seeking student. In order to assure that the credit received elsewhere meets UA Little Rock degree program requirements, students are strongly advised to consult with their academic advisor (if declared majors) or if they intend to take core curriculum courses at another college or university before the declaration of a major, students should consult with the Office of Transfer Student Services at (501) 682-1273. International students should always consult with the Office of International Student Services before taking any courses offered by an institution other than UA Little Rock after they have enrolled at UA Little Rock.

### **Application of Transfer Credit to Degree Program Requirements**

Transfer students must be academically advised before registering for classes. Contact the Office of Undergraduate Academic Advising for an initial assessment and next steps. Students may potentially enroll in UA Little Rock courses prior to final transcript credit articulation. Transfer credit articulation is an ongoing process that can only be completed once a student submits all final transfer credits and the credits are posted to the UA Little Rock transcript. Because transfer credit articulation impacts course placement and registration, transfer students with a provisional admission status may need registration overrides into core, major, or minor

courses during the first semester on campus. The process of transfer credit articulation may take a minimum of several weeks to process after a student has been fully admitted to UA Little Rock.

The Arkansas Course Transfer System (ACTS) 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. We hope this site is helpful for students, parents and campus personnel. This system is designed to assist in planning from the high school level through the adult workforce.

The transfer equivalency guide (TEG) for Arkansas and other regional schools is available on the Records and Registration website and includes upper-level (junior and senior) courses that are not part of ACTS. Please note that if a particular institution of higher learning does not appear in the TEG, it does not mean that UA Little Rock will not accept coursework from that institution. Also, if an institution appears in the guide, but the particular course you are seeking is only listed as being accepted for general elective credit, please consult further with your academic advisor. One often misunderstood point is that a given course may be accepted toward the total hours required for a degree at UA Little Rock, but may not be accepted as meeting a specific course requirement for the core curriculum or for a major or minor.

## Office of International Student Services

Education Building, Room 101 | (501) 683-7566 | fax (501) 683-7567

The mission of the Office of International Student Services (OISS) is to actively promote international and intercultural understanding and to cultivate a mutual commitment and support for international education throughout the campus community. OISS serves all incoming and currently enrolled international students and scholars at UA Little Rock. Our office provides assistance to prospective international undergraduate applicants, supports current international students and scholars in immigration advising, social, cultural, and academic issues during their stay. In addition, ISS always seeks to increase international ambiance on campus by identifying and implementing new opportunities between domestic and international students through workshops, collaboration

with the International Club for social programs, trips, and cultural excursions.

## International Admissions

Students seeking admission into UA Little Rock should consider the following:

- Graduate admissions for prospective graduate certificate, masters, and doctoral students are handled through the Graduate School. Identify the program you are interested in and research their webpage, course catalog, and course descriptions. Graduate students will want to be in touch with their Graduate Coordinator for degree-specific application information. and ask questions to their graduate program coordinator to ensure that it is the right degree program for their academic goals.
- Decide when to begin your studies at UA Little Rock. Take note of the program deadlines. Some programs have strictly enforced deadlines, while others have rolling admission. Application for admission can be submitted up to twelve months in advance of the semester in which you wish to begin your studies at UA Little Rock. Any applications received after the deadlines will automatically be deferred to the next semester.
- Summer Start Date: F and J students considering beginning a program in the summer must be sure there are enough on-campus classes to be enrolled full-time.

## Requirements

To apply for admission to UA Little Rock, all the following documents must be submitted:

1. Complete Application Form
  - Apply online at <https://apply.ualr.edu>.
  - Pay Application Fee of \$40.00.
  - The application fee for undergraduate and graduate programs is \$40 USD. Students can pay their application fee by major credit cards (e.g., Visa, Mastercard, Discover) or US bank checks. Cash or non-US bank checks are not accepted. Application fees are non-refundable.
2. Submit Academic Records
  - Submit transcripts of the applicant's entire academic record in secondary school, college, or university. Originals or official copies with certified English translations are accepted. University records received at foreign institutions must be articulated with a course-by-course credential evaluation. Visit [www.naces.org/members.htm](http://www.naces.org/members.htm) for

a list of nationally recognized accreditation services.

- **Undergraduate Students** must submit any high school and post-secondary school transcripts, accompanied by translations and credential evaluations as needed. Minimum cumulative high school GPA: 2.5 out of 4.0. If transferring more than 12 credit hours at the undergraduate level, secondary school academic records are not required. Minimum cumulative university transfer credit GPA: 2.0 out of 4.0. Academic records should be sent to the Office of Admissions.
3. Submit Immigration Verification Form
    - To help us understand your current and future immigration status, submit the Immigration Verification Form along with required supporting documents. This is an electronic form and through this form, you will verify your legal name and date of birth, your current residence, your financial capability (for F-1 and J-1 visas), dependent information and method of shipping.
    - Complete Immigration Verification Form at <https://ualr.edu/international/ivform>.
    - Transfer Students with an active SEVIS record must submit the Transfer-In Request in addition to the Immigration Verification Form. The Transfer Request Form will be completed by the student and the International Advisor (DSO or ARO) of the previous institution.
    - H Visa holders must submit the H1/H4 approval notice, I-94 and travel visa stamp in your passport.
    - H4 visa holders will also include the spouse's H1 visa approval notice, a letter from H1 spouse employer and/or your spouse's recent pay-stubs.
  4. Proof of Financial Support
    - Proof of financial support for the estimated cost of attendance is required for F-1 and J-1 students to receive the Form I-20 or DS-2019 (respectively). Dependent Forms I-20 or DS-2019 require additional funding (\$4500 for a spouse; \$2500 per child). Learn more about acceptable forms of financial proof.
  5. Demonstrate Proof of English Proficiency
    - Proof of English proficiency can be demonstrated through TOEFL, IELTS, 2 years of U.S. coursework, completion of IELP (undergraduate only-See Admissions section for specific information.) or citizenship from an exempt country. Find the specific English requirements per educational level.
  6. Submit Immunization Records

- Before registering for classes, all students are required to submit proof of vaccinations for 2 doses of MMR. Additionally, non-citizens must take a T-Spot test for Tuberculosis screening from within the United States. These tests and shots may be taken after arrival through Student Health Services. If you have received one or both of the MMR vaccines, you may submit documentation to suffice the requirement.

Sending Documents for Undergraduate Applicants (Scan documents to [admissions@ualr.edu](mailto:admissions@ualr.edu))

University of Arkansas at Little Rock  
Office of Admissions  
Student Services Center Room # 219  
2801 South University Avenue  
Little Rock, AR 722204 USA

## Financial Guarantee

If you are joining UA Little Rock as an F-1 or J-1 student, you are only authorized for on-campus employment and must be able to finance your expenses apart from employment. Prior to issuance of I-20 or DS-2019, an applicant must provide documentation of financial resources for the tuition, fees, insurance, and cost of living for at least one academic year at UA Little Rock. Find the current estimated cost of attendance.

The proof of financial guarantee must be issued within the past 6 months and include the signature of a bank official. Funds for the dependents accompanying you to the U.S. must also be included. Form I-20 or DS-2019 may only be issued when you show satisfactory financial arrangements for meeting the expenses of his/her entire program of study.

Proof of financial guarantee may be provided as any of the following or a combination of several sources dated within the past 6 months. Bank letters may be from either US or foreign banks and foreign currency may be provided. All documentation must be in English.

- A personal bank reference letter from a bank official verifying that you possess all or a portion of the estimated cost of attendance
  - Note: A record of transactions is not required
- A sponsor's bank reference letter verifying that he/she possesses all or a portion of the amount above and a written statement or affidavit from your sponsor verifying his or her intent to sponsor your education at UA Little Rock
- UA Little Rock Scholarship or Graduate Assistantship (GA) award letter

- Financial Guarantee from your government

While the proof of financial guarantee is only required for the first year, the funds must also be available for the duration of a student's study. A subsequent financial guarantee is required if a student requests an extension of his or her program of study or changes the program level.

In addition to the estimated cost of attendance required for the principal F-1 or J-1, if a student is bringing a spouse or children, the student must also include additional financial support for their dependents. The additional amount required is \$4500 for a spouse and \$2500 per child.

## General Admission Deadlines

Please note that the admission deadlines are strictly enforced and change program to program. We encourage you to check with both your prospective program and the Graduate School for specific upcoming deadlines.

Academic Classification	Fall Admission	Spring Admission
Undergraduate	July 15	November 15

## Undergraduate English Requirements

English Proficiency	Undergraduate Students
TOEFL*	525 Paper-based 197 Computer-based 61 Internet-based
IELTS	6
Coursework within the US	Completed English Composition I and II at a regionally accredited post-secondary U.S. institution with a C grade or better Attended a U.S. school for the past 6 years
Native English speakers	Citizenship of an exempt country
IELP Completion	Graduation from IELP

\*Scores from the TEOFL must be from tests taken within the past 2 years.

## Report to the Office of International Student Services

Students should report to OISS within 10 days of arrival. The office is located in the Education Building Room #101. When you check-in, bring your passport, I-20 or DS-2019 and I-94. Once you have registered for classes and updated your U.S. address in BOSS, an international advisor will activate your immigration record in SEVIS. Failure to report OISS may result in loss of immigration status.

## Employment Information

U.S. immigration laws permit F/J international students who are enrolled full-time and in good academic standing in UA Little Rock undergraduate and graduate programs to work on campus up to 20 hours a week during the academic year and full-time during university breaks, including summer, winter, and spring break. However, prior employment authorization must be obtained from OIS.

Tuition and Fees (See the Tuition and Fees chart for non-resident costs.)

## Intensive English Language Program (IELP)

Stabler Hall, Room 301 | (501) 569-3468 | [ualr.edu/ielp](http://ualr.edu/ielp)

The Intensive English Language Program (IELP) offers non-English speakers a full-time program in English language skills: speaking, listening, reading, and writing. IELP courses are listed in the Department of World Languages (LANG). After completing IELP, students with the necessary academic qualifications may be admitted to UA Little Rock without taking the Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE), or the International English Language Testing System (IELTS).

Conditional admission to UA Little Rock may be granted to IELP students with acceptable secondary school, college, or university grades.

IELP provides language training as well as cultural and academic orientation programs for the following students:

- International undergraduate or graduate students applying for admission to a U.S. college or

university who must first improve their language skills.

- International undergraduate or graduate students who have been admitted to UA Little Rock but require further language preparation.
- Community residents who want to improve their English language skills for personal or professional purposes.

## IELP Objectives

- To help students improve their speaking, listening, reading, and writing skills and enable them to successfully undertake work in regular university classes.
- To enable students to participate actively in most conversational situations.
- To introduce students to American culture in terms of a typical U.S. campus and community.
- To foster international and intercultural awareness and understanding.

## Eligibility

Only students who are 17 years of age or older are eligible for admission to IELP. No prior knowledge of English is necessary. Foreign students must provide documentation to establish their ability to support themselves while in the U.S.

## English as a Second Language (ESL)

Credit and non-credit courses in ESL are offered during the fall, spring, and summer sessions. Intensive English classes focus on preparation for university study. Placement testing for the three-level intensive English program is held at the beginning of each semester. Students receive English instruction at the appropriate level of difficulty.

- **Placement:** Upon arrival, students are placed at the appropriate level on the basis of diagnostic tests.
- **Levels:** The IELP offers three levels of instruction: Foundations, Intermediate, and Pre-university/TOEFL.
- **Classes:** Each student has at least 20 hours of instruction per week; every student works to acquire grammar, pronunciation, culture, reading, writing, listening, speaking, and study skills. TOEFL preparation is offered at the highest level.
- **Time-frame:** There are three semesters of instruction each year; each term is approximately fifteen weeks in length. Students may progress from foundations to the pre-university/TOEFL level in one year. However, determination and

diligence determine how quickly an individual advances to the next level.

## Visa Requirements

Prospective students who are not in the U.S. must follow standard U.S. Immigration and Naturalization Service procedures for entry into the U.S. A student planning to study in the U.S. must obtain an F-1 visa. UA Little Rock is authorized to issue a Certificate of Student Eligibility (I-20) to eligible students. Students with the F-1 visa must remain full-time students to maintain F-1 status.

## Application and Admission

The student should initiate the application process at least three months before planning to enter UA Little Rock. To apply:

- Complete and submit UA Little Rock's Immigration Verification Form and choose "IELP" as student type.
- Submit supporting financial data (data must be verified by a bank stamp or the local U.S. Embassy or Consulate) and a copy of the student's passport information page.
- An I-20 will be sent to qualified applicants. Please allow one month for return.

## Tuition

Students should check the IELP website for up-to-date information on costs for tuition, medical insurance, and other fees.

## Working While at IELP

IELP Students are not allowed to work while they are studying at IELP. Once an IELP student graduates from the program, he/she might be able to work on campus, but the student must obtain prior approval from the Office of International Services (Education Building, Room 101).



## Transfer Student Services

Charles W. Donaldson Student Services Center,  
Room 321 E | (501) 682-1273 | Toll-free Voice: (888)  
848-7188 | fax: (501) 682-1106 | ualr.edu/transfer

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- Courses designated as credit/no credit, pass/fail, audit, or satisfactory.

Earlier attempts of a course repeated at a transfer college or university (for courses not otherwise designated as repeatable courses). Only the credit hours earned on the latest attempted course will transfer.

## Transfer Credit Policies

### "D" Transfer Policy

Only courses with grades of C or greater will transfer automatically; however, a student may request to transfer as many as 6 credit hours with a grade of D from any regionally accredited college or university. Credit for the hours will be accepted as transfer credit if the course satisfies a degree program requirement and if the student would be allowed to earn a grade of "D" if the class was offered at UA Little Rock. A student may take advantage of this policy at any time prior to the awarding of an undergraduate degree. For more information on the transfer of D grades, please see UA Little Rock Policy 501.10.

### Limitations on Transfer Credit

There is no limit on a number of credits that a student may transfer to UA Little Rock, but students graduating with four-year degrees (baccalaureate) must earn 30 hours in residence at UA Little Rock.

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UA Little Rock recognizes academic credits earned at other regionally accredited post-secondary institutions. Regional accreditation means that an institution of higher learning is accredited by one of the six regionally

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Transcripts from institutions not accredited by the regional accrediting associations will be handled at the discretion of the Registrar. Students presenting such transcripts may appeal for consideration of credit transfer to the Registrar. Only official transcripts including complete records of the courses taken and sent to UA Little Rock by the institution(s) attended will be accepted for evaluation. The Registrar may also request that a course description or syllabus be presented.

## Core Transfer Reciprocity Policy

1. Transfer students from public Arkansas institutions shall be deemed to have met all UA Little Rock core requirements and shall not be required to complete any additional core courses if they transfer in a completed designated transfer degree (an AA, AS, or AAT) or 60 completed hours that include 35 hours of the state minimum core.
2. Transfer students from public Arkansas institutions shall be deemed to have met a specific core requirement and shall not be required to complete an additional core course for that requirement if they transfer in a course included in the Arkansas Course Transfer System (ACTS) that matches a course in the UA Little Rock core.
3. Transfer students from public Arkansas institutions, including students transferring between UA Little Rock colleges, shall be deemed to have met the requirements of a specific core curricular area and shall not be required to complete an additional core course in that area if they transfer in a course taken to meet a core curricular area requirement at the sending institution or UA Little Rock college.
4. Transfer students from regionally accredited out of state or private institutions, including those transferring in completed associate degrees, who have completed 35 credit hours of coursework in

the following distribution shall be deemed to have met the core requirement in that core curricular area and shall only be required to take coursework from the area(s) they are missing:

- English/Communications: 6-9 hours
  - Math: 3 hours
  - Science: 8 hours
  - Fine Arts/Humanities: 6-9 hours
  - Social Sciences: 9-12 hours, including 3 hours of US History or American National Government
5. A "designated transfer degree" is an Associate of Arts, Associate of Science, or Associate of Arts in Teaching – or any future associate degree program approved by ADHE—that includes a 35-hour state core curriculum.
  6. "Core curricular area" refers to one of the five categories established in the State Minimum Core Curriculum by Act 98 of 1989: English/Communications, Math, Science, Fine Arts/Humanities, and Social Sciences.
  7. This policy shall not keep individual programs from requiring students to complete specific core courses as (1) degree program requirements, (2) prerequisites for degree program requirements, or (3) licensing requirements.

## Special Transfer Credit Transferring Credit by Examination

Students who take CLEP, AP, DANTEs, International Baccalaureate, and Excelsior College Examinations must have official score reports sent directly to the UA Little Rock Office of Testing Services for evaluation. Credit obtained through examination is recorded as approved hours on the student's official transcript without a grade. Course credit from examinations will not count toward residency requirements or GPA calculation. A maximum of 30 hours may be awarded for all forms of Credit by Examination. Because there are a variety of ways whereby a student may achieve credit for a specific course (for instance (IB, AP, CLEP, placement test, concurrent, transfer course, UA Little Rock course) under no circumstances should a student receive multiple credits for the same course. Additional information may be obtained from Testing Services by calling (501) 569-3198 or on the Testing Services website.

## Transferring Military Service Credit

In 2008, the Faculty Senate by unanimous vote approved accepting military credit certified by ACE as equivalent to college-level courses for transfer to UA Little Rock. Official

transcripts must be provided for evaluation and should be requested based on the branch of service (Joint Services Transcript). Military transcripts should be submitted to UA Little Rock's Office of Admission, which after document imaging will forward on to the Office of Transfer Services, to evaluate for the awarding of potential academic credit. Please note that UA Little Rock does not automatically transfer military credits based on evaluations by other universities.

## **Transferring Technical and/or Vocational Credit**

UA Little Rock does not automatically transfer technical and/or vocational credits from other universities. Students with technical and/or vocational credits who would like this credit considered for application toward a specific degree program may consult with their departmental advisor after officially declaring a major. Any transfer of technical and/or vocational credit requires the signature of a departmental advisor on a Request to Receive Credit for Technical and/or Military Credit form to be submitted to the Office of Records and Registration for processing.

## **Transferring International Credit**

Students who have earned college-level credit at an international college or university should submit officially evaluated post-secondary school transcripts to the Office of Admissions (If obtained from a foreign institution, transcripts must be evaluated and translated by International Education Evaluations, Inc. ([foreigntranscripts.com](http://foreigntranscripts.com)) or a NACES approved agencies ([naces.org](http://naces.org)) with a document by document/course by course evaluation). International transfer students must meet additional admission requirements as detailed in the Office of Admissions portion of this catalog.

After international transfer credits are verified and posted to the UA Little Rock transcript, and once all admission credentials have been received and processed, the student's file will be forwarded to the Office of Transfer Student Services to evaluate the application of transfer credits. In order for international transfer credits to be articulated, the student must provide English translations of course descriptions to the Office of Transfer Student Services.

## **Transferring Occupational Programs Credit**

UA Little Rock will accept up to 16 hours of lower level undesignated elective credit for occupational programs from accredited institutions. Students to whom this might apply should consult with their major degree program advisor to see if this is an option for them, and submit

transcripts to the Office of Records and Registration (501) 569-3110. An evaluation of credit will not be made until after a student is enrolled at UA Little Rock.

## **Transferring Credit after Enrollment at UA Little Rock**

UA Little Rock students may choose to enroll at another regionally accredited academic institution while attending or intending to return to UA Little Rock as a degree-seeking student. In order to assure that the credit received elsewhere meets UA Little Rock degree program requirements, students are strongly advised to consult with their academic advisor (if declared majors) or if they intend to take core curriculum courses at another college or university before the declaration of a major, students should consult with the Office of Transfer Student Services at (501) 682-1273. International students should always consult with the Office of International Student Services before taking any courses offered by an institution other than UA Little Rock after they have enrolled at UA Little Rock.

## **Application of Transfer Credit to Degree Program Requirements**

Transfer students must be academically advised before registering for classes. Contact the Office of Undergraduate Academic Advising for an initial assessment and next steps. Students may potentially enroll in UA Little Rock courses prior to final transcript credit articulation. Transfer credit articulation is an ongoing process that can only be completed once a student submits all final transfer credits and the credits are posted to the UA Little Rock transcript. Because transfer credit articulation impacts course placement and registration, transfer students with a provisional admission status may need registration overrides into CORE, major, or minor courses during the first semester on campus. The process of transfer credit articulation may take a minimum of several weeks to process after a student has been fully admitted to UA Little Rock.

The Arkansas Course Transfer System (ACTS) 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. We hope this site is helpful for students, parents and campus personnel. This system is designed to assist in planning from the high school level through the adult workforce.

The Transfer Equivalency Guide (TEG) for Arkansas and regional schools is available on the Records and Registration website and includes upper-level (junior and senior) courses that are not part of ACTS.

**Note:** If a particular institution of higher learning does not appear in the TEG, that does not mean that UA Little Rock will not accept coursework from that institution. Also, if an institution appears in the guide, but the particular course you are seeking is only listed as being accepted for general elective credit, please consult further with your academic advisor. One often misunderstood point is that a given course may be accepted toward the total hours required for a degree at UA Little Rock, but may not be accepted as meeting a specific course requirement for the core curriculum or for a major or minor.

## Financial Aid & Scholarships

Student Services Center, 2nd Floor | (501) 569-3127  
| fax (501) 569-8956 | [ualr.edu/financialaid](http://ualr.edu/financialaid)

Students who want to enroll at UA Little Rock should correspond with the Office of Financial Aid as soon as possible because official determination of eligibility for financial aid can be made only on receipt of official credentials.

UA Little Rock offers aid from various sources including federal and state governments, UA Little Rock, and private organizations, to help students pay for their studies. Financial aid and Scholarships are meant to supplement a student's ability to pay for college costs including tuition and fees, room and board, books, supplies, transportation, and other educational expenses.

To be eligible for any form of financial aid, a student must be accepted for admission with an eligible admission status and be enrolled at UA Little Rock as a degree-seeking student. Students who wish to apply for financial assistance must complete the Free Application for Federal Student Financial Aid (FAFSA) each year. Students may apply online at [fafsa.gov](http://fafsa.gov). Applications are available in October of each year for the upcoming academic year that begins in August students are encouraged to apply early.

Additional information on financial aid can be obtained at (501) 569-3035 or by email at [financialaid@ualr.edu](mailto:financialaid@ualr.edu).

### Types of Financial Aid

Financial aid available to UA Little Rock students includes grants, loans, scholarships, and employment. Aid packages can include a combination of different types of aid.

1. **Grants:** financial aid that the recipient does not have to pay back.
2. **Loans:** borrowed money that must be repaid with interest.
3. **Scholarships:** gift aid with eligibility based on academic achievements, talents, skills, or merit.
4. **Employment:** part-time on-campus and community service jobs that allow the student to earn money to help pay for school.

The majority of the financial aid available at UA Little Rock is provided by the federal government. The State of Arkansas also provides student aid, as do UA Little Rock and its contributors.

## Federal Aid

The U.S. Department of Education provides funding for grants, student loans, scholarships, and employment. Most awards are based on financial need; some are based on merit. Federal student aid includes the Federal Pell Grant, Federal Stafford Loans, Federal Parent Loan for Undergraduate Students, Federal Graduate PLUS Loan, Federal Supplemental Educational Opportunity Grants, Federal Work Study, and various scholarship awards. The Free Application for Federal Student Aid (FAFSA) is the application required for all federal financial aid and can be completed online at [fafsa.gov](http://fafsa.gov). The UA Little Rock school code is 001101.

## State Aid

The Arkansas Department of Higher Education (ADHE) provides loans, grants, and scholarships to Arkansas residents enrolled at UA Little Rock. Award criteria include financial need, academic achievement, and/or study of specific subjects. For additional information about financial aid, call ADHE at (800) 54-STUDY, or in the Little Rock area, (501) 371-2050, or visit [www.adhe.edu](http://www.adhe.edu). Programs like the Arkansas Academic Challenge (lottery) Scholarship require the YOUNiversal application to be completed by June 1. Awards may be renewable and can be a great financial supplement.

## Private Aid

UA Little Rock offers scholarships and grants-in-aid provided by institutional and departmental funds, private foundations, corporations, and individuals. Eligibility requirements vary. Criteria for different scholarships include academic achievement, demonstrated talent or ability, a specific major or student classification, university or community involvement, and/or financial need. Some scholarships are available for part-time students.

Different scholarships have different final deadlines. Learn more about scholarship opportunities at [ualr.edu/scholarships](http://ualr.edu/scholarships). Scholarships may be awarded for academic merit, talent, or in support of your academic program of study. Students are encouraged to apply for the many funding opportunities.

## Veterans Benefits

The U.S. Department of Veterans Affairs provides basic programs for veterans and service members seeking assistance for education or training. Veterans and service members who entered the military from January 1, 1977, through June 30, 1985, may receive educational assistance under the Veterans Educational Assistance Program (VEAP) contributory plan. Individuals entering on active duty after June 30, 1985, may receive benefits

under the Montgomery GI Bill contributory plan. Another educational entitlement program, referred to as the Montgomery GI Bill Selected Reserve (chapter 1606 and 1607 REAP), is available for members of the Selected Reserve, including the National Guard. Note: The Post 9/11 GI Bill is a new education benefit program for individuals who served on active duty on or after September 11, 2001. Please visit the GI Bill website or call 1-888-GIBILL-1 for additional information.

The noncontributory GI Bill ended on December 31, 1989. No benefits are payable for any training pursued on or after January 1, 1990, under this bill.

Monthly educational assistance benefits are based on the number of hours of enrollment. Full-time enrollment for an undergraduate student during fall and spring terms is 12 hours or more; three-quarter enrollment is 9 to 11 hours; half-time enrollment is 6 to 8 hours. For fewer than six hours only tuition and fees are reimbursed, except in the case of the MGIB for Selected Reserve/National Guard (Chapter 1606), these benefits are based on one-fourth of the full-time amount. Full-time enrollment for graduate students during fall and spring terms is 9 hours or more; three-quarters enrollment is 6 to 8 hours; half-time enrollment is 3 to 5 hours. Summer benefits for both graduate and undergraduate students are based on the number of hours enrolled and the number of weeks in the term.

There are Survivors/Dependents benefits for eligible persons. For further information contact the VA Regional Office at (800) 827-1000.

Other services available under the Veteran's Affairs educational benefits include tutorial assistance, educational loans, and work-study.

Students classified as non-degree seeking or provisional may be eligible to receive Veteran's Education benefits for one semester.

All eligible persons wishing to apply for Veteran's Affairs educational benefits should contact the Office of Veterans Affairs at (501) 682-VETS (8387).

## Scholarships for Freshmen

UA Little Rock offers a number of competitive scholarships. Chancellor's Leadership Corps Scholarships are awarded to freshmen who have demonstrated outstanding leadership capability in high school activities. Donaghey Scholars Program Scholarships are most often awarded to high school seniors with exceptional academic promise.

EIT Scholar scholarships are awarded to outstanding entering students in Computer Science, Information Science, and Systems Engineering. EAST Scholarships are available to selected students who participated in the EAST Program in high school. Science Scholars is a scholarship and enrichment program for students majoring in biology, chemistry, and earth science.

Entering Freshman Scholarships are based on availability of funds and awarded to selected high school seniors who meet the deadline and academic criteria. A Freshman Award may also be available to students with an ACT composite score of at least 22. There are also scholarships available to students transferring from Arkansas public junior and community colleges. Applications and further information for these scholarships are available online. Students are encouraged to by the priority deadline.

### Private Scholarships and Awards

The Office of Development publishes a comprehensive list of private scholarships and awards available to all students. Additional information and applications can be obtained by contacting the Office of Alumni and Development at (501) 569-3194.

Interested students should inquire early. Call (501) 569-8399, for general information or a referral to the appropriate scholarship advisor.

## Tuition, Fees, Payments, & Refunds

The following tuition and fee information was subject for approval at the time of publication. For the most accurate and comprehensive tuition and fee information, visit [ualr.edu/bursar](http://ualr.edu/bursar). Tuition and fee charges for classes that are taken for audit are the same as those for credit classes.

Other fees for seminars and special courses may be charged. All fees are subject to change without notice. All tuition and fees are due at the time of the student's registration. UA Little Rock accepts MasterCard, Visa, and Discover. Students whose tuition checks are returned are subject to administrative withdrawal.

Any student who is an Arkansas resident and has reached the age of 60 years or older by the last day of registration may enroll (on a space-available basis) free of tuition. In such cases, special fees for certain leisure science and music instruction courses are required. Students must provide proof of age to the Office of Admissions and Financial Aid.

## 2019-2020 Tuition and Fees

### Undergraduate Tuition (Per Credit Hour)

**NOTE: For the most accurate and comprehensive tuition and fee information, visit [ualr.edu/bursar](http://ualr.edu/bursar).**

Arkansas Residents	
Per Semester Credit Hour	\$216.50
College of Business Courses	\$235.00
Donaghey College of Engineering and Information Technology (EIT) Courses	\$235.00
Nonresidents	
Per Semester Hour	\$625.00
College of Business/EIT Courses	\$635.00
Online flat rate Undergraduate	\$280.00

Military students pay tuition rates above plus the college tech fee only.

### Graduate Tuition (Per Credit Hour)

Arkansas Residents	
Per Semester Credit Hour	\$320.00
College of Business/EIT Courses	\$345.00
Online flat rate Graduate	\$383.00
Nonresidents	
Per Semester Hour	\$725.00
College of Business/EIT Courses	\$740.00

## Fees for All Students (Per Credit Hour)

### Required Fees

Facilities (excluding Law School)	\$17.25
General	\$21.50
Athletic	\$22.00
Health Services	\$4.25
Technology Infrastructure	\$9.00
Application Processing (1st Time Applicant)	\$40.00
Reapplication Processing (Per reapplication)	\$15.00
Public Safety	Fall & Spring: \$30.00 Summer: \$15.00
University of Arkansas System Infrastructure	\$10.87

### College Technology Fees

Arts, Letters, and Sciences Courses	\$14.25
College of Business Administration	\$12.75
College of Education and Health Professions	\$13.25
College of Social Sciences and Communications	\$12.75
Donaghey College of Information Science and Systems Engineering	\$15.50
Distance Ed Technology	\$25.00

## Special Fees (As Applicable)

Campus ID Card Replacement	\$15.00
Installment Payment Plan	\$50.00
International Student Application	\$40.00
International Student Service (per term)	\$150.00
International Student Health Insurance (Market Rate)	\$1,448.04 annually
Late Installment Payment (per payment)	\$50.00
Late Registration	\$100.00
Library Non-student User Circulation	per semester- \$45.00 per year- \$100.00
Optional Individual Math Skills Review	\$150.00
Insufficient Funds Charge	\$30.00
Transcript (Official Copy)	\$8.00

### Program Specific Fees

Ph.D. and Ed.D. Degree Graduation Fee	\$80.00
Thesis Publication Fee	\$45.00
Dissertation Publication Fee	\$55.00
Art Studio Materials	\$25.00
Audiology/Speech Pathology Practicum	\$20.00
Education Field Placement	\$25.00
Experimental Learning Fee (per course)	\$25.00- \$60.00
Praxis Testing (Dependent upon subject)	\$65.00- \$90.00

Student Teacher Practicum Supervision	In-state: \$210.00 Out-of-state: \$315.00
Machine Shop Course Fee	\$100.00
Anthropology Materials Fee	\$50.00
Media Production Fee	\$50.00
<b>Music</b>	
Private Applied Instruction half-hour lesson (1 credit hour course)	\$60.00
Private Applied Instruction one hour lesson (2 and 4 credit hour courses)	\$100.00
Performing Arts Production	\$12.00 per hour
<b>Nursing</b>	
Nursing Simulation Supply Fee	\$15.00 per hour
Clinical Nursing	\$30.00 per hour
Gross Anatomy Course Fee	\$200.00
<b>Social Work Placement</b> (per semester)	\$60.00

## Campus Living Fees

<b>General Fees</b>	per term
Application Processing	\$35.00
Security Deposit	\$100.00
Activity Fee	\$16.00
<b>Residence Halls</b>	

Laundry Fee	\$35.00
East Hall Double Bedroom	\$1,990.00
East Hall Private Bedroom	\$2,985.00
West Hall Double Bedroom	\$2,645.00
<b>Apartments</b>	
Four-Bedroom Apartment	\$2,790.00
Two-Bedroom Apartment	\$3,060.00
<b>Summer (per term)</b>	
Four-Bedroom Apartment	\$700.00
Two-Bedroom Apartment	\$750.00

## UA Little Rock-owned Rent Houses

Depending on size, furnishings, and condition.	\$450.00- \$800.00
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## Meal Plans

<b>Residential Plans (per term)</b>	\$950.00- \$1925.00
Commuter Plans (per term)	\$200.00- \$400.00
All Trojan Plan - \$950 Dining Dollars plus 16 meal swipes	\$950.00

For the most accurate and comprehensive tuition and fee information, visit the Bursar's webpage, [ualr.edu/bursar](http://ualr.edu/bursar).

## Parking Fees

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



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

## Payments Bursar Office

The Cashier's Office provides billing, receipting, and cashing functions for student tuition and fees to assure accurate, timely, and effective service to students, as well as providing receipting and deposit functions for the University departments. We also distribute payroll and accounts payable checks and request and disburse all travel advance checks. You can contact the Cashier's Office by calling (501) 569-8757 or by emailing [cashiers@ualr.edu](mailto:cashiers@ualr.edu).

The Student Accounts Office provides student billing, third party sponsorship posting, tuition discounts, and collection processes. You can contact the Student Accounts Office by calling (501) 569-3450 or by emailing [studentaccounts@ualr.edu](mailto:studentaccounts@ualr.edu).

## Refunds When Withdrawing from UA Little Rock

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

### Notes:

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

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

Semester	100%	50%
Sixteen-week courses (Fall & Spring)	First through the fifth class day	Sixth through the tenth class day
Ten to twelve-week courses	First through the fifth class day	Sixth through the tenth class day
Seven to nine-week courses	First through the third class day	Fourth through the seventh class day
Five or six-week courses	First and second class day	Third through the fifth class day
One to four-week courses	Prior to start of classes	N/A

To avoid charges for a summer term, a registered student must officially withdraw from all classes prior to the first day of classes for that term. Students who reduce their course load by dropping one or more courses may or may not be entitled to a reduction in charges.

Refund schedules for current terms may be found in the UA Little Rock Bursar's Office.

## Tax-Deductible Educational Expenses

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

- To maintain or improve the skills required in the individual's trade or business, or required in performing a present job
- To meet the specific requirements of an employer or the requirements of the law for retention of present employment, salary, or status
- Such that the criteria for the American Opportunity Credit or the Lifetime Learning Credit are met

These credits can be applied to tax returns if the student meets the eligibility requirements.

This section should not be construed as tax advice.

Students should consult a tax advisor or contact the local office of the Internal Revenue Service.

## Responsibility of Tuition and Fee Payment

By enrolling in classes at the University of Arkansas at Little Rock, a student makes a financial commitment to pay the tuition and fee charges associated with that enrollment. Students withdrawing after the stated refund dates remain liable for full tuition and fee charges.

Collection costs incurred in the event of delinquency shall be at the expense of the borrower, at a rate not to exceed 33.3% of the balance owed. Although the university accepts payment via student financial aid and third party sponsorship, the responsibility for payment remains with the student. If financial aid is not granted or if third-party sponsors do not pay within a reasonable period, the student will be required to pay the full amount due.

## Academic Advising

All degree-seeking undergraduate students are required to meet with an academic advisor and outline a degree plan each semester prior to registering for classes. Regular contact with an academic advisor is key to student success.

## New Freshmen/Transfer Students

New freshmen and transfer students with less than 45 credit hours are advised by professional advisors in one of two offices (the Trojan Academic Advising and Support Center or the College of Education and Health Professions Advising & Support Center) and continue to be advised in these offices until they earn approximately 45 credit hours:

College of Education and Health Professions  
Advising & Support Center (CEHP Advising Center)  
Dickinson Hall | Suite 300 | (501) 682-8625  
Email: [cehpadvisingandsupport@ualr.edu](mailto:cehpadvisingandsupport@ualr.edu)

The following majors are advised in the CEHP Advising Center:

- Nursing
- Communication Sciences and Disorders
- Middle Childhood Education
- Elementary Education
- Special Education
- K-12 Health and Physical Education
- Social Work
- Interpretation: ASL/English

## All Other Majors

Trojan Academic Advising and Support Center  
Student Services Center, Suite 320 | (501) 569-3386  
[ualr.edu/advising](http://ualr.edu/advising)

All other majors (excluding the list above) and undecided students are advised in the Trojan Academic Advising and Support Center.

New freshmen will be advised for their fall classes at New Student Orientations during the summer.

## Students with 45 hours or More

Students who have reached approximately 45 hours will be advised in academic college centers or academic departments within one of the following five colleges:

- College of Business Center
- College of Education and Health Professions
- College of Engineering and Information Technology
- College of Social Sciences and Communication
- College of Arts, Letters, and Sciences

## Choosing a Major

The Trojan Academic Advising and Support Center offers services to help students match their interests, aspirations, and abilities at any time during their academic journey.

In declaring a major, a student decides on a particular area of study. This decision helps make the student's academic goals more specific and maximizes the chances of graduating in four years, without unneeded courses and extra expenses.

Students who have never declared a major should make an appointment with a Discovery Advisor in the Trojan Academic Advising and Support Center in the Student Services Center Building, Room 320 at (501) 569-3386.

Students who have already declared a major and would like to change to a different major should consult with their existing advisor about how to change majors.

## Records and Registration

Student Services Center, 2nd Floor | (501) 569-3110  
or (501) 683-7270 | [ualr.edu/records](http://ualr.edu/records)

Registration Guide Website:  
[ualr.edu/records/get-registered](http://ualr.edu/records/get-registered)

### Registration at UA Little Rock

The Office of Records and Registration acts as a registration resource for students and the campus community. The office provides a number of online services to students through their BOSS accounts, including:

- Registration (Sign up for classes)
- Enrollment Verification
- Degree Verification
- Official Transcripts (**Note:** Students may also print an unofficial transcript through BOSS.)

### The Academic Year

The academic year includes two regular semesters in the fall and spring, each with four accelerated terms within the semester, and a summer semester with four terms. The unit of credit is the semester hour. This unit is defined as credit earned for the completion of one hour per week in class for one semester. Two hours or more of laboratory work per week for one term equals one-semester hour of credit. UA Little Rock offers night and weekend courses, web-based courses, courses on campus and at various off-campus locations. Admission requirements, fees, and academic performance for night and weekend classes are the same as for day classes.

### About Online Registration

After you have been advised, the next step toward taking courses at UA Little Rock is to view the UA Little Rock Registration Guide ([ualr.edu/records/get-registered](http://ualr.edu/records/get-registered)) and Class Search (<https://a.ualr.edu/classes/>).

The UA Little Rock Registration Guide and Class Search websites contain information on the web registration process and list the courses that will be offered during specific semesters by course, time, location, and instructor. At the Office of Records and Registration website ([ualr.edu/records](http://ualr.edu/records)), you can also find the academic calendar, the final examination schedule, and deadlines for various activities during the semester.

Please be aware that students may not enroll for more than 18 credit hours in a regular semester (Fall or Spring) or more than 7 credit hours in a five-week Summer term

without prior permission of the person who approves his or her degree plan.

Courses and programs are also offered through web-based delivery as well as at off-campus locations. Off-campus and online credit courses are identified by location in the UA Little Rock Registration Guide and Class Search.

During a full, 14-week semester or term, the usual three-credit-hour daytime course will meet for 50 minutes a day on Monday, Wednesday, and Friday, or for 1 hour and 15 minutes on either Monday and Wednesday or Tuesday and Thursday.

Some classes will meet on different time schedules, such as one three-hour session per week. All these options are part of UA Little Rock's effort to offer classes in times and places that suit the needs of all students, but it also means you have to read the UA Little Rock Class Search carefully.

### How to Read Class Search

Examples of a typical course entry and an explanation of each part of this listing is provided below. The format of the information may vary depending on which view of the student schedule you use, but the meaning of each component will be the same.

- **CRN: 60344** – The five-digit course reference number (CRN) assigned for registration. The five-digit CRN number is necessary for registration and is not the same as the course number.
- **Subject: HIST** – The department or curriculum area with its assigned four-letter code. In this case, it is "HIST" for "History."
- **Course Number: 1311** – The course number assigned by the department. It indicates the level and number of credit hours for the course. Note: The second number indicated the semester hours. This class is 3 semester credit hours.
- **Section: 03** – The section number assigned by the department.
- **Title: Hist Of Civilization I** – The course title. Abbreviated versions of long course titles may be used. Descriptions of all courses appear within their respective departments in numerical order by course number.
- **Available Seats: 0** – This is the total number of students that may sign up for this class.
- **Class meets MWF** – The days the class meets, in this case, each Monday, Wednesday, and Friday. Other abbreviations include "MW" or Monday and Wednesday, "TR" or Tuesday and

Thursday, "S" means Saturday, "U" means Sunday, and "TBA" indicates "to be announced." "TBA" is often used for online classes.

- **Time: 10:00 am – 10:50 am** – The time the class begins and ends. The abbreviation TBA in this place means "to be announced." The exact time for TBA courses will be provided by the department or instructor.
- **Instructor: Anson, Edward M.** – The name of the instructor assigned to this class. If the word "Staff" appears here, the teacher for the class had not yet been assigned at the time the schedule was prepared.

## Registering for Classes

For a step-by-step guide on how to register for classes, see the following page.

# Registering for my courses using Schedule Planner

1

Go to Blackboard Quick Links ([blackboard.ualr.edu](http://blackboard.ualr.edu)), and sign in with your Net ID. Once you're there, click on "Register for Classes" to get started!

The screenshot shows the Blackboard Quick Links page. A box highlights the 'Register for Classes' link in the 'My Courses' section. Other links include BOSS, Email, Google Drive, Google Calendar, Class Search, My Degree Plan, Bookstore, and Register Now. The 'Tools' section includes Announcements, Calendar, Tasks, and My Grades.

2

Next, you'll be asked to select a campus. Please note that most students will be using "Main," which includes both online and in-person classes.

Once you've selected a campus, you'll need to select which parts of the term you'd like to take classes. For now, just select all parts of term, then save and continue.

3

Now you're going to look for the blue banner — this takes you directly to the courses your academic advisor has already pre-loaded for you.

The screenshot shows the 'Courses' page with a '+ Add Course' button. A blue banner contains the text: 'Add the courses you wish to take for the upcoming term.' Below it, another banner says: 'Your My Student Educational Plan shows 4 courses for 2019 Spring, click here to load them into your course list. Note: Planned courses that are not offered for 2019 Spring are not included in the course count above and will not be loaded into your course list.'

4

If your advisor did not recommend courses, select "Add Course" and select your subject from the drop-down menu. Otherwise, select these recommended courses, then click "add course" so you can check out potential schedules!

The screenshot shows a list of recommended courses with checkboxes: Applied Communication 1300 - Intro to Communication, Mathematics 1302 - College Algebra, Political Science 1310 - American Natl Govt, and Rhetoric And Writing 1312 - Composition II. A '+ Add Course' button is highlighted at the bottom right.

5

Now you'll click the "Generate Schedule" button to view your options. If there's too many options, you can always add a break, or use the lock button to set a particular class you'd like to keep.

The screenshot shows the 'Generate Schedules' page with a 'Generated 7 Schedules' header. A list of 7 schedules is shown, each with a 'View' button and details like 'Soccer Practice, CHEM-1402-10, CHEM-1402-33L, CRJU-2300-04, MATH-1451-02'.

6

Once you've found the schedule that works best for you, you'll click "Send to Shopping Cart," located at the top of the page...

The screenshot shows a table of courses with columns: Status, Subject, Course, Section, Seats Available, Currently Waiting, Day(s) & Location(s), Campus, and Credits. A 'Send to Shopping Cart' button is visible at the top.

Status	Subject	Course	Section	Seats Available	Currently Waiting	Day(s) & Location(s)	Campus	Credits
Not Enrolled	CHEM	1402	33L	4	0	MWF 10:00am - 10:50am 01/23/2019 - 05/13/2019 - FH 102	Main	4
Not Enrolled	CHEM	1402	33L	4	0	W 12:00pm - 2:50pm 01/23/2019 - 05/08/2019 - SCLB 280	Main	0
Not Enrolled	CRJU	2300	04	17	0	TTh 10:50am - 12:05pm 01/22/2019 - 05/14/2019 - RH 116	Main	3
Enrolled	MATH	1451	02	17	0	TTh 9:00am - 10:40am 01/22/2019 - 05/14/2019 - RH 311	Main	4

7

...then click "Register"...

The screenshot shows the 'Shopping Cart' page with a table of courses and a 'Register' button. The table includes columns for Subject, Course, Component, Instructor, and Day(s) & Location(s).

Subject	Course	Component	Instructor	Day(s) & Location(s)
CHEM	1402	Lecture	Douglas, Marian S.	MWF 10:00am - 10:50am 01/23/2019 - 05/13/2019 - FH 102
CHEM	1402	Lab	Not Assigned	W 12:00pm - 2:50pm 01/23/2019 - 05/08/2019 - SCLB 280
CRJU	2300	Lecture	Turner, Kayla Marie	TTh 10:50am - 12:05pm 01/22/2019 - 05/14/2019 - RH 116

8

...and agree to the terms.

The screenshot shows the registration terms page with a scrollable list of terms and an 'I Agree, Continue' button.

I understand that upon my registration, I have made a contractual financial obligation to pay all tuition and fees associated with any classes in which I register, unless I drop/withdraw by the refund dates listed on the Bursar's website. "Not Attending" does not remove this obligation.

I am responsible for reading and following the drop/withdrawal policy of the university, as posted on the Bursar's website.

I authorize UA Little Rock to apply any financial aid I receive toward my account balance. If my aid is reduced or canceled, I understand that I will be fully responsible for -

[I Do Not Agree, Cancel](#) [I Agree, Continue](#)

9

Now you can look at the registration results! Congratulations, you've signed up for courses using the Schedule Planner!

## Quick Facts about Schedule Planner

The screenshot shows the Schedule Planner interface for the University of Arkansas at Little Rock. It includes sections for Course Status, Parts of Term, Instruction Modes, Courses, Breaks, Current Schedule, and Schedules. Callouts provide the following information:

- Need a break?** You can add one here! You can also use it to narrow the selection of generated schedules.
- Prerequisites:** If your course requires prerequisites, they will display here.
- Course Lock:** Found a course you like? You can use the lock to only view schedules with that course.
- Remove Course:** If you want to remove a course, just click here.
- Generate Schedules:** Use this button to view the possible schedules for your current settings. Too many options? Try adding a break or locking down a particular class.

## Records and Registration: Frequently Asked Questions

**Q:** Where do I find the form for my records request?

**A:** You can find all of our forms at [ualr.edu/records/forms](http://ualr.edu/records/forms), as well as instructions for how to use them! This page includes almost all of our common requests, including:

- Transcript requests
- Name Changes
- Address changes
- Immunization requests
- Enrollment verification
- Dropping a class
- Request a duplicate diploma

**Q:** Where can I see the Academic Calendar?

**A:** You can view the academic calendar at [ualr.edu/records/calendar](http://ualr.edu/records/calendar). Once you're there, you can view the start and end dates for terms, as well as important semester dates — even the schedule for final exams! Check out the calendar if you have any questions about deadlines.

**Q:** Is there a hold that can keep me from dropping classes? Why can't I drop a course?

**A:** *There are no holds that can keep you from dropping classes.* Once late registration is over for the term, you may notice that you are no longer allowed to adjust your schedule — this is normal!

You'll need to fill out a drop/withdrawal form, which is located on the Forms page we talked about in the first question. You can turn it in in person, or send it to the fax or email listed on the form — just make sure it's signed!

**Q:** I don't see my question here. How can I get it answered?

**A:** You can come see us in person in the Donaldson Student Services building, or use one of the following:  
 Phone: (501) 569-3110  
 Email: [records@ualr.edu](mailto:records@ualr.edu)  
 Fax: (501) 569-8168

## **Student Life, Activities, and Services**

### **Adult Learners (Nontraditional Students)**

An adult learner is defined as a student 25 years of age or older who is beginning or returning to school after being away from college for a number of years and who plans to enroll in credit courses. To respond more effectively to this group's needs, the Student Experience Center serves as an advocacy and referral office and assists new adult students.

The Non-Traditional Student Program (NTSP) is designed to help nontraditional students be successful in obtaining their educational goals. NTSP helps students navigate the university and provide information about resources, services, and opportunities that UA Little Rock offers. Additional information may be found on the website [ualr.edu/campuslife/ntsp/about-non-traditional-student-programs](http://ualr.edu/campuslife/ntsp/about-non-traditional-student-programs) or by calling (501) 569-3308.

### **Alumni Association**

The UA Little Rock Alumni Association sponsors a variety of activities for students and former students including homecoming, reunions, speaker series, and other special events. The association offers several scholarships, including one to a second-generation student. The association also cosponsors GradFest each fall and spring semester. Alumni members receive on-campus discounts and receive the Daily Record, a newspaper of law and business information. The Alumni Association offers a basic membership option or membership in a specific constituency group and is open to all former students of UA Little Rock and its predecessor institutions (Little Rock University and Little Rock Junior College) for a small annual membership fee. Visit the Bailey Alumni & Friends Center, (501) 683-7208.

### **Bookstore**

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

### **Campus ID Card**

The UA Little Rock photo Campus Card is required to access the Donaghey Student Center Fitness and Aquatics Center, library, athletic events, and special activities, and to perform check cashing and enrollment adjustments.

The ID Card is also used as a debit card for those students on a meal plan and/or receiving book vouchers. The card may not be used by any person other than the one to whom it is issued, and it must be surrendered upon the request of any official of the University. If an ID card is lost, another can be obtained at the Donaghey Student Center for a fee. Campus Cards are issued at the Donaghey Student Center during regular operating hours.

### **Student Experience Center**

Students involved in the Student Experience Center gain valuable experience in building teamwork, planning events, working with diverse personalities and populations and much more! Services, programs, and events include the following:

- Allocation & Administration of Student Activity Fees
- Campus Recreation: Intramural Sports, Fitness/Wellness Programs & Outdoor Adventures
- Diversity Programs & Mentoring
- Fraternity/Sorority Life Student
- Leadership Development
- New Student Orientation
- Peer Tutoring Referrals
- Special Events & Cultural Observances
- Student Government Association
- Student Organization Registration & Advisement
- Support Programs & Services: Women, NonTraditional, Commuter & First Generation
- The UA Little Rock Forum Student Newspaper
- University Program Council

The Student Experience Center provides advisement to all registered student organizations including those funded by the activity fee, coordinates the assignment of student organization office space, and provides student development and leadership enhancement opportunities for UA Little Rock students. The office encourages a diversity of activities designed to entertain and educate while providing opportunities for student development through extracurricular experiences. For more information, contact the Student Experience Center (501) 569-3308.

## Chancellor's Leadership Corps

The Chancellor's Leadership Corps (CLC) enrolls 225 new scholars each year based on the basis of academics, leadership, scholarship, and service. A renewable scholarship that covers tuition and fees is awarded to every member. The students serve as ambassadors of the University, participate in community service projects, and enjoy numerous social activities as part of a leadership practicum. The program has a four-year curriculum guide. Class enrollment is limited to CLC Scholars which ensures smaller class sizes and class engagement. Each course is designed with the scholars and their futures in mind. All coursework is interactive, engaging, and hands-on and designed upon the foundations of theory. For more To learn more, please visit the Career Center website at [ualr.edu/careers](http://ualr.edu/careers) or email the Center at [careers@ualr.edu](mailto:careers@ualr.edu).

## Counseling Services

Counseling is a service provided by professionally and clinically trained mental health providers, who promote mental health and wellness within an individual, group, and community format. We assist clients who are goal oriented and want to make positive changes in their lives. Counselors guide clients in overcoming personal barriers and life stressors in meeting their personal and professional goals. We assist our clients in exploring and accessing their own strengths and equip our clients with healthy and sustainable coping skills. For more information call (501) 569-3185 or visit their [ualr.edu/counseling](http://ualr.edu/counseling).

## Disability Resource Center

The Disability Resource Center collaborates with faculty, staff, and students to make UA Little Rock accessible to everyone. Their expertise is at the intersection of disability and design, and so the DRC works with the campus community to ensure that physical, web environments are designed to be barrier-free to the extent possible. Some barriers to access can't be removed in a timely manner, and so that's when they work one-on-one with students to determine accommodations. This is a collaborative process between the DRC and the student, and when needed, with faculty.

The DRC believes that disability is an aspect of diversity that is integral to our society and to the UA Little Rock campus community. The DRC also believes that creating and maintaining usable, equitable, inclusive and sustainable learning environments is a shared responsibility of the campus community. Designing learning environments with usability in mind benefit all students at UA Little Rock. The ultimate indicator of our

information contact Financial Aid at (501) 569-3035 or visit [ualr.edu/financialaid](http://ualr.edu/financialaid).

## Career Center

Students can connect to education and employment opportunities through the Career Center. The Center coordinates internships and cooperative education experiences, which offers students work experience related to their academic area of interest. The Center offers resume and cover letter writing assistance. In addition to assistance with interviewing skills, the Center also offers resources through Handshake, an online job search platform.

success is when students with disabilities can access their environments as seamlessly as do non-disabled students.

The DRC strives to work proactively with the campus on accessibility issues by serving on many committees, and by doing presentations to colleges and departments across campus on good course design and accessibility issues.

For more information, contact Disability Resource Center by visiting [ualr.edu/disability](http://ualr.edu/disability) or call (501) 569-3143. The office is located in the Donaghey Student Center, Room 103.

## Donaghey Student Center

Located at the heart of the campus, the Donaghey Student Center (DSC) supports the University of Arkansas at Little Rock in its dedication to development, service, and community. The DSC provides facilities and services unique to university life. It is one of the few buildings in the nation that combines a traditional student center with a fitness and aquatics center.

The Information Desk is located on the first floor of the Donaghey Student Center, Room 101. An attendant is available from 8:00 a.m. to 6:00 p.m. Monday through Thursday, and 8:00 a.m. to 5:00 p.m. on Friday.



## DSC Offices

Office	Number
Administration, (Room 101)	(501) 569-8078
General Office	(501) 569-3362
Aquatics, (Room 106)	(501) 371-8011
Student Experience Center, (Room 216)	(501) 569-3308
Conference Services, (Room 210A)	(501) 569-3324
Dining Services, (Room 211B)	(501) 569-3361
Disability Resource Center, (Room 103)	(501) 569-3143
Educational, Student Services, & Student Life, (Room 215)	(501) 569-3328
Equipment Services, (Room 106D)	(501) 569-8284
Environmental Services, (Room 101)	(501) 683-7127
Fit/Well, (Room 109D1B)	(501) 569-3228
Information and Call Center, (Room 101A)	(501) 569-3362
Intramural teams, (Room 109D1C)	(501) 683-4911
Health Services, (Room 102)	(501) 569-3188
Reception Services, (Room 101D)	(501) 569-3413

## Graduate Student Association

Every UA Little Rock graduate student is a member of the Graduate Student Association (GSA). The GSA is the voice of UA Little Rock's graduate students, advocating for their interests, hosting social, professional, and academic events throughout the school year, and sponsoring an annual research forum at which graduate students present their scholarly works.

The GSA is led by the Executive Team, composed of President, Vice President, Treasurer, Secretary, Social Media Director, and Parliamentarian. Senators act as liaisons between Colleges and the GSA as a whole. This format promotes dialogue between Colleges and encourages productive academic and social relationships between students. In addition, the Executive Team consults with various campus committees and administrative groups on behalf of the graduate student body and helps the GSA with a variety of programs throughout the year, such as workshops, recruitment, and the Student Research and Creative Works Expo.

The GSA performs its duties through monthly meetings, open discussion, and committee work. Senators of the GSA exercise their full rights as representatives by attending and participating in these monthly meetings.

As part of its representation of the GSA before the Graduate School and the University, the GSA elects student representatives to attend the Graduate Faculty Council (GC) and to serve on the GC's two subcommittees, the personnel subcommittee, and the curriculum subcommittee. The GSA members that attend the GC will provide feedback to the GSA from the meetings about issues relevant to the student body. For more information on the GSA, you can visit its website [ualr.edu/gsa](http://ualr.edu/gsa) or email [gsa@ualr.edu](mailto:gsa@ualr.edu).

## Greek Organizations

UA Little Rock has a wide variety of Greek social fraternities and sororities, as well as honor and recognition societies and professional fraternities. These traditional college student organizations (called Greek organizations because of their Greek names) provide democratic, social, and leadership experience; give value beyond the college years; create an ever-widening circle of service beyond membership; answer the yearning for spiritual expression and guidance, and fill the need to belong.

Membership is by invitation, following a formal "rush week" during which each sorority and fraternity holds parties for potential members to learn about the organizations. For more information or to participate in Rush Week, call the Student Experience Center, (501) 569-3308.

## Health Services

Health Services is an outpatient medical clinic that provides inclusive, evidenced-based, quality health care and wellness promotion to students and employees of UA Little Rock.

Health Services is under the Division of Student Affairs and is conveniently located in the Donaghey Student Center (Suite 102) next to the Information Desk and across from the bookstore. The medical staff includes board-certified advanced practice registered nurses, registered nurses, and a consulting physician.

### • Services

Services include evaluation and treatment of illnesses (including prescriptions when needed); physical exams; STD screening and treatment; women's health visits including annual exams and birth control; immunizations; tuberculosis screening; allergy injections; international travel consultations; and lab testing.

Students are encouraged to complete their medical history forms found at [ualr.medicatconnect.com](http://ualr.medicatconnect.com) within the first week of classes. This will greatly decrease the time it takes to check-in on the first visit to Health Services.

The Campus Wellness Center (located in DSC 201J) serves as the health promotion area within Health Services and offers free consultations on nutrition, weight management, smoking cessation, and exercise. There also are physical activity challenges throughout the year and a variety of programs on health-related topics including drug and alcohol abuse prevention.

### • Hours of Operation

Monday – Friday | 8:00 a.m. – 5:00 p.m.

### • How to Access Care

Schedule an appointment with Health Services by calling 501-569-3188 or with the Campus Wellness Center by calling 501-907-8974.

### • Cost

The student health fee included in tuition costs covers the cost of most office visits. There are additional charges for vaccines, labs, and certain procedures. Health Services can bill most insurance providers or charges can be posted to a student's BOSS account. Charges must be paid in full before the end of each semester.

All programs and services offered through the Campus Wellness Center are free.

## Housing

Living on campus at UA Little Rock is an opportunity to be in the middle of it all. Being a part of a residential community has many perks, from a greater chance at academic success to a built-in social setting that is brimming with possibility.

UA Little Rock offers a variety of housing options to meet the needs of a diverse student body. Each of the four halls and the new University Village are equipped with amenities such as furnished rooms, Internet access, cable connections, and reserved student parking. And let's not forget about laundry, fitness and recreation areas, and the UA Little Rock Dining Experience.

Review the choices and decide which one best fits your needs before completing the housing application.

UA Little Rock adheres to all federal and state regulations and guidelines regarding nondiscrimination in housing. Inquiries may be made to the Campus Living at (501) 661-1743.

## Information Center

The Information & Call Center is located on the first floor of the Donaghey Student Center (DSC), Room 101. A team representative is available at the desk during our regularly scheduled hours to assist you.

The Information Center is open from 7:30 a.m. to 6:00 p.m., Monday through Thursday and 7:30 a.m. – 5:00 p.m. Friday (during regular sessions). The Information Center's telephone number is (501) 569-3362.

## Intercollegiate Athletics

The UA Little Rock athletic program is a member of the National Collegiate Athletic Association Division I and abides by NCAA rules and regulations. Men's and women's teams compete in the Sun Belt Conference. Men's sports include baseball, basketball, cross country, tennis, and water polo. Women's sports include basketball, cross country, soccer, swimming, tennis, track, and volleyball.

Any student interested in intercollegiate sports participation is encouraged to try out. Interested students should contact the Director of Athletics.

## Intramural Sports and Campus Recreation

The purpose of the Office of Campus Recreation is to provide opportunities for a diversified population to recreate, exercise, and socialize through a variety of programs. The Office of Campus Recreation help stimulate student learning and development as well as enhance the quality of life for the students, faculty, and staff. The Office Campus Recreations offers the following programs:

- Fitness & Wellness Classes— Offers approximately thirty (30) group exercise classes, personal programming, personal training, incentive programs, personal assessments, and CPR/First Aid classes during the academic year.
- Intramural Sports – Offers approximately fifteen (15) individual and/or team sports during the academic year.
- Outdoor Adventures— Offers students the opportunity to experience the outdoors through the rental of camping equipment.
- Special Events— Offers opportunities for leisure, education, socialization, fitness, and fun through a variety of alternative events. The program's purpose is to provide off-campus connections with other universities' participants through competitive and recreational events

For more information, call (501) 569-3308.

## International Services

The Office of International Services is responsible for foreign student orientation and assists international students regarding living and studying on an American campus, with housing, advisory services for matters involving nonacademic concerns, and helps develop programs to bring foreign and U.S. students together. The office works in cooperation with other units on campus that serve international students. For more information, phone (501) 683-7566. (See the International Services section of this catalog.)

## New Student Orientation

### • Undergraduate Students

Your life changes when you enter college. Your days will soon be even busier and filled with new challenges, priorities, and activities. Students who become familiar with their campus, the faculty and staff, and available resources enhance their chances for success. Students admitted to UA Little Rock will receive an email invitation, at the email address provided on the admission

application, to complete online orientation or attend orientation on campus.

Additional information is available at [ualr.edu/newstudents](http://ualr.edu/newstudents) or you may contact the Student Experience Center, (501) 569-3308.

### • Graduate Students

Providing a unique educational experience to graduate students, the UA Little Rock Graduate School conducts orientation online at [ualr.edu/gradschool](http://ualr.edu/gradschool). It is required that all newly admitted graduate students complete this orientation.

### • Orientation Leaders

Orientation leaders assist in a variety of activities designed to welcome new students and their families. Criteria for orientation leader selection include the ability to interact well with others and to communicate information about the University; successful scholastic achievement; and evidence of previous leadership roles. Faculty, staff, and administrators are invited to recommend students for orientation leader selection. For more information, contact the Student Experience Center.

## Military Student Success Center

The Office of Military Student Success serves over 700 Active Duty, Reservists, National Guardsmen, Veterans, and their family members.

The Military Student Success Center is the place to start. We are here to help you with your educational journey.

The Center has a lounge, study area with computers, conference area, and kitchen area.

The Center staff consists of two full-time employees—the Director and Assistant Director—as well as a team VA Work Study Students.

Both the Director and Assistant Director are advocates for the military student population and are able to assist you with any concerns you may have about your student experience and facilitate a resolution.

Contact us by email: [military@ualr.edu](mailto:military@ualr.edu).

Phone: (501) 682-VETS (8387) | Fax: (501) 683-7055 | In Person: Speech Building, Room 111 Office  
Hours: Monday – Friday | 8:00 a.m. to 5:00 p.m.

## Ottenheimer Library

The Ottenheimer Library welcomes students, as well as faculty and staff. Friendly librarians and library staff are available to answer questions and assist with research. In addition to more than 500,000 books, Ottenheimer Library also features:

- Wireless access
- Computers, printers, copiers, and scanners
- Laptops and iPads for personal use
- Music CDs and DVDs
- United States government and European Union publications

Over 100 electronic databases, 30,000 electronic books, and 37,000 electronic journals, newspapers, and magazines.

The library delivers electronic copies of print articles and chapters upon demand, and can also order additional books, articles, and other materials from libraries throughout North America. Many of the library's resources are available online and can be accessed anywhere with an Internet connection. For additional information, visit [ualr.edu/library](http://ualr.edu/library) General information is available by calling (501) 569-3123. The telephone number for reference and documents assistance is (501) 569-3123.

## Public Safety

The UA Little Rock Department of Public Safety (DPS) is responsible for maintaining an orderly, safe environment for the pursuit of education, and it works in many ways to serve, protect, and assist the students, faculty, staff, and their guests. Police service is provided 24 hours a day, seven days a week, and UA Little Rock police officers are commissioned law enforcement officers with the same authority and arrest powers as city police officers. The public safety telephone number is (501) 569-3408; (501) 569-3400 or 911 for emergencies.

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

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

Emergency telephones, direct lines to the public safety dispatcher, are located around campus and their use is encouraged. These phones are in small, gray metal boxes

on poles topped with flashing blue lights. Simply pick up the receiver and wait for the dispatcher to answer.

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

## Recreation Services

The purpose of the University of Arkansas at Little Rock's Office of Campus Recreation is to provide opportunities for a diversified population to recreate, exercise, and socialize through a variety of programs. The Office of Campus Recreation help stimulate student learning and development as well as enhance the quality of life for the students, faculty, and staff. The Office Campus Recreations offers the following programs:

- Fitness & Wellness Classes
- Intramural Sports
- Outdoor Adventures
- Special Events

For more information, call (501) 569-3308.

## Speech and Hearing Clinic

This program provides evaluations and therapy for any student wishing assistance. The UA Little Rock Speech, Language, and Hearing Clinic is accredited in speech-language pathology and audiology and is supervised by certified speech-language pathologists and audiologists. Self, faculty, and external referrals may be made. Evaluations and therapy are scheduled at the faculty member 's and student's convenience. The clinic is located in the University Plaza.

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

Appointments may be scheduled by calling (501) 569-3155.

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

Some services are available at a reduced charge to regularly enrolled students. In addition, referrals are

encouraged from community speech- and hearing-impaired children and adults.

## Students Affected by the Military

Students Affected by the Military (SAM) is a UA Little Rock student organization with a mission to foster and develop a support and social network for UA Little Rock students affected by the military.

SAM wants to help you

- **Develop Social Networks**
- **Receive Outreach Services** (Counseling, Advising, Help when you need it)
- **Enjoy the Company of Others Who Share Your Experiences**
- **Achieve Your Educational Goals**
- **Make Your Interests Known**

UA Little Rock is a chapter of the Student Veterans of America (SVA) organization. SVA is a chapter-based student veteran membership organization that provides military veterans with resources, support, and advocacy needed to succeed in higher education and post-graduation. Visit the website at [ualr.edu/military/sam](http://ualr.edu/military/sam) or contact the UA Little Rock military ombudsman at (501) 683-7167.

## Student Directory

Under the provisions of the Family Educational Rights and Privacy Act of 1974 (commonly known as FERPA), a student at UA Little Rock has the right to withhold the following information, which is considered to be directory information, will be subject to public disclosure unless the student informs the campus Office of Records and Registration in writing, that he or she does not want any information designated as directory information.

This includes:

- Student's name,
- Address,
- Telephone number,
- Date and place of birth,
- Major field of study,
- number of credit hours enrolled and/or completed,
- withdrawal record,
- Participation in registered activities and sports,
- weight and height (for members of athletic teams only),
- class rank,
- scholarship,
- Honors, degrees, and awards received,
- previously attended a certain high school, college or university
- E-mail addresses.

## Student Government Association

The UA Little Rock Student Government Association (SGA) offers an opportunity for students to play an active role in the University's affairs and provides information on campus policies, events, and organizations, and an avenue for students to make known their feelings about campus policies.

SGA officers are selected by campus-wide election and represent the student body in the UA Little Rock University Assembly and the SGA President is a member of the Faculty Senate. The SGA appoints student members to UA Little Rock's administrative and standing committees, provides an appeal system for parking and traffic violation tickets, maintains open lines of communication between University policy makers and students, and provides meeting space for student organizations. For more information or to become involved with the student government, call (501) 569-3567.

## Student Handbook

### • All Students

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

### • Graduate Students

In addition to the UA Little Rock Student Handbook, graduate students are further required to familiarize themselves with the Graduate Student Handbook, Dissertation and Thesis Guideline, and the UA Little Rock Graduate Catalog.

## Student Organizations

There are more than 150 student organizations and clubs registered at UA Little Rock. These groups offer opportunities for leadership and student development experiences; recognize scholarship and leadership achievements at either the undergraduate or graduate level; and provide social experiences and opportunities to promote common interests in such areas as social action, politics, religion, philosophy, ethics, recreation, and hobbies. For a complete list of registered student organizations, or to register a student organization, contact the Student Experience Center.

## Student Publications

UA Little Rock recognizes three official student publications on campus.

1. Equinox is a student-run journal of contemporary literature and art at UA Little Rock.
2. The Forum is the UA Little Rock student newspaper. It is published weekly during the fall and spring semesters and four times during the summer.
3. Quills and Pixels is the peer-reviewed, student publication of the UA Little Rock Writers' Network, an organization dedicated to spotlighting the importance of writing in society.

## Study Abroad

Administration North, Room 205, (501) 569-3376, [ualr.edu/studyabroad](http://ualr.edu/studyabroad)

Study abroad at UA Little Rock offers you a unique and valuable experience—the opportunity not only to study but also to immerse yourself in another country and culture, thus expanding your view of the world. While working to fulfill major and minor coursework requirements, you also have an unparalleled opportunity to acquire firsthand knowledge of another culture, develop or improve fluency in another language, and gain a global perspective. Your time abroad will be full of vivid and amazing experiences that you will remember for the rest of your life, no matter where you choose to go.

Our students have traveled the world, from Austria and China to Costa Rica and Spain. The photo opportunities are just part of the big picture – UA Little Rock students are interacting with other cultures, immersing themselves, and picking up the skills necessary to thrive in an increasingly interconnected world. For more information call (501) 569-3376 or visit the website.

## Testing Services

Student Services Center, Room 315  
(501) 569-3198 | [ualr.edu/testing](http://ualr.edu/testing)

Testing Services provides high-quality assessments that adhere to national, state, and professional standards in order to validate exam results. Testing programs include examinations for placement, credit, admission, graduate and professional schools, licensing and certification, distance education, and proctoring for students who receive accommodations.

The office maintains the policies and articulates credit for prior learning assessments such as Advanced Placement

(AP), CLEP, DANTES Subject Standardized Tests (DSST), Excelsior College Examinations (ECE), International Baccalaureate (IB), and UA Little Rock Departmental Exams. Information regarding scheduling, programs, and current policy is available online at [ualr.edu/testing](http://ualr.edu/testing).

## University Program Council

The University Program Council (UPC) is a registered student organization that serves as a programming extension of the Student Experience Center. UPC provides movie nights, lectures and comedians.

Any student who wishes to participate in UPC may become a member. Students who participate share in the presentation of student activity programs from beginning to end and may also serve in leadership positions within the organization. UPC members have the opportunity to work with many different groups to provide programs for a diverse campus population.

Graduate with the experiential education that UPC programs provide! The UPC is funded by the student activity fee and therefore, all events sponsored by the UPC are free to enrolled UA Little Rock students. UPC meets every Wednesday at 5:00 p.m. in DSC 201T. If you would like more information about the University Program Council, please contact the Student Experience Center at (501) 569-3308 or visit [ualr.edu/campuslife](http://ualr.edu/campuslife).

## University Academic Assistance Centers

### Communication Skill Center

The Communication Skill Center (CSC) helps take the panic out of public speaking! The CSC is a free campus resource devoted to helping students, faculty, and staff with all stages of the speech creation process. Our services include, but are not limited to, managing anxiety, brainstorming topics, conducting research, organizing content, outlining, designing and integrating effective presentational aids, and rehearsing traditionally, as well as via video, with personalized feedback. Additionally, we offer individualized help as well as group workshops on other communication-based skills, such as team communication, leadership communication, and conflict resolution. For more information call (501) 569-8208 or visit 201 SPCH Building.

### Mathematics Assistance Centers

The Mathematics Assistance Centers (MAC I & II) are excellent places for students to study and do their homework. No appointment is necessary and the MAC I and MAC II are free to all UA Little Rock students. Each

MAC is an excellent place to get help. Tutoring, DVDs, and computers are available.

### **University Writing Center**

The University Writing Center offers writing assistance to any student at any level. Computers for word processing are also available. Located in Student Union B 116, the University Writing Center is open five days a week. Hours change each semester.

For more information, come by or call (501) 569-8343. You may also visit the Center for help with writing at the University Writing Center Online. ([ualr.edu/owl/](http://ualr.edu/owl/))

### **Vehicle Registration and Parking**

Every student who owns or operates a motorized vehicle on the campus is required to register that vehicle and display a parking permit as instructed. A student may register one vehicle for open parking free of charge. Contact the Department of Public Safety for more information on registering vehicles (501) 569-3408.

## Undergraduate Programs

### Associate of Arts

General Studies, A.A.

### Associate of Applied Science

Nursing, A.A.S.

### Associate of Engineering Technology

Electronics & Computer Engineering Technology,  
A.E.T.

Mechanical Engineering Technology, A.E.T.

### Associate of Science

American Sign Language Studies, A.S.

Construction Science, A.S.

Law Enforcement, A.S.

### Associate of Computer Science

Computer Programming, A.C.S.

### Bachelor of Applied Science

Applied Science, B.A.S.

### Bachelor of Arts

Anthropology, B.A.

Applied Communication, B.A.

Art, Art Education Track, B.A.

Art, Art History Track, B.A.

Art, Studio Art Track, B.A.

Chemistry, B.A.

Chemistry, Education Track, B.A.

Community Management and Development, B.A.

Criminal Justice, B.A.

Dance, B.A.

English, B.A.

English, Creative Writing Emphasis, B.A.

English, English Education Track, B.A.

History, B.A.

History, Education Track: Social

Studies/History, B.A.

History, Education Track: Social

Studies/Political Science, B.A.

Interdisciplinary Studies Online, B.A.

Interdisciplinary Studies, B.A.

International Studies, B.A.

Interpretation: ASL/English, B.A.

Legal Studies (Supplementary Major), B.A.

Legal Studies, B.A.

Mass Communication, Journalism

Emphasis, B.A.

Mass Communication, Mass Media

Emphasis, B.A.

Mass Communication, Media Production &

Design Emphasis, B.A.

Mass Communication, Strategic

Communication Emphasis, B.A.

Mathematics Education, B.A.

Mathematics, B.A.

Music, B.A.

Music, Music History Track, B.A.

Music, Music Theory Track, B.A.

Philosophy, B.A.

Physics, B.A.

Political Science with Education Licensure, B.A.

Political Science, B.A.

Professional and Technical Writing, B.A.

Psychology, B.A.

Sociology, B.A.

Theatre Arts, B.A.

Web Design & Development, B.A.

World Languages: French, B.A.

World Languages: Spanish, B.A.

Bachelor of Business Administration

Accounting, B.B.A.

Business Analytics, B.B.A.

Business Information Systems, B.B.A.

Economics, B.B.A.

Finance, Financial Services and Risk Management

Emphasis, B.B.A.

Finance, General Finance Emphasis, B.B.A.

Finance, Real Estate Emphasis, B.B.A.

International Business, B.B.A.

Management, B.B.A.

Marketing, B.B.A.

Bachelor of Fine Arts

Art, Fine Art Track or Applied Design

Track, B.F.A.

Dance, B.F.A.

Bachelor of Music

Music Education, Instrumental, B.M.

Music Education, Vocal, B.M.

Bachelor of Professional Studies

Construction Concentration, B.P.S.

Information Assurance, B.P.S.

Bachelor of Science

Architectural and Construction Engineering,

B.S.

### Endorsement

Arkansas K-12 Coaching Endorsement

ESL Endorsement for Teachers

Journalism Endorsement

### Teacher Licensure

Applied Communication Education (Teacher

Licensure)

Education, B.A./B.S. Teacher Licensure

Teacher Licensure (Minor in Education)

Teacher Licensure Program/Minor in Education

### Technical Certificate

Graphic Design Technical Certificate

Information Assurance Technical Certificate

### Certificate of Proficiency

Applied Design Certificate of Proficiency



Business Analytics Certificate of Proficiency  
Photography Certificate of Proficiency  
Professional Sales Certificate of Proficiency  
Workplace Spanish Certificate of Proficiency

### **External Certification**

Nonprofit Leadership Studies

### **Honors Program**

Donaghey Scholars Program

### **Minors**

Accounting Minor  
Actuarial Science Minor  
Advertising/Public Relations Minor  
Anthropology Minor  
Applied Communication Minor  
Applied Design Minor  
Art History Major/Studio Art Minor  
Art History Minor  
Astronomy Minor  
Bioinformatics Minor  
Biology Minor  
Business Information Systems Minor  
Chemistry Minor  
Computer Integrated Manufacturing, Minor  
Computer Science Minor  
Construction Management Minor  
Creative Writing Minor  
Dance Minor  
Digital Graphics Minor  
Economics Minor  
Education Minor  
Educational Interpreting Minor  
Engineering Technology Minor  
English Minor  
Environmental Geology Minor  
Environmental Health Sciences Minor  
Film Minor (English)  
Film Minor (Mass Communication)  
French Minor  
Gender Studies Minor  
General Finance Minor  
Geography Minor  
Geology Minor  
Gerontology Minor  
Health and Exercise Science Minor  
Health Sciences Minor  
History Minor  
Human Resource Management Minor  
Human Services Minor  
Information Assurance Minor  
Information Technology Minor  
Innovation and Entrepreneurship Minor  
Interdisciplinary Business Studies  
International Studies Minor

Journalism Minor  
Legal Studies Minor  
Linguistics Minor  
Management Minor  
Marketing Minor  
Mass Media Minor  
Mathematics Minor  
Media Production and Design Minor  
Middle Eastern Studies Minor  
Music Minor  
Nonprofit Leadership Studies  
Philosophy Minor  
Philosophy/Religious Studies Minor  
Photography Minor  
Physics Minor  
Political Science Minor  
Presidential Studies Minor  
Professional Communication Minor  
Professional Selling Minor  
Psychology Minor  
Race and Ethnicity Minor  
Real Estate Minor  
Religious Studies Minor  
Sign Language Studies Minor  
Social Work Minor  
Sociology Minor  
Spanish Minor  
Speech Pathology  
Sport Management Minor  
Statistics Minor  
Strategic Communication Minor  
Studio Art Minor  
Theatre Arts Minor

## Interdisciplinary Fields

The University provides opportunities for interdisciplinary study, combining aspects of several academic disciplines that may be affiliated with more than one department or college. These include baccalaureate and associate degrees, minors, and individual courses.

For more information about the programs below, consult the listings appearing under the appropriate department or college in this catalog.

## Interdisciplinary Programs by College

### College of Arts, Letters, and Sciences

#### Bachelor of Arts

- Interdisciplinary Studies, B.A.
- Pre-professional Studies (for Bachelor degree majors)

#### Minor

- Linguistics Minor

#### Certificate of Proficiency

- Workplace Spanish Certificate of Proficiency

### College of Social Sciences & Communications

#### Bachelor of Applied Science

- Applied Science, B.A.S.
- International Studies, B.A.
- Legal Studies (Supplementary Major), B.A.

#### Minor

- Gender Studies Minor
- International Studies Minor
- Legal Studies Minor

#### External Certification

- Nonprofit Leadership Studies

### College of Business

#### Bachelor of Business Administration

- International Business, B.B.A.
- Web Design & Development, B.A.

#### Minor

- Interdisciplinary Business Studies

### Donaghey College of Engineering and Information Technology Studies

#### Bachelor of Professional Studies

- Construction Concentration, B.P.S.

#### Bachelor of Science

- Construction Management, B.S.

#### Minor

- Bioinformatics Minor
- Information Assurance Minor
- Information Technology Minor

#### Trojan Academic Advising and Support Center

- General Studies, A.A.

#### Honors Program

- Donaghey Scholars Program

## General Studies, Associate of Arts

Trojan Academic Advising and Support Center |  
Donaldson Student Services Center Building, Suite  
320 | (501) 569-3386 | [ualr.edu/advising/aags](http://ualr.edu/advising/aags)

The Associate of Arts in General Studies (AAGS) is a 60-hour degree designed to reinforce academic achievement, to obtain professional advancement within the workplace, and to serve as a stepping-stone to a bachelor's degree.

**General:** 60 minimum total hours, includes 35 hours of General Education UA Little Rock Core; 15 hours of program electives; 10 hours of free electives. A grade point average of 2.00 and completion of 15 hours at UA Little Rock are required.

#### Core (35 hours)

Refer to General Education Requirements, UA Little Rock Core Curriculum. It is recommended that students select their core courses based on their intended baccalaureate degree requirements.

#### Program Electives (15 hours)

Program electives can be any 1000-level or 2000-level course selected from any General Education UA Little Rock Core curriculum category.

#### Electives (10 hours)

Any course at the 1000-level or above. It is recommended students select electives based upon their intended baccalaureate degree. First Year Experience course can be included.

## Donaghey Scholars Program

- The Donaghey Scholars Program is UA Little Rock's University-wide honors program. Its interdisciplinary curriculum promotes critical thinking and active learning. Scholars classes demand wide reading and extensive writing and lead to vigorous discussions and frequent independent study.
- The Donaghey Scholars admissions process uses academic records, test scores, written essays, recommendations, and personal interviews to determine whether the student would benefit from admission to the program. Since space in the program is limited to a total of 100 students, admission is highly competitive. Each year's class is composed of incoming college freshmen, students transferring from other colleges, and UA Little Rock students who have been referred to the program by faculty members. Both traditional and nontraditional students are in the Scholars Program.
- Students who are admitted to the program are granted a scholarship equal to the full in-state tuition, a stipend (currently \$2,250, \$3,500, or \$5,000 per semester), and a generous subsidy applied toward study abroad. Scholars who perform satisfactorily are assured of up to eight semesters of support.
- Scholars classes are small, making it possible for faculty to get to know students and their interests. Informal advising is frequent. Formal advising in the Scholars Program is handled by the Director for all Scholars who have not declared a major. Because the Scholars Program has requirements spread over four years, the Director remains informed of the Scholar's progress in meeting these requirements, even when formal advising has been transferred to the department of the Scholar's major area of study.
- The Scholars Program has a specially designed interdisciplinary curriculum, which replaces the University's core curriculum requirements.
- Students admitted to the Donaghey Scholars Program who meet all of the requirements of the Program, as well as all of the requirements in their major and minor fields, graduate as Donaghey Scholars.

## Scholars Program Requirements

- **Scholars Core Courses:**
- SCHL 1101 - Scholars Colloquium I
- SCHL 1102 - Scholars Colloquium II
- SCHL 1300 - Rhetoric and Communication I
- SCHL 1301 - Rhetoric and Communication II
- SCHL 1320 - Science and Society I
- SCHL 1321 - Science and Society II

- SCHL 2310 - Individual and Society I
- SCHL 2311 - Individual and Society II
- SCHL 3310 - Individual and the Creative Arts I
- SCHL 3311 - Individual and the Creative Arts II
- SCHL 2300 - History of Ideas I
- SCHL 2301 - History of Ideas II
- SCHL 3300 - History of Ideas III

## Other Requirements:

- Maintain a 3.25 cumulative GPA
- Maintain full-time enrollment status
- One seminar outside the student's primary field
- Fulfillment of the University's core curriculum mathematics requirement
- US History or American National Government
- A lab science course
- Demonstrate proficiency in a foreign language
- Study abroad in an approved program
- Final project
- Exit interview
- A course in the history of civilization, though not required, is strongly recommended

## Online Programs

501.569.3003 | Phone: 1.877.270.7838 (toll-free) |  
Email: [online@ualr.edu](mailto:online@ualr.edu)

With over 40 degree, certificate, and minors, and 450+ courses available totally online, the University of Arkansas at Little Rock offers you the flexibility to balance family, work and school responsibilities on your own schedule.

Students declared in an approved UA Little Rock Online degree or certificate program receive the benefits of reduced, standard tuition rates and full access to UA Little Rock's academic resources.

## Online Undergraduate Certificate

- Business Analytics Certificate of Proficiency
- Workplace Spanish undergraduate certificate

## Online Undergraduate Degrees

- Bachelor of Applied Science
- Bachelor of Arts in Criminal Justice\*
- Bachelor of Arts in Professional and Technical Writing
- Bachelor of Arts in Applied Communication\*
- Bachelor of Arts in Interdisciplinary Studies
- Bachelor of Arts in Psychology
- Bachelor of Arts in Sociology
- Bachelor of Business Administration in Accounting
- Bachelor of Business Administration in Business Analytics
- Bachelor of Business Administration in Business Information Systems
- Bachelor of Business Administration in Human Resource Management
- Bachelor of Business Administration in Management
- Bachelor of Business Administration in Marketing
- Bachelor of Science in Education in Elementary Education (exclusive partnership with University of Arkansas Community College at Batesville)
- Bachelor of Science in Education in Middle-Level Education
- Bachelor of Science in Health Education and Promotion
- Bachelor of Science in Nursing Completion (RN-to-BSN)\*
- Bachelor of Social Work

## Online Graduate Certificates

- Graduate Certificate in Data Science
- Graduate Certificate – Dyslexia Therapist

- Graduate Certificate in Gerontology
- Graduate Certificate - Gifted and Talented Education K-12
- Graduate Certificate in Information Quality
- Graduate Certificate – Learning Systems Technology
- Graduate Certificate in Online Writing Instruction

## Online Graduate Degrees

- Master of Arts in Mass Communication
- Master of Arts in Professional and Technical Writing
- Master of Science in Criminal Justice\*
- Master of Science in Information Quality
- Master of Social Work
- Master of Education in Reading\*
- Master of Education in Learning Systems Technology
- Master of Education in Rural and Urban School Leadership\*
- Doctorate of Education in Higher Education (two-year college leadership concentration)

\*Accelerated programs

You can find the latest program offerings and additional information at [ualr.edu/online/programs](http://ualr.edu/online/programs).

## Accelerated Online Programs

UA Little Rock offers accelerated online courses for both undergraduate and graduate degree programs. These 7-week courses move twice as fast as regular semester-length courses, but slower than a 5-week summer term.

## Benefits of Accelerated Online Programs

- Allows you to focus more on each individual course
- Permits taking fewer courses at one time
- Maintains normal breaks; Fall, Thanksgiving, Christmas, and Spring
- Includes a week break in between courses
- Important dates and deadlines regarding Accelerated Online Programs can be found on the Academic Calendar in the Accelerated Session sections.

## System Requirements

The online learning system software UA Little Rock uses is Blackboard. Students must have predictable, regular access to and control of a computer as your instructor assignment dates may vary. You may also be required to download files or software to complete class work. If your computer is publicly used or is loaned to you and you

cannot download files or software, you will need to discuss your circumstances with your instructor. Visit Blackboard Student Support to learn more about system requirements.

## Online Academic Resources

Students who take courses online have full access to the university's academic resources, including the Ottenheimer Library. The library website acts as a portal for students to take advantage of by accessing different research databases, scholarly journals, ebooks, and other research materials. Students can search the library database through the easy search box on the homepage of the library website.

For more information about fully online degree programs, please visit UA Little Rock Online. To learn more about other online offerings at UA Little Rock, please visit [ualr.edu/elearning](http://ualr.edu/elearning).

## UA Little Rock Benton Campus (Distributed Learning)

Lisa Davis, Director of Distributed Learning  
lhavis@ualr.edu | (501) 516-2160

UA Little Rock offers classes at our Benton Campus where students can enjoy the convenience of staying close to home as they pursue their studies.

Programs available at the Benton Campus include:

- Associate of Arts in General Studies(AAGS)
- Associate of Science in Computer Programming
- Associate of Science in Law Enforcement
- Bachelor of Arts in Interdisciplinary Studies
- Bachelor of Arts in Sociology
- Bachelor of Business Administration in Management
- State Minimum Core Courses
- Nursing degree prerequisites

Classes in Benton, Arkansas, are administered by Distributed Learning and taught by UA Little Rock faculty. On-site college entrance testing (Accuplacer) is available, as well as exam proctoring services. Students enrolled in classes at the UA Little Rock Benton Campus have full student privileges at UA Little Rock's main campus. Textbooks may be ordered online and picked up on-site.

Additionally, UA Little Rock Benton Campus has three computer labs to help students meet their educational needs. Academic advising and assistance with the financial aid and admission processes are also available.

Students may pay their tuition and fees at the UA Little Rock Benton Campus. Deferred payment plans are available. For more information, contact UA Little Rock Benton at (501) 916-6003, or visit the website at [ualr.edu/benton](http://ualr.edu/benton).

# College of Arts, Letters, and Sciences

Fine Arts, Suite 210 | (501) 569-3296 | fax (501)  
569-8775 | ualr.edu/cals

<b>Dean:</b>	Sarah Beth Estes, Professor
<b>Associate Dean for Undergraduate Studies:</b>	Johanna Miller Lewis, Professor
<b>Interim Associate Dean for Research &amp; Graduate Studies:</b>	Mariya Khodakovskaya, Professor

The College of Arts, Letters, and Sciences is the culmination of an extensive restructuring process that is realigning academic resources to best serve the state and region and meet the UA Little Rock goal of becoming one of the top metropolitan, community-engaged, research universities among the 16 member states of the Southern Regional Educational Board (SREB).

CALS is distinctive resembling the same assortment of liberal arts that were collected in the ancient Greek academy, where they were taught to reflect the higher concerns of free citizens and the pursuit of which was understood to liberate the spirit.

Because CALS also offers a tremendous proportion of the core curriculum, we also serve students across the entire university.

## Interdisciplinary Programs: Majors, Minors, and Special Centers

The following interdisciplinary majors, minors, and special centers are housed within the college. For program details and contact information for advising, contact the home department indicated for each below:

- Center for Arkansas History and Culture | Laura McClellan | 501-320-5780
- Interdisciplinary Studies (major): Department of Philosophy and Interdisciplinary Studies | Michael Norton | 501-569-3312

## Graduate Degree Programs

Graduate programs are offered in the College of Arts, Letters, and Sciences. In addition, many departments in the college offer graduate courses that can apply toward a graduate degree in education. For more information about graduate degree offerings at UA Little Rock contact the Graduate School at (501) 569-3206 or visit the UA Little Rock Graduate School website.

## Undergraduate Admission Requirements for Majors within the College

For admission to most majors within the college, students must meet or exceed eligibility requirements to enroll in RHET 1311 Composition I.

## Academic Advising

Students majoring in, or interested in major in, programs within the College of Arts, Letters, and Sciences (see "University Advising" for the list of majors) are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours.

After reaching approximately 45 hours, CALS majors will be advised in their major departments or, in the case of Interdisciplinary Studies, in the CALS Dean's Office. To make an IDST advising appointment, call 501-569-3296 or schedule an appointment online at ualr.edu/cals.

The College of Arts, Letters, and Sciences offers a comprehensive program of student advisement intended to help students transfer, register, and meet graduation requirements. Although most students will be advised in their major department, all students with special questions regarding their academic programs and progress toward their degrees should contact the college for more information.

The office of the College of Arts, Letters, and Sciences is in the Fine Arts Building, room 210. The office is open from 8:00 a.m. until 5:00 p.m. and by appointment for extended hours. Call 501-569-3296 or 800-340-6509.

## University Core (35 hours)

## Standard Core (29 hours)

All Courses approved by the Core Council. See General Education Requirements.

## College Core (6 hours)

All Courses approved by the Core Council. See "General Education Requirements."

## Pre-Medical, Pre-Dental, Pre-Vet, Pre-Pharmacy, Physician's Assistant, Optometry, and Occupational and Physical Therapy

Students interested in pursuing careers in the following disciplines who are new freshmen or transfer students with less than 45 credit hours are advised by professional advisors in the Trojan Academic Advising and Support Center:

- Pre-Medical
- Pre-Dental
- Pre-Vet
- Pre-Pharmacy
- Physician's Assistant
- Optometry
- Occupational and Physical Therapy

Students who have reached approximately 45 hours will be advised by the Pre-Professional Advisor in the College of Arts, Letters, and Sciences (Dr. Johanna Miller Lewis, FA 210D). Keep in mind, all professional schools in the health field have a different set of requirements, but all institutions require a combination of chemistry, physics, and biology courses. This includes completing core courses early in the student's academic career in order to graduate in four years. Consequently, students should be advised for pre-professional disciplines in their freshman year.

## Undergraduate Degrees and Allied Health Professions

Students who wish to complete an undergraduate degree in a health profession at the University of Arkansas for Medical Sciences can earn a high-quality degree from both institutions in the most efficient manner possible. Students first earn the Associate of Arts in General Studies from UA Little Rock and are then eligible for admission consideration to the UAMS degree programs. The UA Little Rock and UAMS partnership is known as the AAGS 2+2 UAMS Degree programs:

- Bachelor of Science – Cytotechnology
- Bachelor of Science – Dental Hygiene
- Bachelor of Science – Medical Laboratory Science
- Bachelor of Science – Nuclear Medicine Imaging Sciences

- Bachelor of Science – Ophthalmic Medical Technology
  - Bachelor of Science – Radiologic Imaging Sciences
  - Bachelor of Science – Respiratory Care
- Students interested in pursuing one of the AAGS 2+2 UAMS Degree programs must speak with a Discovery Advisor in the Trojan Academic Advising and Support Center. Learn more about the degree programs at 2 + 2 AAGS to UAMS Allied Health.

## Department of Art and Design

Windgate Center of Art + Design, AD 202 | (501)  
916-3182, (501) 683-7022 (fax) | ualr.edu/art

<b>Chair:</b>	Clifton, Thomas, Professor
<b>Professors:</b>	Martin, Floyd Smith, Aj Warrick, Michael
<b>Associate Professors:</b>	Cates, Kevin
<b>Assistant Professors:</b>	Garth, Timothy Larsen, Lynne Livaudais, Joli Scheidt, Peter
<b>Visiting Professors:</b>	Higgins, William Sanderson, Cassandra
<b>Artists in Residence:</b>	Dory, Benjamin Sikes, Ricky
<b>Gallery Curator/Research Associate:</b>	Cushman, Brad
<b>Administrative Assistant:</b>	Payne, Marian
<b>Assistant Gallery Curator/Research Assistant:</b>	Larson, Nathan

The Department of Art and Design, accredited by the National Association of Schools of Art and Design, offers undergraduate instruction leading to a baccalaureate degree in art (BA in Art) with tracks in art history, studio art, and art education. The art history track emphasizes all eras of western European art and selected non-Western subjects.

The studio art track offers the breadth of a liberal arts degree while also providing students with foundational art making skills and development in a range of studio disciplines. The art history and studio art tracks in the BA in Art require a minor. The art education track prepares students for licensure to teach art at the kindergarten

through secondary school level. The art education track requires a minor in Secondary Education.

A baccalaureate degree in fine art (BFA in Art) is available to students who are admitted to the program through a review process that includes portfolio and transcript review, a letter of purpose, and an interview. For the current academic year requirements for the review process, see information posted on the art department website at ualr.edu/art.

The BFA in Art has two tracks: fine art (studio art) and applied design. The fine art track offers specialization or emphasis areas in drawing, painting, graphic design, illustration, photography, printmaking, and sculpture. The applied design track offers emphasis areas in furniture design, metals, and functional ceramics.

### General Information

The department makes available numerous courses in art education, art history, and studio art for students not majoring in art who are interested in art electives. Minors are available in art history, studio art, applied design, photography, and digital graphics. Courses in ceramics, furniture and woodworking, metals and jewelry are also offered. Certificate programs are offered in applied design, graphic design and photography.

To enrich the instructional program, the department offers continuous exhibits in three galleries in the Windgate Center of Art and Design facility, the Ann Maners and Alex Pappas Gallery in the Fine Arts Building and enjoys a cooperative relationship with the Arkansas Arts Center.

### Departmental Expectations and Policies

- The undraped human figure is a significant subject within all degrees in the art curriculum.

Due to the nature of visual art courses, some courses may have technical requirements specifying the physical capabilities of students. Contact the professor of the course if you have concerns regarding these requirements.

- The department adheres to a strict Safety Policy for which all students are held responsible. If you have concerns regarding the policy contact the department chair.
- Regular attendance is a requirement of all art courses and is enforced by the instructor of record. Refer to course syllabi for specifics.
- No grade less than C will be accepted in any art course required within any art major or minor.



- When receiving both a major and a minor, in the Department of Art and Design, up to nine credits of the major may be applied to the minor.
- The Department of Art and Design, with student approval, occasionally selects outstanding student work to add to its teaching collection.

## Academic Advising

Students majoring in or interested in majoring in Art are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours.

After reaching approximately 45 hours, art majors will be advised by the appropriate advisor in the Department of Art and Design. Advisors serve for both undergraduate and graduate students in the following capacities:

- New Art Majors and Transfer Students: Contact department chair, Professor Thomas Clifton at [tgclifton@ualr.edu](mailto:tgclifton@ualr.edu) for an initial overview of programs.
- Continuing Undergraduate Students: Contact Professors Kevin Cates [klcates@ualr.edu](mailto:klcates@ualr.edu), Lynne Larsen [llarsen@ualr.edu](mailto:llarsen@ualr.edu), Joli Livaudais [jlivaudais@ualr.edu](mailto:jlivaudais@ualr.edu), Floyd Martin [fwmartin@ualr.edu](mailto:fwmartin@ualr.edu), or Peter Scheidt [pnscheidt@ualr.edu](mailto:pnscheidt@ualr.edu) for assistance with their respective academic programs.
- Students interested in teaching in public schools: Contact Professor Timothy Garth at [tbgarth@ualr.edu](mailto:tbgarth@ualr.edu).

Note: All prospective or current students may also call the department at (501) 916-3182 for more information.

## Transfer Students

Students transferring to UA Little Rock who intend to major in art should contact the department before enrolling to arrange for advising. Students may be required to take additional hours in areas where deficiencies are noted.

Transfer students must complete at least nine hours of their studio concentration at UA Little Rock. For example, a student who has 15 hours accepted in transfer credit for painting must complete an additional nine hours of painting at UA Little Rock if painting is the studio concentration.

## Senior Show for BA in Art/Art Track

During their senior year, BA in Art: Studio Art Track students are required to register for ARST 4397 Capstone

in the Visual Arts. As part of course requirements, students will prepare a group exhibition of their work. The senior show will be scheduled by the gallery curator and must be approved by the student's capstone instructor.

## Senior Show for BFA in Art/Fine Art or Applied Design

BFA students are required to prepare and participate in a group exhibition of their work. The senior show will be scheduled by the gallery curator and must be approved by the student's emphasis advisor and BFA coordinator. Each student must also give an oral presentation in the form of a PowerPoint presentation before the faculty. The oral presentation will be scheduled and approved by the BFA coordinator, ARST 4395 faculty of record and emphasis advisor, and, if appropriate, also by the gallery curator.

## Studio Art Work

Students retain copyright to all two-dimensional, three-dimensional, time-based, and electronic artwork created in the Department of Art and Design; they grant a non-exclusive license to exhibit, display, reproduce, perform, or adapt these works at the discretion of the faculty. Works left in departmental facilities at the end of any semester or summer session may be removed or discarded at the discretion of the faculty.

## Senior Portfolio for BFA Majors

As part of a BFA student's capstone requirements, studio majors will prepare a portfolio of no more than 20 images documenting their senior thesis project and other work, along with a written artist's statement (minimum one page). Portfolio images are presented in digital format and delivered to the gallery curator. This portfolio must be approved by the ARST 4395 faculty of record, the emphasis advisor, and BFA coordinator. The portfolio will be due one week before the last class day and will become the property of the Department of Art and Design.

## Senior Paper for BA in Art/Art History Majors

Art history majors in the last semester of their senior year are required to register for ARHA 4397 - Capstone in Art History. As part of the capstone requirements, students will write a senior paper, which will also be given orally. The paper must be approved by the student's major advisor, ARHA 4397 faculty of record, academic advisor,

and the art history coordinator. The oral presentation may be in the form of a public lecture, presentation to a class, or a paper at a scholarly meeting.

## Senior Portfolio for Art History Majors

Art history majors enrolled in ARHA 4397 are required to prepare a portfolio of their senior paper and three other papers written for classes while at UA Little Rock. This portfolio must be approved by the major advisor, ARHA faculty of record, and the art history coordinator. The portfolio will be due one week before the last class day, and will become the property of the Department of Art and Design.

## Teacher Licensure

Contact Dr. Timothy Garth in the Department of Art and Design about the curriculum.

## Art, Art Education Track, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

- ARST 1201 - FYE: Visual Arts

### Core (35 hours)

See General Education Requirements. (It is recommended that RHET 1311, RHET 1312, HIST 1311, and HIST 1312 be taken before or concurrently with ARHA 2310 and ARHA 2311.)

## Major (64 hours)

### Studio Prerequisites (15 hours)

- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2310 - Figure Drawing
- ARST 2315 - Three-Dimensional Design
- ARST 2318 - Computer Applications in Art

### Art History Foundation Courses (12 hours)

- ARHA 2310 - Survey of the History of Art I
- ARHA 2311 - Survey of the History of Art II
- ARHA Survey of Nonwestern Art
- One upper-level art history electives

### Studio Art Foundation Courses (24 hours)

- ARAD 3350 - Introduction to Ceramics
- ARST 3310 - Drawing: Creative Invention
- ARST 3312 - Contemporary Crafts
- ARST 3320 - Painting Fundamentals 1
- ARST 3330 - Printmaking Basics
- ARST 3340 - Introduction to Graphic Design

or

- ARST 3380 - Introduction to Illustration
- ARST 3360 - Introduction to Sculpture
- ARST 3370 - Introduction to Photography

### Art Education (13 hours)

- ARED 4325 - Foundations in Art Education
- ARED 4326 - Art and Cognitive Development
- ARED 4327 - Art Theory and Criticism
- ARED 4328 - Curriculum and Assessment in Art Education
- ARED 4129 - Art Education Seminar

## Minor (18 hours)

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- TCED 4330 - Classroom Management
- ARED 4600 - Internship

### Education Courses

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners

### Education Elective (3 hours; choose 1)

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy

## Unrestricted General Electives

Remaining hours, if any, to reach 126 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## Art, Art History Track, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

## Degree Requirements

### Floyd Martin, coordinator

The B.A. in art/art history track is for students especially interested in the history, theory, and criticism of the visual arts. The major will provide a solid foundation for students who wish to pursue the master or Ph.D. programs in art history that are necessary for careers in university teaching, research, and the museum field. For those pursuing other interests, the major in art history, which is decidedly a liberal arts field, encourages development of analytical and critical viewing and writing skills useful in such careers as law, medicine, and business. Students should plan carefully and check the long-range schedule of course offerings with the art history coordinator if interested in a particular course. ARHA 2310 - Survey of the History of Art I and ARHA 2311 - Survey of the History of Art II are offered fall and spring. Upper-level courses are normally offered once every two years.

### **First-Year Colloquium (0-3 hours)**

- ARST 1201 - FYE: Visual Arts

### **Core (35 hours)**

See General Education Requirements for requirement details. (It is recommended that RHET 1311, RHET 1312, HIST 1311, and HIST 1312 be taken before or concurrently with ARHA 2310 and ARHA 2311.)

### **Second Language Proficiency (0-9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency. See page (See Second Language Requirement for details.)

### **Major (45 hours)**

#### **Studio Prerequisites (9 hours)**

- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2315 - Three-Dimensional Design

#### **Art History Foundation (9 hours)**

- ARHA 2310 - Survey of the History of Art I
- ARHA 2311 - Survey of the History of Art II
- ARHA 2312 - Survey of Non-Western Art

#### **Methods and Theory course (3 hours)**

- ARHA 4300 - Studies in the History of Art

#### **Period Courses (select 12 hours)**

- ARHA 3304 - Medieval Art
- ARHA 4304 - Ancient Art
- ARHA 4305 - Italian Renaissance Art
- ARHA 4306 - Renaissance Art in Northern Europe
- ARHA 4307 - Eighteenth and Nineteenth-Century Art in Europe
- ARHA 4308 - Art Since 1945
- ARHA 4384 - Baroque Art
- ARHA 4387 - Late Nineteenth-and Early Twentieth-Century Art in Europe

#### **Seminar and Special Topics course (select 3 hours)**

- ARHA 4388 - Problems in Modern Art
- ARHA 4310 - Special Topics in Art History

#### **Art History Electives (6 hours)**

- One non-Western area upper-level art history course
- Any upper-level art history course

#### **Capstone-Art History (3 hours)**

- ARHA 4397 - Capstone in Art History

### **Minor**

(12-29 hours—typical minor requires 18)

## **Art, Fine Art Track or Applied Design Track, B.F.A**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### **First-Year Colloquium (0-3 hours)**

- ARST 1201 - FYE: Visual Arts

### **Core (35 hours)**

See General Education Requirements. (It is recommended that RHET 1311, RHET 1312, HIST 1311, and HIST 1312 be taken before or concurrently with ARHA 2310 and ARHA 2311.)

### **Major (72 hours)**

#### **Studio Prerequisites (15 hours)**

- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2310 - Figure Drawing
- ARST 2315 - Three-Dimensional Design
- ARST 2318 - Computer Applications in Art

#### **Art History Foundation and Upper-level Courses (15 hours)**

- ARHA 2310 - Survey of the History of Art I
- ARHA 2311 - Survey of the History of Art II
- ARHA 2312 - Survey of Non-Western Art
- 6 hours upper-level art history course

#### **Studio Art / Foundation Courses (18 hours)**

12 hours upper-level 2D Studio courses for emphasis 6 hours upper-level 3D Studio courses for emphasis in a two-dimensional studio discipline; 6 hours for a in a two-dimensional studio discipline; 12 hours for a three-dimensional studio discipline emphasis three-dimensional studio discipline emphasis.

- ARST 3310 - Drawing: Creative Invention
- ARST 3312 - Contemporary Crafts
- ARST 3320 - Painting Fundamentals 1
- ARST 3330 - Printmaking Basics
- ARST 3340 - Introduction to Graphic Design
- ARST 3360 - Introduction to Sculpture
- ARST 3370 - Introduction to Photography
- ARST 3380 - Introduction to Illustration
- ARAD 3310 - Introduction to Furniture Design
- ARAD 3320 - Introduction to Metalsmithing & Jewelry
- ARAD 3330 - Introduction to Fiber Design
- ARAD 3340 - Introduction to Blacksmithing
- ARAD 3350 - Introduction to Ceramics

#### **Advancement to BFA**

Advancement to BFA program via portfolio and transcript review following the completion of 15 hours of Studio Art Prerequisites, 6 hours of Art History and 3 hours of Studio Foundations in one's intended studio emphasis.

### Upper level art studio courses (12 hours)

Upper level art studio courses in emphasis beyond the beginning studio art foundation course (12 hours)  
Select 12 hours from one of the appropriate 2D or 3D emphasis sequences.

Two-Dimensional Studio sequences:

#### Drawing

- ARST 4310 - Drawing: Concept Development
- ARST 4311 - Drawing: Contemporary Trends
- ARST 4312 - Drawing: Personal Content
- ARST 4315 - Advanced Problems in Design (APD/Drawing)

#### Painting

- ARST 3321 - Painting Fundamentals 2
- ARST 4320 - Painting: Personal Content I
- ARST 4321 - Painting: Personal Content 2
- ARST 4323 - Painting: Personal Content 3
- ARST 4324 - Painting Portfolio
- ARST 4315 - Advanced Problems in Design (APD/Painting)

#### Printmaking

- ARST 3331 - Lithography Techniques
- ARST 4330 - Color Intaglio-Etching Basics
- ARST 4331 - Advanced Color Intaglio-Etching
- ARST 4332 - Mixed Media Color Printmaking
- ARST 4315 - Advanced Problems in Design (APD/Printmaking)

#### Graphic Design

- ARST 3341 - Typography
- ARST 4340 - Print Design
- ARST 4341 - Package Design
- ARST 4348 - Production Design for the Internet
- ARST 4315 - Advanced Problems in Design (APD/Graphic Design)

#### Photography

- ARST 4370 - Photographic Lighting
- ARST 4371 - Alternative Photo Methods
- ARST 4372 - Digital Color Photography
- ARST 4373 - Advanced Problems in Photography
- ARST 4374 - View Camera
- ARST 4315 - Advanced Problems in Design (APD/Photography)

#### Illustration

- ARST 3381 - Book Illustration
- ARST 4380 - Concept Illustration
- ARST 4381 - Editorial Illustration
- ARST 3385 - Vector Graphics for Illustrators and Designers

- ARST 3386 - Digital Imaging for Illustrators and Designers
- ARST 4315 - Advanced Problems in Design (APD/Illustration)

Three-Dimensional Studio sequences:

#### Furniture Design

- ARAD 3310 - Introduction to Furniture Design
- ARAD 4310 - Case Furniture Design
- ARAD 4311 - Complex Furniture Design
- ARAD 4312 - Plywood & Composites
- ARAD 4313 - Lighting & Small Objects
- ARAD 4314 - Alternative Furniture Media
- ARAD 4315 - Advanced Problems in Design (APD/Furniture-woodwork)

#### Ceramics

- ARAD 4350 - Wheel Throwing
- ARAD 4351 - Advanced Handbuilding
- ARAD 4352 - Production Ceramics
- ARAD 4353 - Kiln Construction
- ARAD 4354 - Ceramics Sculpture
- ARAD 4315 - Advanced Problems in Design (APD/Ceramics)

#### Metals

- ARAD 3320 - Introduction to Metalsmithing & Jewelry
- ARAD 3340 - Introduction to Blacksmithing
- ARAD 4340 - Intermediate Blacksmithing
- ARAD 4320 - Surface Methods in Metals
- ARAD 4321 - Metal Hollowware & Color
- ARAD 4322 - Small Metal Casting
- ARAD 4323 - Metal Mechanisms
- ARAD 4324 - Complex Metal Vessels
- ARAD 4315 - Advanced Problems in Design (APD/Metals)

#### Sculpture

- ARST 3361 - Figurative Clay Sculpture
- ARST 4360 - Metal Casting Techniques
- ARST 4361 - Stone Carving Techniques
- ARST 4362 - Concrete Casting and Building
- ARST 4363 - Metal Welding and Fabrication
- ARST 4315 - Advanced Problems in Design (APD/Sculpture)

**Upper-level Studio art elective: ARAD or ARST (3 hours)**

**Capstone or Internship in selected emphasis (3-6 hours)**

- ARST 4396 - Cooperative Education Internship
- ARST 4397 - Capstone: Studio Art
- ARAD 4398 - Applied Design Internship **or**
- ARAD 4698 - Applied Design Internship

### **BFA Courses (6 hours)**

- ARST 4394 - BFA Seminar
- ARST 4395 - BFA Project

### **Minor**

(No minor required)

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### **Art, Studio Art Track, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### **First-Year Colloquium (0-3 hours)**

- ARST 1201 - FYE: Visual Arts

### **Core (35 hours)**

See General Education Requirements. (It is recommended that RHET 1311, RHET 1312, HIST 1311, and HIST 1312 be taken before or concurrently with ARHA 2310 and ARHA 2311.)

### **Second Language Proficiency (0-9 hours)**

Completion of a 2000-level second language course or demonstrate equivalent proficiency.

### **Major (45 hours)**

#### **Studio Prerequisites (15 hours)**

- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2310 - Figure Drawing
- ARST 2315 - Three-Dimensional Design
- ARST 2318 - Computer Applications in Art

#### **Art History Foundation Courses (9 hours)**

6 hours from Survey Courses:

- ARHA 2310 - Survey of the History of Art I
- ARHA 2311 - Survey of the History of Art II
- ARHA 2312 - Survey of Non-Western Art
- 3 hours upper-level art history course

#### **Studio Art Foundation Courses (12 hours)**

6 hours of Two-Dimensional courses:

- ARST 3310 - Drawing: Creative Invention
- ARST 3320 - Painting Fundamentals 1
- ARST 3330 - Printmaking Basics
- ARST 3340 - Introduction to Graphic Design
- ARST 3370 - Introduction to Photography
- ARST 3380 - Introduction to Illustration

6 hours of Three-Dimensional courses:

- ARAD 3310 - Introduction to Furniture Design

- ARAD 3320 - Introduction to Metalsmithing & Jewelry
- ARAD 3330 - Introduction to Fiber Design
- ARAD 3340 - Introduction to Blacksmithing
- ARAD 3350 - Introduction to Ceramics
- ARST 3360 - Introduction to Sculpture
- Upper-level Art Studio Electives (6 hours)
- Two upper-level courses in art studio or applied design (ARST and/or ARAD)

#### **Capstone (3 hours)**

- ARST 4397 - Capstone: Studio Art (group senior show, exhibition of recent art)  
**or**
- ARST 4396 - Cooperative Education Internship (group senior show, exhibition of recent work required)

### **Minor**

(12-29 hours—typical minor requires 18)

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### **Applied Design Minor Program Requirements**

Requires two prerequisite courses: ARST 2315 - Three-Dimensional Design and ARST 3312 - Contemporary Crafts, 6 credits. Once these are completed a student may select the entry-level course from within one of three Applied Design sequences and two additional courses from the same sequence: Furniture, Metals, or Ceramics for 9 additional hours, totaling 15 credit hours for the minor.

### **Art History Major/Studio Art Minor Program Requirements**

Students who pursue the art history track may choose to minor in studio art. Since ARST 1310 - Basic Drawing, ARST 1315 - Two-Dimensional Design, and ARST 2315 - Three-Dimensional Design are included in the art history major, students choosing a studio art minor will also complete ARST 2310 - Figure Drawing, and two upper-level studio art courses. These hours may be in one discipline (e.g. Painting Fundamentals 1 and Painting Fundamentals 2) or selected emphasis areas (e.g. Painting Fundamentals 1 and Introduction to Photography).

### **Art Courses as Electives**

Students who have training in related disciplines that prepare them for advanced art history courses (for example, history, English, and religious studies), may elect advanced courses in art history without taking ARHA 2310 and ARHA 2311. Students in doubt about their

preparedness for art history should consult an art history advisor.

## **Art History Minor**

### **Program Requirements**

No grade less than C will be accepted in any art course required within any art major or minor.

A minor in art history consists of 18 hours in art history, including ARHA 2310, ARHA 2311, ARHA 2312, and 9 hours of electives, excluding ARHA 2305.

## **Digital Graphics Minor**

### **Program Requirements**

The minor in digital graphics is open to all majors and makes it possible for non-degree seeking students and non-art majors to select an industry-specific minor in the arts. The curriculum for the minor consists of 15 hours in studio art, including ARST 1315, ARST 2318, ARST 3385, ARST 3386, and ARST 4348.

## **Photography Minor**

### **Program Requirements**

The minor in photography is open to all majors. The curriculum for the minor consists of 15 hours in studio art, including ARST 3370, ARST 3371, and three courses from ARST 4370, ARST 4371, ARST 4372, ARST 4373, and ARST 4315 (photography).

## **Studio Art Minor**

### **Program Requirements**

A minor in studio art consists of 15 hours, to include 3 hours of drawing, 3 hours of design, and 3 hours of prerequisites for upper-level study, and 6 hours of upper-level electives in studio work.

## **Art Courses as Electives**

Non-art majors may elect to take studio art foundations courses numbered ARST 1310, ARST 1315, ARST 2310, ARST 2315, and ARST 2318. Upon completion of prerequisites, students may enroll in any of the Studio Foundation courses (e.g., ARST 3320 - Painting Fundamentals 1, ARST 3360 - Introduction to Sculpture, ARST 3370 - Introduction to Photography, etc.) on either a pass/fail or grade basis. Although prerequisites are recommended, the following courses may be taken without prerequisites: ARAD 3310 - Introduction to Furniture Design, ARAD 3320 - Introduction to Metalsmithing & Jewelry, ARAD 3350 - Introduction to Ceramics, ARST 3320 - Painting Fundamentals 1, and ARST 3370 - Introduction to Photography.

## **Graphic Design Technical Certificate**

### **Program Requirements**

The 30-hour Technical Certificate Program in Graphic Design covers a multitude of current graphic design and visual communication theories and trends as an alternative to the traditional BA or BFA degrees. Topics include aesthetic skill development, software proficiency, typography, print and package design and digital media. Upon completion of the certificate, students will develop a portfolio for employment in the design industry.

- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2318 - Computer Applications in Art
- ARST 3340 - Introduction to Graphic Design
- ARST 3370 - Introduction to Photography
- ARST 3341 - Typography
- ARST 4340 - Print Design
- ARST 4341 - Package Design

### **Program Electives (6 hours from the courses below)**

- ARST 3385 - Vector Graphics for Illustrators and Designers
- ARST 3386 - Digital Imaging for Illustrators and Designers
- ARST 4348 - Production Design for the Internet

## **Applied Design Certificate of Proficiency**

### **Program Requirements**

The 18-hour Certificate of Proficiency in Applied Design guides students through a series of courses that educate participants in the primary aspects of sculptural and functional materials, combining studio pre-requisite art courses and upper-level courses within ceramics, furniture design & woodworking or metalsmithing & jewelry. Upon completion of the certificate students will be skillful in the use of equipment, materials and the aesthetics related to applied design. This 18-hour certificate of proficiency includes two pre-requisite courses: ARST 2315, and ARST 3312 - Contemporary Crafts, 6 credits. Once these are completed a student may select the entry-level course from one of three applied design sequences and three additional courses from the same sequence: Furniture (ARAD 3310), Metals (ARAD 3320), or Ceramics (ARAD 3350) for 9 additional hours, totaling 18 credit hours for the certificate.

## **Photography Certificate of Proficiency**

### **Program Requirements**

The 18-hour Certificate of Proficiency in Photography guides students through a sequence of classes including

aspects of digital, traditional, commercial and alternative photographic methods. Upon completion of the certificate students will be proficient in equipment use including; digital camera, lighting, and materials, both traditional and non-traditional. The curriculum for the certificate consists of 18 hours in studio art, including ARST 3370 and ARST 3371 , and four upper-level photography courses that include: ARST 4370, ARST 4371, ARST 4372, ARST 4373, ARST 4374 and ARST 4315 (photography).

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## Department of Music

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Fine Arts Building, room 151, (501) 569-3294, (501)  
569-3559 (fax), ualr.edu/music

<b>Interim Chairperson:</b>	Lind, Vicki R., Professor
<b>Professors:</b>	Boury, Robert W. Groesbeck, Rolf A. Holzer, Linda R.
<b>Associate Professors:</b>	Hakutani, Naoki Keating, Bevan T. Richeson, David T. Wen, Andy Y.
<b>Visiting Assistant Professors:</b>	Stephens, Emery Szabo, Natalie
<b>Director of Bands and Visiting Guest Artist:</b>	Goff, Kenneth
<b>Instructors:</b>	Law, Charles P. Underwood, Michael P.
<b>Research Associate:</b>	Wai-Kay Carenbauer

The Department of Music provides quality learning opportunities for majors; serves the needs of the general student population; advances teaching, performance, creativity, research and scholarship among its faculty; and acts as an educational and cultural resource for the university, the city of Little Rock, and Central Arkansas.

The department holds accreditation by the National Association of Schools of Music and the College of Education and Health Professions holds NCATE accreditation.

Our faculty includes noted artists, teachers and scholars. Music majors may take courses in performance study of classical music and jazz, music history, theory and composition.

The 300-seat Stella Boyle Smith Concert Hall is the setting for the many concerts hosted by the department each year. Our facilities also include a state-of-the-art computer lab/classroom, fully mediated classrooms, and a fully equipped keyboard lab.

### Admission to Music Programs

All prospective music majors must successfully complete an audition for full admission in the department. A performance audition of two contrasting pieces on the student's principal instrument/voice is required of all students. The results of the audition will determine placement with the appropriate private studio instructor and/or ensemble. In addition, a student may choose to use the audition for scholarship consideration (Information along with the application for scholarships is available on the website.) Several audition dates are posted on the department website, or students may audition by appointment by contacting the music office.

Students may also take a music theory and/or keyboard skills assessment as part of the audition process if the information is needed to place them in the appropriate music theory, aural skills, and/or piano proficiency courses.

### Scholarship Information

The Department of Music offers scholarships for qualified music majors. All scholarships are based on merit and are awarded after a live or recorded audition. Scholarship award conditions include meeting academic and enrollment requirements. Continuation of a music scholarship award is dependent upon affirmative evaluation of student work by UA Little Rock music faculty, maintaining a minimum GPA level, fulfilling performance requirements, and successful progress toward the declared major in music. Grants in aid are available to students of any academic major for participation in selected ensembles. Grants are awarded for Concert Choir, Opera Performance, Gospel Chorale, Trojan Pep Band, and Wind Ensemble. Students holding grants are expected to maintain an appropriate grade point level. Renewal of grants is based on satisfactory review of student participation and academic standing. Grants in aid auditions are administered separately from scholarship auditions.

### Academic Advising

Students majoring in, or interested in major in, programs in the Department of Music are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours.

After reaching approximately 45 hours, music majors are required to seek advising in the department before registration. Department of Music faculty members serve as advisors for students in their areas and work with students concerning semester schedules and career issues.



## Ensembles

Department of Music ensembles are open to all UA Little Rock students. Ensemble directors hold auditions at the beginning of each semester.

Vocal Ensembles	Instrumental Ensembles
Concert Choir	Wind Ensemble
Chamber Choir	Chamber Ensembles
Community Chorus	UA Little Rock Jazz Ensemble
Opera Workshop	Jazz Combo
Gospel Chorale	Guitar Ensemble
	Indian Percussion Ensemble
	Piano Ensemble
	Percussion Ensemble

Contact the Department of Music Office, (501) 569-3294, for information about joining these groups.

## Degrees

The Department of Music offers:

- Bachelor of Arts in Music
- Music Education, Instrumental, B.M.
- Music Education, Vocal, B.M.

In addition to music courses all tracks consist of the following elements:

- **Core Requirements.** All students must complete 35 hours of general education courses.
- **Language Proficiency.** All students in Bachelor of Arts (BA) or Bachelor of Music (BM) Performance must demonstrate proficiency in a language other than English or must complete courses through the Intermediate level (2311) to satisfy the language proficiency requirement. The Bachelor of Music (BM) Music Education degree does not carry a foreign language requirement.
- **Minor.** All students in the Bachelor of Arts (BA) and the Bachelor of Music (BM) Performance must complete a minor in the field of their choosing. Minors comprise approximately 18 hours of coursework and will be chosen after consultation with an advisor in the Department of Music. Bachelor of Music (BM) Music Education students are required to minor in Secondary Education.

## Music Education, Instrumental, B.M.

**General:** 124 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

### Core (35 hours)

See General Education Requirements.

### Major

#### Musicianship (27 hours)

- MUAP 2154 - Special Topics

#### Music Theory (17 hours)

- MUTH 1381 - Introduction to Theory
- MUTH 2192 - Aural Skills I
- MUTH 2193 - Aural Skills II
- MUTH 2381 - Theory I
- MUTH 2391 - Theory II
- MUTH 3192 - Aural Skills III
- MUTH 3231 - Form and Analysis
- MUTH 3381 - Theory III

#### Music History and Literature (9 hours)

- MUHL 3331 - Music History I
- MUHL 3341 - Music History II

- MUHL 3381 - American Music  
or

- MUHL 3361 - Jazz History and Styles

#### Music Performance (22 hours)

- Applied Instruction (12 hours)
- 6 semesters total required; minimum of 2 semesters at upper-division level; minimum of 8 hours to be completed at UA Little Rock.

#### Recital (0 hours)

- MUPR 3000 - Junior Recital

#### Music Ensembles (6 hours)

- 6 semesters total required; minimum of 2 hours to be completed at UA Little Rock.

#### Piano Proficiency (4 hours)

- MUAP 1114 - Piano Class I
- MUAP 1164 - Piano Class II
- MUAP 2184 - Piano Class III
- MUAP 3165 - Piano Class IV

#### Recital Attendance

- MUAP 1000 - Recital Attendance (6 semesters)

#### Music Education/Professor Education (40 hours)

Music Education (19 hours)

**NOTE:** Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- MUED 2200 - Foundations of Music Education
- MUED 3115 - Composing & Arranging for School Ensembles
- MUED 3123 - Global Styles and Practices in Music Education
- MUED 3214 - Vocal Pedagogy
- MUAP 3124 - Conducting I
- MUAP 3325 - Conducting II
- MUED 4315 - Teaching Music in Performance Ensembles
- MUED 4322 - Teaching General Music

1 hour of each of the following:

- MUED 2101 - Woodwind Techniques
- MUED 2102 - Brass Techniques
- MUED 2103 - Percussion Techniques
- MUED 2104 - String Techniques

Education Minor (18 hours)

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- MUED 4600 - Internship

Education Elective (choose 1)

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## Music Education, Vocal, B.M.

**General:** 125 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

### Core (35 hours)

See General Education Requirements.

## Major

### Musicianship (27 hours)

- MUAP 2154 - Special Topics

### Music Theory (17 hours)

- MUTH 1381 - Introduction to Theory
- MUTH 2192 - Aural Skills I
- MUTH 2193 - Aural Skills II
- MUTH 2381 - Theory I

- MUTH 2391 - Theory II
- MUTH 3192 - Aural Skills III
- MUTH 3381 - Theory III

### Music History and Literature (9 hours)

- MUHL 3331 - Music History I
- MUHL 3341 - Music History II

- MUHL 3381 - American Music  
**or**

- MUHL 3361 - Jazz History and Styles

### Music Performance (22 hours)

Applied Instruction (12 hours)

- 6 semesters total required; minimum of 2 semesters at upper-division level; minimum of 8 hours to be completed at UA Little Rock.

Recital (0 hours)

- MUPR 3000 - Junior Recital

Music Ensembles (6 hours)

- 6 semesters total required; minimum of 2 hours to be completed at UA Little Rock.

Piano Proficiency (4 hours)

- MUAP 1114 - Piano Class I
- MUAP 1164 - Piano Class II
- MUAP 2184 - Piano Class III
- MUAP 3165 - Piano Class IV

### Recital Attendance

- MUAP 1000 - Recital Attendance (6 semesters)

## Music Education/Professor Education (34 hours)

### Music Education (16 hours)

1 hour of each of the following:

- MUED 2101 - Woodwind Techniques
- MUED 2102 - Brass Techniques
- MUED 2103 - Percussion Techniques
- MUED 2104 - String Techniques
- MUED 2200 - Foundations of Music Education
- MUED 3115 - Composing & Arranging for School Ensembles
- MUED 3123 - Global Styles and Practices in Music Education
- MUED 3214 - Vocal Pedagogy
- MUAP 3124 - Conducting I
- MUAP 3325 - Conducting II
- MUED 4315 - Teaching Music in Performance Ensembles
- MUED 4322 - Teaching General Music

### Education Minor (18 hours)

**NOTE:** Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners

- TCED 4330 - Classroom Management
- MUED 4600 - Internship

**Education Elective (choose 1)**

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

**Music, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

**First-Year Colloquium (1 hour)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- MUAP 1111 - First Year Experience recommended

**Core (35 hours)**

See General Education Requirements.

**Second Language Proficiency (9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency.

**Major (48 hours)**

**Music Theory (17 hours)**

- MUTH 1381 - Introduction to Theory
- MUTH 1362 - Music Theory II
- MUTH 2291 - Aural Skills I
- MUTH 2361 - Music Theory III
- MUTH 2292 - Aural Skills II
- MUTH 2362 - Music Theory IV
- MUTH 2162 - Aural Skills IV
- MUTH 3231 - Form and Analysis

**Music History and Literature (9 hours)**

- MUHL 3331 - Music History I
- MUHL 3341 - Music History II
  
- MUHL 3381 - American Music  
or
- MUHL 3361 - Jazz History and Styles

**Music Performance-MUPR (8 hours)**

- Studio lessons 4 hours of which to be completed at the 3000- or 4000-level.
- A minimum of 4 hours to be completed at UA Little Rock.

**Music Ensembles-MUEN (4 hours)**

**Piano Proficiency (4 hours)**

- MUAP 1114 - Piano Class I
- MUAP 1164 - Piano Class 2
- MUAP 2184 - Piano Class III
- MUAP 3165 - Piano Class IV

**Recital Attendance (0 hours)**

- Students must successfully complete 6 semesters of MUAP 1000 - Recital Attendance

**Music History Elective (3 hours)**

- One upper-level music history course (MUHL)

**Electives (3 hours)**

To be selected from any upper-level music course

**Minor**

(12-29 hours-Typical minor requires 18 hours)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Music, Music History Track, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

**First-Year Colloquium (1 hour)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- MUAP 1111 - First Year Experience recommended

**Core (35 hours)**

See General Education Requirements.

**Second Language Proficiency (9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency.

**Major (48 hours)**

**Music Theory (17 hours)**

- MUTH 1381 - Introduction to Theory
- MUTH 1362 - Music Theory II
- MUTH 2291 - Aural Skills I
- MUTH 2361 - Music Theory III
- MUTH 2292 - Aural Skills II
- MUTH 2362 - Music Theory IV
- MUTH 2162 - Aural Skills IV
- MUTH 3231 - Form and Analysis

**Music History and Literature (9 hours)**

- MUHL 3331 - Music History I
- MUHL 3341 - Music History II
- MUHL 3381 - American Music  
or
- MUHL 3361 - Jazz History and Styles

**Music History Capstone (3 hours)**

Topic to be selected in consultation with music history faculty.

- MUHL 4191 - Special Studies
- MUHL 4292 - Music History Capstone II

**Music Performance (8 hours)**

- Studio lessons 4 hours of which to be completed at the 3000- or 4000-level.
- A minimum of 4 hours to be completed at UA Little Rock.

**Music Ensembles (4 hours)****Piano Proficiency (4 hours)**

- MUAP 1114 - Piano Class I
- MUAP 1164 - Piano Class 2
- MUAP 2184 - Piano Class III
- MUAP 3165 - Piano Class IV

**Recital Attendance (0 hours)**

- Students must successfully complete 6 semesters of MUAP 1000 - Recital Attendance

**Music History Elective (3 hours)**

To be selected from any upper-level music course

- One upper-level music history course (MUHL)

**Minor**

(12-29 hours-Typical minor requires 18 hours)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Music, Music Theory Track, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

**First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- MUAP 1111 - First Year Experience is recommended

**Core (35 hours)**

See General Education Requirements.

**Second Language Proficiency (0-9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency.

**Major (48 hours)****Music Theory (17 hours)**

- MUTH 1381 - Introduction to Theory
- MUTH 1362 - Music Theory II
- MUTH 2291 - Aural Skills I
- MUTH 2361 - Music Theory III
- MUTH 2292 - Aural Skills II
- MUTH 2362 - Music Theory IV
- MUTH 2162 - Aural Skills IV
- MUTH 3231 - Form and Analysis

**Music History and Literature (9 hours)**

- MUHL 3331 - Music History I
- MUHL 3341 - Music History II

- MUHL 3381 - American Music  
or

- MUHL 3361 - Jazz History and Styles

**Music Theory Capstone (3 hours)**

Topic to be selected in consultation with music history faculty.

- MUTH 4191 - Theory Capstone I
- MUTH 4292 - Theory Capstone II

**Music Performance (8 hours)**

- Studio lessons 4 hours of which to be completed at the 3000- or 4000-level.
- A minimum of 4 hours to be completed at UA Little Rock.

**Music Ensembles (4 hours)****Piano Proficiency (4 hours)**

- MUAP 1114 - Piano Class I
- MUAP 1164 - Piano Class 2
- MUAP 2184 - Piano Class III
- MUAP 3165 - Piano Class IV

**Recital Attendance (0 hours)**

- Students must successfully complete 6 semesters of MUAP 1000 - Recital Attendance

**Music History Elective (3 hours)**

- One upper-level music history course (MUHL)

**Minor**

(12-29 hours-Typical minor requires 18 hours)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## **Music Minor**

### **Program Requirements**

The Music Minor is designed to provide opportunities in music for students who wish to pursue more detailed studies of the art, but who do not wish to complete one of the four areas of concentration. Courses for the minor may be drawn from any offered by the department for which the student meets the stated prerequisites.

This curriculum is not intended to prepare a student for a career in music and does not certify a student to teach privately or in public schools.

Transfer students who minor in music will need to complete a minimum of 9 semester hours in the Department of Music at UA Little Rock.

The minor consists of 19 semester hours, including:

**Music Theory 2-5 hours**

**Music History and Literature 6 hours**

**Electives 8-11 hours**

**Total 19 hours**

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## Department of Theatre Arts and Dance

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Center for Performing Arts (CPA) 130  
(501) 569-3291, (501) 569-8355 (fax),  
ualr.edu/theatre

<b>Chairperson:</b>	Hicks, M. Yslan, Associate Professor
<b>Associate Professors:</b>	Pendergraft, Stacy M. Thibeault, Stephanie K. Stone, Stephen K.
<b>Assistant Professors:</b>	Brown, Robin Neveu (visiting) Smith, Lawrence D.
<b>Instructor</b>	Heavner, Michael
<b>Research Associate:</b>	Dowling, Laura K.
<b>Research Assistants:</b>	Bolinger, Donald Stafford, Joseph
<b>Coordinator for Performing Arts:</b>	Gaines, Kamika

The UA Little Rock Department of Theatre Arts and Dance provides a safe and rigorous environment in which to take risks, broaden imagination, and discover one's voice. Our curriculum links the best practices of the classroom to the laboratory of production, engaging with ideas through theory and application. Grounded in knowledge and skills, critically aware of the present, and creatively inspired, Theatre and Dance students are challenged to make meaningful contributions to their world.

### Academic Advising

All majors and minors in the theatre and dance concentrations are required to meet with the Trojan Academic Advising and Support Center (TAASC) for initial assessment and academic advising. The Department of Theatre Arts and Dance maintains close contact with the TAASC during the student's first 45 course hours, after which the student is advised in the major department.

### Major in Theatre Arts

All majors in the BA in Theatre Arts must complete the Core Requirements (35 hours). Students must attain a cumulative GPA of 2.6 in the three gateway courses (THEA 1201, THEA 2352 and THEA 2360). Students may declare the major anytime before completing the three gateway classes; however, they must attain the required GPA to finalize their acceptance. The major also requires a total of four credit hours of stage production experience at the rate of one credit hour per semester.

This requirement may be met by stage production courses (THEA 3160, THEA 3161, THEA 4161 or THEA 4162) In addition, all theatre arts majors must complete one three-

credit-hour Senior Project from the following courses: THEA 4362, THEA 4369, or THEA 4370.

Students admitted to the major must complete six credit hours of approved Multicultural Studies, i.e. the study of a culture or cultures with a linguistic base other than English. This track may also be fulfilled with language study including SPAN, FREN, CHIN, and INTR. All participants in theatre arts programs are expected to follow rules and regulations specified in department procedural guidelines.

### Dance, B.A.

The B.A. in Dance requires 120 credit hours for completion. This includes a minimum of 52 credit hours in major requirements and 35 credit hours to complete the university core curriculum. The B.A. in Dance requires a minor unless the student has declared a double major. The minor requires enrollment in an additional 12 to 22 hours. The remaining credit hours must be fulfilled with electives outside of DANC courses.

The proposed B.A. in Dance emphasizes a curriculum that embraces other academic disciplines and the potential impact of interdisciplinary study. The B.A. offers the opportunity to enter into Dance studies without the expectation of performance as a career outcome, although that remains a possible career path. The philosophical approach might be defined as an opportunity to emphasize the "why," not just the "what" and "how."

### Admission Requirements

To be admitted to the Dance, B.A. program, a student:

- Must audition for admission to the BA or BFA programs.
- May declare the major once admitted to the university.
- Must complete the University's composition core (RHET 1311 and RHET 1312 ) by the end of their third semester with a grade of "B" or better.
- Must be ready for placement in Level II in Ballet and Modern at the beginning of their third semester.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

See General Education Requirements.

## Second Language Proficiency

(none required)

### Major

#### Dance Core (12 hrs)

- THEA 1201 - Theatre/Dance
- DANC 3240 - Music for Dance
- DANC 3270 - Body Conditioning

- DANC 3311 - Dance History I
- or

- DANC 3313 - Dance History II

- DANC 4330 - Dance Science and Kinesiology

#### Additional B.A. Core (3 hrs)

- DANC 4191 - Dance Performance (One Semester)
- DANC 4240 - Special Topics in Dance

#### Dance Technique (25-28 hrs)

Minimum four semesters in Ballet and a minimum four semesters in Modern Dance; must include two semesters of Level II in each discipline; must complete one Level III semester in either Ballet or Modern Dance. A higher level technique class can count for a lower level technique class in the same discipline.

- DANC 2201 - Modern Dance I
  - DANC 2241 - Ballet I
- or
- DANC 2261 - Jazz Dance I
  - DANC 3261 - Jazz Dance II
- or
- DANC 2281 - Tap Dance I
  - DANC 3301 - Modern Dance II
  - DANC 3341 - Ballet II
  - DANC 4301 - Modern Dance III
  - DANC 4302 - Modern Dance IV (21-24 hours of Ballet and Modern technique)
  - DANC 4341 - Ballet III
  - DANC 4342 - Ballet IV

#### Dance Composition (6 hrs)

- DANC 2271 - Dance Improvisation
- DANC 3271 - Choreography I
- DANC 4271 - Choreography II

#### Technical Theatre (2 hrs)

Select two from below:

- THEA 3160 - Stage Production
- THEA 3161 - Stage Production
- THEA 4161 - Stage Production
- THEA 4162 - Stage Production

#### Dance/Theatre Electives (3 hrs)

Select one from below:

- DANC 3311 - Dance History I (If not already counted in "Dance Core" List)

- DANC 3313 - Dance History II (If not already counted in "Dance Core" List)
- DANC 4360 - Dance Pedagogy
- THEA 2359 - IT for Theatre and Dance
- THEA 3380 - Lighting Design
- THEA 3382 - Costume Design

#### Culminating Experience (1 hr)

Select one from below:

- DANC 4197 - Internship
- DANC 4198 - B.A. Senior Project

### Minor

A minor of 12-22 hours is required unless the student is a double major.

### Unrestricted General Electives

Remaining hours must be fulfilled with electives outside of DANC courses to reach 120 minimum total hours.

### Dance, B.F.A.

The BFA in Dance Performance is a skill based pre-professional program with an emphasis on teaching dance technique. While the program is "contemporary" in emphasis it offers a full slate of courses in ballet, jazz and tap as well studies in history, kinesiology, choreography, and pedagogy.

All majors in the BFA in Dance Performance must complete the Core Requirements (35 hours). The major itself requires 83 hours beyond the university core. A grade of "C" or higher is required in all courses required for the BFA Dance major. Note: Technique placement/advancement by audition and/or faculty consent only. Higher level technique classes may be substituted for lower levels in the same technique; however, the total number of semesters required in each technique remains the same.

Majors must complete six semesters each of Ballet and Modern technique including two semesters in Level III of each discipline. Majors must complete an additional two semesters in Level IV of either Ballet or Modern. Dance majors are expected to enroll in two technique classes (Ballet, Modern or Jazz) every semester.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

See General Education Requirements.

## Second Language Proficiency

(none required)

### Major

- DANC 2201 - Modern Dance I (2 semesters)
- DANC 2241 - Ballet I (2 semesters)
- DANC 2261 - Jazz Dance I
- DANC 2271 - Dance Improvisation
- DANC 2281 - Tap Dance I
- DANC 3240 - Music for Dance
- DANC 3261 - Jazz Dance II
- DANC 3270 - Body Conditioning
- DANC 3271 - Choreography I
- DANC 3301 - Modern Dance II (2 semesters)
- DANC 3311 - Dance History I
- DANC 3313 - Dance History II
- DANC 3330 - Dance Science and Kinesiology
- DANC 3341 - Ballet II (2 Semesters)
- DANC 4360 - Dance Pedagogy
- DANC 4191 - Dance Performance (3 semesters)
- DANC 4271 - Choreography II
- DANC 4301 - Modern Dance III (2 semesters)
- DANC 4341 - Ballet III (2 semesters)
  
- DANC 4302 - Modern Dance IV (2 semesters)
- or
- DANC 4342 - Ballet IV (2 semesters)
  
- DANC 4372 - Choreography III
- DANC 4199 - Senior Dance Project
- THEA 1201 - Theatre/Dance
- THEA 2359 - IT for Theatre and Dance
  
- THEA 3380 - Lighting Design
- or
- THEA 3382 - Costume Design
  
- Select two from below:
- THEA 3160 - Stage Production
- THEA 3161 - Stage Production
- THEA 4161 - Stage Production
- THEA 4162 - Stage Production

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Theatre Arts, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit (See General Education Requirements for requirement details.)

### Core (35 hours)

See General Education Requirements for requirement details.

### Major (68 hours)

\*(Students desiring to major in Theatre Arts are required to complete THEA 1201, THEA 2352, and THEA 2360. Students must attain a cumulative GPA of 2.6 in the three gateway courses to remain a major in Theatre Arts. Students may declare the major at any time before completing the three entrance classes

- THEA 1201 - Theatre/Dance \*
- THEA 2352 - Script Analysis \*
- THEA 2360 - Acting I \*
- THEA 1310 - Introduction to Theatrical Design
- THEA 2310 - Costume Techniques
- THEA 2320 - Stagecraft/ Lighting Technology
- THEA 2359 - IT for Theatre and Dance
- THEA 3350 - Voice and Movement
- THEA 3360 - Stage Management
- THEA 3362 - Directing I
- THEA 4350 - History of Theatre I
- THEA 4351 - History of Theatre II
- THEA 4352 - Dramatic Criticism
- THEA 4364 - Contemporary Theatre
  
- ENGL 4324 - Shakespeare
- or
- another 3000 or 4000 level course in ENGL
  
- 2 credit hours in DANC
- Upper Level Elective in Theatre (3 hours)
- Upper Level Open Electives (6 hours)

### Stage Production Requirement (4 hours)

- THEA 3160 - Stage Production
- THEA 3161 - Stage Production
- THEA 4161 - Stage Production
- THEA 4162 - Stage Production

### Senior Project (3 hours)

- THEA 4362 - Capstone
- or



- THEA 4369 - Performance Internship  
or
- THEA 4370 - Design/Technical Internship

**Multicultural Track (6 hours)**

Students will work with their department advisor in selecting courses to fulfill the new requirement.

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Dance Minor****Program Requirements**

The Dance Minor includes a total of 21 hours: DANC 2201, DANC 3301, DANC 2241, DANC 3341, DANC 2261, DANC 3270, DANC 3311 or 3313, and 4 additional hours chosen from any of the remaining courses offered in the dance curriculum. All participants in dance performance programs are expected to follow rules and regulations specified in the departmental handbook. Note: Technique placement/advancement by audition and/or faculty consent only. Higher level technique classes may be substituted for lower levels in the same technique; however, the total number of semesters required in each technique remains the same.

**Theatre Arts Minor****Program Requirements**

The minor program is designed to provide a broad-based offering of courses in theory, performance, and stage production for interested students. The theatre arts minor requires 19 hours including THEA 1201, THEA 2352, THEA 2360, 9 upper-level hours in THEA of the student's choice, plus a total of two credit hours of stage production experience. The stage production courses should be taken at the rate of one credit hour per semester from THEA 3160, THEA 3161, THEA 4161, or THEA 4162.

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## Department of English

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Stabler Hall, Room 501, (501) 569-3161  
(501) 569-8185 (fax), ualr.edu/English

<b>Chairperson:</b>	Ecke, Jeremy, Associate Professor
<b>Professor:</b>	Levernier, James A.
<b>Associate Professors:</b>	Barrio Vilar, Laura Condran, Jeffrey Crutcher, Paul Hunter, Angela McAbee, Kris Minnick, J. Bradley
<b>Assistant Professors:</b>	Hummel, Heather

### Majors, Tracks, & Special Offerings

The Department of English offers three major tracks: English (for the study of literature and culture); English with an emphasis in Creative Writing; and English with an emphasis in Secondary Education. The department also offers minors in English, Creative Writing, and Linguistics. The latter offers interdisciplinary coursework in Anthropology, Applied Communications, Speech Pathology, Second Language Instruction, and World Languages—as well as foundational courses in the History of English; Grammar, Morphology, Syntax; and Literary Linguistics.

The department's literature track includes coursework in Mythology, Southern Literature, Visual Literacy, Film as Literature, Young Adult Literature, and Podcasting as well as traditional surveys in American and British Literature and upper-level coursework in individual authors (Chaucer, Shakespeare, Milton, etc.) as well as literary movements, periods, and collectives (American Modernism, Black Protest Literature, Environmental Literature, etc.).

Across all three tracks, the department supports its diversity requirement with coursework in African-American Literature, Postcolonial Literature, Women in Literature, and special topics. The department's creative writing track develops sophisticated writing skills across a variety of genres. Coursework in creative writing includes formal, theoretical, and applied study of the craft of fiction and poetry, coursework in screenwriting, and special topics such as Writing Detective Fiction, Open Genre Writing, Novel Writing, the Poetry of Fiction, etc.

The department's secondary education track prepares students as English Language Arts teachers in grades 7-12. The program's strong connections with High Schools throughout Central Arkansas and its dedicated hands-on training with class observations and teaching internships prepare students for careers in teaching, administration, and educational policy—and our placement rates in schools are highly successful.

In addition to general coursework, the Department of English supports professional development through a wide range of service-learning projects, internships with the department's literary journal *Equinox*, the Sequoyah National Research Center, and the independent press Braddock Books, as well as through collaborations with the Butler Center for Arkansas Studies, the CALS Literary Festival, the Cooper Visiting Writers Series, and the English Advisory Board.

### Transfer Students

Students transferring from other institutions into the English Department—either at the major or minor level—must take at least 6 hours in residence in the UA Little Rock English Department. Students can share up to 6 hours between the English Major and the Creative Writing Minor or between the English Major and the Linguistics Minor.

### William G. Cooper, Jr., Honors Program in English

The William G. Cooper, Jr., Honors Program in English is sustained by an endowment created by the family of Dr. William G. Cooper, Jr., in honor of his distinguished service on the Little Rock University Board of Trustees and UA Little Rock Board of Visitors.

The William G. Cooper, Jr., Honors Program in English offers students a high-impact learning experience in which they work one-on-one with a faculty mentor to develop a research or creative project over the course of two semesters. The honors option in English parallels the requirements for the three English tracks with the addition of the Cooper Honors Seminar, the Honors Tutorial, and the Honors Project.

This seven-hour block counts towards the upper-level English electives. Students in the honors program must maintain a 3.25 GPA overall and a 3.5 in their English courses to remain in good standing. Students selected into the Cooper Honors Program are eligible to apply for generous honors stipends that may be applied to educational expenses.

### Scholarships & Awards

In addition to the Cooper Honors stipends, the department offers the following annual set of scholarships and awards:

- Cooper Promise Award
- Cooper Success Scholarship
- Ruth Lovett Booker Scholarship
- Eleanor Orts Francis Scholarship
- Marilyn Keys Scholarship
- Martha Sawrie Stephenson Scholarship
- Gladys K. Brown Award
- The Richard Stanley Cooper Award
- The Alma K. Dougherty Award

- The Roslyn L. Knutson Award
- Kathryn Ramsey Award

## English, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See First-Year Experience Courses.)

### University Core (35 hours)

(See General Education Requirements.)

## Major

### Program Foundation Courses

- ENGL 3330 - Approaches to Literature  
Students should take this course as early as possible upon entry into the English program (after the completion of Composition II and the Humanities University Core requirements).
- ENGL 4199 - Seminar in Career Perspectives  
Students should take this course in their senior year.

Study of Language (3 hours) Select One:

- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ENGL 3313 - Introduction to the Study of Language

British Literature Requirement (6 hours):

Select one from below:

- ENGL 3331 - British Literature 1
- ENGL 3332 - British Literature 2
- ENGL 3333 - British Literature 3

#### And

Select one from below:

- ENGL 4311 - Medieval Literature
- ENGL 4312 - Chaucer
- ENGL 4313 - Arthurian Literature
- ENGL 4314 - Topics in Medieval and Renaissance Literature
- ENGL 4321 - English Renaissance Drama
- ENGL 4324 - Shakespeare
- ENGL 4325 - Topics in Shakespeare
- ENGL 4328 - Seventeenth-Century Literature
- ENGL 4331 - Restoration and Eighteenth-Century English Literature
- ENGL 4341 - English Romanticism

- ENGL 4343 - Victorian Literature
- ENGL 4351 - British Novel I
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

American Literature Requirement (6 hours):

Select one from below:

- ENGL 3321 - American Literature I
- ENGL 3322 - American Literature II
- ENGL 3323 - American Literature III

#### And

Select one from below:

- ENGL 4345 - Topics in Nineteenth-Century Literature
- ENGL 4380 - Studies in Major American Writers
- ENGL 4381 - American Fiction
- ENGL 4384 - American Poetry
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

Diverse Perspectives Requirement (3 hours) Select One:

- ENGL 3326 - African-American Literature I
- ENGL 3327 - African-American Literature II
- ENGL 3340 - Women in Literature
- ENGL 4354 - Post Colonial Literature
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

### Required ENGL Elective Courses (14 hours)

At least 14 hours of English elective credit. At least 11 hours must be upper-level courses (3000 and 4000). Up to but no more than six hours of elective credit may be applied from:

- ENGL 4100 - Independent Study English Majors Only
- ENGL 4100 - Independent Study English Majors and Minors Only
- ENGL 4200 - Independent Study English Majors Only
- ENGL 4200 - Independent Study English Majors and Minors Only
- ENGL 4300 - Independent Study English Majors Only
- ENGL 4300 - Independent Study English Majors and Minors Only
- ENGL 4390 - Internship

## Second Language Requirement

6-7 hours of study in a Second Language, 6 hours must be in the same language. Students who have a previous background in a language may take a placement test and then enroll in the appropriate level to begin the 6 hours.

Computer Programming language may count for this requirement, in which case, 7 hours is required:

- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 1375 - Programming I
- CPSC 2376 - Programming II

## Minor

Requirement:

- Completion of a Minor (See a full list of available Minors at Undergraduate Programs.)

Or

- Completion of a Secondary Concentration: an individually-designed area of concentration (minimum of 15 hours, of which at least 9 must be upper-level). The secondary concentration is proposed by the student in writing to the student's major advisor along with a statement of explanation. The advisor and the department chairperson will evaluate the proposal and must approve it before it can become official. The secondary concentration should be organized in a coherent fashion and could include courses from any relevant program outside of the student's major program (note that some courses have prerequisites, co-requisites, or other restrictions).

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## English, Creative Writing Emphasis, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

(See General Education Requirement.)

## Major

**Prerequisite: (3 hours)**

- ENGL 2336 - Introduction to Creative Writing

Students who wish to major in English, Creative Writing, B.A. must pass ENGL 2336 with a grade of C or better as a prerequisite to all upper-level creative writing courses.

### Program Foundation Courses

- ENGL 3330 - Approaches to Literature  
Students should take this course as early as possible upon entry into the English program (after the completion of Composition II and the Humanities University Core requirements).
- ENGL 4199 - Seminar in Career Perspectives  
Students should take this course in their senior year.

Study of Language (3 hours) Select One:

- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ENGL 3313 - Introduction to the Study of Language

British Literature Requirement (6 hours):

Select one from below:

- ENGL 3331 - British Literature 1
- ENGL 3332 - British Literature 2
- ENGL 3333 - British Literature 3

**And**

Select one from below:

- ENGL 4311 - Medieval Literature
- ENGL 4312 - Chaucer
- ENGL 4313 - Arthurian Literature
- ENGL 4314 - Topics in Medieval and Renaissance Literature
- ENGL 4321 - English Renaissance Drama
- ENGL 4324 - Shakespeare
- ENGL 4325 - Topics in Shakespeare
- ENGL 4328 - Seventeenth-Century Literature
- ENGL 4331 - Restoration and Eighteenth-Century English Literature
- ENGL 4341 - English Romanticism
- ENGL 4343 - Victorian Literature
- ENGL 4351 - British Novel I
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

American Literature Requirement (6 hours):

Select one from below:

- ENGL 3321 - American Literature I
- ENGL 3322 - American Literature II
- ENGL 3323 - American Literature III

**And**

Select one from below:

- ENGL 4345 - Topics in Nineteenth-Century Literature
- ENGL 4380 - Studies in Major American Writers
- ENGL 4381 - American Fiction
- ENGL 4384 - American Poetry
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

Diverse Perspectives Requirement (3 hours) Select One:

- ENGL 3326 - African-American Literature I
- ENGL 3327 - African-American Literature II
- ENGL 3340 - Women in Literature
- ENGL 4354 - Post Colonial Literature
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

General English Elective Requirement (2-3 hours):

At least 2 hours of upper-level ENGL elective credits (literature or language courses).

Creative-Writing Requirements (12 hours)

Select one from below:

- ENGL 3318 - The Essential Elements of Fiction
- ENGL 3319 - The Essential Elements of Poetry

Select one from below:

- ENGL 4379 - The Theory and Craft of Fiction
- ENGL 4369 - The Theory and Craft of Poetry
- 6 hours of Creative Writing Upper-level Courses (*may include Creative Writing internship*).

### Second Language Requirement

6-7 hours of study in a Second Language, 6 hours must be in the same language. Students who have a previous background in a language may take a placement test and then enroll in the appropriate level to begin the 6 hours. Computer Programming language may count for this requirement, in which case, 7 hours is required:

- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 1375 - Programming I
- CPSC 2376 - Programming II

### Minor

Requirement:

- Completion of a Minor (See a full list of available Minors at Undergraduate Programs .)

Or

- Completion of a Secondary Concentration: an individually-designed area of concentration (minimum of 15 hours, of which at least 9 must be upper-level). The secondary concentration is

proposed by the student in writing to the student's major advisor along with a statement of explanation. The advisor and the department chairperson will evaluate the proposal and must approve it before it can become official. The secondary concentration should be organized in a coherent fashion and could include courses from any relevant program outside of the student's major program (note that some courses have prerequisites, co-requisites, or other restrictions).

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## English, English Education Track, B.A.

**Note: Students in the Education Track must select the Education Minor.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

### University Core (35 hours)

(See "General Education Requirements.")

### Major

#### Program Foundation Courses

- ENGL 3330 - Approaches to Literature  
Students should take this course as early as possible upon entry into the English program (after the completion of Composition II and the Humanities University Core requirements).
- ENGL 4199 - Seminar in Career Perspectives  
Students should take this course in their senior year.

Study of Language (3 hours)

- ENGL 3312 - Grammar, Morphology, & Syntax

British Literature Requirement (6 hours):

Select one from below:

- ENGL 3331 - British Literature 1
- ENGL 3332 - British Literature 2
- ENGL 3333 - British Literature 3

**And**

Select one from below:

- ENGL 4311 - Medieval Literature
- ENGL 4312 - Chaucer
- ENGL 4313 - Arthurian Literature

- ENGL 4314 - Topics in Medieval and Renaissance Literature
- ENGL 4321 - English Renaissance Drama
- ENGL 4324 - Shakespeare
- ENGL 4325 - Topics in Shakespeare
- ENGL 4328 - Seventeenth-Century Literature
- ENGL 4331 - Restoration and Eighteenth-Century English Literature
- ENGL 4341 - English Romanticism
- ENGL 4343 - Victorian Literature
- ENGL 4351 - British Novel I
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

American Literature Requirement (6 hours):

Select one from below:

- ENGL 3321 - American Literature I
- ENGL 3322 - American Literature II
- ENGL 3323 - American Literature III

**And**

Select one from below:

- ENGL 4345 - Topics in Nineteenth-Century Literature
- ENGL 4380 - Studies in Major American Writers
- ENGL 4381 - American Fiction
- ENGL 4384 - American Poetry
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

Diverse Perspectives Requirement (3 hours) Select One:

- ENGL 3326 - African-American Literature I
- ENGL 3327 - African-American Literature II
- ENGL 3340 - Women in Literature
- ENGL 4354 - Post Colonial Literature
- Other course options that fulfill this requirement (such as Special Topics courses and Seminars) will be designated on the course schedule and disseminated by the department through advising.

**English Teaching Foundation Courses (6 hours)**

English Language Arts Teaching

- ENGL 4303 - Teaching English

**And**

Select one from below:

- ENGL 4376 - Essay
- RHET 3300 - Introduction to Research
- RHET 3315 - Persuasive Writing
- RHET 3317 - Nonfiction

English Language Arts Electives: Literature, Media, and Methods (9 hours)

These courses build content knowledge and critical skills in engaging diverse texts. Students build skill in reading literature and informational texts, understanding varied technologies and mediums, academic writing and understanding strategies in composing texts, understanding the performative and political aspects of ELA content.

Select three from below:

- ENGL 3326 - African-American Literature I
- ENGL 3327 - African-American Literature II
- ENGL 3348 - School Books
- ENGL 3358 - Visual Literatures
- ENGL 3372 - English Laboratory
- ENGL 4354 - Post Colonial Literature
- ENGL 4375 - Young Adult Literature
- ENGL 4378 - Drama in the Classroom
- Other course options that fulfill this requirement (such as Special Topics and Seminars) will be designated on the course schedule and disseminated by the department.

**Second Language Requirement**

6-7 hours of study in a Second Language, 6 hours must be in the same language. Students who have a previous background in a language may take a placement test and then enroll in the appropriate level to begin the 6 hours.

Computer Programming language may count for this requirement, in which case, 7 hours is required:

- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 1375 - Programming I
- CPSC 2376 - Programming II

**Education Minor**

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- TCED 4383 - Instructional Skills
- TCED 4600 - Internship
- Education Elective (3 hours; Choose One):
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy
- SPED 4301 - Education of Exceptional Learners

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Creative Writing Minor

### Program Requirements (18 hours)

A minor in Creative Writing requires 18 hours selected from the creative writing course list. Three of these hours will include ENGL 2336 - Introduction to Creative Writing (prerequisite). The remainder must be upper-level hours. Students can share up to 6 hours between the Creative Writing Minor and the English Major.

## English Minor

### Program Requirements (18 hours)

A minor in English requires 18 hours of ENGL courses with a GPA of 2.0 or higher in these courses. Only 6 hours of the total 18 hours may be lower-level courses (2000-level). Only 6 hours of internship courses may count toward the 18-hour total.

## Film Minor (English)

### Program Requirements (18 hours)

The English Department participates in an interdisciplinary minor in film. Minors must take MCOM 2306 Introduction to Motion Pictures, and 15 hours of film courses in at least two disciplines. Interested students should contact the Film Studies minor coordinator in the Department of Mass Communications.

## Linguistics Minor

### Program Requirements (15 hours)

A minor in linguistics requires 15 hours.

#### Introductory Courses

Select one from below:

- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ENGL 3313 - Introduction to the Study of Language

#### Core Courses

Select two courses from below (cannot repeat an introductory course):

- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ENGL 3313 - Introduction to the Study of Language
- ENGL 3314 - Phonology and Dialect
- ENGL 4315 - World Englishes
- ENGL 4317 - Literary Linguistics
- ENGL 4370 - Seminar in Language or Literature \*\*

- ENGL 4100 - Independent Study \*\*
- ENGL 4200 - Independent Study \*\*  
\*\*(when the topic is in linguistics)

#### Elective ENGL Courses (6 hours):

Select two from below:

- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ENGL 3313 - Introduction to the Study of Language
- ENGL 3314 - Phonology and Dialect
- ENGL 4315 - World Englishes
- ENGL 4317 - Literary Linguistics
- ENGL 4370 - Seminar in Language or Literature \*\*
- ENGL 4100 - Independent Study \*\*
- ENGL 4200 - Independent Study  
\*\*(when the topic is in linguistics)

#### Program Electives (6 hours)

Select two from below:

- ACOM 2310 - Human Communication Concepts
- ACOM 3300 - Interpersonal Communication
- ACOM 3315 - Gender Communication
- ACOM 4312 - Intercultural Communication
- ANTH 4316 - Linguistic Anthropology
- ACOM 4357 - Communication and Managing Difference
- AUSEP 2360 - Introduction to Speech and Hearing Disorders
- AUSEP 3350 - Phonetics
- AUSEP 3363 - Disorders in Articulation
- AUSEP 3364 - Speech and Hearing Sciences
- LANG 4322 - Teaching Second Languages
- LANG 4323 - Second Language Acquisition
- LANG 4324 - Teaching People of Other Cultures
- LANG 4325 - Second Language Assessment
- Up to 3 hours of an approved foreign language

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## Department of History

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Stabler Hall, room 601, (501) 569-3236, (501) 569-3059 (fax), ualr.edu/history

<b>Chairperson:</b>	Porter, Jess C., Associate Professor
<b>Professors:</b>	Anson, Edward M. Baldwin, Deborah J. Kirk, John A. Lewis, Johanna Miller Mann, Kristin Dutcher
<b>Associate Professors:</b>	Key, Barclay Romney, Charles Ross, James
<b>Assistant Professors:</b>	Amstutz, Andrew Baylis, David Heil, Michael Marvin, Nathan Mitchell, Brian Yeaw, Katrina

The History Department program is designed to implement the following objectives:

- to confer transferable skills to aid undergraduate majors and graduates in gaining employment,
- to engage with the wider community to promote awareness of public history,
- to prepare undergraduate majors for advanced training in history,
- to train students to teach in secondary schools, and
- to provide instruction for the University's Core Courses in History (HIST) curriculum program.

The History Department is committed to the ongoing process of assessing the effectiveness of our programs and courses.

### Major in History

The history major must complete Core Requirements (35 hours), Secondary Language Proficiency, and 36 credit hours of history, including HIST 1311, HIST 1312, HIST 2311, HIST 2312, and at least 24 hours of upper-level history courses which must include HIST 4309. All students who are history majors must have C or greater in HIST 1311, HIST 1312, HIST 2311, HIST 2312, or equivalent courses. The program must include at least six upper-level hours of United States history and at least six upper-level hours of non-United States history. Additionally, history majors with senior status (90 or more hours including UA Little Rock and transfer work) must take at least one three-hour capstone experience seminar prior to graduation.

The History major also requires a minor. All students are advised to take HIST 1311 and HIST 1312 before taking upper-level courses in world history and HIST 2311 and HIST 2312 before taking upper-level courses in American history.

### Beyond Bachelor's Degree

Students preparing to study history beyond the bachelor's degree level are strongly advised to master at least one foreign language before graduation. Students preparing for advanced work should seek specific advising from a member of the department at their earliest opportunity.

### Minor in History

A minor in history requires 18 hours, including 6 hours from HIST 1311, HIST 1312, HIST 2311 and HIST 2312 in addition to 12 hours of upper-level history courses.

### Teacher Licensure (Minor in Education)

See "Education Minor" for details or consult the History Department website at ualr.edu/history.

### History Honors Program

To graduate with Honors from the History Department, a student must have a 3.25 overall grade point average and a 3.5 in History courses. Honors students must also complete an Honors Thesis; students will take an Honors Thesis course (HIST 4322) that involves individual work with a faculty member, is worth 3 credit hours, and will count as part of the 36-hour requirement for the History Major. The thesis will be a research project done under the direction of one faculty member, and the topic must be approved by a Thesis Committee consisting of that faculty member and two others. A recommendation by the Thesis Committee is required for the student to graduate with Honors.

### History, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See General Education Requirements.

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.



## Major (36 hours)

### World History Surveys (6 hours)

- HIST 1311 - History of Civilization I (Also counts toward the core.)
- HIST 1312 - History of Civilization II (Also counts toward the core.)

### US History Surveys (6 hours)

- HIST 2311 - U.S. History to 1877 (Also counts toward the core.)
- HIST 2312 - U.S. History since 1877 (Also counts toward the core.)

### Methods Class (3 hours)

- HIST 4309 - The Historian's Craft

### Capstone Seminar (3 hours)

Students are required to take one of the following:

- HIST 4391 - Seminar in United States History
- HIST 4393 - Seminar in World History
- HIST 4396 - Seminar in Arkansas History

### Program Electives (18 hours)

- Upper-level US history electives (6 hours)
- Upper-level Non-US history electives (6 hours)
- Upper-level electives in either US or Non-US history (6 hours)

## Minor

(12-29 hours—typical minor requires 18)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## History, Education Track: Social Studies – History, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See "Undergraduate Academic Advising.")

## Core (35 hours)

See "General Education Requirements."

## Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

## History Major with Secondary Social Studies Concentration (58 hours)

- HIST 1311 - History of Civilization I \*

- HIST 1312 - History of Civilization II \*
- HIST 2311 - U.S. History to 1877 \*
- HIST 2312 - U.S. History since 1877 \*
- HIST 4309 - The Historian's Craft
- HIST 4355 - History of Arkansas

### Social Studies Courses

Intermediate, (3rd semester or greater) proficiency in a second language is required for this program.

- ECON 2301 - Survey of Economics \*
- or
- ECON 2322 - Principles of Microeconomics and
- ECON 2323 - Principles of Macroeconomics
  
- POLS 1310 - American National Government \*
- POLS 2301 - Introduction to International Politics
- PSYC 2300 - Psychology and the Human Experience \*
- SOCI 2300 - Introduction to Sociology \*
  
- GEOG 2312 - Cultural Geography \*
- or
- GEOG 2310 - World Regional Geography
  
- 3 hours upper-level geography elective

### Note

\*If taken as part of CORE, can also count toward major.

## Minor in Education

The minor is mandatory for the Bachelor of Arts in History Education Track in Social Studies – History.

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

### Licensure Area: Social Studies-History Education Minor (18 hours)

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- HIST 4600 - Internship

### Education Elective (3 hours; choose 1)

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Praxis II Licensure Exams:

Students earning the BA in History and Education must also pass the following Praxis II licensure exams:

Social Studies: Content Knowledge and Interpretation – 5086  
Principles of Learning and Teaching, grades 7-12 – 5624

## History, Education Track: Social Studies – Political Science, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See "Academic Advising.")

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### Political Science Major with Secondary Social Studies Concentration

- POLS 1310 - American National Government
- POLS 2301 - Introduction to International Politics
- POLS 4397 - Social Studies Teaching Applications

#### American Politics

(choose 6 hrs from the following)

- POLS 3300 - American Political Parties
- POLS 3303 - American State and Local Government
- POLS 3305 - Elections and Public Opinion
- POLS 3320 - The American Presidency
- POLS 3325 - Legislative Process and Behavior
- POLS 3350 - Arkansas Government and Politics
- POLS 4350 - Constitutional Law: Governmental Powers
- POLS 4351 - Constitutional Law: Civil Liberties

#### International Politics

(choose 6 hrs from the following)

- POLS 3360 - Comparative Government: Western
- POLS 3365 - The European Union
- POLS 3370 - Comparative Politics: Developing Areas
- POLS 4320 - American Foreign Policy
- POLS 4331 - International Organizations

- POLS 4340 - International Relations

#### Normative and Empirical Analysis

(choose one class from the following)

- POLS 3302 - Methods of Political Inquiry
- POLS 3390 - American Political Thought
- POLS 4380 - Classical Political Theory
- POLS 4390 - Modern Political Theory

#### Electives: 6 hrs POLS courses Social Studies Courses

\*If taken as part of CORE, can also count toward major.

- ECON 2301 - Survey of Economics \*  
**or**
- ECON 2322 - Principles of Microeconomics **and**
- ECON 2323 - Principles of Macroeconomics
- HIST 1311 - History of Civilization I \*
- HIST 1312 - History of Civilization II \*
- HIST 2312 - U.S. History since 1877 \*
- HIST 4355 - History of Arkansas
- PSYC 2300 - Psychology and the Human Experience \*
- SOCI 2300 - Introduction to Sociology \*
  
- GEOG 2312 - Cultural Geography \*  
**or**
- GEOG 2310 - World Regional Geography
  
- HIST 4197 - Social Studies Teaching Practicum

### Minor in Education

The minor is mandatory for the Bachelor of Arts in History Education Track in Social Studies – Political Science.

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

#### Licensure Area: Social Studies-Political Science (Education Minor 18 hours)

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- HIST 4600 - Internship

#### Education Elective (3 hours; choose 1)

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Praxis II Licensure Exams:

Students earning the BA in History and Education must also pass the following Praxis II licensure exams:

- Social Studies: Content Knowledge and Interpretation – 5086
- Principles of Learning and Teaching, grades 7-12 – 5624

## Geography Minor

### Program Requirements

**Jess C. Porter, Coordinator** A geography minor consists of 18 hours, including GEOG 1311 - Introduction to Physical Geography and GEOG 2312 - Cultural Geography, plus 12 additional hours of geography courses.

For more information, contact the coordinator at (501) 569-8730. Courses in geography may be used to complete the geography minor, to meet core curriculum requirements, and to meet part of the bachelor of arts in liberal arts program requirements.

## History Minor

### Program Requirements (18 hours)

Select two from below (6 hours):

- HIST 1311 - History of Civilization I
  - HIST 1312 - History of Civilization II
  - HIST 2311 - U.S. History to 1877
  - HIST 2312 - U.S. History since 1877
- AND**
- 12 hours of Upper-level History Courses

## Race and Ethnicity Minor

John Kirk, Ph.D. Chair and Donaghey Professor,  
History Advisor: John Kirk, Ph.D.

UA Little Rock History Department in Conjunction with the UA Little Rock Institute on Race and Ethnicity offers a minor in Race and Ethnicity.

### Required courses (6 hours)

[Beginning 2012 – 2013 Academic year RACE 2301 will be offered in the fall semester and RACE 4356/5356 - HIST 4356/HIST 5356 will be offered in the spring semester.]

- RACE 2301 - Introduction to Race and Ethnicity
  - HIST 4356 - History of Race and Ethnicity in America
- and**
- HIST 5356 – History of Race and Ethnicity in the United States

**or**

- RACE 4356 - History of Race and Ethnicity in America
- and**
- RACE 5356 – History of Race and Ethnicity in the United States

### Elective courses

(12 hours selected from the list below)

- ANTH 3312 - North American Indians
  - ANTH 4398 - Special Topics
  - CRJU 3310 - Race/Ethnicity and Criminal Justice
  - GEOG 2312 - Cultural Geography
  - MCOM 4384 - Topics in Mass Communication
  - ENGL 3326 - African-American Literature I
  - ENGL 3327 - African-American Literature II
  - ENGL 4350 - Honors Seminar
  - SOCI 3340 - Experiences of Black Americans
  - SOCI 3330 - Racial and Minority Groups
  - SOCI 4395 - Special Topics: Native American History
  - HIST 3355 - American Civil War and Reconstruction, 1848-1876
  - HIST 3371 - History of Latin America: Colonial Period
  - HIST 3380 - The Indian in American History
  - HIST 4327 - Africa in World History
  - HIST 4328 - South Africa in World History
  - HIST 4338 - Holocaust
  - HIST 4357 - The Little Rock School Crisis
  - HIST 4358 - Civil Rights since 1954
- and**
- HIST 5358 - Civil Rights Movement Since 1954
  - HIST 4368 - African American History to 1865
  - HIST 4369 - African American History Since 1865
  - HIST 4378 - The History of U.S.-Latin American Relations
  - PHIL 4373 - Philosophy of Race
  - MGMT 4391 - Employment Law
  - MUHL 3361 - Jazz History and Styles
  - SPAN 3335 - Hispanic Culture: Americas
  - SPAN 4361 - Seminar
  - ACOM 4312 - Intercultural Communication

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## Department of World Languages

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Stabler Hall, room 301, (501) 569-3272, (501) 569-8157 (fax), [ualr.edu/worldlanguages](http://ualr.edu/worldlanguages)

<b>Chairperson:</b>	Deiser, Andrew J, Associate Professor
<b>Associate Professor:</b>	Dhonau, Stephanie A.
<b>Assistant Professors:</b>	Cheatham, Rosalie M. Delgado Solórzano, Edma I. Hagins, Zachary R.
<b>Senior Instructors:</b>	Haislop, Victor J. Rodriguez, Maria M. Underwood, Olimpia G.

The Department of World Languages (DWL) offers majors in World Languages: French and World Languages: Spanish. Minors include French and Spanish. DWL also offers a Certificate in Workplace Spanish.

Courses in foreign languages are offered to give the student proficiency in basic language skills, such as speaking, writing, reading, and understanding; to guide advanced students to fluency of the written and spoken idioms; to acquaint students with major literary works in foreign languages and increase awareness and appreciation of other cultures; to provide courses necessary and useful for those preparing to work, teach, or communicate in a linguistically diverse community; to promote intercultural communication; and to offer background preparation necessary for graduate work in a foreign language. In order to ensure student learning, the program continuously assesses communication skills, critical thinking, research methods and community engagement throughout the majors.

### Second Language Requirement

Second language proficiency requirements vary by major and program. See individual degree descriptions for details.

See "Second Language Requirement" for information about demonstrating proficiency or prior knowledge for placement and credit.

### Second Language Placement

Students who wish to enroll in language courses at UA Little Rock are encouraged to take a placement test. Computerized, multiple-choice tests for French and Spanish (the F-CAPE and the S-CAPE) are administered at the Office of Testing Services. The following students do not need to take the proficiency test before enrolling:

- Students who have never studied French or Spanish and are enrolling in first semester courses in these languages.

- Students who have already completed UA Little Rock second language courses.
  - Students who have completed university-level courses for transfer credit in French or Spanish.
- Students can contact the Chair of the Department of World Languages with questions about placement.

### Credit Validation – Language

Students who have acquired language skills before enrolling at UA Little Rock may receive credit for their proficiency by taking the sequel language skill course and earning a grade of B or greater. A student must request retroactive credit; it is not awarded automatically. Students should request a placement test to find the level at which they should enroll. Up to 12 hours, up to 3 hours of which may be upper level, may be obtained in this manner. For more information, see a faculty member in the department.

### Receiving Credit for Advanced Proficiency for Majors in World Languages

Students who have already acquired advanced proficiency (usually native or heritage learners) in French or Spanish can take advantage of their knowledge to progress more rapidly toward degree completion than regular program requirements allow. For more information, see a faculty member in the department.

### Receiving Credit for Advanced Proficiency in French

A student desiring accelerated status toward completion of a major in **World Languages: French** may demonstrate proficiency as prescribed below and obtain 24 hours of credit (CR), 18 of which will count toward the 30-hour major requirement.

To demonstrate eligibility for accelerated status in French, a student must prove oral and writing proficiency by (1) scoring at least "Advanced-Mid" on an official Oral Proficiency Interview (OPI) from ACTFL (American Council on the Teaching of Foreign Languages) and (2) scoring at least "Advanced-Mid" on an official Writing Proficiency Test (WPT) from ACTFL.

A student who achieves "Advanced-Mid" or higher ratings on both assessments will be granted 24 hours of credit (CR) for the following courses: FREN 1311, FREN 1312, FREN 2311, FREN 3310, FREN 3311, FREN 3312, FREN 2315, FREN 3115, FREN 3116, and FREN 3117.

In addition to the above credits, completion of the major will require 12 credit hours of upper-level work in the major language, to include one culture course (FREN 3334,

FREN 3335, or FREN 3336) and six credit hours at the 4000 level.

For more information on receiving credit for advanced proficiency, see a faculty member in the department.

## Receiving Credit for Advanced Proficiency in Spanish

A student desiring accelerated status toward completion of a major in **World Languages: Spanish** may demonstrate proficiency as prescribed below and obtain 18 or 21 hours of credit (CR), 12 or 15 of which will respectively count toward the 34-hour major requirement.

To demonstrate eligibility for accelerated status in Spanish, a student must prove oral and writing proficiency by taking an official Oral Proficiency Interview (OPI) and an official Writing Proficiency Test (WPT) from ACTFL (American Council on the Teaching of Foreign Languages). Students passing the WPT and OPI with a score of **advanced-low** will earn 12 hours of credit towards the Spanish BA in SPAN 2311, SPAN 2313, SPAN 3313, and SPAN 3314.

Students passing **both** the WPT and OPI with a score of **advanced-mid** will earn 15 hours of credit towards the Spanish BA in SPAN 2311, SPAN 2313, SPAN 3313, SPAN 3314, SPAN 3115, SPAN 3116, and SPAN 3117. For more information on receiving credit for advanced proficiency, see a faculty member in the department.

## ESL Endorsement for Teachers

DWL offers the four-course endorsement in English as a Second Language (ESL) per the requirements of the State of Arkansas. The endorsement is added to current teacher licensure, K-12. Students seeking the endorsement must take LANG 4322 - Teaching Second Languages, LANG 4323 - Second Language Acquisition, LANG 4324 - Teaching People of Other Cultures, and LANG 4325 - Second Language Assessment. To be fully licensed in ESL, students must also pass the Praxis exam in English to Speakers of Other Languages.

## Honors Program in French

The department offers an honors program available to exceptional students leading to the bachelor of arts in World Languages: French with honors. To be admitted to the program, a student must apply for acceptance to the program, be a declared major in World Languages: French, have at least 60 hours of undergraduate college credit, including at least 15 hours of French, and have a cumulative grade point average of at least 3.25 on all University work taken at UA Little Rock and elsewhere.

To qualify for the degree with honors, a student must maintain a cumulative grade point average of at least 3.25 and a 3.25 in all French courses, complete all requirements for the World Languages: French major, and include a three hour specialized French seminar and a three hour Senior project in the 30 hours required for the French major.

Study abroad is strongly encouraged. More information can be obtained from the department advisor.

## Instruction in Other Languages

Courses in other modern languages (Arabic, Mandarin, Russian, etc.) and classical languages (Greek, Hebrew, Latin, etc.) are offered periodically in response to student interest.

## World Languages: French, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency (0-9 hours)

Completion of FREN 2311 - Intermediate French or demonstrate equivalent proficiency. See page (See "Second Language Requirement" for information about demonstrating proficiency.)

### Major (30 hours above the 1000 level)

#### Communications (12-15 hours)

- FREN 3310 - Integrated Skills I
- FREN 3311 - Integrated Skills II
- FREN 3312 - Integrated Skills III

- FREN 2315 - Intermediate Conversational French

**or**

- FREN 3115 - Advanced Conversation
- FREN 3116 - Advanced Conversation
- FREN 3117 - Advanced Conversation

#### Cultures (3-9 hours)

- FREN 3334 - French Culture and Civilization I
- FREN 3335 - French Culture and Civilization II
- FREN 3336 - Francophone Cultures

### Comparisons and Communities (3-9 hours)

- FREN 3316 - French Pronunciation
- FREN 4316 - Advanced Listening and Pronunciation
- FREN 4141 - French Practicum
- FREN 4142 - French Practicum
- FREN 4143 - French Practicum
- FREN 4350 - Senior Project
- LANG 3390 - Language Study Abroad

### Connections (3-9 hours)

- FREN 3321 - French Short Stories
- FREN 3332 - Introduction to French Literature
- FREN 3333 - Selected Readings in French Literature
- FREN 4331 - Writings: Historical Perspective
- FREN 4341 - Writings: Modern Perspective
- FREN 4351 - Cinema
- FREN 4361 - Seminar in French Literature
- FREN 4362 - Seminar in French Literature

### Minor

(12-29 hours-Typical minor requires 18 hours)

### Unrestricted General Electives

Remaining hours, if any, to reach general degree requirements.

### World Languages: Spanish, B.A.

General: 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

(See "General Education Requirements.")

### Second Language Proficiency (0-9 hours)

Completion of SPAN 2311 - Intermediate Spanish or demonstrate equivalent proficiency. (See "Second Language Requirement" for information about demonstrating proficiency.)

### Major (34 hours)

Blocks must be completed in order and with a grade of C or better in order to proceed to the next block. Courses within blocks may be taken in any order, unless otherwise specified.

### Block 1 (6 hours)

- SPAN 2311 - Intermediate Spanish or equivalent proficiency
- SPAN 2313 - Intermediate Spanish II can be taken with SPAN 3313 or SPAN 3314

### Block 2 (12 hours)

- SPAN 3313 - Conversation and Presentation
- SPAN 3314 - Spanish for Writing
- SPAN 3316 - Spanish Phonetics prerequisite SPAN 3313 or SPAN 3314
- SPAN 3317 - Introduction to Literary and Cultural Studies

### Block 3 (16 hours)

\*Can be substituted by transfer or study abroad courses (up to six hours)

- SPAN 3334 - Hispanic Culture: Peninsular **or**
- SPAN 3335 - Hispanic Culture: Americas
  
- SPAN 4361 - Seminar **or**
- SPAN 4362 - Seminar
  
- SPAN 4310 - Structured Internship **or**
- LANG 4350 - Advanced Foreign Language Study Trip for study in Hispanic country
  
- SPAN 4171 - Capstone must be taken during last 9 hours of Block 3
- 3 hours of SPAN 3000 or 4000-level course elective\*
- 3 hours of SPAN 4000-level course elective\*

### Minor

(12-29 hours-Typical minor requires 18 hours)

### Unrestricted General Electives

Remaining hours, if any, to reach general degree requirements.

### French Minor

A minor in French consists of 21 hours above the 1000 level. Fifteen hours must be in upper-level courses, with at least three hours at the 4000 level as specified below. A grade of C or greater is required in all courses specified for the minor. French minors are strongly encouraged to enroll in LANG 4322 - Teaching Second Languages. This course does not count as part of the 21 hours in French.

## Communications (9 hours)

### 6 hours from the following:

- FREN 3310 - Integrated Skills I
- FREN 3311 - Integrated Skills II
- FREN 3312 - Integrated Skills III

### 3 hours from the following:

- FREN 2315 - Intermediate Conversational French
- FREN 3115 - Advanced Conversation
- FREN 3116 - Advanced Conversation
- FREN 3117 - Advanced Conversation

### Cultures (3 hours)

- FREN 3334 - French Culture and Civilization I
- FREN 3335 - French Culture and Civilization II
- FREN 3336 - Francophone Cultures

### Comparisons and Communities (3 hours)

- FREN 3316 - French Pronunciation
- FREN 4316 - Advanced Listening and Pronunciation
- FREN 4141 - French Practicum
- FREN 4142 - French Practicum
- FREN 4143 - French Practicum
- FREN 4350 - Senior Project
- LANG 3390 - Language Study Abroad

### Connections (3 hours)

- FREN 3321 - French Short Stories
- FREN 3332 - Introduction to French Literature
- FREN 3333 - Selected Readings in French Literature
- FREN 4331 - Writings: Historical Perspective
- FREN 4341 - Writings: Modern Perspective
- FREN 4351 - Cinema
- FREN 4361 - Seminar in French Literature
- FREN 4362 - Seminar in French Literature

## Spanish Minor

21 hours above the 1000 level.

Fifteen hours must be in upper-level courses, with at least three hours at the 4000 level.

A minor must complete SPAN 2313, SPAN 3313 and SPAN 3314 or demonstrate equivalent proficiency. All of the courses listed below can be fulfilled by transfer or study abroad credit. Unless otherwise stated, students must complete all coursework with a grade of C or better in a block before proceeding to the next block.

### Block 1 (6 hours)

SPAN 2311 - Intermediate Spanish or equivalent proficiency

SPAN 2313 - Intermediate Spanish II can be taken with SPAN 3313 or SPAN 3314

### Block 2 (6 hours)

SPAN 3313 - Conversation and Presentation  
SPAN 3314 - Spanish for Writing

### Block 3 (9 hours)

SPAN - 3000-level course  
SPAN - 3000/4000-level course  
SPAN - 4000-level elective

## ESL Endorsement for Teachers

The Department of World Languages offers the four-course endorsement in English as a Second Language (ESL) per the requirements of the State of Arkansas.

The Endorsement is added to current teacher licensure, K-12. Students seeking the endorsement must take the following courses:

### ESL Requirements

- LANG 4322 - Teaching Second Languages
- LANG 4323 - Second Language Acquisition
- LANG 4324 - Teaching People of Other Cultures
- LANG 4325 - Second Language Assessment
- To be fully licensed in ESL, students must also pass the Praxis exam in English to Speakers of Other Languages.

## Teacher Licensure Program/Minor in Education

### Core Requirements (35 hours)

- Major in French (30 hours above the 1000 level), Spanish (33 hours above the 1000 level)
- Minor in Education (18 hours)
- Second Language Education Block (12 hours)
- A "teachable" minor is recommended (18-21 hours)
- Total 95-99 hours (not including minor)

An official ACTFL-certified Oral Proficiency Interview is required for all students seeking Teacher Licensure in French or Spanish. Certification at the Advanced-low oral proficiency level is required. See "Education Minor " for further details.

Any part of the minor in education and the second language education block may be met by demonstration of competency.

## **Workplace Spanish Certificate of Proficiency**

### **Program Requirements (15 hours)**

All Spanish courses must be taken in the order listed, but SPAN 3315 can be taken concurrently with SPAN 3313 or SPAN 3314. The area studies course from another discipline must be pre-approved by the DWL Chair and may be taken at any time during the certificate program.

- SPAN 2311 - Intermediate Spanish or equivalent proficiency
- SPAN 2313 - Intermediate Spanish II
  
- SPAN 3313 - Conversation and Presentation
- **or**
- SPAN 3314 - Spanish for Writing
  
- SPAN 3315 - Translation Studies
- Interdisciplinary Area Studies Course at 3000 or 4000 level (must be pre-approved by chair) 3



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## Department of Philosophy and Interdisciplinary Studies

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Stabler Hall, Room 307 | (501) 569-3312 |  
ualr.edu/philosophy

<b>Chairperson:</b>	Norton, Michael B.
<b>Professor:</b>	Robinson, Keith A. Thomas, Jan L.
<b>Assistant Professors:</b>	McAuliffe, Jana Spino, Joseph M.
<b>Instructor:</b>	Taylor, Reed W.

The Department of Philosophy and Interdisciplinary Studies offers undergraduate instruction leading to the baccalaureate degree in Philosophy, a minor in Religious Studies, a minor combining Philosophy and Religious Studies, and the baccalaureate degree in interdisciplinary studies

Within the baccalaureate degree in Philosophy, students may choose an emphasis in Legal and Moral Studies that enables them for early acceptance into the UA Little Rock William H. Bowen School of Law. For more information, see [ualr.edu/philosophy](http://ualr.edu/philosophy).

### Major in Philosophy

The study of philosophy sharpens critical thinking and analytical skills, which allows students to perform better in all areas of study and on into their careers. More importantly, though, philosophy gives students the means to understand, direct, and reflect on their lives and the world around them. To decide the right course of action, to wonder if a law is just, to analyze a speech or an article in the newspaper, to ask what you can do to help others or yourself, to engage any of the issues that make our lives worthwhile and meaningful is to practice philosophy.

When you study philosophy you learn how to think critically about any topic. That is why philosophy majors consistently score higher than other majors on the LSAT, GMAT, and GRE tests.

The ability to think critically, argue persuasively, and solve problems—which are the aims of philosophical training—have become increasingly necessary for success in today's rapidly changing work environments. The study of philosophy is an excellent preparation for further study of law, medicine, or business, as well as a career in a wide variety of fields.

### Major in Interdisciplinary Studies

An Interdisciplinary Studies degree is for students who are interested in a variety of areas and are not content settling for only one primary discipline of study. The degree provides not only a solid academic foundation for its students but also unique opportunities to explore multiple disciplines together. This approach draws on the strength of multiple fields, making students well-rounded critical

thinkers who are ready for a variety of career options or post-graduate academic pursuits.

### Interdisciplinary Studies Online, B.A.

The major in Interdisciplinary Studies is a degree program that can be completed wholly online.

Program requirements are the same as the on-campus program, but the areas that can be completed online are limited to the following areas in the College of Social Sciences and Communication and the College of Arts, Letters, and Sciences (student must select at least 2 areas of study from this list):

- Criminal Justice
- History
- Legal Studies
- Mathematics
- Philosophy/Religious Studies
- Political Science
- Professional and Technical Writing
- Psychology (General)
- Sociology
- Applied Communication

Other available areas for the online degree are (students may select one area from this list or a third from the list above):

- Health, Human Performance & Sport Management
- Management

For more information about the Interdisciplinary Studies major online, visit [ualr.edu/interdisciplinary](http://ualr.edu/interdisciplinary).

### Interdisciplinary Studies, B.A. Interdisciplinary Studies Program Requirements

The major/minor program allows the student to combine aspects of several academic disciplines.

For more information about the Interdisciplinary Studies major, visit the website.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

#### Core (35 hours)

See General Education Requirements.

#### Major (60 hours)

Required courses (6 hours)

- IDST 3350 - Reasoning Across the Disciplines
- IDST 4350 - Interdisciplinary Studies Colloquium

Three Disciplines of Study (18 hours in each; 54 hours total)

Students will choose 2 areas from departments or programs housed in the College of Social Sciences and Communication or the College of Arts, Letters, and Sciences and a 3rd area from either these colleges or from any other department or program offering an approved minor or 18-hour course of study. This includes any minor available at UA Little Rock. Consult with the BAIS Education Counselor for other options.

#### **Minor**

(none required)

#### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## **Philosophy, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### **Core (35 hours)**

See General Education Requirements.

### **Second Language Proficiency (0-9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### **Major (30 hours)**

#### **Philosophy Foundation Courses (6 hours)**

- PHIL 1310 - Introduction to Philosophy
- PHIL 1330 - Introduction to Critical Thinking  
**or**
- PHIL 2350 - Introduction to Logic

#### **Subfields (12 hours)**

History (Select 6 hours)

- PHIL 3320 - Modern Philosophy
- PHIL 3321 - Kant & 19th Century Philosophy
- PHIL 3322 - Contemporary Philosophy
- PHIL 3345 - Ancient Greek Philosophy
- PHIL 4385 - Seminar in History of Philosophy

Moral and Political (Select 3 hours)

- PHIL 3335 - Medical Ethics
- PHIL 3341 - Contemporary Ethical Theory
- PHIL 3346 - Social and Political Philosophy
- PHIL 3347 - Philosophy of Law
- PHIL 4350 - Classical Political Theory

- PHIL 4360 - Modern Political Theory
  - PHIL 4386 - Seminar in Social/Political Philosophy
  - PHIL 4387 - Seminar in Moral Philosophy
- Mind, Knowledge and Culture (Select 3 hours)
- PHIL 3310 - Theories of Knowledge
  - PHIL 3312 - Science and Culture
  - PHIL 3350 - Eastern Thought
  - RELS 3350 - Eastern Thought
  - PHIL 3360 - Philosophy of Religion
  - RELS 3360 - Philosophy of Religion
  - PHIL 4388 - Seminar in Metaphysics / Epistemology

#### **Philosophy Electives (Select 12 hours)**

9 hours must be at the upper level. Any unused course from above and:

- PHIL 2320 - Ethics and Society (Also counts towards CORE.)
- PHIL 2321 - Ethics and Society: Professional Applications (Also counts towards CORE.)
- PHIL 3315 - Philosophy and Narrative
- PHIL 3370 - Existentialism
- PHIL 3372 - Philosophy and the Arts
- PHIL 3375 - Environmental Philosophy
- PHIL 3377 - Applied Ethics Practicum
- PHIL 3386 - Ethics Bowl
- PHIL 4333 - Feminist Theory
- PHIL 4373 - Philosophy of Race
- PHIL 4380 - Topics in Philosophy
- PHIL 4390 - Independent Study

### **Minor**

(12-29 hours-Typical minor requires 18 hours)

Completion of a minor or completion of an individually-designed secondary concentration (minimum of 15 hours, of which at least 9 must be upper-level). The secondary concentration is proposed by the student in writing to the student's major advisor along with a statement of explanation. The advisor and the department chairperson will evaluate the proposal and must approve it before it can become official. The secondary concentration should be organized in a coherent fashion and could include courses from any relevant program outside of the student's major program (note that some courses have prerequisites, co-requisites, or other restrictions).

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Philosophy, B.A. and J.D.

The emphasis on legal and moral studies within the philosophy major is a cooperative program between the Department of Philosophy and the UA Little Rock William H. Bowen School of Law. This early acceptance program allows students to earn a BA and juris doctor (JD) in six years of full-time study (effectively fulfilling their minor requirements with their first successful year at the Law School), and grants acceptance into the UA Little Rock School of Law to those students who maintain the required standing in the program and fulfill certain requirements. Students in the program enter the School of Law in the beginning of their fourth year of undergraduate study. At the end of successful completion of the first year of the law curriculum, the students are awarded a BA in philosophy. At the end of their third year of study (or equivalent) at the School of Law, they are awarded a JD. For more information about the joint program, visit our website. To achieve early admittance to Bowen, students must meet the following requirements:

- A major in philosophy with an emphasis in legal and moral studies.
- A grade point average of 3.5 or above.
- An LSAT score in the 75th percentile.
- Completion of all UA Little Rock Core Curriculum requirements, including the requirement of foreign language proficiency.

Students who do not meet these criteria may complete their undergraduate degree and apply to the William H. Bowen School of Law during the equivalent of their fourth year of undergraduate study.

Students in the program must submit an application to Bowen by January 1st for enrollment the following fall. Once accepted to Bowen, students must take one of the jurisprudence courses offered there in their second or third year of law school study.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See General Education Requirements.

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### Major (30 hours)

#### Philosophy Foundation Courses (6 hours)

- PHIL 1310 - Introduction to Philosophy

- PHIL 1330 - Introduction to Critical Thinking  
or
- PHIL 2350 - Introduction to Logic

#### Subfields (15 hours)

##### History (6 hours)

- PHIL 3320 - Modern Philosophy
- PHIL 3321 - Kant & 19th Century Philosophy
- PHIL 3322 - Contemporary Philosophy
- PHIL 3345 - Ancient Greek Philosophy
- PHIL 4385 - Seminar in History of Philosophy

##### Moral and Political (6 hours)

- PHIL 3335 - Medical Ethics
- PHIL 3341 - Contemporary Ethical Theory
- PHIL 3346 - Social and Political Philosophy
- PHIL 3347 - Philosophy of Law (required)
- PHIL 4350 - Classical Political Theory
- PHIL 4360 - Modern Political Theory
- PHIL 4386 - Seminar in Social/Political Philosophy

- PHIL 4387 - Seminar in Moral Philosophy

##### Mind, Knowledge, and Culture (3 hours)

- PHIL 3310 - Theories of Knowledge
- PHIL 3312 - Science and Culture
- RELS 3350 - Eastern Thought
- RELS 3360 - Philosophy of Religion
- PHIL 4388 - Seminar in Metaphysics / Epistemology

#### Philosophy Electives (9 hours)

6 hours must be at the upper level. Any unused course from above and:

- PHIL 2320 - Ethics and Society (required; also counts towards the core)
- PHIL 3315 - Philosophy and Narrative
- PHIL 3370 - Existentialism
- PHIL 3372 - Philosophy and the Arts
- PHIL 3375 - Environmental Philosophy
- PHIL 3386 - Ethics Bowl
- PHIL 4333 - Feminist Theory
- PHIL 4373 - Philosophy of Race
- PHIL 4380 - Topics in Philosophy
- PHIL 4390 - Independent Study

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Philosophy Minor

### Foundation:

2 courses, 6 hours Required

- PHIL 1310 - Introduction to Philosophy
- PHIL 1330 - Introduction to Critical Thinking  
or
- PHIL 2350 - Introduction to Logic

### Electives:

4 courses, 12 hours Required

- PHIL 2320 - Ethics and Society (Also counts towards CORE.)
- PHIL 2321 - Ethics and Society: Professional Applications (Also counts towards CORE.)
- PHIL 3310 - Theories of Knowledge
- PHIL 3312 - Science and Culture
- PHIL 3315 - Philosophy and Narrative
- PHIL 3320 - Modern Philosophy
- PHIL 3321 - Kant & 19th Century Philosophy
- PHIL 3322 - Contemporary Philosophy
- PHIL 3335 - Medical Ethics
- PHIL 3341 - Contemporary Ethical Theory
- PHIL 3345 - Ancient Greek Philosophy
- PHIL 3346 - Social and Political Philosophy
- PHIL 3347 - Philosophy of Law
- RELS 3350 - Eastern Thought
- RELS 3360 - Philosophy of Religion
- PHIL 3370 - Existentialism
- PHIL 3372 - Philosophy and the Arts
- PHIL 3375 - Environmental Philosophy
- PHIL 3377 - Applied Ethics Practicum
- PHIL 3386 - Ethics Bowl
- PHIL 4333 - Feminist Theory
- PHIL 4350 - Classical Political Theory
- PHIL 4360 - Modern Political Theory
- PHIL 4373 - Philosophy of Race
- PHIL 4380 - Topics in Philosophy
- PHIL 4385 - Seminar in History of Philosophy
- PHIL 4386 - Seminar in Social/Political Philosophy
- PHIL 4387 - Seminar in Moral Philosophy
- PHIL 4388 - Seminar in Metaphysics / Epistemology
- PHIL 4390 - Independent Study

## Philosophy/Religious Studies Minor

### 3 required foundation courses (9 hours)

- PHIL 1310 - Introduction to Philosophy
- PHIL 1330 - Introduction to Critical Thinking  
or
- PHIL 2350 - Introduction to Logic
- RELS 2305 - World Religions

### Additional Requirements

- 3 elective courses (9 hours)
- 1 upper-level course in Philosophy (PHIL)
- 1 upper-level course in Religious Studies (RELS)
- 1 upper-level course in either Philosophy or Religious Studies

## Religious Studies Minor

Most people experience religion from within some particular religious tradition. However, to study religion from the academic standpoint is to adopt the perspective of a detached but empathetic observer. Using the tools and methodologies of the humanities and social sciences, the student of religion seeks to better understand the perspective of religious people, to map and explain the various elements of religious life, and finally, to evaluate the claims made by religious people and the role of religion in human life. The minor is of value to students preparing for further study in religious studies or allied fields after graduation, such as graduate school or seminary, and to those who want to understand one of humanity's most basic responses to life.

### Foundation:

2 courses, 6 hours Required

- RELS 2305 - World Religions
- RELS 3300 - Theories of Religion

### Major Religious Traditions:

1 course, 3 hours Required

- RELS 3320 - Christianity
- RELS 3370 - Judaism
- RELS 3350 - Eastern Thought
- RELS 3336 - Islam
- RELS 4385 - Seminar in Major Religions

### Electives:

3 courses, 9 hours Required

Any unused course from above and:

- RELS 3300 - Theories of Religion
- RELS 3333 - Reading Sacred Texts
- RELS 3338 - Religion and Modern South Asia
- RELS 3340 - Meditation Techniques
- RELS 3360 - Philosophy of Religion
- RELS 3363 - Psychology of Religion

- RELS 4313 - Apocalypse Now...and Then: A History of Apocalyptic Thought and Movements
- RELS 4315 - Religious History of the United States
- RELS 4321 - Religion, Society, and Culture
- RELS 4380 - Topics in Religion
- RELS 4390 - Independent Study

## Department of Biology

Fribourgh Hall, Room 406, (501) 569-3270 | (501)  
569-3271 (fax) | ualr.edu/biology

<b>Chairperson:</b>	Tonkyn, David W., Professor
<b>Professors:</b>	Ali, Nawab Baltosser, William H. Bush, John M. He, Qingfang Khodakovskaya, Mariya Sikes, Robert S.
<b>Associate Professors:</b>	Grace, Stephen C. Stapleton, Carl R. Tang, Fusheng Wang, Hong
<b>Assistant Professor:</b>	Woolbright, Scott
<b>Instructors:</b>	Chaney, Kelly Hearnsberger, Scott M. Landers, Joshua Leacock, Stefanie
<b>Adjunct Professors:</b>	Allen, William Clark, David Quave, Cassandra Sayyed, Kaleemullah
<b>Professor Emeriti:</b>	Lanza, Janet Baeyens, Dennis Heidt, Gary Ferguson, Dale Fribourgh, Jim Kleve, Maurice G.

Biology is a diverse discipline, the study of which allows entry into fields such as biotechnology, cell biology, conservation, ecology, physiology, environmental sciences, and the many aspects of the health-related sciences. The biology department includes faculty, coursework, and programs in the traditional area of biology, ecology and organismal, molecular biotechnology, secondary education, and environmental health sciences. The biology department offers the following degrees: Biology, B.S. (with four available concentrations) and Environmental Health Sciences, B.S.

Students in both degree programs benefit from extensive laboratory experience that provides hands-on use of modern laboratory and field equipment. Through an affiliation with the Gulf Coast Research Laboratory at Ocean Springs, Mississippi, the department offers a variety of courses in marine biology. Furthermore, abundant opportunities allow specialized learning through undergraduate research, internships, cooperative education, and practicums. Student organizations for both degree programs provide opportunities for recreational, service, and career-oriented activities in which students and faculty interact informally.

## General Information

Within the biology curriculum, the department offers courses that serve several objectives: to provide students with an understanding of basic biological principles and their importance in society; to provide a pre-professional background for students preparing to enter medicine, dentistry, veterinary medicine, and other professional fields; to provide a strong academic background for students entering careers immediately after the completion of their undergraduate degree; and to provide the breadth and depth of background needed to succeed in a graduate program. A student pursuing the BS in biology may select from four concentrations: general biology; ecology and organismal biology; molecular biotechnology; and education. A minor in biology is also offered.

## Admission Requirements

Students who select biology as their major must have completed at least 15 credit hours at UA Little Rock, have a cumulative grade point average of 2.00 or greater on all course work at UA Little Rock, and have taken BIOL 1400 or BIOL 1401 (or equivalent) with a grade of C or greater. Students who entered UA Little Rock conditionally by contract must complete the contract before being eligible for admission to the biology program. Decisions regarding course equivalency and situations in which students have tested out of courses or transferred credit from other programs will be made by the department chairperson. Transfer students with 30 hours or more in transfer credit may be accepted into the biology degree program with fewer than 15 hours at UA Little Rock with the approval of the department chairperson.

## Honors Program in Biology

The department offers an honors program to provide qualified students the opportunity to pursue advanced study and receive appropriate recognition. Interested students should apply to the department chairperson for admission. Participants in the honors program are selected by the department faculty on the basis of these criteria:

1. junior standing
2. minimum cumulative GPA of at least 3.25, and
3. acceptance by a faculty member for participation in a research project.

To complete the honors program a student must:

1. maintain the 3.25 GPA
2. enroll in undergraduate research courses for a minimum of two semesters
3. complete a minimum of three credit hours and a maximum of six hours of undergraduate research, and
4. present the results of the undergraduate research project at an honors seminar as well as submit a

written report approved by the faculty supervisor to the department faculty.

## **Gulf Coast Research Laboratory**

The University of Arkansas at Little Rock is affiliated with the Gulf Coast Research Laboratory at Ocean Springs, Mississippi. Through this arrangement, students receive UA Little Rock credit for courses taken at the research laboratory during the 12-week summer teaching session, which usually begins the first full week in June each year. The summer session consists of two terms, although the length of some classes varies. Students register and pay tuition on the UA Little Rock campus and have their credit transferred to this campus for inclusion in their academic records. Students who want to take courses in this program must apply by May 1 for summer enrollment and have prior approval of their department chairperson or the on-campus coordinator. For more information or application forms, contact the chairperson, Department of Biology.

## **Major in Biology**

Students who wish to major in biology may choose from four different concentrations:

1. Biology, General Biology Concentration, B.S.
2. Biology, Ecology & Organismal Concentration, B.S.
3. Biology, Molecular Biotechnology Concentration, B.S.
4. Biology, Education Track, B.S.

## **General Biology Concentration**

This concentration is designed to give students a broad overview of biology. Students completing this program have a broad background but also have enough upper-level courses to build depth in knowledge and skills. The program provides sufficient flexibility that students can tailor their programs to specific needs.

## **Ecology and Organismal Biology Concentration**

This concentration is designed to prepare students interested in ecology, conservation, and organismal biology for entry into graduate programs, employment in governmental agencies, non-profit organizations, or positions where an integrating organismal and ecological background is required. Students completing this program have a broad background but also have enough upper-level courses to build depth in knowledge and skills. The program provides sufficient flexibility that students can tailor their programs to specific needs.

## **Molecular Biotechnology Concentration**

This concentration is a joint effort between the biology department at the UA Little Rock and the medical technology department of the UAMS. The curriculum is designed for students who want to pursue a research career in molecular biotechnology at the bachelor's level (this program is not intended as a premedical or pre-professional curriculum). This concentration will prepare students for technical occupations in basic and applied molecular biotechnology research and positions with federal and state governmental agencies and private or commercial enterprises that conduct either basic or applied research in biotechnology.

The concentration is divided into two levels: a four-semester Pre-Biotechnology Curriculum that leads to admission to the Molecular Biotechnology Research Program (MBRP), which is a joint curriculum between UA Little Rock and UAMS. Completion of the Pre-Biotechnology Curriculum and candidacy to the MBRP requires a minimum of 60 hours including BIOL 2401, BIOL 2402, BIOL 2403, and BIOL 3300; eight hours of general chemistry; four hours of organic chemistry; and a minimum GPA of 2.60.

Students transferring to UA Little Rock who wish to apply to the MBRP may substitute transferring courses for these requirements with the approval of the Molecular Biotechnology Research Committee. Admission to the MBRP will be competitive, based on the student's cumulative GPA, an interview with the Molecular Biotechnology Research Committee, and two faculty recommendations. Each fall, a maximum of 20 students meeting these requirements will be admitted to the program. This program of courses is a major-minor combination; no separate minor field is required. Requirements for this concentration are as follows in the column to the right. (degree plan below)

## **Teacher Licensure (Minor in Education)**

The Teacher Licensure program in the Department of Biology is designed to prepare students majoring in biology for teacher licensure in education. Students entering this program will earn a B.S. in Biology. A Minor in Education is also required.

Those students who may be interested in teaching biology, please contact the Biology Department at 501-569-3270.

## Environmental Health Sciences

Fribourgh Hall, Room 406C, (501) 569-3501  
(501) 569-3271 (fax),  
ualr.edu/biology/environmental-health-science

<b>Director:</b>	Stapleton, Carl R., Associate Professor
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The Bachelor of Science in Environmental Health Sciences program is designed to prepare students for a broad range of career opportunities in the environmental profession. With a total of 22 hours of approved electives, students can focus on their individual career objective. Although the curriculum prepares students to be immediately competitive for environmental employment upon graduation, it also emphasizes research and creates a foundation for those seeking graduate degrees in the environmental field. Employment opportunities are available both in the public and private sectors.

Courses within the curriculum emphasize the development of environmental skills in both field and laboratory settings. These environmental skills include permitting, impact analysis, restoration ecology, sampling, computer modeling, epidemiology, planning, energy analysis, toxicology, risk assessment, research methods, information dissemination, and best management practices.

Both cooperative education and internship experiences are available for majors. A student chapter of the National Association of Environmental Professionals provides opportunities for professional growth and community service involvement.

### Admission Requirements

To major in Environmental Health Sciences, a student must have completed a minimum of 15 credit hours at the University of Arkansas at Little Rock with a cumulative GPA of 2.00 or better and must have completed both ENHS 2320 and ENHS 2120 with a grade of "C" or better. Any decisions concerning environmental health sciences course equivalencies will be made by the Program Director.

The B.S. degree in Environmental Health Sciences is a combined major-minor in Environmental Health Sciences and Biology. Therefore, a minor is not required for the Environmental Health Sciences major, but a separate minor can still be selected.

Requirements for the Environmental Health Sciences major include the following:

1. Basic Sciences – 37 credit hours;
2. Core – 11 credit hours;
3. Environmental Media – 6 credit hours;
4. Environmental Analysis and Risk Assessment – 8 credit hours;

5. Biology Electives (Approved) – 8 credit hours; and
6. General Electives (Approved) – 14 credit hours.

## Biology, Ecology & Organismal Concentration, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

(See General Education Requirements) In completing courses required in the biology major, 8-hour lab science core requirement also met.

### Second Language Proficiency

(none required)

### Major (79 hours)

#### Biology Foundation Courses-All Concentrations (23 hours)

Students must achieve a C or greater in each of these courses to complete the Foundation Course requirements.

- BIOL 1400 - Evolutionary and Environmental Biology
- or
- BIOL 1401 - Science of Biology
  
- BIOL 2401 - Microbiology
- BIOL 2402 - Botany
- BIOL 2403 - Zoology
- BIOL 3300 - Genetics
- BIOL 3303 - Principles of Ecology
- BIOL 4190 - Biology Seminar

#### Ecology and Organismal Biology Required Courses (17 hours)

- BIOL 3100 - Genetics Laboratory
- BIOL 3103 - Principles of Ecology Lab
  
- BIOL 3405 - Invertebrate Zoology
- or
- BIOL 3409 - Vertebrate Zoology
  
- BIOL 4310 - Evolution
  
- BIOL 4409 - Plant Taxonomy
- or
- BIOL 4412 - Plant Ecology



- BIOL 4403 - Comparative Physiology  
**or**
- BIOL 4419 - Plant Physiology

**Ecology and Organismal Electives (12 hours from the following)**

- BIOL 3405 - Invertebrate Zoology
- BIOL 3409 - Vertebrate Zoology
- BIOL 3391 - Cooperative Education in Biology
- BIOL 3199 - Special Topics
- BIOL 3299 - Special Topics
- BIOL 3499 - Special Topics
- BIOL 4312 - Population and Community Ecology
- BIOL 4314 - Soil Biology
- BIOL 4315 - Toxicology
- BIOL 4404 - Mammalogy
- BIOL 4408 - Advanced Field Biology
- BIOL 4409 - Plant Taxonomy
- BIOL 4411 - Ornithology
- BIOL 4412 - Plant Ecology
- BIOL 4305 - Animal Behavior
- BIOL 4419 - Plant Physiology
- BIOL 4401 - Cell Biology
- BIOL 4415 - Biometry
- BIOL 4417 - Molecular Biology
- BIOL 4391 - Cooperative Education in Biology
- BIOL 4199 - Special Topics in Biology
- BIOL 4399
- BIOL 4100 - Independent Study
- BIOL 4200 - Independent Study
- BIOL 4300 - Independent Study
- BIOL 4189 - Undergraduate Research
- BIOL 4289 - Undergraduate Research
- BIOL 4389 - Undergraduate Research
- ENHS 3310 - Environmental Regulations
- ERSC 4422 - Applied GIS Gulf Coast Research Laboratory courses

**Physical Sciences and Mathematics (27 hours)**

- CHEM 1400 - Fundamental Chemistry I  
**and**
- CHEM 1401 - Fundamental Chemistry II  
  
**or**
- CHEM 1402 - General Chemistry I  
**and**
- CHEM 1403 - General Chemistry II
- CHEM 2450 - Organic Survey  
**or**

- CHEM 3150 - Organic Chemistry Laboratory I  
**and**
- CHEM 3350 - General Organic Chemistry I
- STAT 2350 - Introduction to Statistical Methods  
**or**
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences  
**and**
- MATH 1111
- 12 additional upper-level credits in mathematics, statistics, or science courses other than biology (i.e. Earth Science, Physics, or Chemistry)

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

**Biology, Education Track, B.S.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

**First-Year Colloquium (0-3 hours)**

**University Core (35 hours)**

See General Education Requirements. (In completing courses required in the biology major, 8-hour lab science core requirement also met.) The following core courses must be passed with a C or higher: ACOM 1300, RHET 1311, RHET 1312, and MATH 1451.

**Major (65 hours)**

**Biology Foundation Courses (27 hours)**

- BIOL 1400 - Evolutionary and Environmental Biology  
**or**
- BIOL 1401 - Science of Biology
- BIOL 2401 - Microbiology
- BIOL 2402 - Botany
- BIOL 2403 - Zoology
- BIOL 3300 - Genetics
- BIOL 3303 - Principles of Ecology
- BIOL 4190 - Biology Seminar
- PHYS 4190 - Seminar
- IGSC 4301 - Integrated Science Pedagogy

- IGSC 4101 - Integrated Science Pedagogy Practicum

### **Biology Electives (17 hours)**

Must include at least three courses with laboratories either as part of the course or as a separately numbered laboratory course. Students may choose these electives from the remaining biology course offerings on the basis of individual preference or need. Students choosing to specialize may select an emphasis in botany, cell biology and physiology, ecology or zoology.

### **Supporting Courses (21 hours)**

Students must complete at least eight hours of freshman chemistry, four hours of organic chemistry, six hours of physics (PHYS 1321 and PHYS 1322 or equivalent) and three hours of computer science or statistics.

### **Minor – Education Course (18 hours)**

Praxis CORE must be passed before enrolling in TCED 4330. Praxis II Biology: Content Knowledge 5235 must be passed. GPA of 2.75 is required for admission to the education program.

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- BIOL 4600 - Internship

### **Elective (choose one):**

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- TCED 4310 - Content Area Literacy

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### **Biology, General Biology Concentration, B.S.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### **University Core (35 hours)**

(See General Education Requirements) (In completing courses required in the biology major, 8-hour lab science core requirement must also be met.)

### **Second Language Proficiency**

(none required)

### **Major (61 hours)**

#### **Biology Foundation Courses-All Concentrations (23 hours)**

Students must achieve a C or greater in each of these courses to complete the Foundation Course requirements.

- BIOL 1400 - Evolutionary and Environmental Biology
- or
- BIOL 1401 - Science of Biology
- BIOL 2401 - Microbiology
- BIOL 2402 - Botany
- BIOL 2403 - Zoology
- BIOL 3300 - Genetics
- BIOL 3303 - Principles of Ecology
- BIOL 4190 - Biology Seminar

#### **General Biology Required Courses (38 hours)**

Biology Electives: (17 hours)

Must include at least three courses with laboratories either as part of the course or as a separately numbered laboratory course. Students may choose these electives from the remaining biology course offerings on the basis of individual preference or need. Students choosing to specialize further may select an emphasis in botany, cell biology and physiology, ecology, or zoology.

Additional requirements: (21 hours)

Students must complete at least eight hours of freshman chemistry, four hours of organic chemistry, six hours of physics (PHYS 1321 and PHYS 1322 or equivalent) and three hours of computer science or statistics.

### **Minor**

(none required)

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### **Biology, Molecular Biotechnology Concentration, B.S.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

(See General Education Requirements) (In completing courses required in the biology major, 8-hour lab science core requirement must also be met.)

### Second Language Proficiency

(none required)

### Major (79 hours)

#### Biology Foundation Courses-All Concentrations (23 hours)

Students must achieve a C or greater in each of these courses to complete the Foundation Course requirements.

- BIOL 1400 - Evolutionary and Environmental Biology
- **or**
- BIOL 1401 - Science of Biology
  
- BIOL 2401 - Microbiology
- BIOL 2402 - Botany
- BIOL 2403 - Zoology
- BIOL 3300 - Genetics
- BIOL 3303 - Principles of Ecology
- BIOL 4190 - Biology Seminar

#### Molecular Biotechnology Concentration

(Joint effort between UA Little Rock and UAMS)

UA Little Rock Biotechnology (8 hours)

- BIOL 4417 - Molecular Biology
- BIOL 4418 - Biotechnology

Biology Electives-upper-level courses with laboratories (12 hours)

A recommended course list is available from the Biology Department

UAMS Biotechnology (13 hours)

- BIOM 3210 - Laboratory Principles and Techniques
- BIOM 3211 - Introduction to Research
- BIOM 4305 - Cell Culture Principles and Techniques
- BIOM 4106 - Technology Transfer
- BIOM 4507 - Biotechnology Laboratory Internship

#### Physical Sciences, Mathematics, and Computations (24 hours)

Chemistry (12 hours)

- CHEM 1400 - Fundamental Chemistry I

**or**

- CHEM 1402 - General Chemistry I
- CHEM 1401 - Fundamental Chemistry II
- **or**
- CHEM 1403 - General Chemistry II

- CHEM 2450 - Organic Survey

Physics (6 hours)

- PHYS 1321 - College Physics I
- PHYS 1322 - College Physics II

Mathematics (3 hours)

- MATH 1302 - College Algebra

Computer Science (3 hours)

- CPSC 1370 - Computer Literacy or equivalent course

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Environmental Health Sciences Combined Major-Minor, B.S.

(Environmental Health Sciences and Biology)

### Recommended Curriculum Sequence

#### First Semester (16 credit hours)

- RHET 1311 - Composition I
- MATH 1302 - College Algebra
- HIST 1311 - History of Civilization I

- BIOL 1400 - Evolutionary and Environmental Biology

**or**

- BIOL 1401 - Science of Biology

- CPSC 1370 - Computer Literacy

#### Second Semester (14 credit hours)

- RHET 1312 - Composition II
- ACOM 1300 - Introduction to Communication

- CHEM 1400 - Fundamental Chemistry I
- **or**
- CHEM 1402 - General Chemistry I

- ENHS 2120 - Introduction to Environmental Health Sciences Laboratory

- ENHS 2320 - Introduction to Environmental Health Sciences

**Third Semester (17 credit hours)**

- HIST 1312 - History of Civilization II
- PHYS 1321 - College Physics I

- CHEM 1401 - Fundamental Chemistry II
- or**
- CHEM 1403 - General Chemistry II

- ENHS 3310 - Environmental Regulations

- BIOL 2402 - Botany
- or**

- BIOL 2403 - Zoology

**Fourth Semester (17 credit hours)**

- STAT 2350 - Introduction to Statistical Methods
- BIOL 2401 - Microbiology

- ENHS 3340 - Introduction to Water Resources Management

**or**

- ENHS 3350 - Principles of Air Pollution

**or**

- BIOL 4314 - Soil Biology

- BIOL 3303 - Principles of Ecology
- and**

- BIOL 3103 - Principles of Ecology Lab

- ARHA 2305 - Introduction to Visual Art

**or**

- MCOM 2306 - Introduction to Motion Pictures

**or**

- THEA 2305 - Introduction to Theatre & Dance

**or**

- MUHL 2305 - Introduction to Music

**Fifth Semester (14 credit hours)**

- CHEM 2450 - Organic Survey

**or**

- CHEM 3350 - General Organic Chemistry I
- and**

- CHEM 3150 - Organic Chemistry Laboratory I

- General Elective (3 hours)

- ENHS 4415 - Environmental Impact Analysis

**or**

- ENHS 4410 - Environmental Planning

**or**

- ENHS 4430 - Environmental Epidemiology

- POLS 1310 - American National Government

**or**

- HIST 2311 - U.S. History to 1877

**or**

- HIST 2312 - U.S. History since 1877

**Sixth Semester (14 credit hours)**

- BIOL Elective (4 hours)

- General Elective (3 hours)

- SOCI 2300 - Introduction to Sociology

- ENHS 4415 - Environmental Impact Analysis

**or**

- ENHS 4410 - Environmental Planning

**or**

- ENHS 4430 - Environmental Epidemiology

**Seventh Semester (14 credit hours)**

- PSYC 2300 - Psychology and the Human Experience

- General Elective (4 hours)

- BIOL Elective (4 hours)

- ENHS 4389 - Research in Environmental Health Sciences

**Eighth Semester (14 credit hours)**

- ENHS 3340 - Introduction to Water Resources Management

**or**

- ENHS 3350 - Principles of Air Pollution

**or**

- BIOL 4314 - Soil Biology

- ENHS 4190 - Seminar in Environmental Health Sciences

- General Elective (4 hours)

- ARHA 2305 - Introduction to Visual Art

**or**

- THEA 2305 - Introduction to Theatre & Dance

**or**

- MUHL 2305 - Introduction to Music

- ENGL 2337 - World Literature

**or**

- ENGL 2339 - Mythology

**or**

- PHIL 2320 - Ethics and Society

## Environmental Health Sciences, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit (See Academic Requirements, Regulations, & Policies for requirement details.)

### Core (35 hours)

See General Education Requirements.

### Second Language Proficiency

(none required)

### Major (84 hours)

#### ENHS Foundation Requirements (11 hours)

- ENHS 2320 - Introduction to Environmental Health Sciences
- ENHS 2120 - Introduction to Environmental Health Sciences Laboratory
- ENHS 3310 - Environmental Regulations
- ENHS 4389 - Research in Environmental Health Sciences
- ENHS 4190 - Seminar in Environmental Health Sciences

#### Environmental Media (6 Hours)

##### Select Two Courses

- ENHS 3350 - Principles of Air Pollution
- ENHS 3340 - Introduction to Water Resources Management
  
- BIOL 4314 - Soil Biology  
**and**
- BIOL 5314 - Soil Biology

#### Environmental Analysis & Risk Assessment (8 Hours)

##### Select Two Courses

- ENHS 4415 - Environmental Impact Analysis  
**and**
- ENHS 5415 - Environmental Impact Analysis
  
- ENHS 4410 - Environmental Planning  
**and**
- ENHS 5410 - Environmental Planning
  
- ENHS 4430 - Environmental Epidemiology  
**and**

- ENHS 5430 - Epidemiology: Environment and Health

#### Basic Science Foundation Requirements (37 hours)

- BIOL 1400 - Evolutionary and Environmental Biology  
**or**
- BIOL 1401 - Science of Biology
  
- BIOL 2401 - Microbiology
  
- BIOL 2402 - Botany  
**or**
- BIOL 2403 - Zoology
  
- BIOL 3303 - Principles of Ecology  
**and**
- BIOL 3103 - Principles of Ecology Lab
  
- CHEM 1400 - Fundamental Chemistry I  
**or**
- CHEM 1402 - General Chemistry I
  
- CHEM 1401 - Fundamental Chemistry II  
**or**
- CHEM 1403 - General Chemistry II
  
- CHEM 2450 - Organic Survey  
**or**
- CHEM 3150 - Organic Chemistry Laboratory I  
**and**
- CHEM 3350 - General Organic Chemistry I
  
- PHYS 1321 - College Physics I
- STAT 2350 - Introduction to Statistical Methods
- CPSC 1370 - Computer Literacy

#### Approved Electives (14 hours)

##### Recommended Courses

- ERSC 4421 - Introduction to Geographic Information Systems (GIS)
- ERSC 4422 - Applied GIS
- RHET 3326 - Technical Writing
- PSYC 3308 - Urban Environmental Psychology
- Other Courses by Approval of Program Director Required

#### Approved Biology Electives (8 Hours)

##### Recommended Courses

- BIOL 3400 - Developmental Biology
- BIOL 3408 - Vertebrate Histology
- BIOL 4413 - Immunology

## **Minor**

(none required)

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## **Biology Minor**

### **Program Requirements**

A minor in biology requires 20 hours of credit in biology courses to include BIOL 1400 or BIOL 1401, a minimum of eight hours from sophomore level courses and eight additional hours, at least three of which must be upper level.

NOTE: Intro to Human Anatomy and Physiology (BIOL 1411 and BIOL 1412) as well Human Genetics (BIOL 3313) does not count towards biology major or minor.

## **Environmental Health Sciences Minor**

### **Program Requirements**

A minor in Environmental Health Sciences requires 18 credit hours, including ENHS 2320 - Introduction to Environmental Health Sciences, ENHS 2120 - Introduction to Environmental Health Sciences Laboratory, and ENHS 3310 - Environmental Regulations. A grade of "C" or better is required for both ENHS 2320 and ENHS 2120 prior to enrollment in any upper level ENHS courses. The remaining 11 credit hours are course electives from the ENHS program. Elective hours must be approved by the Program Director. Some environmental health sciences elective courses may require completion of prerequisites other than ENHS 2320, ENHS 2120, and ENHS 3310.

## Department of Chemistry

Science Lab, Room 451 | (501) 569-3152 | (501)  
569-8838 (fax) | ualr.edu/chemistry

<b>Chairperson:</b>	Berry, Brian C., Associate Professor
<b>Professors:</b>	Belford, Robert E. Darsey, Jerry A. Ghosh, Anindya Hudson, M. Keith Viswanathan, Tito Zhao, Wei
<b>Associate Professors:</b>	Jones, Darin E.
<b>Assistant Professor:</b>	Siraj, Noureen Wang, Shanzhi
<b>Instructors:</b>	Douglas, Marian S. Kattoum, Ronia
<b>Research Assistants:</b>	Wells, M. Estelle McNerlin, Michael

The department is organized with the following objectives in view:

- to increase the general cultural background of all students;
- to prepare chemistry majors for graduate study, industrial work, or positions with professional ratings in government service;
- to provide the basic training for professional students in medicine, dentistry, engineering, pharmacy, and other professional fields; and
- to prepare high school chemistry teachers.

### General Information

The department's bachelor of science degree is certified by the American Chemical Society (ACS). Students earning this degree will be certified to the ACS for full membership on graduation. The department sponsors a student affiliate chapter of the ACS. Any student enrolled in a program of study leading to a bachelor's degree in chemistry or a related discipline is eligible for membership. The chapter serves as a focal point for those interested in the field of chemistry and offers them opportunities for practical experience and professional contacts.

### Admission Requirements

The department welcomes students to the bachelor of arts (B.A.) and bachelor of science (B.S.) programs of study who express an interest, demonstrate an aptitude and are dedicated to pursuing excellence in their studies. Most applicants will have at least a 2.00 cumulative grade point average in their college work. They will have earned a grade of C or greater in College Algebra, its equivalent, or a more advanced mathematics course. They will have earned grades of B or greater in CHEM 1400 & CHEM 1401 or equivalents, or a grade of C or greater in CHEM

1402 or equivalent. Aptitude and dedication can also be demonstrated by presenting exceptional science and mathematics preparation in high school.

### Honors Program in Chemistry

The department also offers an honors program in chemistry. To graduate with honors a student must

1. maintain an overall grade point average of 3.20 or greater,
2. maintain a grade point average of 3.20 or greater in chemistry courses,
3. complete at least four credit hours of a faculty-directed laboratory research project and present the findings in a scientific meeting or departmental seminar, and
4. meet ACS certification requirements.

### Major in Chemistry

The BS in chemistry requires at least 34 hours in chemistry above the freshman level including CHEM 2310, CHEM 2311, CHEM 3150, CHEM 3170, CHEM 3171, CHEM 3250, CHEM 3340, CHEM 3350, CHEM 3351, CHEM 3370, CHEM 3371, CHEM 4190, CHEM 4340, and CHEM 4411. Required courses outside of the chemistry department are PHYS 2321, PHYS 2121, PHYS 2322, PHYS 2122, and MATH 1451, MATH 1452, MATH 2453. Additional requirements for ACS certification are six credit hours of advanced chemistry courses to include CHEM 4320/CHEM 4120 Biochemistry with Lab, two hours of undergraduate research, and a three-hour upper-level mathematics course. A second language or a computer language is encouraged but not required.

A minor is not required for this curriculum.

The BA in chemistry is offered for premedical, pre dental, pre-pharmacy, and pre-veterinary students, teachers, and others. Requirements for this degree include the Core Requirements, 26 hours above the freshman level including CHEM 2310, CHEM 2311, CHEM 3150, CHEM 3151, CHEM 3340, CHEM 3350, CHEM 3351, CHEM 3572, CHEM 4190, and three hours of upper-level chemistry electives. Required courses in Physics are PHYS 1321, PHYS 1121, PHYS 1322, PHYS 1122. MATH 1451 is the only required mathematics courses, but one or two semesters of calculus are strongly recommended. A minor in biology is recommended for this program.

### Teacher Licensure in Science Education

This concentration is designed to prepare students for certification in education. Chemistry is the major emphasis and this program meets the requirements for a BA in chemistry. Earth sciences is the secondary emphasis as prescribed by Arkansas law.

## Transfer Students

Transfer students must meet all degree requirements. In addition, transfer students must successfully complete at UA Little Rock a minimum of six hours of upper-level chemistry courses for a major in chemistry or three hours of upper-level chemistry courses for a minor in chemistry.

## Options in Freshman Chemistry

Students planning to enroll in CHEM 1402 must meet the minimum score on a placement exam. The placement exam is offered through Testing Services. Students must take it prior to attempting to enroll in CHEM 1402. The department's website at [ualr.edu/chemistry](http://ualr.edu/chemistry) has information on how to take the exam.

Students who have had two units of high school algebra and high school chemistry and meet the minimum score on the chemistry placement test should start with CHEM 1402 and CHEM 1403.

Students who have had no high school chemistry and have a weak high school mathematics background but are interested in a pre-professional or science degree should take CHEM 1300, CHEM 1402, and CHEM 1403.

Students whose major field requires only eight hours of freshman chemistry should take CHEM 1400 and CHEM 1401. This sequence will prepare a student to take CHEM 2450 - Organic Survey, but not other upper-level chemistry courses.

## Graduate Programs

The department also offers the master of arts and the master of science degrees in chemistry and cooperates with the Applied Science Program in offering the applied science Ph.D. in applied chemistry. Consult the UA Little Rock Graduate Catalog for a description of these programs, as well as policies governing UA Little Rock graduate programs.

Academically talented undergraduate chemistry students may schedule courses on an accelerated basis and enroll in selected graduate courses in their senior year. Students may receive a master's degree one year after completing the BS degree. This program is an option only for students who have excellent academic records for the first three years of undergraduate study and have completed the suggested 108 hours of undergraduate work through the junior year. Permission for early enrollment in graduate courses in the senior year must be obtained from the dean of the Graduate School on the recommendation of the department chairperson. Students registered for graduate credit in dual-listed (4000/5000) courses are responsible for additional assigned work. Details of the bachelor's/master's program, including a suggested five-year sequence, are available from the chemistry department office.

## Chemistry, B.A.

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

### Core (35 hours)

See General Education Requirements. (Completion of CHEM 1402/CHEM 1403 in the chemistry major, 4-hours of lab science core requirement also met.)

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency. See Academic Requirements, Regulations, & Policies for details.

### Major (46 hours)

#### Chemistry Foundation Courses (34 hours)

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
- CHEM 2310 - Analytical Chemistry I
- CHEM 2311 - Analytical Chemistry II
- CHEM 3350 - General Organic Chemistry I
- CHEM 3150 - Organic Chemistry Laboratory I
- CHEM 3351 - General Organic Chemistry II
- CHEM 3151 - Organic Chemistry Laboratory II
- CHEM 3572 - Physical Chemistry for the Life Sciences
- CHEM 3340 - Introduction to Inorganic Chemistry
- CHEM 4190 - Chemistry Seminar
- CHEM Elective – 3 hours upper-level courses (3000 level or higher)

#### Supporting Courses (12 hours)

- PHYS 1321 - College Physics I
- PHYS 1322 - College Physics II
- PHYS 1121 - College Physics I Laboratory
- PHYS 1122 - College Physics II Laboratory
- MATH 1451 - Calculus I

### Minor

(12-29 hours—typical minor requires 18)



## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Chemistry, B.S.

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See General Education Requirements. (Completion of CHEM 1402/CHEM 1403 in the chemistry major, 4-hours of lab science core requirement also met.)

### Second Language Proficiency

(none required)

### Major (71 hours)

#### Chemistry Foundation Courses (48 hours)

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
- CHEM 2310 - Analytical Chemistry I
- CHEM 2311 - Analytical Chemistry II
- CHEM 3350 - General Organic Chemistry I
- CHEM 3150 - Organic Chemistry Laboratory I
- CHEM 3351 - General Organic Chemistry II
- CHEM 3250 - Qualitative Organic Analysis Laboratory
- CHEM 3370 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 3371 - Physical Chemistry: Quantum and Statistical Mechanics
- CHEM 3170 - Physical Chemistry Laboratory I
- CHEM 3171 - Physical Chemistry Laboratory II
- CHEM 3340 - Introduction to Inorganic Chemistry
- CHEM 4340 - Inorganic Chemistry
- CHEM 4411 - Instrumental Analysis
- CHEM 4190 - Chemistry Seminar
  
- CHEM 4320 - Biochemistry I Lecture  
**and**
- CHEM 4120 - Biochemistry I Laboratory
  
- CHEM 4289 - Undergraduate Research

#### Supporting Courses (23 hours)

- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2322 - Physics for Scientists and Engineers II
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
- MATH 1451 - Calculus I
- MATH 1452 - Calculus II
- MATH 2453 - Calculus III
- MATH Elective – 3 hours upper-level courses (3000 level or higher)

### Minor

(None required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Chemistry, Education Track, B.A.

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshman entering college for the first time and transfer students with less than 12 hours of credit. TCED 1100 First Year Experience is recommended.

### Core (35 hours)

See "General Education Requirements." (Completion of CHEM 1402 and PHYS 1321/PHYS 1121 in the chemistry major complete the 8-hours of lab science core requirement.) The following core courses must have passed with a C or higher: ACOM 1300, RHET 1311, RHET 1312, and MATH 1451.

### Major (47 hours)

#### Chemistry Foundation Courses (35 hours)

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
- CHEM 2310 - Analytical Chemistry I
- CHEM 2311 - Analytical Chemistry II
- CHEM 3350 - General Organic Chemistry I
- CHEM 3150 - Organic Chemistry Laboratory I
- CHEM 3351 - General Organic Chemistry II
- CHEM 3151 - Organic Chemistry Laboratory II
- CHEM 3340 - Introduction to Inorganic Chemistry
- CHEM 3572 - Physical Chemistry for the Life Sciences

- CHEM 4190 - Chemistry Seminar
- CHEM 4301 - Integrated Science Pedagogy
- CHEM 4101 - Integrated Science Pedagogy Practicum

**Supporting Courses (12 hours)**

- PHYS 1121 - College Physics I Laboratory
- PHYS 1122 - College Physics II Laboratory
- PHYS 1321 - College Physics I
- PHYS 1322 - College Physics II
- MATH 1451 - Calculus I

**Minor -Teacher Education Courses (18 hours)**

Praxis CORE must be passed before enrolling in TCED 4330. Praxis II Chemistry: Content Knowledge 5245 must be passed. GPA of 2.75 is required for admission to the education program.

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management

**Elective (choose 1):**

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy
- CHEM 4600 - Internship

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Chemistry Minor Program Requirements**

A minor in chemistry requires a minimum of 22 hours, to include CHEM 1402, CHEM 1403, CHEM 2310, CHEM 2311 or CHEM 4320, CHEM 3350, CHEM 3150, CHEM 3351, and CHEM 3151 or equivalent courses.

## Department of Mathematics & Statistics

ETAS, Room 405 | (501) 569-8100 | (501) 569-8115  
(fax) | ualr.edu/mathematics

<b>Chairperson:</b>	Nguyen, Minh V., Professor
<b>Professors:</b>	Elsalloukh, Hassan Kaufmann, Eric R. Kosmatov, Nickolai E. Wang, Xiaoshen Ye, Xiu
<b>Associate Professors:</b>	Fulmer, James Jones, Lakeshia R. Lu, Lianfang Peter, Thomas F.
<b>Assistant Professors:</b>	Childers, Annie Zhang, Wei
<b>Senior Instructors:</b>	Hardeman, Melissa A. Jackson, Christy L. LeGrand, Denise J. Streett, Rebecca A. Umphers, Ida S.
<b>Instructor:</b>	Deng, Shuzhen

### General Information

The objectives of the department are to prepare students to enter graduate school, to teach at the elementary and secondary levels, to understand and use mathematics in other fields of knowledge with basic mathematical skills for everyday living, and to be employed and to act in a consulting capacity on matters concerning mathematics. The department offers degrees in mathematics (bachelor of science and bachelor of arts) and secondary teacher licensure in mathematics (bachelor of science and bachelor of arts).

The department also offers minors in mathematics and statistics.

### Admission Requirements

Students can apply for admission to any mathematics major using their online accounts (BOSS). Decisions regarding equivalency of courses and situations in which students have tested out of courses will be made by the department chairperson.

### Scholarships and Awards

The Department of Mathematics and Statistics awards the following scholarships:

- The DeWoody and Emily Dickinson Math Scholarship is awarded to a full- or part-time mathematics major in his/her sophomore or junior year. In selecting a recipient for the Dickinson

Scholarship, academic accomplishments are given the highest consideration, with additional consideration given to financial need, leadership skills, and involvement with student/math activities.

- The Jerry and Sherri Damerow Mathematics Scholarship is awarded to a full- or part-time students majoring in mathematics. Preferences are given to juniors and seniors, and academic accomplishment and financial need are strongly considered. This scholarship may be used to support undergraduate research.
- The Ma Endowed Family Scholarship is awarded to a full- or part-time student majoring in Mathematics. Academic accomplishment and financial need are strongly considered when selecting a recipient.
- The Linda and Tom McMillan Mathematics Scholarship is awarded to a full- or part-time student majoring in mathematics. Preferences are given to juniors and seniors, and academic accomplishment and financial need are strongly considered.
- The Mathematics and Statistics Faculty Award is a merit based award for undergraduates with majors in mathematics and statistics.

The Department of Mathematics and Statistics annually confers the following awards:

- Outstanding Undergraduate Student
- Outstanding Graduate Student
- Outstanding Graduating Senior
- Outstanding Achievement by and Undergraduate Student
- Outstanding Achievement by a Graduate Student
- Outstanding Teaching by a Graduate Student
- Outstanding Service Award
- Outstanding Tutor Award

### Honors Program in Mathematics

The department offers an honors program to permit exceptional students to pursue advanced study and receive recognition for its completion. The honors program is distinct from graduation with honors and does not replace it. Participants in the honors program must be mathematics majors with at least junior standing (60-90 credit hours). The students will be selected by a faculty committee, normally during the junior year and usually before the second semester. Minimum admission requirements are a 3.25 grade-point average overall and a 3.25 grade-point average in all mathematics and statistics courses. These averages must be maintained for continued participation in the program. There will be at most five students in the program at one time. For details about the program please contact the department office.

## Mathematics Remediation

Co-requisite and Foundations classes are offered to students who do not meet the eligibility requirements for college-level mathematics. Co-requisite courses are designed to allow students to enroll in college-level mathematics along with a support lab during the same semester. Foundations courses are designed for students who need a full semester of remediation to prepare them with the necessary skills to be successful in college-level mathematics. There are two tracks of classes, College Algebra and Quantitative and Mathematical Reasoning. In general, College Algebra is for STEM majors. Before you sign up for this track, you must check with your adviser.

## Mathematics Placement Scores

Quantitative and Mathematical Reasoning Track MUST enroll in MATH 0330

Score	Code
15 or less	ACT Math
40 or less	Compass Algebra
59 or less	Elementary Algebra Accuplacer
429 or less	SAT Math

Must enroll in MATH 1321 AND MATH 0121

Score	Code
16-18	ACT Math
41-43	Compass Algebra
60-76	Elementary Algebra Accuplacer
430-479	SAT Math

Must enroll in MATH 1321

Score	Code
19+	ACT Math
44+	Compass Algebra
77+	Elementary Algebra Accuplacer
480+	SAT Math

College Algebra Track

Must enroll in MATH 0332

Score	Code
17 or less	ACT Math
42 or less	Compass Algebra
69 or less	Elementary Algebra Accuplacer
449 or less	SAT Math

Must enroll in MATH 1302 AND MATH 0102

Score	Code
18-20	ACT Math
43-44	Compass Algebra
70-79	Elementary Algebra Accuplacer
450-499	SAT Math

## Mathematics Placement Scores

May enroll in MATH 1302 or take College Algebra MPT to attempt higher placement

Score	Code
21+	ACT Math
45+	Compass Algebra
50+	Compass College Algebra
80+	Elementary Algebra Accuplacer
0-62	Accuplacer College Level Math Test
500+	SAT Math

May enroll in MATH 1303, MATH 1311, MATH 1342, or MATH 1401

Score	Code
67+	Compass College Algebra
24+	ACT Math Score
63-102	Accuplacer College Level Math Test

May enroll in MATH 1451

Score	Code
46+	Compass Trigonometry
103-120	Accuplacer College Level Math Test

## Bachelor of Science

The bachelor of science degree is designed for students who plan to enter graduate school or who wish immediate employment as mathematicians. It requires MATH 1223, MATH 2310, MATH 2453, MATH 3302, MATH 3310, MATH 3312, MATH 3322, MATH 4390, MATH 4303, MATH 4304, STAT 3352, six additional hours of upper-level mathematics or statistics electives to include either MATH 4310, MATH 4306, or MATH 4302. Six hours of German or French are strongly recommended for students who intend to obtain the PhD degree in mathematics.

## Bachelor of Arts

The bachelor of arts degree requires MATH 1223, MATH 2310, MATH 2453, MATH 3302, MATH 3310, MATH 3312, MATH 3322, MATH 4303, MATH 4390, STAT 3352, and 9 hours of upper-level mathematics or statistics electives. Also, students seeking the bachelor of arts degree are required to complete a 2000-level second language course or demonstrate equivalent proficiency as measured by a competency test.

## Early Entry: BA/BS in Mathematics to Master of Science

The Accelerated Bachelor of Arts in Mathematics and Bachelor of Science in Mathematics programs are each 120 credits. The Master of Science in Mathematical Science is 33 credits with a research project, or 36 credits without a research project. Students who are accepted into the program can complete both their BS or BA and MS program in about 5 years.

Students are strongly encouraged to apply to the Accelerated BS/BA to MS program before the end of their junior year to help ensure that they have the full subsequent year to begin taking appropriate courses for graduate credit, lessening the course load they will need to carry in their fifth year.

### Admission Requirements

- Undergraduate students may apply and be accepted any time after completing 75 or more hours of undergraduate coursework. However, at least 90 hours of undergraduate coursework must have been completed by the time the first graduate course is taken.
- All applicants must have at least a 3.2 overall GPA and at least a 3.5 major GPA at UA Little Rock in order to be considered. Students who have transferred to our program can participate in the Accelerated BS/BA to MS Program provided their relevant transfer coursework (i.e., courses taken at other Institutions that are being used to meet our BS/BA degree requirements) also meets the 3.2 minimum GPA and 3.5 minimum major GPA criteria. The GRE requirement for the MS program is waived for students with an overall GPA of 3.5 or higher. Students with an overall GPA between 3.2 and 3.5 may apply using the GRE option.
- All applicants must complete an application for and be accepted into the MS in mathematics program and UA Little Rock Graduate School.
- All applicants must complete an Early Entry Program form and be approved for admission by the MS Mathematics graduate coordinator. The MS Mathematics Graduate Coordinator's decision is final and cannot be appealed. The Early Entry form must be approved by the MS Mathematics Graduate Coordinator before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.
- If, at the end of the student's baccalaureate degree, an Accelerated BS/BA to MS student has failed to meet the Graduate School admission requirement of a 2.7 overall undergraduate GPA, the student will be dismissed from the MS Mathematics program.

## A completed application consists of:

- Completed graduate application form for the UA Little Rock Graduate School,
- Completed Early-Entry Program form
- Two letters of recommendation, one of which must be from a university faculty member in the Department of Mathematics and Statistics (letters are to be submitted directly by recommenders)
- Portfolio of work in mathematics courses (optional) Contact the Department of Mathematics and Statistics to determine requirements before applying.

## Graduate Credit

- Once accepted into a graduate program, students can take up to 12 hours of graduate coursework, which will count towards both the baccalaureate degree and the graduate degree. Individual graduate programs may allow fewer graduate hours to be taken at the undergraduate level; students should check with their prospective program to determine these limits.
- Students must finish their baccalaureate degrees before they complete 15 hours of graduate coursework.

## Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with a graduate-level advisor upon acceptance to the Early Entry program to map out the graduate courses they will take.
- Accepted students will have provisional status in the graduate program, pending the award of their baccalaureate degree.
- Early Entry students who fail to meet the Graduate School admission requirement of an overall 3.0 undergraduate GPA and no grades below a B once they obtain their baccalaureate degree will be dismissed from the graduate program.
- Students accepted into the Early Entry program will be subject to the same policies as traditionally matriculated graduate students.
- The Accelerated BS/BA to MS program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the Accelerated BS/BA to MS program may be applied to the MS Mathematics degree.

## Mathematics Education, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

See General Education Requirements.

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### Major

#### Mathematics Foundation Course (34 hours)

- MATH 1451 - Calculus I (satisfies the core requirement in mathematics.)
- MATH 1223 - Introduction to Mathematics Software
- MATH 1452 - Calculus II
- MATH 2310 - Discrete Mathematics
- MATH 2453 - Calculus III
- MATH 3302 - Intro to Mathematical Proof
- MATH 3310 - Algebraic Structures
- MATH 3312 - Linear Algebra
- MATH 3322 - Introduction to Differential Equations
- MATH 3330 - College Geometry I
- MATH 4361 - History of Mathematics I
- MATH 4390 - Senior Seminar
- STAT 3352 - Applied Statistics I

#### Education Option

- MATH 4361 - History of Mathematics I
- MATH 4383 - Technology in Math Education
- MATH 4481 - Teaching Mathematics in Secondary School

#### Electives (9 hours)

- Nine hours of approved MATH or STAT courses numbered above 3000.

#### Education Minor (18 hours)

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- MATH 4600 - Internship

#### Education Elective (choose 1)

- SPED 4301 - Education of Exceptional Learners
- MCEd 4310 - Middle Level Content Literacy

## Praxis Exams

A GPA of 2.7 is required for admission to the education program. Praxis Content Knowledge must be passed prior to graduation. Completion of 2000-level second language course or demonstrate equivalent proficiency.

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## Mathematics Education, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- SCED 1101 - FE: Step 1-Inquiry Approaches to Teaching

### University Core (35 hours)

See General Education Requirements.

### Second Language Proficiency

(none required)

### Major

#### Mathematics Foundation Courses

- MATH 1451 - Calculus I (satisfies the core requirement in mathematics.)
- MATH 1223 - Introduction to Mathematics Software
- MATH 1452 - Calculus II
- MATH 2310 - Discrete Mathematics
- MATH 2453 - Calculus III
- MATH 3302 - Intro to Mathematical Proof
- MATH 3310 - Algebraic Structures
- MATH 3312 - Linear Algebra
- MATH 3322 - Introduction to Differential Equations
- MATH 3330 - College Geometry I
- MATH 4303 - Advanced Calculus I
- MATH 4304 - Advanced Calculus II
  
- MATH 4310 - Algebraic Structures II  
**or**
- MATH 4302 - Complex Analysis  
**or**
- MATH 4306 - Topology
  
- MATH 4361 - History of Mathematics I

- MATH 4390 - Senior Seminar
- STAT 3352 - Applied Statistics I

#### Education Option

- MATH 4383 - Technology in Math Education
- MATH 4361 - History of Mathematics I
- MATH 4481 - Teaching Mathematics in Secondary School

#### Education Minor (18 hours)

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- MATH 4600 - Internship

#### Education Elective (choose 1)

- SPED 4301 - Education of Exceptional Learners
- MCED 4310 - Middle Level Content Literacy

### Praxis Exams

A GPA of 2.7 is required for admission to the education program. Praxis Content Knowledge must be passed prior to graduation.

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### Mathematics, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

#### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- SCED 1101 – Step 1 recommended

#### Core (35 hours)

See General Education Requirements.

#### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

#### Major (40 hours)

##### Mathematics Foundation Courses (31 hours)

- MATH 1451 - Calculus I (satisfies the core requirement in mathematics.)
- MATH 1223 - Introduction to Mathematics Software
- MATH 1452 - Calculus II

- MATH 2310 - Discrete Mathematics
- MATH 2453 - Calculus III
- MATH 3302 - Intro to Mathematical Proof
- MATH 3310 - Algebraic Structures
- MATH 3312 - Linear Algebra
- MATH 3322 - Introduction to Differential Equations
- MATH 4303 - Advanced Calculus I
- MATH 4390 - Senior Seminar
- STAT 3352 - Applied Statistics I

#### Electives (9 hours)

- Nine hours of approved MATH or STAT courses numbered above 3000.

#### Minor

(Optional) 12-29 hours—typical minor requires 18 hours

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### Mathematics, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

#### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

#### Core (35 hours)

See General Education Requirements.

#### Second Language Proficiency

(none required)

#### Major (40 hours)

##### Mathematics Foundation Courses (37 hours)

- MATH 1451 - Calculus I (satisfies the core requirement in mathematics.)
- MATH 1223 - Introduction to Mathematics Software
- MATH 1452 - Calculus II
- MATH 2310 - Discrete Mathematics
- MATH 2453 - Calculus III
- MATH 2310 - Discrete Mathematics
- MATH 3302 - Intro to Mathematical Proof
- MATH 3310 - Algebraic Structures
- MATH 3312 - Linear Algebra
- MATH 3322 - Introduction to Differential Equations
- MATH 4303 - Advanced Calculus I
- MATH 4304 - Advanced Calculus II

- MATH 4310 - Algebraic Structures II  
or
- MATH 4302 - Complex Analysis  
or
- MATH 4306 - Topology
- MATH 4390 - Senior Seminar
- STAT 3352 - Applied Statistics I

#### Electives (3 hours)

- A three-hour approved MATH or STAT course numbered above 3000.

#### Minor

(Optional) 12-29 hours—typical minor requires 18 hours

#### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

#### Actuarial Science Minor

##### Program Requirements

The minor in Actuarial Science requires 18 hours of course work. The following courses are required: STAT 4342 - Introduction to SAS; STAT 3350 - Introduction to Probability; MATH 4305 - Financial Mathematics; STAT 3352 - Applied Statistics I. Two of the following three courses are required: FINC 3330 - Principles of Insurance; ACCT 2310 - Principles of Accounting I; ECON 2322 - Principles of Microeconomics. Some of the listed courses have pre-requisites.

#### Mathematics Minor

##### Program Requirements

The minor requires 18 hours of coursework including six hours of upper-level mathematics and/or statistics.

- MATH 1451 - Calculus I
- MATH 1452 - Calculus II
- MATH 2310 - Discrete Mathematics
- MATH 2453 - Calculus III

##### And

- Six hours of upper-level mathematics  
or
- Three hours of upper-level mathematics and 3 hours of upper-level statistics

#### Statistics Minor

##### Program Requirements

The minor in statistics is designed for students who wish to apply their mathematical training in any of the many fields that employ statistics. It requires at least 12 hours of statistics courses, including STAT 3350, STAT 3352, STAT 3353, and either STAT 3351 or STAT 4352. MATH 1223, MATH 1451, and MATH 1452 are also required.

Statistics courses, except STAT 3352, used for a minor may not be used to satisfy requirements for a major in mathematics.

#### Teacher Licensure Education, B.A./B.S. Teacher Licensure

##### Program Requirements

Students wishing to teach mathematics must complete either a bachelor of science or a bachelor of arts in mathematics.

The bachelor of science degree within the teacher licensure option consists of MATH 1223, MATH 2310, MATH 2453, MATH 3302, MATH 3310, MATH 3312, MATH 3322, MATH 3330, 4381, MATH 4383, MATH 4303, MATH 4304, MATH 4390, and either MATH 4310, MATH 4306 or MATH 4302; STAT 3352; and the Minor in Education. See the Teacher Licensure section for details. The bachelor of arts in mathematics within the teacher licensure option consists of MATH 1223, MATH 2310, MATH 2453, MATH 3302, MATH 3310, MATH 3312, MATH 3322, MATH 3330, 4381, MATH 4383, MATH 4390; STAT 3352; nine hours of upper-level MATH or STAT electives; and a Minor in Education.

#### Early Entry Programs

##### Applied Statistics, Bachelor's Degree to Graduate Certificate

**Note:** *The Early Entry Bachelor's Degree to Graduate Certificate in Applied Statistics is open to any major at UA Little Rock as long as they meet program requirements.*

Exceptional undergraduate students may apply and be accepted into the Graduate Certificate in Applied Statistics program and begin working toward their graduate certificate while completing their baccalaureate degree. The Early Entry Graduate Certificate program is open to all undergraduate majors who have completed the following courses:

- MATH 1451 Calculus I
- STAT 3352 Applied Statistics I or equivalent with a C or higher

#### Admission Requirements

- Undergraduate students may apply and be accepted provisionally into the Early Entry program any time after completing 75 or more hours of undergraduate course work. However, at least 90 hours of undergraduate coursework must have been completed by the time the first graduate course is taken.
- All applicants must have at least a 3.2 overall GPA at UA Little Rock in order to be considered. Students who have transferred to our program can participate in the Early Entry Program provided their relevant transfer coursework (i.e.,



courses taken at another institution used to meet our baccalaureate degree requirements) also meets the 3.2 minimum GPA criteria.

- All applicants must have completed the following courses:
  - MATH 1451 Calculus I
  - STAT 3352 Applied Statistics I or equivalent with a C or higher

## How to Apply

### Things to Know

- All applicants must complete an application for and be accepted into the Graduate Certificate in Applied Statistics program and Graduate School.
- All applicants must complete an Early-Entry Program form and be approved for admission by the Department of Mathematics and Statistics graduate coordinator. The Department of Mathematics and Statistics Graduate Coordinator's decision is final and cannot be appealed. The Early Entry form must be approved by the Department of Mathematics and Statistics Graduate Coordinator before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.
- If at the end of the student's baccalaureate degree, a Graduate Certificate in Applied Statistics student has failed to meet the Graduate School admission requirement of a 2.7 overall undergraduate GPA, the student will be dismissed from the Graduate Certificate in Applied Statistics program.

### Application Instructions

Once a completed application has been received by the Department of Mathematics and Statistics, the student will be notified quickly, generally within 30 days, whether they have been accepted into the Early Entry Graduate Certificate in Applied Statistics program.

A completed application consists of:

- Completed graduate application form for the UA Little Rock Graduate School
- Completed Early-Entry Program form
- Two letters of recommendation, one of which must be from a university faculty member in the Department of Mathematics and Statistics (letters are to be submitted directly by recommenders)
- Submit your application to the Department of Mathematics and Statistics Graduate Coordinator. Applications may be submitted by email to [abchilqers@ualr.edu](mailto:abchilqers@ualr.edu) as a single WORD or PDF document.  
Graduate Coordinator:  
Dr. Annie Childers, Assistant Professor  
Department of Mathematics and Statistics ETAS 410A  
University of Arkansas at Little Rock 2801 South University, 72204

## Graduate Credit

Once accepted into the Early Entry Graduate Certificate in Applied Statistics program, students can take up to 12 hours of graduate coursework (anticipated 6 hours in the fall and 6 hours in the spring) during their senior year, which will count towards both the baccalaureate degree and the Graduate Certificate in Applied Statistics. Students must complete their baccalaureate degrees before they complete 15 hours of graduate coursework.

## Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with the Department of Mathematics and Statistics Graduate Coordinator upon acceptance to the Early Entry Graduate Certificate in Applied Statistics program to map out and approve the graduate courses they will take.
- Accepted students will have provisional status in the graduate program, pending the award of their baccalaureate degree.
- If at the end of his/her baccalaureate degree, an Early Entry Graduate Certificate in Applied Statistics student has failed to meet the Graduate School admission requirement of a 2.7 overall undergraduate GPA, she/he will be dismissed from the graduate program.
- Students accepted into the Early Entry Graduate Certificate in Applied Statistics program will be subject to the same policies as traditionally matriculated graduate students.
- The Early Entry Graduate Certificate in Applied Statistics program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the Early Entry Graduate Certificate in Applied Statistics program may be applied to the Graduate Certificate in Applied Statistics.

## Baccalaureate and Graduate Certificate Curriculum

The student must have taken the following courses during their undergraduate degree prior to applying for the Early Entry Program:

- MATH 1451 Calculus I (prerequisite MATH 1302 and MATH 1303)
- STAT 3352 Applied Statistics I (prerequisite MATH 1451) or equivalent

The Graduate Certificate requires 15 hours which includes the following courses:

- STAT 7340 Advanced Statistical Methods I
- STAT 7341 Advanced Statistical Methods II
- STAT 5342 Introduction to SAS
- 6 credit hours of approved electives.

**Note:** Students can double count 12 credits of graduate courses. These 12 credits would satisfy upper-level credits for the undergraduate degree, as well as satisfy course requirements in their Graduate Certificate in Applied Statistics. The remaining three credit hours would be

taken in summer or the next semester to finish the requirements of the certificate.

Recommended Early Entry Course Sequence  
First Semester (Fall)

- STAT 5342 Introduction to SAS
- STAT 7340 Advanced Statistical Methods I

Second Semester (Spring)

- STAT 7341 Advanced Statistical Methods II
- Approved Elective

Summer

- Approved Elective

## Mathematics, B.A. to M.S.

The Early Entry Bachelor of Arts in Mathematics program consists of 120 credits. The Master of Science in Mathematical Science is 33 credits with a research project, or 36 credits without a research project. Students who are accepted into the program can complete both their B.A. and M.S. program in about 5 years.

Students are strongly encouraged to apply to the Early Entry B.A. to M.S. program before the end of their junior year to help ensure that they have the full subsequent year to begin taking appropriate courses for graduate credit, lessening the course load they will need to carry in their fifth year.

### Admission Requirements

- Undergraduate students can apply and be accepted any time after completing 75 or more hours of undergraduate coursework. However, at least 90 hours of undergraduate coursework must have been completed by the time the first graduate course is taken.
- All applicants must have at least a 3.2 overall GPA and at least a 3.5 major GPA at UA Little Rock in order to be considered. Students who have transferred to our program can participate in the Early Entry B.A. to M.S. Program provided their relevant transfer coursework (i.e., courses taken at another institution used to meet our B.A. degree requirements) also meets the 3.2 minimum GPA and 3.5 minimum major GPA criteria. The GRE requirement for the M.S. program is waived for students with an overall GPA of 3.5 or higher. Students with an overall GPA between 3.2 and 3.5 may apply using the GRE option.

### How to Apply

#### Things to Know

- All applicants must complete an application for and be accepted into the M.S. in mathematics program and UA Little Rock Graduate School.
- All applicants must complete an Early Entry Program form and be approved for admission by the M.S. Mathematics graduate coordinator. The M.S. Mathematics Graduate Coordinator's decision is final and cannot be appealed. The

Early Entry form must be approved by the M.S. Mathematics Graduate Coordinator before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.

- If at the end of the student's baccalaureate degree, an Early Entry B.A. to M.S. student has failed to meet the Graduate School admission requirement of a 2.7 overall undergraduate GPA, the student will be dismissed from the M.S. Mathematics program.

### Application Instructions

- Contact the Department of Mathematics and Statistics for forms and information before applying.
- Complete graduate application form for the UA Little Rock Graduate School,
- Complete Early-Entry Program form
- Submit two letters of recommendation, one of which must be from a university faculty member in the Department of Mathematics and Statistics (letters are to be submitted directly by recommenders)
- Submit a portfolio of your work in mathematics courses (optional)

### Graduate Credit

- Once accepted into a graduate program, students can take up to 12 hours of graduate coursework, which will count towards both the baccalaureate degree and the graduate degree. Individual graduate programs may allow fewer graduate hours to be taken at the undergraduate level; students should check with their prospective program to determine these limits.
- Students must finish their baccalaureate degrees before they complete 15 hours of graduate coursework.

### Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with a graduate-level advisor upon acceptance to the Early Entry program to map out the graduate courses they will take.
- Accepted students will have provisional status in the graduate program, pending the award of their baccalaureate degree.
- Early Entry students who fail to meet the Graduate School admission requirement of an overall 3.0 undergraduate GPA and no grades below a B once they obtain their baccalaureate degree will be dismissed from the graduate program.
- Students accepted into the Early Entry program will be subject to the same policies as traditionally matriculated graduate students.
- The Early Entry B.A. to M.S. program may not be used in conjunction with the credit reservation

program; therefore, no graduate courses. taken before admission to the Early Entry B.A. to M.S. program may be applied to the M.S. Mathematics degree.

### Mathematics Courses

To see the courses and detailed information for the Mathematics B.A. degree and M.S. degree, see links below:

- Mathematics, B.A.
- Mathematics, M.S., select the Graduate Catalog at [catalog.ualr.edu](http://catalog.ualr.edu).

### Mathematics, B.S. to M.S.

The Early Entry Bachelor of Science in Mathematics program consists of 120 credits. The Master of Science in Mathematical Science is 33 credits with a research project, or 36 credits without a research project. Students who are accepted into the program can complete both their B.S. and M.S. program in about 5 years.

Students are strongly encouraged to apply to the Early Entry B.S. to M.S. program before the end of their junior year to help ensure that they have the full subsequent year to begin taking appropriate courses for graduate credit, lessening the course load they will need to carry in their fifth year.

### Admission Requirements

- Undergraduate students may apply and be accepted any time after completing 75 or more hours of undergraduate coursework. However, at least 90 hours of undergraduate coursework must have been completed by the time the first graduate course is taken.
- All applicants must have at least a 3.2 overall GPA and at least a 3.5 major GPA at UA Little Rock in order to be considered. Students who have transferred to our program can participate in the Early Entry B.S. to M.S. Program provided their relevant transfer coursework (i.e., courses taken at another institution used to meet our B.S. degree requirements) also meets the 3.2 minimum GPA and 3.5 minimum major GPA criteria. The GRE requirement for the M.S. program is waived for students with an overall GPA of 3.5 or higher. Students with an overall GPA between 3.2 and 3.5 may apply using the GRE option.

### How to Apply

#### Things to Know

- All applicants must complete an application for and be accepted into the M.S. in mathematics program and UA Little Rock Graduate School.
- All applicants must complete an Early Entry Program form and be approved for admission by the M.S. Mathematics graduate coordinator. The

M.S. Mathematics Graduate Coordinator's decision is final and cannot be appealed. The Early Entry form must be approved by the M.S. Mathematics Graduate Coordinator before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.

- If at the end of the student's baccalaureate degree, an Early Entry B.S. to M.S. student has failed to meet the Graduate School admission requirement of a 2.7 overall undergraduate GPA, the student will be dismissed from the M.S. Mathematics program.

### Application Instructions

- Contact the Department of Mathematics and Statistics for forms and information before applying.
- Complete graduate application form for the UA Little Rock Graduate School,
- Complete Early-Entry Program form
- Submit two letters of recommendation, one of which must be from a university faculty member in the Department of Mathematics and Statistics (letters are to be submitted directly by recommenders)
- Submit a portfolio of your work in mathematics courses (optional)

### Graduate Credit

- Once accepted into a graduate program, students can take up to 12 hours of graduate coursework, which will count towards both the baccalaureate degree and the graduate degree. Individual graduate programs may allow fewer graduate hours to be taken at the undergraduate level; students should check with their prospective program to determine these limits.
- Students must finish their baccalaureate degrees before they complete 15 hours of graduate coursework.

### Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with a graduate-level advisor upon acceptance to the Early Entry program to map out the graduate courses they will take.
- Accepted students will have provisional status in the graduate program, pending the award of their baccalaureate degree.
- Early Entry students who fail to meet the Graduate School admission requirement of an overall 3.0 undergraduate GPA and no grades below a B once they obtain their baccalaureate degree will be dismissed from the graduate program.
- Students accepted into the Early Entry program will be subject to the same policies as traditionally matriculated graduate students.

- The Early Entry B.S. to M.S. program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the Early Entry B.S. to M.S. program may be applied to the M.S. Mathematics degree.

### **Mathematics Courses**

To see the courses and detailed information for the Mathematics B.A. degree and M.S. degree, see links below:

- Mathematics, B.S.
- Mathematics, M.S., select the Graduate Catalog at [catalog.ualr.edu](http://catalog.ualr.edu).

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## Department of Physics & Astronomy

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Engineering Technology and Applied Science  
Building, Room 300P | (501) 569-8000 | fax (501)  
569-8020 | ualr.edu/physics

<b>Chairperson:</b>	AlShukri, Haydar, Professor
<b>Professors:</b>	Chen, Tarpin Hathaway, Charles E.; Emeritus Karabacak, Tansel
<b>Associate Professors:</b>	Adams, Alois J., Emeritus Hall, Tony A
<b>Assistant Professors:</b>	Guisbiers, Gregory Nichols, John
<b>Instructor:</b>	Blanton, Miles
<b>Advanced Instructor:</b>	Crawshaw, Steven A., Emeritus

The department offers two degrees:

- Bachelor of Science
- Bachelor of Arts

The Bachelor of Science degree prepares students for admission to graduate work in physics or astronomy. This degree provides the skill set to be applied to a variety of careers, including industrial and academic settings. Students desiring a career in astronomy normally major in physics.

The Bachelor of Arts degree is suitable for premedical students and others who do not plan professional careers in physics, including those students pursuing a career in education. Minors are also offered in physics and astronomy.

The department uses a vast assortment of specialized equipment, including a 12-inch (on-campus) and 24-inch (off-site) remote, computer-controlled telescopes. Other resources used by the department include Atomic Layer Deposition, X-ray Diffractometers, Spectrometers, Molecular Beam Epitaxy, and Laser Ablation devices to create and characterize nanostructures and solar cell materials. These devices give students the opportunity to utilize state-of-the-art equipment and techniques as part of their Physics education.

### General Information

The department has active research programs in astronomy, astrophysics, condensed matter physics, material science, nanoscience and nanotechnology, optics, and solid-state physics. The department has advanced research facilities for condensed matter physics, solid state, and nanoscience and nanotechnologies research. A state-funded nanotechnology research center on campus also provides access to other state-of-the-art equipment for research in these areas.

The department encourages the involvement of undergraduates in research. In recent years undergraduates have participated in research at Kitt Peak National Observatory, Steward Observatory, Lawrence Berkeley National Laboratory, Fermi National Accelerator Laboratory, Brookhaven National Laboratory, and research laboratories at the Department of Physics and Astronomy at UA Little Rock. Nanotechnology and materials research is mainly focused on inorganic semiconductors and organic nanostructures including nanowires, nanocrystals, thin films, and organic/inorganic hybrid structures. Applications of this technology include nanowire solar cells, light emitting diodes (LEDs), photonic nanowire arrays, and nanowire photodetectors and sensors. Nanomaterials studied include metal oxides (ZnO, Cu<sub>2</sub>O, FeO, TiO<sub>2</sub>, In<sub>2</sub>O<sub>3</sub>), nitrides (GaN, InN, and InGaN), carbon (carbon nanotubes and graphene), light absorbers CIGS/CZTS, and organic polymers.

Astrophysics research includes characterizing and modeling galaxy dynamics and evolution. This is done through the study of mass distribution, supermassive black holes, and Dark Matter. Studies of other celestial bodies including binary star systems, asteroids, X-ray and gamma-ray sources are also conducted. Astrophysics research is conducted utilizing the NF/ Observatory, a remote access observatory located in New Mexico, and a variety of national observatories, including the Hubble Space Telescope, Fermi gamma ray telescope, Chandra X-ray telescope, and the Las Campanas Observatory. These and other research activities have helped undergraduates in this program to become nationally competitive for research awards and for jobs that require the application of modern technology.

The department sponsors an active chapter of the Society of Physics Students and Sigma Pi Sigma, the physics honor society. Anyone interested in physics is invited to join the chapter.

### Admission Requirements

Students interested in majoring in physics should contact the chairperson of the Department of Physics and Astronomy to declare a major and be assigned an advisor to help plan a schedule that will permit graduation in a timely manner. Students interested in majoring in physics are encouraged to discuss curricula and possible career opportunities with members of the physics and astronomy faculty before the end of the freshman year. Students should take MATH 1451 - Calculus I, a prerequisite for Physics for Scientists and Engineers I, early in their academic career. Entering students with preparation in calculus may enroll in Physics for Scientists and Engineers I in the first semester of the freshman year. Most upper-level physics courses require MATH 2453 - Calculus III as a prerequisite. Decisions regarding the equivalency of courses and situations in which students have tested out of courses will be made by the chairperson of the Department of Physics and Astronomy.

## Honors Program in Physics

The department offers an honors program to provide qualified students the opportunity to pursue advanced study and receive appropriate recognition. This program is distinct from graduation with honors and does not replace it. Interested students may apply for admission to this program after they have completed Physics for Scientists and Engineers I and II. Participants in the honors program are selected by the department faculty during the junior year, usually before the second semester. Minimum requirements for admission into the program are a 3.25 grade point average overall and a 3.50 grade point average in all physics courses. These averages must be maintained for continued participation in the program. Honors students must take at least four hours of independent study or undergraduate research related to a project in addition to the usual requirements for graduation.

The study will be on an advanced topic and will involve research covering two to four semesters. The topic must be approved by the department chairperson, who will assign a faculty member to supervise the study. On successful completion of the project, the student must present the results of the study to an appropriate scientific body and submit a thesis, approved by the faculty supervisor, to the department chairperson.

## Physics, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

### Core (35 hours)

See General Education Requirements.

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### Major (27 hours)

#### Physics Foundation Courses: (27 hours)

- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2322 - Physics for Scientists and Engineers II

- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
- PHYS 3323 - Physics for Scientists and Engineers III
- PHYS 3123 - Physics for Scientists and Engineers III Laboratory
- PHYS 4111 - Advanced Laboratory I
- PHYS 4190 - Seminar
- PHYS 4311 - Classical Mechanics
- PHYS 4321 - Electromagnetism I
- Plus seven additional credit hours of upper-level physics courses.

### Minor

(12-29 hours—typical minor requires 18)

Typical minors would include Math or Computer Science. Students can double major in an area instead of Major/Minor.

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## Physics, B.S.

The Bachelor of Science with a major in physics requires 36 credit hours including at least 28 credit hours of upper-level physics courses.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

### Core (35 hours)

See General Education Requirements.

### Second Language Proficiency (none required)

### Major (36 hours)

#### Physics Foundation Courses: (30 hours)

- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2322 - Physics for Scientists and Engineers II
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory

- PHYS 3323 - Physics for Scientists and Engineers III
- PHYS 3123 - Physics for Scientists and Engineers III Laboratory
- PHYS 3350 - Electronics
- PHYS 4111 - Advanced Laboratory I
- PHYS 4112 - Advanced Laboratory II
- PHYS 4310 - Statistical Thermodynamics
- PHYS 4311 - Classical Mechanics
- PHYS 4321 - Electromagnetism I
- PHYS 4350 - Quantum Mechanics I
- PHYS 4190 - Seminar

**Plus any 6 hours from the courses below:**

- PHYS 3330 - Medical Physics
- PHYS 4340 - Solid State Physics
- PHYS 4380 - Wave Motion and Optics
- PHYS 4330 - Mathematical Methods in the Physical Sciences
- ASTR 4301 - Astrophysics

### Minor

(12-29 hours—typical minor requires 18)

Typical minors would include Math or Computer Science. Students can double major in an area instead of Major/Minor.

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### Astronomy Minor Program Requirements

A minor in astronomy requires at least 19 credit hours of astronomy and physics courses. An additional three upper level hours of physics or astronomy courses are required.

Required courses:

- ASTR 1301 - Introduction to Astronomy
- ASTR 1101 - Introduction to Astronomy Laboratory
- ASTR 3401 - Scientific Computing and Image Processing in Astronomy
- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2322 - Physics for Scientists and Engineers II
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory

### Physics Minor

A minor in physics requires at least 18 credit hours of physics courses. At least 10 credit hours of upper-level courses are required.

### Required courses:

- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2322 - Physics for Scientists and Engineers II
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
- PHYS 3323 - Physics for Scientists and Engineers III
- PHYS 4111 - Advanced Laboratory I  
**or**
- PHYS 4112 - Advanced Laboratory II

**Plus any 6 hours from the below courses:**

- PHYS 3350 - Electronics
- PHYS 3330 - Medical Physics
- PHYS 4310 - Statistical Thermodynamics
- PHYS 4311 - Classical Mechanics
- PHYS 4321 - Electromagnetism I
- PHYS 4330 - Mathematical Methods in the Physical Sciences
- PHYS 4340 - Solid State Physics
- PHYS 4350 - Quantum Mechanics I
- PHYS 4380 - Wave Motion and Optics

### Teacher Licensure (Minor in Education)

This program is designed to prepare students majoring in Physics for teacher licensure in grades 7 – 12. Students entering this program will earn a B.S. in Physics. A minor in education is also required. Those students who may be interested in teaching Physics, please contact a Physics advisor at [physics@ualr.edu](mailto:physics@ualr.edu) or 501-569-8000. Students are also encouraged to visit the department's website at [ualr.edu/physics](http://ualr.edu/physics) for more detailed information and plans of study.

### Education Minor (18 hours)

NOTE: Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom.

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners

**Education Elective (3 hours; choose 1)**

- SPED 4301 - Education of Exceptional Learners  
**or**

- ELEM 2302 - Child Growth and Development
- **or**
- MCED 4310 - Middle Level Content Literacy
- TCED 4330 - Classroom Management
- PHYS 4600 - Internship



## College of Business

RBUS 304, (501) 569-3356, (501) 569-8898 (fax),  
ualr.edu/cob

<b>Stephen Harrow Smith Dean:</b>	Jane Wayland, Professor
<b>Associate Dean of Graduate Studies:</b>	Sonya F. Premeaux, Professor
<b>Associate Dean of Undergraduate Studies:</b>	John R. Hall, Associate Professor
<b>Director of External Relations:</b>	Sarah Miller
<b>Director of Finance:</b>	Renee Perkins
<b>Director of Student and Career Services:</b>	Shannon Gwinn

The College of Business provides quality business education, delivered by research engaged faculty in partnership with the business community, to prepare students for professional careers and enhance regional economic development. The COB has the distinction of being one of a handful of business schools across the country with two economic development outreach units housed within the college. The Arkansas Economic Development Institute (AEDI) and the Arkansas Small Business and Technology Development Center (ASBTDC) play important roles in advancing economic, entrepreneurial, and other business-critical services across the state.

The College works to:

- provide students with core business competency, discipline-based knowledge, and demonstrable, practical skills to enable/improve their professional careers;
- involve students in experiential and application-based learning through partnerships with the business community and external constituents; and
- support students' professional development opportunities through the Student and Career Services Center and engagement with external partners.

Students may pursue programs of study in several fields of specialty within the business discipline. The curricula

provide a foundation for entry into management, professional practice, and graduate study.

## General Information

The College is made up of five departments offering degrees in eight programs: Accounting, Business Analytics, Business Information Systems, Economics, Finance, International Business, Management, and Marketing. Within these degree programs, the College offers emphasis areas in entrepreneurship, human resources, financial services, real estate, and professional sales. Students in the College select a major from one of the programs, and all majors are awarded the Bachelor of Business Administration degree. Requirements for degree programs are listed in the departmental sections of this catalog. All departments in the College offer minors for students whose major field is in another college. Minor requirements are listed in the departmental sections of this catalog. Students may also complete undergraduate certificates in Business Analytics and Professional Sales.

All students in the College must complete the University core curriculum requirements. In addition, business students complete the pre-business block of courses and professional business core courses. A group of restricted and/or free electives, also required, varies by major. See the departmental sections for course requirements for each major. The College also requires completion of a co-curricular program, Career Catalyst. All majors in the College are required to participate in the program, designed to support students' professional development and career readiness. Early in the degree program students register for BSAD 2010, a zero-credit hour introduction to the program. Throughout the time a student is a COB major, he or she will complete at least one career development activity in each of five Catalyst areas. In the semester a student applies for graduation he or she also registers for BSAD 4010, another zero credit hour course, to certify completion of the Catalyst requirements. Registering for BSAD 2010 and BSAD 4010 and completing the program are required for graduation with a College of Business BBA in any major.

At the graduate level, the College offers the Master of Business Administration and the Master of Science in Business Information Systems. See the Graduate Catalog for information about these programs.

The programs of the COB are accredited by AACSB International-The Association to Advance Collegiate Schools of Business.

## COB Admission Requirements

To be accepted into any program in the COB, the student must have completed MATH 1302 - College Algebra and RHET 1312 - Composition II, with a grade of C or greater, and have a minimum of 2.25 overall GPA (at UA Little Rock or transferring school) or 2.25 overall GPA on the most recently completed 15 hours at UA Little Rock. The GPA on the most recent 15 hours will be calculated on all hours attempted during the semester(s) in which the 15-hour requirement is met.

## COB Upper-Level Credit Policies

Credit for an upper-level business course is not granted if students complete such courses before accumulating 54 semester credit hours. Credit is not granted toward a degree for any business course taken without the prerequisites stated in this catalog. Students may be administratively withdrawn from courses for which they are enrolled without the prerequisites.

## Transfer of Credits

In general, credits earned with a grade of C or greater at other appropriately accredited institutions may be transferred for credit toward majors and minors offered by the College, unless otherwise noted within departmental sections. Credits for upper-level business courses completed at schools not accredited by AACSB International are withheld pending review and validation by the department offering the course(s).

Credits earned at community colleges in business courses offered by UA Little Rock at the upper-level are not transferable toward a business degree. Students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree.

Transfer students must make an appointment with the Advising Center in the College's Center for Student and Career Services prior to their first registration.

## Concurrent and Transient Enrollment

The general policy is that students seeking UA Little Rock business degrees are expected to meet COB degree requirements with courses taken at UA Little Rock. Under

exceptional circumstances, a student may be permitted to take a course at another institution. Written permission to take a course at another institution must be obtained in advance from the major department chairperson and the College Dean. Appropriate request forms may be obtained from the Office of Records and Registration.

## Academic Advising

Students majoring in, or interested in majoring in, programs within the College of Business (see "Academic Advising " for the list of majors) are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours.

After reaching approximately 45 hours, business majors will be advised in the College of Business Center for Student and Career Services. To make an advising appointment, call the Center at 501-371-8009 or schedule an appointment online at [ualr.edu/cob/advising](http://ualr.edu/cob/advising).

The Center for Student and Career Services is an essential resource for all undergraduates in the College of Business. Within the Center, the College offers a comprehensive program of student advisement providing information on all College of Business majors' degree requirements, help with transfer course evaluations, admissions, and all academic advising from declaring a major to graduation. All students must meet with an advisor prior to registration.

The Center is located in the Donald W. Reynolds Center for Business and Economic Development Suite 109C.

## Preparation for Secondary Education with Business Emphasis

Students preparing for careers in secondary education with an emphasis in business education should complete one of the majors offered by the COB before entering the master of education (M.Ed.) in secondary education program with an emphasis in business education. Business courses required for licensure are offered by the COB. Students should consult the Department of Teacher Education in the College of Education and Health Professions regarding licensure requirements.

## **Business Studies Options for Non-business Majors**

The College of Business offers options in business studies for students with majors in other colleges. These are:

- Students pursuing the Bachelor of Arts in Interdisciplinary Studies in the College of Arts, Letters, and Sciences may choose a minor field concentration in business. Students interested in this option should contact the Department of Philosophy and Interdisciplinary Studies at (501) 569-3312.
- Academic minors are offered in each of the departments of the COB. Consult the departmental entries.

## **Online Undergraduate Offerings**

The College of Business offers the following fully online programs:

- Business Analytics, Certificate of Proficiency
- Accounting, Bachelor of Business Administration
- Business Analytics, Bachelor of Business Administration
- Business Information Systems, Bachelor of Business Administration
- Management, Bachelor of Business Administration
- Human Resource Management, Bachelor of Business Administration
- Marketing, Bachelor of Business Administration

Information regarding program content, cost, and admission can be found at [ualr.edu/online](http://ualr.edu/online).

## **University Core (35 hours)**

## **Standard Core (29 hours)**

All Courses approved by the Core Council. See "General Education Requirements."

## **College Core (6 hours)**

All Courses approved by the Core Council. See "General Education Requirements."

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## Department of Accounting

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Donald W. Reynolds Center, Room 205  
(501) 569-3484, fax (501) 683-7021,  
ualr.edu/accounting

<b>Chairperson:</b>	Funk, Mark, Associate Professor
<b>Professor:</b>	Kumar, Gaurav
<b>Associate Professors:</b>	Dorsey, Roger W. Farewell, Stephanie M. Taylor, Cynthia L. Prewett, Kyleen
<b>Instructors:</b>	Johnson, Cynthia L. Kerr, Joshua

The mission of the Department of Accounting is to provide quality educational experiences that enable students to enter and advance within the accounting profession. In pursuit of this mission, the faculty is committed to providing effective teaching, relevant research, and academic, professional, and community service.

All majors in the department are required to achieve a grade of C or greater in all courses required in their major.

### Educational Objectives

Graduates of our accounting programs should possess:

- Professional and technical knowledge,
- Effective communication skills,
- Analytical thinking abilities,
- Knowledge of professional and ethical standards, and
- Professional aspirations.

### General Information

Requirements to sit for the CPA Exam In the State of Arkansas, a CPA candidate must meet certain accounting and business education requirements. Students who earn an undergraduate degree that includes at least 30 undergraduate semester hours or 20 graduate hours in business, other than accounting, and at least 30 undergraduate semester hours or 20 graduate semester hours in accounting

above the principles level will be deemed to have met the education requirement for the CPA examination. Candidates who successfully complete the CPA examination must also complete 150 semester hours in order to be licensed.

Further details on UA Little Rock course offerings and their application to CPA exam requirements can be found at the department's website. Specific and official information about the requirements to sit for the CPA Exam in Arkansas is available from the Arkansas State Board of Public Accountancy.

### Prerequisites

Students enrolling in any accounting course for which the designated prerequisite work has not been completed previously may be administratively dropped from the course.

### Attempt Limit for Undergraduate Accounting

**Policy:** Students are limited to a maximum of three attempts in each undergraduate accounting course.

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

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

**Definitions:** An "attempt" is defined as either a full-term enrollment with a letter grade or an "Incomplete" being posted or a partial-term enrollment that lasts beyond the drop deadline but ends with withdrawal and a "W" being posted to the transcript. A "successful completion" is defined as a grade of C or greater in the course.

If a student drops, withdraws, or requests an incomplete this will not be considered a successful completion.

## Accounting, B.B.A.

**General:** (120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree)

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency

(none required)

### Major (79 hours)

#### General-business Courses (21 hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business

#### Professional Business Studies Foundation (28 hours)

- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

#### Accounting Course Requirements (30 hours)

Nine courses (27 hours) must be the following:

- ACCT 3311 - Intermediate Financial Accounting I

- ACCT 3312 - Intermediate Financial Accounting II
- ACCT 3321 - Federal Taxation I
- ACCT 3330 - Intermediate Cost and Managerial Accounting I
- ACCT 3341 - Accounting Information Systems
- ACCT 3361 - Accounting for Governments, NotforProfits, and Other Financial Issues
- ACCT 4311 - Accounting Issues
- ACCT 4314 - Advanced Financial Accounting
- ACCT 4351 - Auditing Theory and Practice I
- One course (3 hours) chosen from any ACCT 43XX course

### Minor

(none required; pre-business and professional business studies courses fill all hours)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Accounting Minor

### Program Requirements

A minor in accounting requires ACCT 2310, ACCT 2330, ACCT 3311, ACCT 3312, and two accounting electives

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## Department of Business Information Systems

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Donald W. Reynolds Center, Room 205  
(501) 569-3484, fax | (501) 683-7021 | ualr.edu/bis

<b>Chairperson:</b>	Robert Mitchell, Professor
<b>Professors:</b>	Kim, Sung-kwan
<b>Associate Professor:</b>	Woolridge, Richard
<b>Assistant Professors:</b>	Johnson, Vess Kumi, Richard Wang, Wenjun
<b>Instructor:</b>	Clements, Sarah
<b>Emeritus:</b>	Bailey, Janet L.

The Business Information Systems program provides you with technical, business, and interpersonal competencies necessary for success in the information technology (IT) and business analytics career fields. You are prepared to use computer technologies effectively to meet organizational objectives, to speak the language of business and translate needs into technological solutions, and to make effective and efficient decisions using data. Graduates hold positions such as IT manager, business and systems analyst, application developer, database developer and administrator, network specialist and administrator, security specialist, and project manager, to name a few.

The undergraduate program helps you integrate technical skill development with business competencies necessary to ensure efficient and effective business applications in a rapidly evolving global environment. Skills you develop in communication, teaming, and problem-solving make you an invaluable asset as an IT professional. The business analytics program components will prepare you to make effective and efficient decisions using data and thus help you differentiate your IT skillset. Our master's program allows you to further develop strategic and tactical skills for management of value-based IT systems which support the strategy and processes of an organization.

All Business Information Systems degrees are classified as STEM.

BBA in Business Information Systems, BBA in Business Analytics, and Certificate of Proficiency in Business Analytics may be completed on campus or fully online. Graduate programs are completed on campus.

### General Information

All majors in the department are required to achieve a grade of C or greater in all courses required in their major; all majors must also complete all required minor courses with a 2.0 overall GPA; all non-business majors completing a minor within the department are required to achieve a grade of C or greater in all courses transferred to or taken at UA Little Rock in order to fulfill course requirements in the minor block of courses.

### Graduation Requirement - Experiential Learning Activity

A high impact experiential learning activity, such as an internship, competition, or industry-based project, is required for graduation from the Business Analytics, BBA and Business Information Systems, BBA programs.

### Business Analytics

The Business Analytics major is an interdisciplinary degree that prepares graduates to use evidence-based data to make decisions and improve organizational effectiveness. The program focuses on the development of a highly demanded combination of technical and decision-making skills for big-data occupations across many industries, including business analyst, marketing manager, IT project manager, operations analyst, or financial analyst.

The Undergraduate Certificate of Proficiency in Business Analytics allows graduates to differentiate career preparation through the application of technical and analytical skills to decision making in their chosen fields of business.

### Business Information Systems Program Objectives

Students completing the BIS degree should be able to:

- Display critical thinking skills
- Apply technical skills and knowledge of technologies to business issues.

- Demonstrate competence in applying functional business knowledge.
- Solve real-world and/or simulated business problems.
- Display a global perspective and an understanding of cultural issues.
- Have an ethical perspective and behave ethically.
- Exhibit effective oral and written communication skills.

## Business Analytics, B.B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency

(none required)

### Major (82 hours)

#### General-business Courses (21 hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business

#### Professional Business Studies Foundation (28 hours)

- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

#### Emphasis Area (18 hours)

- BINS 4350 - Business Database Management Systems  
**or**
- IFSC 3320 - Database Concepts
- BINS 4312 - Object-Oriented Programming
- BINS 4351 - Data Analysis and Reporting
- BINS 4352 - Big Data Analytics Tools
- BINS 4360 - Bus Analytics Project Development
- FINC 4355 - Predictive Data Analysis
- MKTG 4310 - Marketing Research
- ACOM 3320 - Persuasive Presentations

#### Electives (6 hours)

- BINS 3392 - Cooperative Education I  
**or**
- BINS 4394 - Internship
- MGMT 4304 - Supply Chain Management
- MKTG 3385 - Consumer Analysis and Behavior

One of the following:

- ECON 4350 - Applied Econometrics
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)

- IFSC 4325 - Data Mining Concepts and Techniques
- IFSC 4345 - Information Visualization

## Minor

(none required)

(Pre-business and professional business studies courses fill all hours)

## Unrestricted General Electives

5-6 hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Business Information Systems, B.B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-1 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency

(none required)

### Major (79 hours)

#### General-business Courses (21 hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II

- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business

#### Professional Business Studies Foundation (28 hours)

- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

#### Emphasis Area (30 hours)

- BINS 3307 - Systems Development Methodologies
- BINS 4312 - Object-Oriented Programming
- BINS 4314 - Advanced Programming
- BINS 4331 - Management of Information Resources
- BINS 4350 - Business Database Management Systems
- BINS 4351 - Data Analysis and Reporting
- BINS 4352 - Big Data Analytics Tools
- BINS 4355 - Information Systems Development Project

#### Two courses (6 hours) from the following:

##### Technical Option

- ARST 2318 - Computer Applications in Art \*\*
- ARST 4348 - Production Design for the Internet \*\*
- BINS 4309 - Seminar: Special Topics in CIS/MIS



- BINS 4311 - Security Issues and Advanced Topics in Network Technologies \*
- CPSC 1375 - Programming I  
**and**
- CPSC 1175 - Introduction to Computer Science Laboratory
- CRJU 3305 - Seminar in Criminal Justice
- CRJU 3309 - Cybercrime \*
- CRJU 4311 - Security Management
- IFAS 2300 - Introduction to Information Assurance \*
- IFAS 3300 - Computer Forensics \*
- IFSC 1310 - Web Technologies \*\*
- IFSC 3300 - Web Client Applications
- IFSC 3342 - Mobile Web Development \*\*
- IFSC 4330 - Database Security \*
- IFSC 4339 - Network Security \*
- IFSC 4350 - Electronic Commerce
- IFSC 4360 - Social Computing
- RHET 4307 - Writing Software Documentation \*\*
- RHET 4372 - Usability Testing and Design \*\*

#### Management/Entrepreneurship Option

- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- MGMT 3362 - Venture Management and Decision Making
- MGMT 4361 - Business Planning and Product Introduction \*\*
- MGMT 4383 - Entrepreneurial Perspectives
- MGMT 4391 - Employment Law
- ACOM 3320 - Persuasive Presentations

#### Business Analytics Option\*\*\*

- ECON 4350 - Applied Econometrics
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)
- FINC 4355 - Predictive Data Analysis
- IFSC 4325 - Data Mining Concepts and Techniques

- IFSC 4345 - Information Visualization
- MGMT 4304 - Supply Chain Management
- MKTG 3385 - Consumer Analysis and Behavior  
**or**
- MKTG 4310 - Marketing Research

#### Note

\*Options in Information Assurance Minor

\*\*Options in UX Design and Web/Mobile Development Certificate

\*\*\*Options in Business Analytics Certificate

#### Minor

(none required; pre-business and professional business studies courses fill all hours)

#### Unrestricted General Electives

5-6 hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### Business Information Systems Minor

#### Program Requirements

- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 4331 - Management of Information Resources

#### Four courses

Four courses or (12 hours) from the following (with approval of the management department chair):

- ACCT 2310 - Principles of Accounting I
- BINS 3307 - Systems Development Methodologies
- BINS 4309 - Seminar: Special Topics in CIS/MIS
- BINS 4310 - Network Technologies

- BINS 4311 - Security Issues and Advanced Topics in Network Technologies
- BINS 4312 - Object-Oriented Programming
- BINS 4350 - Business Database Management Systems
- BINS 4355 - Information Systems Development Project

## **Business Analytics Certificate of Proficiency**

### **18 Hours Required:**

#### **Required (9 hours):**

- BINS 4350 - Business Database Management Systems  
**or**
- IFSC 3320 - Database Concepts
- BINS 4351 - Data Analysis and Reporting
- BINS 4352 - Big Data Analytics Tools

#### **Electives (9 hours):**

- FINC 4355 - Predictive Data Analysis
- MGMT 4304 - Supply Chain Management
- MKTG 4310 - Marketing Research

#### **At least one of the following:**

- BINS 4312 - Object-Oriented Programming
- ECON 4350 - Applied Econometrics
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)
- IFSC 4325 - Data Mining Concepts and Techniques
- IFSC 4345 - Information Visualization

#### **3 hours of an approved elective**

If you have not completed BINS 3352 in your degree requirements, it should be taken as an elective.

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## Department of Economics and Finance

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Donald W. Reynolds Center, Room 205  
(501) 569-3354 | (501) 683-7021 (fax) |  
ualr.edu/economics

<b>Chairperson:</b>	Funk, Mark: Associate Professor
<b>Professors:</b>	Terry, H. Andy Elder, Erick M. Holland, Larry C.
<b>Associate Professor:</b>	Hall, John R.
<b>Visiting Professor:</b>	Vibhakar, Ashvin
<b>Assistant Professor:</b>	Bhai, Moiz Jergins, William Jia, Zi (Tingting) Smith, Rhet

The Economics and Finance Department in the College of Business offers both an Economics major and a Finance major, as well as minors in Economics, Finance, Personal Finance, and Real Estate.

All majors in the department are required to achieve a grade of C or greater in all courses required in their major.

Economics is the study of people in the ordinary business of life. Economists study how individuals make decisions, how businesses and governments interact, and how decisions made on the other side of the globe affect everyday life close to home. The knowledge and skills gained while earning a bachelor's degree in economics will prepare you for careers in finance, law, business, and government.

Students majoring in Finance develop the strong analytical, problem-solving, and decision-making skills necessary for success in today's global business environment. The UA Little Rock finance program is one of only two programs in the state to have received University Recognition from the CFA Institute. UA Little Rock received this distinction for developing an ethics-based investment curriculum aimed at developing serious investment professionals. Finance students manage the \$400,000 Joe Ford Trust investment portfolio, complete cooperative education internship programs with leading financial firms and meet financial and business leaders from Central Arkansas.

## Economics Educational Objectives

Students completing the economics degree should accomplish the following educational objectives:

- Understand, explain, and identify how markets work with respect to the determination of prices, quantities, and allocation of resources.
- Collect economic data and be able to analyze and forecast economic activity.
- List various supply and demand shocks and identify how they affect economic activity in a complete, traditional macroeconomic model. Understand models of economic growth.
- Understand and be able to differentiate between market structures and explain their implications for pricing, output, and efficiency issues.
- Understand and explain the theory of the firm including, but not limited to, pricing, optimal input mix, and marginal analysis.

## Finance

The finance curriculum provides a theoretical framework of the environment in which financial institutions operate. Individual courses deal with financial institutions, the financial management of business firms, investments, and particular institutional areas of banking, real estate, and insurance. Emphasis is on the decision making, or analytical, aspects of the subject areas. The department offers three degree options (emphases) in the finance area.

- **Emphasis I** (General Finance) provides training in business finance, financial decision making within the firm, and the financial and banking systems.
- **Emphasis II** (Real Estate) provides a broad background in real estate analysis, investment, and financial decision making.
- **Emphasis III** (Financial Services and Risk management) provides training in the management of financial service firms such as banks, insurance firms, and wealth management firms.

To graduate, students majoring in finance must make a grade of C or greater in FINC 3310 as well as in all courses that constitute the major.

## Finance Educational Objectives

Students completing the finance degree should be able to:

- Demonstrate a thorough understanding of the time value of money (TVM) concepts by solving representative problems. This includes calculating present values, future values, and rates of return.
- Identify and explain the role and functioning of financial markets. Students should be able to explain the determination of interest rates, the role of financial intermediaries, the impact of risk and the connections across international markets. Value financial assets. This involves being able to explain risk-return trade-offs, asset pricing models, market efficiency, and international valuation. The student should be exposed to modern portfolio theory and option pricing theory.
- Identify and explain the investment and financing decisions of the firm, and how these decisions affect value. Students should be exposed to estimating the cost of capital, should be able to identify factors affecting the capital structure and financing alternatives (domestic and international) and be exposed to firm valuation.
- Be exposed to the ethical issues involved in finance. In particular, the student should be exposed to agency theory and its implications for financial managers. This includes exposure to fiduciary issues.

## Real Estate and Financial Services Educational Objectives

Students specializing in real estate, insurance, or financial planning should:

- Be exposed to the theoretical concepts and principles of each.
- Be able to apply the principles to real problems.
- Be exposed to the professional and institutional aspects of each.

## Economics, B.B.A.

**General:** (120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree

requirements and at least 50 percent of all COB courses required for a business degree)

## First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

## Core (35 hours)

See "General Education Requirements."

## Second Language Proficiency

(none required)

## Major (75 hours)

### General-business Courses (21 hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business

### Professional Business Studies Foundation (28 hours)

- Career Catalyst (BSAD 2010, BSAD 4010)
- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

### **Emphasis Area (24 hours)**

Economics Required Courses (9 hours)

- ECON 3315 - Intermediate Microeconomic Analysis
- ECON 3330 - Intermediate Macroeconomic Theory
- ECON 4350 - Applied Econometrics

Economics Elective Courses (15 hours)

- ECON 4320 - International Economics
- ECON 4324 - Environmental Economics
- ECON 4360 - Independent Study
- ECON 4397 - Seminar in Economics
- FINC 3340 - Financial Markets and Institutions
- FINC 3350 - Investment Analysis
- FINC 4360 - Risk Management
- Other course as approved by department chair

### **Minor**

(none required)

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### **Finance, Financial Services and Risk Management Emphasis, B.B.A.**

General: 120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree.

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### **University Core (35 hours)**

See General Education Requirements.

### **Major (75 hours)**

#### **General Business Courses (21 hours)**

- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

#### **Professional Business Studies Foundation (28 hours)**

- BSAD 2010 - Intro to Career Catalyst \*\*
- BSAD 3100 - Business Professionalism
- BSAD 4010 - Career Catalyst Completion \*\*
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- ECON 3315 - Intermediate Microeconomic Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing Career Catalyst program\*\*

#### **Financial Services and Risk Management (27 hours)**

Required Courses (12 hours)

- FINC 3330 - Principles of Insurance

- FINC 3340 - Financial Markets and Institutions
- FINC 3350 - Investment Analysis
- FINC 4360 - Risk Management

Select Five Courses from below (15 hours):

Select no more than 2 courses (6 hours) from below:

- ACCT 3321 - Federal Taxation I
- FINC 4341 - Commercial Property and Liability Insurance
- FINC 4396 - Cooperative Education I
- FINC 4399 - Independent Study

**And**

Select the remaining courses from below:

- FINC 4320 - Bank Financial Management
- FINC 4355 - Predictive Data Analysis
- FINC 4362 - Derivatives
- FINC 4363 - Financing Entrepreneurial Ventures
- FINC 4364 - Employee Benefits
- FINC 4371 - Real Estate Finance and Investment
- FINC 4380 - Portfolio Management
- FINC 4383 - Applied Equity Analysis
- Other courses as approved by Department Chair

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Finance, General Finance Emphasis, B.B.A.**

**General:** 120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree.

**First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

**University Core (35 hours)**

See General Education Requirements.

**Major (75 hours)**

**General-business Courses (21 hours)**

- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

**Professional Business Studies Foundation (28 hours)**

- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

**General Finance Emphasis (27 hours)**

Required courses (12 hours):

- FINC 3340 - Financial Markets and Institutions
- FINC 3350 - Investment Analysis

- FINC 4330 - International Finance  
or
- FINC 4362 - Derivatives
- FINC 4395 - Advanced Financial Management

Select Five Courses from below (15 hours):

Two of which MUST be FINC courses from the following:

- FINC 4320 - Bank Financial Management
- FINC 4330 - International Finance  
or
- FINC 4362 - Derivatives (if not used to satisfy above requirements)
- FINC 4355 - Predictive Data Analysis
- FINC 4360 - Risk Management
- FINC 4363 - Financing Entrepreneurial Ventures
- FINC 4371 - Real Estate Finance and Investment
- FINC 4380 - Portfolio Management
- FINC 4383 - Applied Equity Analysis
- FINC 4396 - Cooperative Education I
- FINC 4399 - Independent Study
- ECON 3315 - Intermediate Microeconomic Analysis
- ECON 3330 - Intermediate Macroeconomic Theory
- ECON 4320 - International Economics
- ECON 4350 - Applied Econometrics
- Up to two approved ACCT courses
- Other courses as approved by Department Chair

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Finance, Real Estate Emphasis, B.B.A.

**General:** 120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

See General Education Requirements.

### Major (75 hours)

#### General Business Courses (21 hours)

- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

#### Professional Business Studies Foundation (28 hours)

- BSAD 2010 - Intro to Career Catalyst \*\*
- BSAD 3100 - Business Professionalism
- BSAD 4010 - Career Catalyst Completion \*\*
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- ECON 3315 - Intermediate Microeconomic Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management

- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing Career Catalyst program\*\*

#### Real Estate Emphasis Courses (27 hours)

- FINC 3350 - Investment Analysis
- FINC 3370 - Real Estate
- FINC 4371 - Real Estate Finance and Investment
- FINC 4372 - Real Estate Valuation and Appraisal
- FINC 4373 - Real Estate Development and Management
- FINC 4378 - Real Estate Law

Select One of the 9-hour Tracks:

#### Professional Selling

- MKTG 3353 - Professional Selling
- MKTG 4355 - Advanced Professional Selling

#### And

Select one from below:

- MKTG 4351 - Sales Management
- MKTG 4370 - Business-to-Business Marketing

#### Built Environment

- CNMG 1305 - Drawings and Specifications
- CNMG 2313 - Construction Materials and Methods
- CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems

#### Financing

- FINC 3340 - Financial Markets and Institutions
- FINC 4350 - Financial Behavior and Modeling
- FINC 4360 - Risk Management

#### Minor

(none required)

#### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

#### Economics Minor

##### Program Requirements

The minor in economics, available to students majoring outside the COB, provides a market-oriented complement for many major fields of study. Students pursuing the

economics minor must take ECON 2322, ECON 2323, ECON 3315, ECON 3330, and six additional hours of approved upper-level electives in economics for a total of 18 hours.

#### General Finance Minor

##### Program Requirements

A minor in general finance for students majoring outside the College requires ACCT 2310 and ACCT 2330, ECON 2322 and ECON 2323, and FINC 3310 and FINC 3350. Students should be aware that ECON 2310 (or its equivalent) is a prerequisite for FINC 3310 and that MATH 1342 (or its equivalent) is a prerequisite for ECON 2310.

#### Real Estate Minor

##### Program Requirements

A minor in real estate for students majoring outside the COB requires ECON 2322 and ECON 2323, FINC 3310, FINC 3370, FINC 4371, and FINC 4372. Students should be aware that ECON 2310 (or its equivalent) is a prerequisite for FINC 3310 and that MATH 1342 (or its equivalent) is a prerequisite for ECON 2310.



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## Department of Management

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Donald W. Reynolds Center, Room 205  
(501) 569-3484 | (501) 683-7021 (fax) |  
[ualr.edu/management](http://ualr.edu/management)

<b>Chairperson:</b>	Robert B. Mitchell, Professor
<b>Professors:</b>	Bell, Joseph R. Leonard, Karen Tudor, Thomas
<b>Associate Professors:</b>	Bajwa, Naeem Felan, Joe T. Varela, Otmar E.
<b>Assistant Professors:</b>	Boss, Alan Zhao, Yue
<b>Senior Instructor:</b>	Hendon, John R.

The department offers a Bachelor of Business Administration in Management. There are three emphases within the management major.

### Emphasis Areas

1. Management
2. Human Resource Management
3. Innovation and Entrepreneurship

Three minors are offered to students majoring in fields outside the College of Business (COB):

### Minors

1. Management Minor
2. Human Resource Management Minor
3. Innovation and Entrepreneurship Minor

\*NOTE: All the emphasis areas and minors in the Department of Management are offered both on-campus and in a fully-online format.

*For more information about the online options, go to [ualr.edu/online](http://ualr.edu/online).*

### General Information

All majors in the department are required to achieve a grade of C or greater in all courses required in their major; all majors must also complete all required pre-business and professional business courses with an overall GPA of 2.0; all non-business majors completing a minor within the department are required to achieve a grade of C or greater in all courses transferred to or taken at UA Little Rock in

order to fulfill course requirements in the minor block of courses.

## Management Emphases

Each of the three emphases in the major develops critical thinking, specialized conceptual knowledge, and problem-solving techniques.

### Management Emphasis

The Management emphasis prepares students for professional positions in management and leadership in small businesses, corporations, and government. Students gain knowledge and skills to acquire positions such as general manager, account manager, project manager/specialist, operations manager, human resource manager/specialist, employee relations manager, employee benefits specialist, and training specialist.

### Human Resource Management Emphasis

The Human Resource Management emphasis focuses on the development of knowledge and applied skills in managing people and solving people-related problems. Students are prepared for entry-level careers in human resource management and for management roles in organizations of all sizes. Components of the program include the legal environment of employee relations; job analysis and design; employee planning, recruitment and selection; employee training and development; employee productivity improvement, compensation, and other reward systems; union-management relations; and quality of work life.

### Innovation and Entrepreneurship Emphasis

The Innovation and Entrepreneurship emphasis develops conceptual and applied skills required to produce and manage an economically successful small business. Entrepreneurial and practical decision-making skills are enhanced through experiential activities.

## Management Educational Goals

Students completing the management degree should be able to:

- Apply critical thinking skills.

- Demonstrate competence in applying functional business knowledge.
- Solve real-world and/or simulated business problems.
- Display a global perspective and an understanding of cultural issues.
- Have an ethical perspective and behave ethically.
- Exhibit effective oral and written communication skills.

## Minors in Management

A grade of C or greater in all UA Little Rock or transfer courses is required in order to fulfill a course requirement in each of these minor blocks of courses.

## Management, B.B.A.

**General:** (120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree)

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

See General Education Requirements.

### Second Language Proficiency

(none required)

### Major (75 hours)

#### General-business Courses (21 hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II

- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business

#### Professional Business Studies Foundation (28 hours)

- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

#### Management Emphasis (30 hours)

Management major required courses (12 hours)

- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- MGMT 3362 - Venture Management and Decision Making
- MGMT 4377 - International Business Management

Six courses (18 hours) chosen from the following:

- BINS 4331 - Management of Information Resources
- IBUS 4316 - Field Study in International Business
- MGMT 3306 - Quality Assurance and Improvement
- MGMT 3364 - Family Business Management
- MGMT 4304 - Supply Chain Management
- MGMT 4341 - Labor and Industrial Relations
- MGMT 4360 - Compensation Management

- MGMT 4361 - Business Planning and Product Introduction
- MGMT 4365 - Business Consulting
- MGMT 4375 - Sustainable Business
- MGMT 4378 - Global Operations Management
- MGMT 4383 - Entrepreneurial Perspectives
- MGMT 4385 - Special Topics in Management
- MGMT 4391 - Employment Law
- MGMT 4394 - Internship  
**or**
- MGMT 3392 - Cooperative Education I
- MGMT 4395 - Applications in HR Management
- ACOM 3323 - Conflict Management

**Human Resource Management Emphasis (27 hours)**

Six courses (18 hours) must be the following:

- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- MGMT 4341 - Labor and Industrial Relations
- MGMT 4360 - Compensation Management
- MGMT 4391 - Employment Law
- MGMT 4395 - Applications in HR Management

Three courses (9 hours) chosen from the following:

- FINC 4364 - Employee Benefits
- IBUS 4316 - Field Study in International Business
- MGMT 3362 - Venture Management and Decision Making  
**or**
- MGMT 3364 - Family Business Management
- MGMT 4342 - Negotiation and Administration of Collective Bargaining Agreements

- MGMT 4375 - Sustainable Business
- MGMT 4377 - International Business Management
- MGMT 4385 - Special Topics in Management
- MGMT 4394 - Internship  
**or**
- MGMT 3392 - Cooperative Education I
- ACOM 3316 - Interviewing
- ACOM 3323 - Conflict Management

**Innovation and Entrepreneurship Emphasis (33 hours)**

Four courses (12 hours)

must be the following:

- MGMT 3362 - Venture Management and Decision Making
- MGMT 4361 - Business Planning and Product Introduction
- MGMT 4365 - Business Consulting
- MGMT 4383 - Entrepreneurial Perspectives

Four courses (12 hours) of approved electives.

At least two from the following:

- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- MGMT 4385 - Special Topics in Management
- MGMT 4391 - Employment Law

May select up to two from the following:

- MGMT 3364 - Family Business Management
- MGMT 4363 - Financing Entrepreneurial Ventures
- MKTG 4310 - Marketing Research

Two courses (six hours) from one of the following competency areas:

#### Technology and Innovation Competency

- BINS 4331 - Management of Information Resources
- BINS 4350 - Business Database Management Systems
- BINS 4351 - Data Analysis and Reporting
- IFSC 3300 - Web Client Applications
- IFSC 4301 - Information, Computing, and the Future
- ARST 3340 - Introduction to Graphic Design

#### Retail Competency

- MKTG 3370 - Principles of Retailing
- MKTG 3385 - Consumer Analysis and Behavior
- MKTG 4370 - Business-to-Business Marketing
- ADVT 3300 - Advertising: an IMC Approach
- MKTG 3353 - Professional Selling
- MKTG 4341 - Brand and Market Consulting
- ACOM 3300 - Interpersonal Communication
- ACOM 3320 - Persuasive Presentations
- PSYC 3350 - Social Psychology
- ARST 4341 - Package Design

#### Financial Competency

- ACCT 3311 - Intermediate Financial Accounting I
- ACCT 3312 - Intermediate Financial Accounting II
- ACCT 3330 - Intermediate Cost and Managerial Accounting I
- ACCT 3341 - Accounting Information Systems
- FINC 3370 - Real Estate
- FINC 4360 - Risk Management
- FINC 4365 - Estate Planning

#### International Business Competency (Language)

- 1st and 2nd semester language courses in Spanish, French, Chinese or German

- MGMT 4377 - International Business Management

#### International Business Competency (Culture)

- MGMT 4377 - International Business Management (requirement of block)
- HIST 3326 - The Soviet Union and Russia since 1917
- HIST 3336 - Islam and the Modern Middle East
- HIST 3345 - People's Republic of China
- SOCI 3312 - North American Indians
- SOCI 3316 - Japanese Culture and Society
- SOCI 3330 - Racial and Minority Groups
- SOCI 3333 - Women in a Changing Society

#### Minor

(none required)

#### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Human Resource Management

### Minor

#### Program Requirements (18 hours)

- MGMT 3300 - Principles of Management
- MGMT 3320 - Human Resources Management

#### Four courses (12 hours) from:

- ACCT 2310 - Principles of Accounting I
- MGMT 4341 - Labor and Industrial Relations
- MGMT 4342 - Negotiation and Administration of Collective Bargaining Agreements
- MGMT 4360 - Compensation Management
- MGMT 4385 - Special Topics in Management
- MGMT 4391 - Employment Law

## **Innovation and Entrepreneurship Minor**

### **Program Requirements (15 hours)**

- MGMT 3300 - Principles of Management
- MGMT 3362 - Venture Management and Decision Making
- MGMT 4361 - Business Planning and Product Introduction
- MGMT 4383 - Entrepreneurial Perspectives

#### **One course (3 hours) from:**

- MGMT 3320 - Human Resources Management
- MGMT 3352 - Advanced Personal Computer Applications
- MGMT 3364 - Family Business Management
- MGMT 4365 - Business Consulting

## **Management Minor**

### **Program Requirements**

- MGMT 3300 - Principles of Management
- MGMT 3320 - Human Resources Management

#### **Four courses (12 hours) from:**

- ACCT 2310 - Principles of Accounting I
- MGMT 3305 - Management Information Systems
- MGMT 3340 - Managing People in Organizations
- MGMT 3362 - Venture Management and Decision Making
- MGMT 4360 - Compensation Management
- MGMT 4377 - International Business Management
- MGMT 4385 - Special Topics in Management
- MGMT 4391 - Employment Law

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## Department of Marketing and Advertising

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Donald W. Reynolds Center, Room 205  
(501) 569-3358 | (501) 569-7021 (fax) |  
ualr.edu/marketing

<b>Chair (Interim):</b>	Mitchell, Robert B., Professor
<b>Sales Center Director:</b>	Davis, Lenita M., Professor
<b>Professor:</b>	Geissler, Gary L.
<b>Associate Professor:</b>	Gilliam, David A.
<b>Assistant Professor:</b>	Rockwell, Casey

The primary mission of the department is to prepare students for a professional career in marketing, advertising, or sales in the private and public sectors. The knowledge, analytical skills, and technical expertise required of marketing professionals are emphasized.

The curriculum also provides a solid foundation for students planning graduate study in marketing and business. Marketing majors are required to achieve a grade of C or greater in all courses required of their major; all majors must complete all required pre-business and professional business courses with an overall GPA of 2.0.

### General Information

#### Educational Objectives

Students completing a marketing degree should accomplish the following educational objectives:

- Develop an understanding of the role of marketing in the global economy and within individual organizations.
- Develop an understanding of the ethical and social responsibilities of marketers.
- Develop an understanding of the nature and methods of marketing management, including marketing organization, marketing strategy planning, the development of marketing plans and programs, and the implementation and control of marketing programs.

- Develop an understanding of the nature of the marketing environment and the process of environmental analysis.
- Develop an understanding of the nature of consumer and institutional buyer markets, including an understanding of consumer and institutional buyer behavior.
- Develop an understanding of the process of market segmentation and finding target market opportunities.
- Develop an appreciation of the value of marketing information and an understanding of the marketing research process for obtaining marketing information.
- Develop an understanding of the marketing mix variables used by marketers in decision making, including the following:
  - Product management.
  - Marketing logistics management
  - Marketing communications and promotion management pricing management.

### Degree Requirements

#### Major Requirements for Degrees in the Department of Marketing and Advertising

Students will choose an emphasis in General Marketing, Advertising/Integrated Marketing Communication, or Professional Sales. The degree requirements for the degrees offered in the marketing and advertising department at UA Little Rock are outlined in the following charts.

#### Minors in Marketing and Advertising/Public Relations

The department offers minors in marketing, advertising/public relations, and professional selling.

#### Marketing, B.B.A.

**General:** (120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree

requirements and at least 50 percent of all COB courses required for a business degree)

### **First-Year Colloquium (0-1 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details.)

- BSAD 1100 recommended

### **University Core (35 hours)**

See General Education Requirements.

### **Second Language Proficiency**

(none required)

### **Major (75 hours)**

#### **General-business Courses (21 hours)**

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business

#### **Professional Business Studies Foundation (28 hours)**

- Career Catalyst (BSAD 2010, BSAD 4010)
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

#### **Required Marketing Courses for all Emphases (15 hours)**

- ADVT 3300 - Advertising: an IMC Approach
- MKTG 3353 - Professional Selling
- MKTG 3385 - Consumer Analysis and Behavior
- MKTG 4310 - Marketing Research
- MKTG 4385 - Marketing Management

#### **Required Marketing Elective for all Emphases (3 hours)**

Select one from below:

- ACOM 3300 - Interpersonal Communication
- ACOM 3320 - Persuasive Presentations
- ARST 2318 - Computer Applications in Art
- ENGL 2336 - Introduction to Creative Writing
- IBUS 4316 - Field Study in International Business
- MGMT 4365 - Business Consulting
- RHET 4305 - Document Design
- RHET 4371 - Writing on the Web

#### **Select an Emphasis Area below:**

##### **General Marketing Emphasis (12 hours)**

Four courses (12 hours) from the following:

- MKTG 3361 - Physical Distribution
- MKTG 4370 - Business-to-Business Marketing
- Two classes (6 hours) approved upper-level marketing electives

##### **Advertising/Integrated Marketing Communication Emphasis (12 hours)**

- ADVT 3310 - Advertising IMC Development
- ADVT 3340 - Public Relations
- ADVT 4320 - Advertising IMC Implementation
- One class (3 hours) approved MKTG or ADVT electives

### Professional Sales Emphasis (12 hours)

Four courses (12 hours) from the following:

- MKTG 4351 - Sales Management
- MKTG 4355 - Advanced Professional Selling
  
- MKTG 3361 - Physical Distribution  
or
- MKTG 4370 - Business-to-Business Marketing
  
- One course (3 hours) approved Professional Sales electives

### Minor

(none required)

### Unrestricted General Electives (5-6 hours)

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### Advertising/Public Relations Minor

#### Program Requirements

A minor in advertising/public relations requires 15 hours consisting of MKTG 3350, MKTG 4310; ADVT 3300, ADVT 3310; and Elective ADVT 4320 or ADVT 3340.

### Marketing Minor

#### Program Requirements

A minor in marketing requires 12 hours from MKTG 3350, MKTG 3385, MKTG 4310; and Elective ADVT 3300, MKTG 3353, or MKTG 4341.

### Professional Selling Minor

#### Program Requirements

A minor in professional selling requires 12 hours from the MKTG 3350, MKTG 3353, MKTG 4351, MKTG 4355. A cumulative GPA of 2.5 in all minor coursework is required.

## Professional Sales Certificate of Proficiency

### Program Requirements (12 Hours)

The department offers a certificate in Professional Sales. The certificate requires MKTG 3350, MKTG 3353, MKTG 4351, MKTG 4355.

## International Business Program

Donald W. Reynolds Center, Room 205  
(501) 569-3484 | (501) 569-7021 (fax) |  
[ualr.edu/internationalbusiness](http://ualr.edu/internationalbusiness)

<b>Program Coordinator:</b>	Gilliam, David, Associate Professor
<b>Professors:</b>	Elder, Erick M. Terry, H. Andy
<b>Associate Professors:</b>	Funk, Mark Felan, Joe Varela, Otmar
<b>Visiting Professor:</b>	Vibhakar, Ashvin

The International Business major uses an interdisciplinary approach to study the intricacies of the international marketplace. This major focuses on the complexities and interconnections between the world's markets and cultures. The goal is to prepare students to be managers in the twenty-first century.

A major in international business is valuable for positions with an international context in areas such as finance, purchasing, marketing, production, logistics and planning. All majors in the department are required to achieve a grade of C or greater in all courses required in their major.

### General Information

#### International Business Educational Objectives

Students completing the international business degree should accomplish the following educational objectives:



- Understand the nature of international business.
- Understand the major trends in the international trade and investment patterns between and among the major groups of nations and the theories purporting to explain these patterns.
- Understand the nature of international organizations such as the United Nations, the International Bank for Reconstruction and Development (World Bank), International Monetary Fund, World Trade Organization, Organization for Economic Cooperation and Development and their effects on business.
- Understand the major financial, economic/socioeconomic, physical, environmental, socio-cultural, political, legal, labor, competitive, and distributive forces affecting international business.
- Understand the export and import practices, terminology, and documentation.
- Understand the functional areas of business economics, marketing, human resources, finance, operations, and control of international business.

## International Business, B.B.A.

### International Business Program Requirements

**General:** (120 total minimum hours, including 45 hours upper-level courses (3000-4000 level) and 30 hours in residence; students must complete at UA Little Rock at least 50 percent of the major department degree requirements and at least 50 percent of all COB courses required for a business degree)

#### First-Year Colloquium (0-1 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details.)

- BSAD 1100 recommended

#### Core (35 hours)

See "General Education Requirements."

#### Major (72-75 hours)

#### General-business Courses (21 hours)

- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- ECON 2310 - Business Statistics I
- ECON 2322 - Principles of Microeconomics
- ECON 2323 - Principles of Macroeconomics
- MKTG 2380 - Legal Environment of Business
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

#### Professional Business Studies Foundation (28 hours)

- BSAD 2010 - Intro to Career Catalyst
- BSAD 4010 - Career Catalyst Completion
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- BINS 3380 - Business Communication
- BSAD 3100 - Business Professionalism
- ECON 3355 - Quantitative Business Analysis
- FINC 3310 - Business Finance
- MGMT 3300 - Principles of Management
- MGMT 3304 - Operations Management
- MGMT 4380 - Business Strategy
- MKTG 3350 - Principles of Marketing

#### Emphasis Area (21 hours)

Required International Business Courses (9 hours):

Demonstrate Second Language Proficiency

#### Option 1:

- Completion of SPAN 2311, SPAN 2313, SPAN 3313 or FREN 2311, FREN 2315, FREN 3311 or equivalent foreign language courses. Students may take a placement test (S-CAPE or F-CAPE).

#### Option 2:

- For students whose first language is not English, completion of RHET 1311, RHET 1312, and one of ENGL 2337, ENGL 2338, or PHIL 2320

International Business Required Courses (15 hours):

- ECON 4320 - International Economics
- FINC 4330 - International Finance
- MGMT 4377 - International Business Management
- MKTG 4320 - International Marketing
- IBUS 4316 - Field Study in International Business

International Business Electives – one course (3 hours) from:

NOTE: other courses as approved by coordinator

- ACCT 3311 - Intermediate Financial Accounting I
- ACCT 4316 - International Accounting
- ECON 4355 - Applied Econometrics
- FINC 4362 - Derivatives
- MKTG 4310 - Marketing Research
- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- MGMT 4361 - Business Planning and Product Introduction
- MGMT 4377 - International Business Management
- MGMT 4365 - Business Consulting
- MGMT 4378 - Global Operations Management

Demonstrate Cultural Awareness (3 hours):

#### Option 1

NOTE: other courses as approved by coordinator

Available to U.S. Residents:

- FREN 3334 - French Culture and Civilization I
- GERM 3334 - German Culture and Civilization
- SPAN 3334 - Hispanic Culture: Peninsular
- SPAN 3335 - Hispanic Culture: Americas
- HIST 3317 - Twentieth-Century Europe
- HIST 3328 - Modern France
- HIST 3331 - Modern Germany since 1806

- HIST 3372 - History of Latin America: Republican Period
- HIST 3375 - Modern Mexican History
- HIST 4378 - The History of U.S.-Latin American Relations
- POLS 3360 - Comparative Government: Western
- POLS 3370 - Comparative Politics: Developing Areas
- POLS 4380 - Classical Political Theory

#### Option 2

NOTE: Other courses as approved by coordinator

Available Only for non-U.S. Resident Students

- HIST 3358 - Recent America: The US, 1939-present
- HIST 4350 - The United States and the Middle East
- HIST 4354 - The New South
- HIST 4364 - History of American Enterprise
- HIST 4365 - Modern U.S. Culture
- HIST 4378 - The History of U.S.-Latin American Relations
- POLS 3320 - The American Presidency
- POLS 3325 - Legislative Process and Behavior
- POLS 4320 - American Foreign Policy
- POLS 4331 - International Organizations
- ACOM 4312 - Intercultural Communication

#### Minor

(none required)

#### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## College of Education & Health Professions

Dickinson Hall, Room 323 | (501) 569-3113  
(501) 569-8694 (fax) | [ualr.edu/cehp](http://ualr.edu/cehp)

<b>Dean:</b>	Ann Bain, Professor
<b>Associate Dean:</b>	Shannon Collier-Tenison, Associate Professor
<b>Interim Associate Dean /Interim Director, STEM Education Center:</b>	Kent Layton, Associate Professor
<b>Assistant Dean and Director of Advising and Student Services Center:</b>	Heather Reed

The College of Education and Health Professions brings together several of the UA Little Rock's most well established and successful professional programs that are each individually accredited:

- Audiology and Speech Pathology
- Counseling, Human Performance, and Rehabilitation
- Education
- Nursing
- Social Work

By emphasizing multidisciplinary collaboration and sharing departmental strengths, the college is poised to become a 21st-century leader in opening doors to high-demand careers for graduates of all ages.

### General Information

The college offers a number of bachelor's degrees, associate of science degrees in American Sign Language Studies and Nursing, as well as various master's, education specialist, and doctoral degrees at the graduate level. The college is also home to a number of centers and public service units including MidSouth; the Center for Applied Studies in Education; the Jodie Mahony Center for Gifted Education; and the Center for Literacy.

### Academic Advising

Students majoring in, or interested in majoring in, Health Education and Promotion are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours. Students interested in majoring in, or pre-admitted students in, the following programs are advised in the Advising and Support Center of the College of Education and Health Professions until they earn approximately 45 credit hours and are fully admitted to the program:

- Any Education program
- Nursing
- Communication Sciences and Disorders
- Social Work
- Interpretation: American Sign Language/English

After reaching approximately 45 hours and meeting admissions standards, students majoring in programs within the College of Education and Health Professions are transitioned to faculty advisors in their degree programs.

The CEHP Advising and Support Center is an integral part of student support in the college. Staff are available to assist prospective and current students with any aspect of their education within CEHP programs. Located on the third floor of Dickinson Hall, students interested in declaring a major within the college can receive assistance with admission to the academic college, academic advising, transition and mental health support, and career services. More information is available online at [ualr.edu/cehp.studentsuccess](http://ualr.edu/cehp.studentsuccess).

### University Core (35 hours)

#### Standard Core (29 hours)

All Courses approved by the Core Council. See "General Education Requirements."

#### College Core (6 hours)

Mathematics (3 hours)  
Humanities or Social Sciences or Communication–Spoken or Interdisciplinary \*\* (3 hours)

## School of Education

Dickinson Hall, Room 419 | (501) 569-3124  
(501) 569-3267 | (501) 569-3547 (fax) |  
ualr.edu/education

<b>Director</b>	Smith, Bruce; Professor
<b>Professors</b>	Duyar, Ibrahim Barrett, T. Greg MacFarlane, Bronwyn D. Nolen, Amanda L. Suter, W. Newton
<b>Associate Professors</b>	Burgin, John S. Cellitti, Anarella. Hughes, Gail D. Hune, Jennifer B. Hunt, Andrew Layton, Kent Lindsay, Anne C. Sedivy-Benton, Amy Vander Putten, Jim
<b>Assistant Professor</b>	Tate, Daryl, A.

The School of Education offers three Bachelor of Science in Education (B.S.E.) degrees, the B.S.E. in elementary education K-6, the B.S.E. in special education K-12, and the B.S.E. in middle childhood education grades 4-8, which includes specialties in math, science, social studies, and language arts. A minor in education is offered through the School of Education as well. For details about education licensure content areas, see the licensure officer in the School of Education.

The department strives to provide balanced teacher education programs that embody institutional and college goals, the Arkansas Department of Education teacher licensure requirements, guidelines of learned societies and professional associations, and contemporary educational philosophies and practices.

### General Information

The school also offers master of education degrees (M.Ed.) in curriculum and instruction, educational administration, gifted and talented education, higher education, learning systems technology education, reading, and education (with initial licensure areas in education, middle childhood education, and special

education). The school offers a graduate certificate and an educational specialist degree (Ed.S.) in reading, and a Ph.D. in reading. The school also offers doctorates in Education (Ed.D.) in educational administration and higher education. The School of Education also offers non-degree licensure programs at the graduate level for students already holding initial licensure but want to add additional licensure areas in education content areas, special education, curriculum/program administration, and educational administration (central office). More information about the graduate level programs may be obtained from the department or from the UA Little Rock Graduate Catalog.

### Exit Requirements

(See each program's requirements for specific exit requirements) In order to graduate with a degree from a program in teacher education and to be licensed, students must meet all general graduation requirements and earn a grade of C or greater in all professional education courses. Documentation of successful completion of all required Praxis and other state required standardized examinations must be provided as a condition for graduation from the undergraduate elementary program, middle childhood program, special education program, and the education minor. Students must submit complete required standardized exam scores to the College of Education and Health Professions as documentation of their successful completion of these tests.

Arkansas' definition of program completers for Title II reporting purposes has been changed. It requires completion of a degree program and successful performance on all required sections of required tests.

### Testing and Admissions Requirements

For entry into the undergraduate initial licensure programs, the School of Education accepts required ACT scores at or above a minimum:

- Math score of 19
- Reading score of 19
- Writing score of 6

If an individual has taken the ACT multiple times, the highest score in each category will be considered. Corresponding comparable SAT scores are accepted as well. If an applicant has ACT scores below the minimum composite score or has not taken the writing section of the

ACT, the applicant may take the Accuplacer Next Generation exam or exams at the UA Little Rock Testing Center and must make at least a score that corresponds to the comparative ACT minimum score:

- Next Gen Reading: minimum score = 253
- Next Gen Math: Minimum Score = 250
- Accuplacer Write Placer: minimum score = 5

Or, the applicant may also choose to retake the ACT (not offered at the Testing Center) to attempt to reach the minimum score required for entrance into the programs.

If an applicant has taken the Praxis Core or Praxis I/PPST, we will also accept the following minimum scores:

- Reading 156
- Math 150
- Writing 162
- PPST minimum scores of Reading 172, Math 171, and Writing 173

The above passing scores will be accepted in any combination for reading, math, and writing. There is an appeals process for students who do not meet the minimum scores and wish to pursue admission. Ask your advisor about this process.

## Application for Admission to the BSE in Elementary Education K-6

The following are minimum criteria for consideration for admission to the program. For admission to Fall and Spring Block I, all applicants must

1. be formally admitted to UA Little Rock.
2. have completed RHET 1311 and RHET 1312 English Composition, ACOM 1300, MATH 1321 or MATH 1302 with a grade of C or greater in each of these courses;
3. have completed all core requirements with an overall degree plan cumulative GPA of at least 2.7; or have completed an Associate's degree from an accredited college that meets university core requirements; Contact the Student Transfer Services office (501-682-1286) for more information; and
4. submit passing scores on the ACT or other accepted basic skills exams (see Testing and Admissions Requirements)
5. Contact the Undergraduate Advisor for Teacher Education, DKSN 300 (501) 569-3124, to complete the admission application.

## Retention

Retention decisions are the responsibility of the faculty. Once admitted, students are required to maintain a 2.75 grade-point average, with at least a C in all courses specific to the elementary program. In addition, students' professional behaviors, content knowledge, and classroom performance will be evaluated throughout the program. Successful completion of the licensure program is not based solely on the number of course credits but requires demonstration of specified professional knowledge, skills, and behaviors. While a student may require additional time to meet some performance expectations, the faculty may limit that time and reserves the right to remove a student from the program should appropriate progress not be demonstrated.

## Application for Admission to the BSE in Middle Childhood Education

The following are minimum criteria for consideration for admission to the program:

### For admission to Fall and Spring Block I, all applicants must

1. be formally admitted to UA Little Rock.
2. have completed RHET 1311 and RHET 1312 English Composition, ACOM 1300, MATH 1321 or MATH 1302 (see advisor) with a grade of C or greater in each of these courses; and
3. have completed all core requirements with an overall degree plan cumulative GPA of 2.70 or greater or 3.0 in the last 50 hours. Students seeking admission to the college with associate's degrees designed for transfer (Associate of Arts, Associate of Arts in Teaching, and some Associate of Science degrees) should refer to the "Community College Transfers" information appearing later in this section.
4. pass Praxis CORE.
5. contact the Undergraduate Advisor in Teacher Education, DKSN 300 (501) 569-3124, to complete the admission application.

## For admission to Fall and Spring Block II, all applicants must

1. satisfactorily complete all Block I requirements with an overall GPA of 2.70 or greater,
2. achieve passing scores on the Praxis content exams, and
3. contact the Undergraduate Advisor in Teacher Education, DKSN 300 (501) 569-3124, to complete the admission application.

## Retention

Retention decisions are the responsibility of the faculty. Once admitted, students are required to maintain a 2.75 grade-point average, with at least a C in all courses specific to the middle childhood program. In addition, students' professional behaviors, content knowledge, and classroom performance will be evaluated throughout the program. Successful completion of the licensure program is not based solely on the number of course credits but requires demonstration of specified professional knowledge, skills, and behaviors. While a student may require additional time to meet some performance expectations, the faculty may limit that time and reserves the right to remove a student from the program should appropriate progress not be demonstrated.

## Application for Admission to the BSE in Special Education

For admission to Teacher Education and Professional Prep I courses, all applicants must:

- be formally admitted to UA Little Rock.
- have completed RHET 1311 and RHET 1312 English Composition, ACOM 1300, MATH 1302 (see advisor) with a grade of C or greater in each of these courses; and
- have completed all core requirements with an overall degree plan cumulative GPA of 2.70 or greater or 3.0 in the last 50 hours. Students seeking admission to the college with associate's degrees designed for transfer (Associate of Arts, Associate of Arts in Teaching, and some associate of science degrees) may be fully admitted with audit for equivalent Core Courses and passing scores on the ACT or other accepted basic skills exams (see Testing and Admissions Requirements). Passing Praxis scores upon full admission to UA Little Rock. Please refer to the "[Community College](#)

Transfers" information appearing later in this section.

- pass Praxis CORE.

For admission to Professional Prep II courses, all applicants must:

- satisfactorily complete all Professional Prep I requirements with an overall GPA of 2.75 or greater.

For admission to Professional Prep III Internship I, all applicants must:

- satisfactorily complete all Professional Prep II requirements with an overall GPA of 2.75 or greater

For admission to Professional Prep IV Internship II, all applicants must:

- satisfactorily complete all Professional Prep III requirements with an overall GPA of 2.75 or greater
- achieve passing scores on the Praxis II special education content exam.
- satisfactorily complete Internship I.

## Retention

Retention decisions are the responsibility of the faculty. Once admitted, students are required to maintain a 2.70 grade-point average, with at least a C in all courses specific to the middle childhood program. In addition, students' professional behaviors, content knowledge, and classroom performance will be evaluated throughout the program. Successful completion of the licensure program is not based solely on the number of course credits but requires demonstration of specified professional knowledge, skills, and behaviors. While a student may require additional time to meet some performance expectations, the faculty may limit that time and reserves the right to remove a student from the program should appropriate progress not be demonstrated.

## Legal Reqs: Elementary, Middle Childhood, and Special Education

Students who have been formally admitted to the program must complete a criminal records check, state civil records check, and FBI records check before being placed in the field. The student is responsible for the fees associated with these checks (See Licensure Officer for correct paperwork).

## Graduation Reqs: Elementary, Middle Childhood, and Special Education

- Completion of all courses with grades as required in the degree plan and passing scores on all required Praxis II and other state required exams (see Licensure Officer for correct Praxis exams to take)
- The entry of all required artifacts into Chalk and Wire and submission of these artifacts for assessment in Chalk and Wire.
- Submission of Graduation Application in Boss by the announced deadline.

## Licensure

Applicants must provide the following items to the ADE Licensure office (see the School of Education Licensure Officer for details on this process):

- A completed license application form.
- An official UA Little Rock transcript showing the date the degree was granted. Official transcripts from all other institutions attended.
- Appropriate Praxis and other state required exam scores.
- ADE required professional development certificates
- Complete background checks for State Police, FBI, and Child Maltreatment Central Registry.

For more information concerning licensure, contact the School of Education Licensure Officer, Dickinson Hall, Room 419.

## Second Language Requirements for B.S.E. Students

There is no second language requirement for either the programs, although the special education program requires ASL I.

## Community College Transfers

Students transferring to UA Little Rock from two-year colleges are subject to these provisions (See "Transfer Student " section for requirements for admission of transfer students). Students must first consult with

Academic Advising to articulate transfer coursework prior to being admitted to the College of Education and Health Professions. Students must schedule an appointment with the Undergraduate Advisor in Teacher Education, DKSJN 300 (501) 569-3124, to pursue admission to elementary and middle childhood programs. Students must meet the admission requirements listed above per program sought. If a student has completed the Associate of Arts in Teaching (AAT) at a two-year institution, core requirements at UA Little Rock will be met.

## Students Who Transfer from Four-Year Institutions

These provisions listed for community college transfers may also apply to transfer work from four-year institutions that are either accredited by the Council for the Accreditation of Educator Preparation (CAEP) formerly known as the National Council for the Accreditation of Teacher Education (NCATE) or approved as teacher education institutions by the state in which they are located.

## Center for Applied Studies in Education

The Center for Applied Studies in Education (CASE) is an independent research and evaluation unit within the College of Education and Health Professions. The Center specializes in research involving education and human service issues. It provides research design; data collection, processing and analysis; statistical support; grant and report writing; program evaluation; and measurement procedures and instrument design services to local, state, and national agencies.

The center's staff collaborates in research and training with UA Little Rock and UAMS faculty and students, and the Arkansas Department of Education's Special Education Division, as well as with other state and national education and human service organizations. Current grants and contracts provide research and evaluation support to national government agencies and the state educational community. The CASE faculty participates in teaching undergraduate and graduate courses through the Department of Teacher Education.

## Center for Literacy

The mission of the Center for Literacy is to use literacy as a tool for meeting the following goals:

- Prepare students to assume leadership roles for influencing literacy at local, state and national levels.
- Offer a framework for implementing learning communities within schools and regions where students can collaborate on literacy projects.
- Advocate for reading specialists, Reading Recovery teachers, and Literacy Coaches in all schools by making graduate coursework more accessible to students across the state.
- Promote research initiatives between faculty and schools.
- Provide services to the community, schools, and state to address literacy-related issues, including annual conferences, literacy academies, and summer institutes.
- Provide intellectual resources for supporting literacy efforts within schools.
- Continue to build partnerships at the national and professional levels in order to advocate for effective literacy practices, early intervention services for struggling readers, and reading specialists in all schools.
- Increase opportunities for faculty to collaborate on literacy-related projects and research.
- Publish scholarly materials, including a peer-refereed online journal that focuses on school-based research, technical reports on literacy, and other documents that illustrate university and school partnerships.

The UA Little Rock Center for Literacy provides a structure for integrating five interrelated elements: teaching professional development, research and scholarly activity, technology, and partnerships. For additional information call (501) 683-7343.

## Jodie Mahony Center for Gifted Education

The Jodie Mahony Center for Gifted Education, located in SUA 101, provides the following programs or services:

- AP Summer Institutes
- Arkansas Advanced Placement Professional Development Center
- Arkansas Evaluative Initiative

- e Initiative
- Center for Gifted Education
- Duke Talent Identification Ceremony
- Summer Laureate for Youth (SLUFY)

For additional information, call (501) 569-3410.

## Federal Title II Survey

Six components are identified in Arkansas Title II Regulations for a "well-performing institution," UA Little Rock meets all six criteria:

1. A summary pass rate of at least 80%.
2. A content major for secondary education for those who complete the program.
3. Student/Faculty supervision ratio does not exceed 18 to 1.
4. The number of weeks of student teaching is not less than 12 weeks.
5. The institution conducts an annual comprehensive unit assessment of teacher preparation.
6. The institution is not placed on probation by NCATE.

The following institutional report is made available in compliance with section 207F of Title II regarding the performance of the teacher preparation program at UA Little Rock for the 2006-2007 cohort of students.

For further information and subject-specific pass rates, visit the College of Education and Health Professions website.

## Institutional and State Pass Rates

- Aggregate Basic Skills: 100% / 100%
- Aggregate Professional Knowledge: 100% / 100%
- Aggregate Academic Content: 100% / 100%
- Summary Totals and Pass Rate: 100% / 100%

## Minor In Education

(501) 569-8944 | [ualr.edu/education/education-minor](http://ualr.edu/education/education-minor)

Students interested in teaching in education in Arkansas must be licensed by the state in a state-approved subject area. UA Little Rock programs in teacher education are designed to prepare students for licensure. Candidates for licensure must pass examinations mandated by the state, and pass a criminal background check.



## Teacher Licensure Areas

- Art Education (Grades K-12)
- English and Language Arts Education (Grades 7-12)
- Foreign Language Education (French or Spanish) (Grades K-12)
- Music Education (Vocal/Instrumental) (Grades K-12)
- Social Studies Education (Grades 7-12)
- Physical Education, Wellness, Leisure (Grades K-12)
- Mathematics Education (Grades 7-12)
- Physical Science / Earth Science Education (Grades K-12)
- Biology and Life Science (Grades 7-12)
- Chemistry (Grades 7-12)
- Physics (Grades 7-12)

For admission requirements and more, go to [ualr.edu/catalogs/undergraduate-catalog/education-minor](http://ualr.edu/catalogs/undergraduate-catalog/education-minor).

## Admission Requirements

Admission to the program will only be considered if the student has completely met the following requirements:

1. Formal admission to UA Little Rock
2. Completion of RHET 1311 and RHET 1312, ACOM 1300, MATH 1302 or MATH 1321 with a grade of "C" or better
3. Completion of all core requirements with a cumulative average of 2.75, or a 3.0 on the last 60 hours
4. Submission of passing scores on the ACT or other accepted basic skills exams to an advisor (see Testing Admissions Requirements)
5. Submission of Advising Form to program advisor
6. Completion of all background checks (FBI, State Police and Child Maltreatment)

## University Core Requirements and Retention

### University Core Requirements

A student seeking a baccalaureate degree must complete a total of 35 hours in core courses. Options within the core may be restricted by the content majors, associated blocks of courses, or special minors in some licensure areas. A

student should consult the requirements of his or her licensure area before selecting core courses.

### Retention

Once admitted, students are required to maintain a 2.75 grade-point average, with at least a "C" in all professional courses (this includes all courses associated with the licensure/degree plan). In addition, students' professional behaviors, content knowledge, and classroom performance will be evaluated throughout the program.

Successful completion of the licensure program is not based solely on the number of course credits but requires demonstration of specified professional knowledge, skills, and behaviors.

Once the student has begun the program, periodic evaluations will assess progress. Failure to progress satisfactorily might result in a student being removed from the program. While a student may require additional time to meet some performance expectations, the faculty may limit that time and reserves the right to drop a student from the licensure program should appropriate progress not be demonstrated.

### Elementary Education K-6, B.S.E.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. Recommended First Year Colloquium course is TCED 1100 Introduction to Teaching and Learning.

### University Core (35)

Must be completed before admission into this program as well as passing the Praxis 1 examination.

(See General Education Requirements.)

Majors have the option to take ACOM 1300 or any Humanities course to fulfill the core requirements.

### Second Language Proficiency

(none required)

## Major (85 hours)

### Floating Block (10 hours)

Can be taken before entering the program, during the summer, or anytime during the program

- HHPS 3330 - Teaching PK-6 Physical Education
- MUED 3232 - Early Classroom Music
- ARED 3245 - Art for Elementary Teachers
- HIST 4355 - History of Arkansas

### Program Courses (75 hours)

Formal admission to the ELEM program is required to take any of the following courses

#### Block I (17 hours)

- ELEM 2200 - Field Experience I
- ELEM 2300 - Foundations of Elementary Ed.
- ELEM 2301 - Children's Literature
- ELEM 2302 - Child Growth and Development
- ELEM 2303 - Emergent Literacy
- ELEM 2304 - Integrated Science K-3

#### Block II (17 hours)

\*Note: LANG 4323 Second Language Acquisition or LANG 4322 Teaching Second Languages may be substituted for LANG 4324.

- ELEM 3200 - Field Experience II
- ELEM 3300 - Building Learning Environments
- ELEM 3301 - Integrated Lit. and Language I
- ELEM 3302 - Social Studies Methods
  
- TCED 4300 - Workshop  
or
- MATH 3380 - Math I for Elementary Education
  
- LANG 4324 - Teaching People of Other Cultures \*

#### Block III (17 hours)

- ELEM 4200 - Field Experience III
- ELEM 4300 - Assessment Methods K-6
- ELEM 4301 - Integrated Lit and Language II
- ELEM 4302 - Integrated Science 4-6
- MATH 3382 - Mathematics II for Elementary Education
- SPED 4301 - Education of Exceptional Learners

#### Block IV (12 hours)

- ELEM 4304 - Internship Seminar I
- ELEM 4600 - Internship I
- ELEM 4305 - Collaborations w/ Family and Professionals

#### Block V (12 hours)

- ELEM 4306 - Internship Seminar II
- ELEM 4900 - Internship II

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## Middle Childhood Education, B.S.E.

**General:** 120 minimum total hours, including a minimum 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. TCED 1100 is recommended.

## Core (35 hours)

It is recommended that RHET 1311, RHET 1212, HIST 1311, and HIST 1312 be taken before or concurrently with ARHA 2310 and ARHA 2311.

## Second Language Proficiency

(none required)

## Concentration Courses (36 hours)

Candidates must complete a minimum of 18 hours in two of the content areas listed below. Concentration courses are suggested based on required Praxis content knowledge examinations and must be completed with a grade of "C" or better.

### Social Studies Concentration (18 hours)

- HIST 1311 - History of Civilization I
- HIST 1312 - History of Civilization II
  
- HIST 2311 - U.S. History to 1877  
or
- HIST 2312 - U.S. History since 1877
  
- POLS 1301 - American National Government
- ECON 2301 - Survey of Economics
- GEOG 1311 - Introduction to Physical Geography

### Language Arts Concentration (18 hours)

\* NOTE: These courses apply toward both the concentration and major course hour requirements.

- RHET 1311 - Composition I
- RHET 1312 - Composition II
- ENGL 2337 - World Literature
- RHET 3301 - Editing for Usage, Style, and Clarity
- TCED 4300 - Workshop \*
  
- ENGL Upper-Level Course – 3 hrs  
or
- RHET Upper-Level Course – 3 hrs

## Math Concentration (18 hours)

- MATH 1302 - College Algebra
  
- MATH 1451 - Calculus I  
or
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
  
- MATH 2310 - Discrete Mathematics
- MATH 3383 - Mathematics for Middle School
- MATH 3384 - Concepts in Geometry
- MATH 4380 - Concepts in Probability and Statistics

## Science Concentration (20 hours)

- Core science course – 4 hrs
- Core science course – 4 hrs
- Science course with lab – 4 hrs
- Science course with lab – 4 hrs
- IGSC 4401 - Integrated Science Methods

## Major (59 hours)

Formal admission to the Middle Childhood Education program is required to enroll in the following courses:

### Fall Block I (16 hours)

- MCED 4302 - Introduction to Middle Level Education
- TCED 4321 - Teaching Diverse Learners
- MCED 3303 - Middle Childhood Curriculum and Planning
- MCED 3105 - Field Experience I \*
- Concentration Methods Course \*\*
- Elective (3 Hrs)

### Spring Block I (15 hours)

- MCED 3430 - Integrated Mid-level Curriculum
- SPED 4301 - Education of Exceptional Learners
- MCED 3240 - Field Experience II \*

- Concentration Methods Course \*\*
- Elective (3 Hrs)

#### Summer (3 hours)

- EDFN 3304 - Assessment in the Middle School Curriculum

#### Fall Block II (13 hours)

- MCED 4330 - Classroom Management
- MCED 4120 - Licensure Seminar
- MCED 4310 - Middle Level Content Literacy
- MCED 4601 - Internship I \*

#### Spring Block II (12 hours)

- TCED 4320 - Interactive Technology for Middle School
- MCED 4303 - Professional Seminar
- MCED 4602 - Internship II \*

#### Note

\* Field Experience and Internship courses will consist of student observation and teaching in a public school classroom.

\*\* These courses apply toward both the concentration and major course hour requirements. Concentration methods courses will depend on concentration areas selected: HIST 4397 (Social Studies), TCED 4300 (Language Arts), MATH 3383 (Math), IGSC 4401 (Science)

#### Minor

(none required)

#### Unrestricted General Electives

Students may take general elective courses to fulfill any remaining hours to reach the 120 minimum total hours, the 45 hours of upper-level courses (3000-4000 level), or the 30 hours in residence.

## Special Education, B.S.E.

**General:** 122 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### First-Year Colloquium (1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. Recommended First Year Colloquium course is TCED 1100 Introduction to Teaching and Learning.

#### Core (35 hours: University Core – 29 hours/CEHP College Core – 6 hours)

Must be completed before admission into this program as well as passing the Praxis Core examination.

#### Second Language Proficiency (6 hours)

3 hours of a second language is suggested and INTR 1320 American Sign Language I is recommended.

#### Major (87 hours)

##### Floating Block (9 hours)

Candidates may enroll in these courses without FULL admission to the Special Education Program

Second Language, ASL, or ESL Requirement

- TCED 1100 - Introduction to Teaching and Learning
- SPED 3304 - Multicultural Families and Collaborative Partnerships
- HIST 4355 - History of Arkansas
- INTR 1320 - American Sign Language I

##### Teacher Education Courses (18 hours)

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- ELEM 3300 - Building Learning Environments

- READ 3322 - Foundations of Reading
- SCED 3383 - Knowing and Learning
- EDFN 3320 - Introduction to Educational Psychology

### Professional Special Education (60 hours)

Professional Prep Courses Courses taken ONLY in First Summer in the Program (12 hours)

- SPED 4311 - Behavior Management
- SPED 4312 - Medical Problems in Child Development

Second or Subsequent summers in the program

- SPED 4302 - Assistive Technology in Special Education
- SPED 4353 - Transition and Life Adjustment

Professional Prep I (12 hours)

- SPED 4343 - Special Education Law
- SPED 4306 - Characteristics and Methods of Mild/Moderate Disabilities
- READ 4322 - Literacy Assessment of Students with Special Needs
- AUSP 3360 - Language and Speech Acquisition
- SPED 4101 - Field Experience I Mild Disabilities (CR)

Professional Prep II (12 hours)

- SPED 4326 - Assessment in Special Education
- SPED 4328 - Teaching Content in Special Education
- SPED 4330 - Characteristics & Methods of Severe Disabilities
- AUSP 4366 - Language Disorders
- SPED 4103 - Field Experience II Severe Disabilities (CR)

Professional Prep III (12 hours)

- SPED 4901 - Internship I (K-6)
- SPED 4331 - Internship Seminar 1

Professional Prep IV (12 hours)

- SPED 4902 - Internship II (7-12)
- SPED 4332 - Internship Seminar 2

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 122 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### Education Minor

Praxis Exams:

**Praxis Core:** Reading, Writing, and Mathematics

**Praxis Subject Assessment:** Principles of Learning and Teaching for appropriate for grade-level licensure

**Praxis Subject Assessment:** All Content exams required by the Arkansas Department of Education

The Education Minor is required in all programs and should not be confused with other blocks of courses or special minors required in some licensure areas.

### Minor (18 hours)

Education Minor Candidates must also complete a content methods course (or course pair) in their content area with a field placement in a K-12 classroom (ARED 4128, ENGL 4103 & ENGL 4202/RHET 4202, HIST 4197 & HIST 4397, HHPs 4379, IGSC 4101 & IGSC 4301, LANG 4322, MATH 4481, or MUED 4322).

- TCED 4383 - Instructional Skills
- TCED 4321 - Teaching Diverse Learners
- TCED 4330 - Classroom Management
- TCED 4600 - Internship (or content specific section  
ARED/BIOL/CHEM/ENGL/HIST/HPPS/LANG/MA  
TH/MUED/PHYS of 4600 Internship)

### Education Elective (choose 1)

- SPED 4301 - Education of Exceptional Learners
- ELEM 2302 - Child Growth and Development
- MCED 4310 - Middle Level Content Literacy

### Praxis Series Tests

Candidates in all programs must pass several standardized exams mandated by the State of Arkansas, The Praxis Series: Professional Assessments for Beginning Teachers, developed by Educational Testing Services, Inc. Successful completion of the Praxis CORE is required for the Education Minor. In order to complete the Education Minor, students must also pass the Praxis Subject Assessment pedagogy exam (Principles of Learning and Teaching) and all required Praxis Subject Assessment content exams within their licensure area. The content exams are required by the State of Arkansas at the time of publication of this catalog but are subject to change. Students who do not pass the exams are ineligible to graduate under an education program degree plan with a minor in education and are ineligible for teaching licensure. In such cases, students may qualify to graduate under another degree plan, although additional coursework may be required.

- Students should consult an advisor in their licensure content area before registering to take exams.
- Students must submit completed "Praxis CORE and Praxis Subject Assessment" scores to the School of Education.

### Content Components

All programs require the completion of a major in the chosen field and in some cases require additional courses, blocks of courses, or other special minors. When the hours accumulated within a content area, taken together with university core hours, second language hours, and the 18 hours in the Education minor do not total 120 (of which at least 45 are upper-level), students must take additional general electives.

### Licensure Area: Art

Students must major in art, completing the following curriculum (64 hours)

#### Foundations (15 hours)

- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2310 - Figure Drawing
- ARST 2315 - Three-Dimensional Design
- ARST 2318 - Computer Applications in Art

#### Studio (24 Hours)

- ARST 3310 - Drawing: Creative Invention
- ARST 3320 - Painting Fundamentals 1
- ARST 3330 - Printmaking Basics
- ARST 3340 - Introduction to Graphic Design  
**or**
- ARST 3380 - Introduction to Illustration
- ARAD 3350 - Introduction to Ceramics
- ARST 3360 - Introduction to Sculpture
- ARST 3370 - Introduction to Photography
- ARST 3312 - Contemporary Crafts

#### Art History (12 Hours)

- ARHA 2310 - Survey of the History of Art I
- ARHA 2311 - Survey of the History of Art II
- ARHA 2312 - Survey of Non-Western Art
- One additional upper-level ARHA (Not to include museum studies.)

#### Art Education (13 hours)

- ARED 4325 - Foundations in Art Education
- ARED 4326 - Art and Cognitive Development
- ARED 4327 - Art Theory and Criticism
- ARED 4328 - Curriculum and Assessment in Art Education
- ARED 4128 - Art Education Seminar (Student teaching)

## Note

Students in the bachelor of arts in art/education program who want to enroll in a master of arts in art or master of fine arts program after graduation need to take additional studio and art history coursework at the undergraduate level.

## Licensure Area: English Language Arts

Students must major in English in keeping with the following curriculum:

### Required Courses (21 hours)

- ENGL 3330 - Approaches to Literature
- ENGL 3331 - British Literature 1
- ENGL 3332 - British Literature 2
- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ENGL 3360 - Selected Topics in Literature (when taught as Studies in World Literature)
- ENGL 4199 - Seminar in Career Perspectives
- ENGL 4202 - Teaching Literature in Secondary Schools

### Additional English Requirements (12 hours total) to include:

#### American Literature (3 hours)

- ENGL 3321 - American Literature I
- ENGL 3322 - American Literature II
- ENGL 3323 - American Literature III

#### African-American Literature (3 hours)

- ENGL 3326 - African-American Literature I
- ENGL 3327 - African-American Literature II

#### Upper-level (3000-4000) English Electives (6 hours)

## Additional Competencies beyond required English hours (8 hours)

- RHET 4202 - Teaching Writing in Secondary Schools
- RHET 3317 - Nonfiction

## Adolescent Literature (3 hours)

- RHET 1312 - Composition II (when the topic is Writing about Children and Their Literature)
- RHET 4347 - Topics in Nonfiction Writing (when the topic is Writing for Children and Families)
- SCED 4316 - Adolescent Literature
- ENGL 4375 - Young Adult Literature

## Licensure Area: Music: Vocal/Instrumental

Students must major in music with an emphasis in applied music and meet with the Music Department Chair each semester for advising.

### Music Major (59 hours)

- MUTH 2381 - Music Theory I
- MUTH 2391 - Music Theory II
- MUTH 3381 - Music Theory III
- MUTH 2291 - Aural Skills I
- MUTH 2292 - Aural Skills II
- MUTH 3231 - Form and Analysis

### Music Ensemble (4 hours)

### Applied Study (4 hours)

### Upper-level Applied Study (4 hours)

- MUTH electives (3 hours)
- MUHL 3322 - Survey of Western Art Music
- MUHL 3381 - American Music

### MUHL elective chosen from:

- MUHL 3351 - The History of Rock (3 hours)
- MUHL 3361 - Jazz History and Styles (3 hours)

- MUHL 3370 - History of the Blues (3 hours)
- MUHL 3371 - Non-Western Music (3 hours)

#### **Six semesters of MUAP 1000 Recital Attendance**

- MUAP 1000 - Recital Attendance

#### **Music Education Emphasis (14 hours)**

- MUAP 3224 - Conducting I
- MUAP 3325 - Conducting II
- MUED 3314 - Vocal Pedagogy
- MUED 3315 - Teaching Choral Music in the Schools
- MUED 3322 - Music in the Elementary Grades

#### **Six hours of Music electives**

Students in the education track are strongly encouraged to take either MUTH 4310 Arranging or MUTH 4320 Basic Composition as the theory elective.

Additionally, students are required to take MUHL 3322 Survey of Western Art Music, MUHL 3381 American Music, complete at least two semesters in MUEN 4113 University Concert Choir, and enroll in MUEN 4140 Community Choir each semester they are enrolled in this emphasis.

Students in the education track are required to demonstrate piano/keyboard proficiency. For students with little or no piano/keyboard background, it may be necessary to take up to 8 hours of piano/keyboard classes MUAP 1214 Piano Class I, MUAP 1244 Voice Class II, 2284 Class Piano III, and 3265 Piano Skills to fulfill this requirement.

### **Licensure Area: Foreign Language**

Students must major in Spanish or French and it is recommended that the student also minor in a field taught in schools. English, Social Studies, and the Arts are common combinations with foreign languages. An official ACTFL-certified Oral Proficiency Interview is required for all students seeking Teacher Licensure in French, German, or Spanish. Certification at the Advanced-low oral proficiency level as defined by ACTFL is required prior to admission to student teaching in a second language. See "Department of World Languages" for details pertaining to each of the majors in foreign languages.

### **Second Language Education Block (12 hours)**

These courses provide the requirements for the Arkansas ESL endorsement. Any part of the block may be met by demonstration of competency.

- LANG 4322 - Teaching Second Languages
- LANG 4323 - Second Language Acquisition
- LANG 4324 - Teaching People of Other Cultures
- LANG 4325 - Second Language Assessment

### **Licensure Area: Social Studies – History**

#### **History Major (30 hours)**

- HIST 2311 - U.S. History to 1877
- HIST 2312 - U.S. History since 1877
- HIST 4355 - History of Arkansas
- HIST 4397 - Teaching Applications
- 3 hours U.S. History electives
- 6 hours non-U.S. History electives (European ancient, Latin American, or Asian)
- 3 hours Senior capstone seminar (taken after 90 total hours)
- 6 hours upper-level history electives

#### **Social Studies Minor (21-30 hours):**

If the following courses are not taken for the core, they must be taken as part of the social studies minor:

- ECON 2301 - Survey of Economics
- POLS 1310 - American National Government
- POLS 2301 - Introduction to Political Science

#### **6 hours of behavioral sciences from:**

- ANTH 2316 - Cultural Anthropology
- PSYC 2300 - Psychology and the Human Experience
- SOCI 2300 - Introduction to Sociology

#### **6 hours of geography, the following are recommended:**

- GEOG 2310 - World Regional Geography
- GEOG 2312 - Cultural Geography



## Licensure Area: K-12 Physical Education/Health

Students must major in Health, Human Performance & Sport Management, completing the following curriculum:

### General Health, Human Performance & Sport Management Concentration Area (8 hours)

- HHPS 3401 - Nutrition
- HHPS 3412 - Applied Human Science  
**or**
- BIOL 1411 - Introduction to Human Anatomy and Physiology I  
**or**
- BIOL 1412 - Introduction to Human Anatomy and Physiology II

### Professional Area Requirements (55 hours)

- HHPS 2372 - Care and Prevention of Injuries
- HHPS 3210 - Teaching Individual Sports
- HHPS 3211 - Health and Safety in Early Childhood
- HHPS 3212 - Teaching Individual Sports II
- HHPS 3220 - Teaching Team Sports
- HHPS 3222 - Teaching Team Sports II
- HHPS 3302 - Exercise Physiology
- HHPS 3310 - Coaching Theory and Methodology
- HHPS 3320 - History of Physical Education
- HHPS 3330 - Teaching PK-6 Physical Education
- HHPS 3372 - Advanced First Aid
- HHPS 3377 - Drug Ed. K-12
- HHPS 3402 - Structural Kinesiology
- HHPS 3410 - Biomechanics of Human Movement
- HHPS 3422 - Exercise, Wellness & Lifestyle
- HHPS 4340 - Adapted Physical E. K-12
- HHPS 4350 - Methods and Techniques of Teaching Physical Education 6-12
- HHPS 4379 - Methods and Techniques of Teaching Health Education
- HHPS 4384 - Motor Development

## Licensure Area: Mathematics

Students must earn either a bachelor of science or a bachelor of arts in mathematics. See "Department of Mathematics & Statistics" for details about the BA and BS in Mathematics degrees. Contact an advisor in the Department of Mathematics and Statistics for details about specific course requirements.

## Licensure Area: Biology/Life Sciences

### Biology Major (Bachelor of Science)

- BIOL 1400 - Evolutionary and Environmental Biology  
**or**
- BIOL 1401 - Science of Biology
- BIOL 2401 - Microbiology
- BIOL 2402 - Botany
- BIOL 2403 - Zoology
- BIOL 3100 - Genetics Laboratory
- BIOL 3300 - Genetics
- BIOL 3103 - Principles of Ecology Lab
- BIOL 3303 - Principles of Ecology
- BIOL 4190 - Biology Seminar

Biology Electives (12 hours to include at least one course in organismal and cellular biology)

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
- ERSC 1303 - Historical Geology  
**and**
- ERSC 1103 - Historical Geology
- ERSC 3380 - Oceanography  
**or**
- ERSC 3390 - Weather Studies
- ERSC electives – 3 hours upper level
- PHYS 1310 - Physical Concepts  
**or**
- PHYS 1321 - College Physics I
- IGSC 4401 - Integrated Science Methods

Must include 8 hours of freshman chemistry and four hours of organic chemistry

(take sequence one or two).

#### Sequence One

- CHEM 1400 - Fundamental Chemistry I
- CHEM 1401 - Fundamental Chemistry II
- CHEM 2450 - Organic Survey – Short Course

#### Sequence Two

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
  
- CHEM 3350 - General Organic Chemistry I  
**and**
- CHEM 3150 - Organic Chemistry Laboratory I

#### Geology Major (Bachelor of Science)

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
  
- ERSC 1303 - Historical Geology lecture  
**and**
- ERSC 1103 - Historical Geology lab
  
- ERSC 3310 - Mineralogy
- ERSC 2320 - Geologic Methods
- ERSC 3330 - Structural Geology
- ERSC 3340 - Sedimentology
- ERSC 4340 - Stratigraphy
- ERSC 4190 - Senior Seminar
- ERSC 4411 - Igneous and Metamorphic Petrology
- ERSC 4626 - Field Geology
  
- BIOL 1400 - Evolutionary and Environmental Biology  
**or**
- BIOL 1401 - Science of Biology

4-6 hours of BIOL courses at or above the 2000-level

- ERSC 3360 - Paleobiology (may be counted as upper-level Biology hours)
- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
  
- MATH 1304 - Calculus I

#### Or

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

6 hours from any combination of MATH, CPSC, or STAT courses

- IGSC 4401 - Integrated Science Methods

### Licensure Area: Chemistry

#### Chemistry Major (Bachelor of Arts)

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
- CHEM 2310 - Analytical Chemistry I
- CHEM 2311 - Analytical Chemistry II
- CHEM 3350 - General Organic Chemistry I
- CHEM 3150 - Organic Chemistry Laboratory I  
**or**
- CHEM 3351 - General Organic Chemistry II
- CHEM 3151 - Organic Chemistry Laboratory II
- CHEM 3340 - Introduction to Inorganic Chemistry
- CHEM 3572 - Physical Chemistry for the Life Sciences
- CHEM 4190 - Chemistry Seminar
- IGSC 4101 - Integrated Science Pedagogy Practicum
- IGSC 4301 - Integrated Science Pedagogy

#### Supporting Courses (12 hours)

- PHYS 1321 - College Physics I
- PHYS 1121 - College Physics I Laboratory
- PHYS 1322 - College Physics II
- PHYS 1122 - College Physics II Laboratory
- MATH 1451 - Calculus I

### Licensure Area: Physics

#### Major (Bachelor of Science)

Mathematics Courses (12 hours)

- MATH 1451 - Calculus I
- MATH 1452 - Calculus II
- MATH 2453 - Calculus III

Physics Foundation Courses (30 hours)

- PHYS 2321 - Physics for Scientists and Engineers I  
**and**
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
  
- PHYS 2322 - Physics for Scientists and Engineers II  
**and**
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
  
- PHYS 3323 - Physics for Scientists and Engineers III  
**and**
- PHYS 3123 - Physics for Scientists and Engineers III Laboratory
  
- PHYS 4311 - Classical Mechanics
- PHYS 4340 - Solid State Physics
- PHYS 4310 - Statistical Thermodynamics
- PHYS 4321 - Electromagnetism I
- PHYS 4350 - Quantum Mechanics I
- PHYS 4289 - Undergraduate Research
- PHYS 4190 - Seminar

Program Electives (6 hours)

(other courses may be approved by the department)

- ASTR 3301 - Astronomical Techniques
- PHYS 3315 - Teaching Physics in the Secondary School
- ASTR 4301 - Astrophysics
- PHYS 3330 - Medical Physics
- PHYS 4330 - Mathematical Methods in the Physical Sciences
- PHYS 4340 - Solid State Physics
- PHYS 4360 - High Energy and Nuclear Physics
- PHYS 4380 - Wave Motion and Optics

Supporting Courses (4 hours)

- IGSC 4301 - Integrated Science Pedagogy
- IGSC 4101 - Integrated Science Pedagogy Practicum

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## Department of Audiology and Speech Pathology

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Dickinson Hall, Suite 500 | (501) 569-3113  
(501) 569- 8694 (fax) | ualr.edu/audiospeech

<b>Interim Chair:</b>	Collier-Tenison, Shannon; Associate Dean, Associate Professor
<b>Program Coordinator:</b>	Kelly, Donna J.; Associate Professor
<b>Assistant Professors</b>	Kintz, Stephen

The Department of Audiology and Speech Pathology (AUSP) offers a Bachelor of Science (B.S.) degree in Communication Sciences and Disorders (CSD; i.e., Speech-Language Pathology) and a post-baccalaureate course sequence (sometimes referred to as "leveling" courses) for students who have earned a bachelor's degree in another field and are interested in pursuing a career in Speech-Language Pathology. Students pursuing a bachelor's degree in another major may also earn a Minor in Speech Pathology.

The B.S. in Communication Sciences and Disorders provides the pre-professional coursework needed to pursue graduate education in speech-language pathology. The B.S. in CSD is viewed as a "pre-professional" program because an M.S. in Communication Sciences and Disorders (Speech-Language Pathology) is required to practice as a speech-language pathologist. National Certification by the American Speech-Language-Hearing Association and State Licensure are required.

Students interested in additional information and/or enrolling in the B.S. in Communication Sciences and Disorders, the post-baccalaureate course sequence (for Speech-Language Pathologists), or the minor are encouraged to contact the Program Coordinator, Dr. Donna Kelly, at [djkelly@ualr.edu](mailto:djkelly@ualr.edu).

## General Information and Program Requirements

### Bachelor of Science Degree

Students interested in enrolling in the B.S. degree in Communication Sciences and Disorders (Speech-Language Pathology) are encouraged to contact the Program Coordinator. Students may be pre-admitted or admitted to the B.S. program.

Admission requires:

- A minimum cumulative grade point average of 3.0 (which includes all college coursework taken)
- Completion of approximately 50 hours of college coursework.

Major coursework typically includes four semesters, with a minimum of 41 credit hours (students may pursue the coursework full or part-time). Each course is offered once per year; many of the courses have required major prerequisites. There are no online courses available. No required courses are offered during the summer months. In addition, the M.S., the American Speech-Language-Hearing Association requires four non-major bachelor's level courses for those pursuing a career as a Speech-Language Pathologist. These courses are not required for the B.S. degree but must be completed prior to beginning practice as a Speech-Language Pathologist.

### Post-Baccalaureate Course Sequence

Students interested in enrolling in the Post-baccalaureate (PB) Course Sequence are encouraged to contact the Program Coordinator.

- Admission requires an earned bachelor's degree.
- The PB includes a minimum of 10 courses (30 hours); (typically completed in two semesters and begins in the fall semester)

Students may pursue the coursework full or part-time; each course is offered once per year. Many of the courses have required major prerequisites. There are no online courses available. No required courses are offered during the summer months. In addition to the M.S., the American Speech-Language-Hearing Association requires four non-major bachelor's level courses. These four courses do not have to be completed prior to beginning most M.S. programs, but they must be completed prior to beginning practice as a Speech-Language Pathologist.

## Minor

Students interested in pursuing a minor in Speech Pathology are encouraged to contact the Program Coordinator. The minor requires a minimum of 18 hours of coursework beginning with AUSP 2360, AUSP 3350, AUSP 3360, and AUSP 3361 which are offered during the fall semester. Courses are offered once per year; many of the courses have required major prerequisites. There are no online courses available. No courses for the minor are offered during the summer months.

Freshmen, sophomores, and transfer students interested in this major should first contact the CEHP Advising and Support Center. Transfer students must complete a minimum of 15 hours of CSD coursework to earn a B.S. degree in Communication Sciences and Disorders.

## Bachelor of Science Communication Sciences and Disorders, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence. Students earning a B.S. degree in Communication Sciences and Disorders have the option of completing a minor or completing a minimum of 18 hours of AUSP Directed Electives. Directed Elective hours do not also count toward the UA Little Rock Core. For more information, go to [ualr.edu/audiospeech](http://ualr.edu/audiospeech).

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See "Undergraduate Academic Advising.")

### Core (35 hours)

The American Speech-Language-Hearing Association (ASHA) requires students preparing for a degree in Speech-Language Pathology to successfully complete non-CSD coursework in four areas.

Some Physical Science courses completed at other Universities may also meet this requirement. Please contact the Undergraduate Program Coordinator for additional information.

These courses are not prerequisite courses for entry into the B.S. CSD Program and are not required for the B.S. degree.

For additional information, see "General Education Requirements."

### 3 Hours of Biological Science

- BIOL 1400 - Evolutionary and Environmental Biology
- or
- BIOL 1401 - Science of Biology

### 3 Hours of Statistics

- SOCI 3381 - Social Statistics
- or
- PSYC 2310 - General Psychological Statistics
- or
- PSYC 2340

### 3 Hours of Social Sciences

- PSYC 2300 - Psychology and the Human Experience
- or
- SOCI 2300 - Introduction to Sociology

### 3 Hours of Physical Science

- CHEM 1402 - General Chemistry I
- or
- CHEM 1409 - Chemistry and Society
- or
- PHYS 1321 - College Physics I

## Minor

Students pursuing a bachelor's degree in another major may earn a minor in Communication Science and Disorders. The minor requires 18 hours and includes the following courses AUSP 2360, AUSP 3350, AUSP 3360, AUSP 3361, AUSP 3363, AUSP 4366. Students interested in completing a minor should contact the Undergraduate Coordinator.

## Second Language Proficiency

(none required)

## Major (41 hours)

All courses with the exception of AUSP 4162 and AUSP 4163, are 3-hour didactic courses. Note: See the following page for course descriptions and prerequisites.

- AUSP 2360 - Introduction to Speech and Hearing Disorders
- AUSP 3350 - Phonetics
- AUSP 3360 - Language and Speech Acquisition
- AUSP 3361 - Speech Anatomy and Physiology
- AUSP 3363 - Disorders in Articulation

- AUSP 3364 - Speech and Hearing Sciences
- AUSP 3365 - Clinical Management
- AUSP 4162 - Practicum I
- AUSP 4163 - Practicum II
- AUSP 4310 - Neural Processing in Speech and Language
- AUSP 4363 - Voice and Stuttering Disorders
- AUSP 4364 - Differential Diagnosis of Speech and Language Disorders
- AUSP 4366 - Language Disorders
- AUSP 4368 - Audiology
- AUSP 4369 - Audiologic Rehabilitation

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### **Speech Pathology Minor**

Students interested in pursuing a minor in Speech Pathology are encouraged to contact the Program Coordinator. The minor requires a minimum of 18 hours of coursework.

The courses are offered once per year during the fall semester. Many of the courses have required major prerequisites. There are no online courses available. No minor courses are offered during the summer months.

### **Program Requirements (18 hours)**

- AUSP 2360 - Introduction to Speech and Hearing Disorders
- AUSP 3350 - Phonetics
- AUSP 3360 - Language and Speech Acquisition
- AUSP 3361 - Speech Anatomy and Physiology
- Elective Courses (6 hours)

## School of Counseling, Human Performance, and Rehabilitation

Dickinson Hall, Room 515 | (501) 569-3169  
(501) 569-8129 fax | ualr.edu/hhps

<b>Director:</b>	Holtz, Jennifer K., Professor
<b>Professors:</b>	Anderson, Glenn Garner, William E. Kushner, Jason D. Stauffer, Linda K.
<b>Associate Professors:</b>	Gitchel, Jr., W. Dent Grover, James Horsman, Euchay Kanekar, Amar Ortega, Raymond
<b>Assistant Professors:</b>	Otundo, Joseph Prince, Bennie Quamar, Abbas Snyder, Janea L.
<b>Senior Instructors:</b>	Hollingsworth, Jami J. James, Raphael A. Wright, Rusty
<b>Advanced Instructor:</b>	Knight, Laurie V.
<b>Instructors:</b>	Paprocki, Jeremy Sanders, Chad

The School of Counseling, Human Performance & Rehabilitation (CHPR) provides quality education to a heterogeneous student body at the undergraduate and graduate levels. The school is oriented to meet the personnel needs of educational institutions and service providers in Arkansas and the nation by offering a strong emphasis on professional education with a practical application in each program.

The school offers undergraduate degree programs that prepare community ASL-English interpreters for persons who are deaf, deaf-blind, or hard of hearing. The Health Education and Performance and Sport Management undergraduate and graduate degree programs educate students as health professionals in community health agencies, health maintenance organizations, business and

industry, wellness programs, and also to prepare students for a K-12 teaching licensure in Physical Education and Health.

Graduate programs in Adult and Professional Learning, Counseling Education, Rehabilitation Counseling and Rehabilitation of the Blind, including graduate certificates in Adult Education, Orientation and Mobility and Rehabilitation Counseling, provide professionals for schools, organizations, industries, and communities.

### Undergraduate Program

The School of CHPR offers four undergraduate degrees, five academic minor programs of study, and seven graduate degrees. The undergraduate degrees are:

- Associate of Science in American Sign Language Studies
- Bachelor of Arts in Interpretation: ASL/English
- Bachelor of Science in Health Education and Promotion
- Bachelor of Science in K-12 Health and Physical Education (licensure program)

The Minors are:

- Educational Interpreting is designed and required for students who are majoring in Interpretation
- Sign Language Studies is designed for students who are not majoring in Interpretation.
- Health Sciences Minor
- Health and Exercise Science
- Sport Management
- Add-on Licensure program: Arkansas K-12 Coaching Endorsement

### Graduate Programs

At the graduate level, a Master of Education in Counseling, a Master of Arts in Rehabilitation Counseling, a Master of Science in Exercise Science, a Master of Science in Health Education and Promotion, a Master of Science in Sport Management, and a Master of Arts in Rehabilitation for the Blind are offered. A Graduate Certificate is offered in Orientation and Mobility. Consult the UA Little Rock Graduate Catalog for more information on the graduate programs.

## **Health Education and Performance (HHPS)**

### **Admission Requirements**

Students selecting Health Education and Promotion or K-12 Health & PE as a major must have completed a minimum of 12 credit hours with a cumulative grade point average of 2.00 or greater. The K-12 Health & PE licensure program requires an overall cumulative grade point average of 2.75.

### **BS in Health Education and Promotion**

This course of study is designed to prepare students as health professionals in community health agencies, health maintenance organizations, as well as business and industry wellness programs. It is also designed to assist the entry-level health educator in taking the National Health Education Credentialing examination. This degree requires a minor course of study.

This degree is offered in online course delivery (U indicator in the schedule), Web-based, hybrid modalities. For information concerning the online Bachelor of Sciences emphasis in Health Education and Promotion degree call the Program Coordinator at (501) 683-7201.

### **BS K-12 Health and Physical Education (licensure program)**

The K-12 Health and Physical Education licensure program prepares students to become licensed teachers in the area of Physical Education and Health K-12. Students earning this degree will also complete the courses necessary to obtain a K-12 coaching endorsement. Licensure Requirements for this program can be found in the Department of Teacher Education in this catalog. Contact the Health, Education and Human Performance Program Coordinator at (501) 683-7201 for advising as early as possible to reduce any possible delays in progress toward this degree. The K-12 Health & PE licensure program requires an overall cumulative grade point average of 2.75 and passing Praxis Core, Content, and PLT test.

## **Interpreter Education, American Sign Language Information**

### **Interpreter Education, American Sign Language (ASL)/English**

The Bachelor of Arts degree requires 120 hours and includes an 18-hour minor in Educational Interpreting. Students develop entry to mid-level interpreting skills to advance their careers in interpretation and the field of deafness. This program is designed to develop the interpreting skills necessary for interpretation between individuals who are hearing and individuals who are deaf, deaf-blind, or hard of hearing, in the public and private sectors, educational institutions, business and industry, the arts, and in the community at large throughout Arkansas and the country. Coursework provides students with the knowledge of cultural diversity and interpretation skills necessary for practical application of the theories of second language learning and interpretation.

The program includes Instruction in American Sign Language, English-based sign systems, interpretation theory and process, the Deaf Community and Deaf Culture, and the profession of interpreting. Beginning and advanced interpretation and transliteration techniques with practice among American Sign Language, spoken English, and an English-based sign system, as well as techniques for interpreting for individuals who are oral, who are deaf-blind, and who are from diverse cultural backgrounds.

Bicultural and multicultural sensitivity training and techniques for producing linguistic and cultural equivalents. Three hundred clock hours of supervised internship in interpretation settings. Internship sites may include in-state and out-of-state placements depending on students' abilities and/or interests. Internship sites in Arkansas may include but are not limited to, the Arkansas School for the Deaf, Arkansas Rehabilitation Services, independent school districts throughout central Arkansas, the UA Little Rock community, and the community at large.

The Interpreter Education Program maintains a sign language laboratory of instructional materials for student use. All American Sign Language and interpreting methods sections require a minimum of one hour of lab per week. Students must attain an overall GPA of 2.00 in all work attempted at the University and attain a grade of C or greater in each of the ASL and interpretation courses. Courses in the Bachelor of Arts degree program prepare students for the Mid-America Quality Assurance Screening



State Test (QAST), the Registry of Interpreters for the Deaf, Inc. Certification Written Tests (RID), and the Educational Interpreter Performance Assessment (EIPA).

The Interpreter Education: American Sign Language/English program prepares individuals in the field of deafness who wish to specialize in interpreting and transliterating for persons who are deaf, hard of hearing, or deaf-blind in educational, medical, mental health and other community settings. UA Little Rock provides a core curriculum program of general education and specialized instruction in American Sign Language, signed English systems, and manipulation of two languages during the interpretation process. Extensive studies in the areas of deafness; the profession of interpreting; and the Deaf Community and Deaf Culture are included in the Associate of Arts and Bachelor of Arts curriculum.

Admission to the B.A. program is determined by grades of B or greater in ASL I, II, and III, and an Intermediate level on the SCPI. Upon completion of the first interpreting series, students must achieve a Quality Assurance Screening Test (QAST) Level I/I before proceeding to upper-level interpreting courses. Please contact the Interpreter Education Program at 569-3169 for more information.

## Second Language Requirement for Selected Other Degrees

ASL or demonstration of the equivalent proficiency meets the second language requirement.

## Credit Validation

Students who have acquired ASL skills before enrolling at UA Little Rock may take the ASL Placement Test. If placed in ASL II-V, students may request credit validation for lower level ASL course(s) upon completion of the placement course with a B or better. Students must request retroactive credit from the program coordinator. Up to twelve hours of credit may be obtained in this manner. Students may request an ASL placement test by contacting the program office at (501) 569-3169 to identify at what level they should enroll.

## Admission and Exit Requirements in Interpreter Education

Students pursuing the Associate of Science degree in American Sign Language Studies must complete three (3) hours of ASL (INTR 1320 - American Sign Language I ), with a grade of B or greater, or demonstrate equal proficiency (see ASL Placement Test), or obtain permission from the program coordinator, Dr. Linda Stauffer, (501) 569-3169, before admission to the program. Students must make an appointment with a program advisor for advisement. To complete the A.S. degree program, students must attain a grade of C or greater in each of the major courses, and meet all other associate degree requirements. See "Associate Degree Requirements " elsewhere. Required Benchmark: An SCPI Intermediate Level is required for continuation into the B.A. program in Interpretation: ASL/English.

Students declaring the Bachelor of Arts degree in Interpretation: ASL/English as a major must complete nine (9) hours of American Sign Language courses (INTR 1320 , INTR 1321 , and INTR 2320 ) with grades of B or greater in each course, or demonstrate equal proficiency, or obtain permission from the program coordinator for admission to the program. Students must attain an overall GPA of 2.0 in all work attempted at UA Little Rock, a grade of C or greater in each of the interpretation courses, demonstrate proficiency or complete nine (9) hours of second language requirements (ASL satisfies the language requirement), achieve an SCPI Intermediate Level, take the state-administered Mid-America Quality Assurance Screening Test (QAST) for interpreters, and must meet all other baccalaureate degree requirements. See "Baccalaureate Degree Requirements " elsewhere. Required Benchmarks: A QAST Level I/I is required prior for continuation into the fourth year courses.

## Leisure Science Program: (LESC)

The Health, Human Performance and Sport Management program offers a one-hour leisure science fitness courses to help students develop appreciation, knowledge, and understanding of the importance of exercise in daily living. Leisure science fitness courses enable students to develop a satisfactory level of skill in leisure time activities. Emphasis is placed on developing an individual lifetime activity program to improve health-related fitness components.

## **American Sign Language Studies, A.S.**

### **Program Requirements**

The Associate of Science degree requires 60 hours and is designed to develop American Sign Language skills for students who are interested in applying their skills to a future career and those pursuing careers in ASL-English interpretation. Coursework provides students with the knowledge of American Sign Language, English-based signing systems, and Deaf Culture. This program includes a service-learning project with individuals who are Deaf to foster meaningful language interaction and involvement in the Deaf Community. Please contact the Interpreter Education Program at 569-3169 for more information.

### **Interpretation: ASL/English, B.A.**

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### **Core (35 hours)**

#### **Standard Core (29 hours)**

All Courses approved by the Core Council. See "General Education Requirements."

#### **College Core (6 hours)**

All Courses approved by the Core Council. See "General Education Requirements."

### **Second Language Proficiency (9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency. See Academic Requirements, Regulations, & Policies for details.

NOTE: INTR 1320, INTR 1321, INTR 2320, as part of the program, satisfies the 9-hour second language proficiency requirement.

## **Major (62 hours)**

### **Sign Language Studies Courses (25 hours)**

- INTR 1320 - American Sign Language I
- INTR 1321 - American Sign Language II
- INTR 2320 - American Sign Language III
- INTR 2321 - American Sign Language IV
- INTR 1340 - Deaf Culture
- INTR 2260 - Service Learning in the Deaf Community
- INTR 2280 - Fingerspelling
- INTR 2330 - Manually Coded English in Educational Settings
- INTR 2344 - Comparative Linguistics: ASL and English

### **Foundation Courses (6 hours)**

- INTR 3347 - Introduction to Interpreting
- INTR 3380 - Introduction to Interpreting Research

### **Interpreting Courses (28 hours)**

- INTR 3363 - Specialized Terminology
- INTR 3364 - Sign to Voice Interpreting/Transliterating
- INTR 3366 - Voice to Sign Interpreting/Transliterating
- INTR 4330 - Interpreting I
- INTR 4332 - Interpreting II
- INTR 4358 - Interpreting for Persons who are Deaf-Blind
- INTR 4380 - Advanced Transliteration: English – English
- INTR 4382 - Advanced Interpretation: ASL – English

### **Capstone Course (7 hours)**

- INTR 4970 - Internship

## Health Education and Promotion, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

#### Standard Core (29 hours)

All Courses approved by the Core Council. See "General Education Requirements."

#### College Core (6 hours)

All Courses approved by the Core Council. See "General Education Requirements."

### Second Language Proficiency

(none required)

### Major (67 hours)

#### Area Requirements (8 hours)

- HHPS 3412 - Applied Human Science
- PSYC 2340 - Statistics and Methods

Required 1 hour from the following:

- HHPS 1101 - Dieting and Weight Control
- HHPS 1102 - Substance Abuse and Addiction
- HHPS 1103 - Smoking Cessation
- HHPS 1104 - Stress Management
- HHPS 1116 - Beginning Tennis
- HHPS 1123 - Body Mechanics and Conditioning
- HHPS 1124 - Stretch/Stress Program
- HHPS 1126 - Walking to Fitness
- HHPS 1128 - Weight Lifting/Training

#### Major Requirements (50 hours)

- HHPS 1370 - Personal Health
- HHPS 2303 - The Theory and Practice of Health Education \*
- HHPS 2374 - Family Life and Sex Education
- HHPS 3320 - History of Physical Education
- HHPS 3372 - Advanced First Aid
- HHPS 3374 - Community Health Agencies
- HHPS 3377 - Drug Ed. K-12
- HHPS 3401 - Nutrition
- HHPS 3422 - Exercise, Wellness & Lifestyle
- HHPS 4371 - Health Education Concepts and Applications
- HHPS 4373 - Controversial Issues in Health Education
- HHPS 4376 - Mental Health Education
- HHPS 4378 - Organization and Administration of Health Education Programs \*
- HHPS 4379 - Methods and Techniques of Teaching Health Education \*
- HHPS 4380 - Health Education Program Evaluation \*
- HHPS 4382 - Cultural Competence in Health Education

#### Professional Area Requirements (9 hours)

- HHPS 4381 - Health, Human Performance & Sport Management Seminar \*
- HHPS 4695 - Internship in Health Education (to be completed during student's last semester)

### Minor

(requires 18 hours. See recommended HHPS minor)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

These courses have a prerequisite requirement. Contact the instructor for the course for permission to register.

## **K-12 Health and Physical Education (licensure program), B.S.**

### **Program Requirements**

The K-12 Health and Physical Education licensure program prepares students to become licensed teachers in the area of Physical Education and Health K-12. Students earning this degree will also complete the courses necessary to obtain a K-12 coaching endorsement. Licensure Requirements for this program can be found in the Department of Teacher Education in this catalog. Contact the Health, Education and Human Performance Program Coordinator at (501) 683-7201 for advising as early as possible to reduce any possible delays in progress toward this degree. The K-12 Health & PE licensure program requires an overall cumulative grade point average of 2.75 and passing Praxis Core, Content, and PLT test.

## **K-12 Health and Physical Education, B.S.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### **Core (35 hours)**

See "General Education Requirements."

### **Second Language Proficiency**

(none required)

### **Major (63 hours)**

#### **Area Requirements (8 hours)**

- HHPS 3401 - Nutrition
- HHPS 2374 - Family Life and Sex Education
- HHPS 1 hour course

#### **Major Requirements (46 hours)**

- HHPS 2372 - Care and Prevention of Injuries
- HHPS 3211 - Health and Safety in Early Childhood
- HHPS 3212 - Teaching Individual Sports II
- HHPS 3222 - Teaching Team Sports II
- HHPS 3302 - Exercise Physiology \*
- HHPS 3310 - Coaching Theory and Methodology
- HHPS 3330 - Teaching PK-6 Physical Education
- HHPS 3372 - Advanced First Aid
- HHPS 3377 - Drug Ed. K-12
- HHPS 3402 - Structural Kinesiology \*
- HHPS 3410 - Biomechanics of Human Movement \*
- HHPS 3412 - Applied Human Science \*
- HHPS 3422 - Exercise, Wellness & Lifestyle
- HHPS 4340 - Adapted Physical E. K-12
- HHPS 4350 - Methods and Techniques of Teaching Physical Education 6-12 \*
- HHPS 4379 - Methods and Techniques of Teaching Health Education \*
- HHPS 4384 - Motor Development

#### **Major Teaching Requirement required for exit portfolio (13 hours)**

- HHPS 3210 - Teaching Individual Sports
- HHPS 3220 - Teaching Team Sports
- HHPS 3310 - Coaching Theory and Methodology
- HHPS 3320 - History of Physical Education
- HHPS 4350 - Methods and Techniques of Teaching Physical Education 6-12 (Capstone course) \*

#### **Required licensure courses**

Students will not be able to get into these courses without passing CORE exams and HHPS Program Coordinator approval.

- SCED 3210 - Instructional Skills and Assessment \*\*
- SCED 3110 - Instructional Skills Practicum \*\*

- SCED 4321 - Teaching Diverse Adolescents \*\*
- SCED 4122 - Adolescent Diversity Practicum \*\*
- SCED 4123 - Adolescents with Special Needs \*\*
- SCED 4124 - Classroom Management \*\*
- TCED 4600 - Internship \*\*
- SCED 4330 - Reflective Teaching \*\*

## Note

\* These courses have a prerequisite requirement. Contact the instructor for the course for permission to register.

\*\* CORE ALL TEST (Reading, Writing, & Math) #5751 must be passed before enrolling in SCED or TCED courses. GPA of 2.75 is required for admission to the education program. PRAXIS II and PLT must be passed prior to graduating.

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Educational Interpreting Minor

(Interpretation Majors Only)

All Bachelor of Arts degree in Interpretation: ASL/English will complete an 18-hour minor in Educational Interpreting. The program is designed to provide students majoring in Interpretation with the special skills necessary for interpreting in K-12 educational settings. Courses in the minor are:

### Program Requirements

- INTR 3344 - Interpretation Theory and Process
- INTR 3350 - Artistic Interpreting in Educational Settings
- INTR 3372 - Interpreting for Persons who are Hard of Hearing
- INTR 4346 - Principles of Educational Interpreting
- INTR 4370 - Ethical Standards for Interpreters
- INTR 4384 - Interpreting Academic Subjects

## Health and Exercise Science Minor

### Program Requirements

The minor encourages the development of physical training, anatomy, and exercise management that provides students with the practical skills necessary for successful careers in fitness industries.

\*\*Health Education & Promotion majors can only choose non-major courses that have been indicated by a \*\*. Students cannot use courses in the major for the minor.

- HHPS 2330 - Introduction to Sport Management \*\*
- HHPS 3422 - Exercise, Wellness & Lifestyle
- HHPS 3211 - Health and Safety in Early Childhood \*\*
- HHPS 3302 - Exercise Physiology \*\*
- HHPS 3372 - Advanced First Aid
- HHPS 3377 - Drug Ed. K-12
- HHPS 3401 - Nutrition
- HHPS 3402 - Structural Kinesiology \*\*
- HHPS 3410 - Biomechanics of Human Movement \*\*
- HHPS 3412 - Applied Human Science
- HHPS 4379 - Methods and Techniques of Teaching Health Education
- HHPS 4384 - Motor Development \*\*

## Health Sciences Minor

### Program Requirements

The minor in Health Sciences is designed for students interested in health education. This minor is not for Health Education & Promotion majors. This minor requires 18 credit hours that should include the following courses:

- HHPS 1370 - Personal Health
- HHPS 4382 - Cultural Competence in Health Education
- HHPS 3401 - Nutrition
- **or**
- HHPS 3422 - Exercise, Wellness & Lifestyle
- **or**
- HHPS 3302 - Exercise Physiology

- HHPS 3377 - Drug Ed. K-12  
**or**
- HHPS 4373 - Controversial Issues in Health Education
- HHPS 4376 - Mental Health Education  
**or**
- HHPS 4371 - Health Education Concepts and Applications
- HHPS 3374 - Community Health Agencies  
**or**
- HHPS 4378 - Organization and Administration of Health Education Programs

## Sign Language Studies Minor

(Non-Interpretation Majors Only)

The minor in Sign Language Studies requires 18 hours. The program is designed to provide a basic knowledge of American Sign Language and English-based sign language systems and the field of deafness. Students interested in becoming professional interpreters for persons who are deaf, deaf-blind, or hard of hearing will need additional coursework beyond the requirements of this minor.

### Required Courses

- INTR 1320 - American Sign Language I
- INTR 1321 - American Sign Language II
- INTR 2320 - American Sign Language III
- INTR 1340 - Deaf Culture

### Six Hours from the Following:

- INTR 2321 - American Sign Language IV
- INTR 2280 - Fingerspelling
- INTR 2330 - Manually Coded English in Educational Settings
- INTR 2344 - Comparative Linguistics: ASL and English

## Sport Management Minor Program Requirements

Sports Management is an interdisciplinary field of study that emphasizes a broad understanding of both sport and business. The Sports Management minor encourages the development of this interdisciplinary knowledge base and provides the students with the practical skills necessary for successful careers in management, promotion,

administration, marketing, organizing and leading a sports business or organization. This minor requires 18 credit hours that should include the following courses:

- HHPS 3330 - Teaching PK-6 Physical Education
- HHPS 3331 - Legal/Ethical Issues in Sport
- HHPS 3332 - Sport Facility and Management
- HHPS 3334 - Sports Marketing Management
- HHPS 3335 - Sport Finance and Economics
- HHPS 4399 - HHPS Special Topics  
**and**
- HHPS 5399 - Special Topics

## Arkansas K-12 Coaching Endorsement

Students wishing to coach in K-12 public school athletics in the State of Arkansas must complete a program of study to obtain a K-12 Coaching Endorsement from the Arkansas Department of Education.

All individuals enrolled in teacher licensure programs who wish to coach can contact the HHPS Program Coordinator at 683-7201 for admittance into this 24 credit hour endorsement program. Upon completion, students must take the Praxis 5095 test.

### Program Requirements

- HHPS 3302 - Exercise Physiology
- HHPS 3372 - Advanced First Aid
- HHPS 3210 - Teaching Individual Sports
- HHPS 3402 - Structural Kinesiology  
\*instructor approval
- HHPS 3310 - Coaching Theory and Methodology
- HHPS 3330 - Teaching PK-6 Physical Education
- HHPS 4350 - Methods and Techniques of Teaching Physical Education 6-12  
**and**
- HHPS 5350 - Methods of Teaching Physical Education 612

### Licensure

Praxis II: # 5095 Physical Education: Content and Design

## Department of Nursing

Nursing Building | (501) 569-8081 | (501) 371-7546  
(fax) ualr.edu/nursing

<b>Chair:</b>	Davidson, Elizabeth Sloan, Associate Professor
<b>Associate Professors:</b>	Gilbert, Cynthia K. Carmack, Jeffrey Lee, Elizabeth
<b>Assistant Professors:</b>	Blackwell, Sadie Bridges, Jennifer Fletcher, Janet Lee, Elizabeth Moore, Farren Nduku, Josy Porter, Kimberly B. Reeves, Melissa Riley, Elizabeth Sadaka, Heba Smith, LaQuana Snead, Leigh Solomon, Fairah Teague, Johni Beth
<b>Instructors:</b>	Bristow, Karen Clarke, Lindsey Dostert, Jennifer Mathis, Brittany Rostad-Hall, Joanna Webb, Kyle Young, Joshua

The UA Little Rock Department of Nursing offers both pre-licensure and post-licensure programs. Pre-licensure students can earn an Associate of Applied Science degree in preparation for RN licensure and stop there or continue seamlessly in a Bachelor of Science of Nursing program. These programs include a transition option for students with LPN, LPTN or Paramedic licenses. Students who already have an RN license can enter an RN to Bachelor of Science of Nursing Completion program.

### Nursing Program Options

- Associate of Applied Science in Nursing
- Bachelor of Science in Nursing
- Bachelor of Science in Nursing: RN to Bachelor of Science in Nursing Completion

### Accreditation

The Associate of Applied Science (AAS) program is approved by the Arkansas State Board of Nursing Upon completion of the curriculum, the graduate is eligible to apply to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The AAS and BSN programs are accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road, NE, Suite 850, Atlanta, GA 30326, (404) 975-5000. Additional information is located on the Department of Nursing website. Information on the comparison of nursing programs (tuition, fees, and length of programs) may be obtained from ACEN.

### Nursing Program Options

#### Initial Licensure and Transition Options

#### Associate of Applied Science in Nursing

Traditional (24-month) and Accelerated Traditional (18-month) options are available for students seeking initial licensure. A Transition (fast-track) option is also available for qualified LPN/LPTNs, and paramedics. Courses are taught in settings ranging from the classroom, campus skills, and simulation laboratories, to major area hospitals, outpatient facilities, and other healthcare facilities. The graduate is eligible to apply to sit for NCLEX-RN exam upon completion of lower-level nursing courses and is prepared to enter professional practice settings such as hospitals, long-term care facilities, physicians' offices, and community settings.

The course of study includes 27 credit hours in liberal arts and sciences and 33 credit hours of lower-level nursing. Students who wish to earn the BSN can be admitted to the BSN and begin coursework in the program prior to completion of the AAS for a seamless transition.

#### Bachelor of Science in Nursing

The Bachelor of Science in Nursing program begins with campus and clinical based coursework concentrating on essential nursing skills and concludes in an online setting with the option of working full time as a registered nurse. The goal is to obtain a Bachelor of Science in Nursing and have one year of work experience as a registered nurse.

The UA Little Rock BSN program differs from traditional BSN programs as it combines the core competencies of the registered nurse with online courses focused on research, community health, and leadership that are necessary for career and academic progression.

Students will progress through lower-level nursing courses while completing core courses required for the BSN. Upon satisfactory completion of lower-level nursing courses, students will graduate with an Associate of Applied Science in Nursing and be eligible to sit for the NCLEX-RN State Board Exam. The final 34 credits are taught online with students having the option of working as a registered nurse.

## Post-licensure Option

### Bachelor of Science in Nursing: Online RN to BSN Completion

The Bachelor of Science in Nursing (BSN) Completion option offers students who already hold an RN license an avenue to pursue a BSN. It is available as an online program. The course of study contains 53 core credit hours, which include the UA Little Rock CORE; and 34 credit hours of upper-level nursing coursework. All courses required for this program are offered in the online campus. Students who meet admissions requirements are eligible to complete this program in 12- or 18-month formats.

### Background Check/Drug Screening

Students who are considering a career in nursing should be aware that no application for initial Registered Nurse (RN) licensure will be considered by the Arkansas State Board of Nursing without state and federal criminal background checks by the Arkansas State Police and the Federal Bureau of Investigation. The Arkansas State Board of Nursing shall refuse to issue the RN license to any person who is found guilty of or pleads guilty or nolo contendere to any offense listed in Act 1208 of 1999. For details refer to the Arkansas Nurse Practice Act Sub-Chapter on Licensing:

<https://www.arsbn.org/Websites/arsbn/images/Rules.Chapter02-%20Effective%2012-29-18.pdf>.

Persons requesting initial licensure may request a waiver from the Arkansas State Board of Nursing. The Department of Nursing requires a state/national criminal background check and drug screening on all students

upon admission and annually. Results may prohibit entry and/or progression in the program. Clinical agencies used for nursing laboratory may require additional criminal background checks, scheduled drug screening, and/or random drug screens for nursing students. Results of agency screening may prohibit participation in clinical laboratory. Nursing students prohibited from participation in laboratory at a clinical agency will not be permitted to maintain enrollment in the nursing program.

## Admissions: New, Continuing and Transfer Students

### Initial Licensure and Transition Options

Requirements for Traditional Option and Accelerated Traditional Option of Associate of Applied Science in Nursing and Bachelor of Science in Nursing

To be admitted students must:

1. Be admitted to UA Little Rock with regular or conditional admission status and maintain a 2.0 GPA at UA Little Rock. Transfer students currently enrolled in other universities at the time of application will be considered for admission into the nursing program if the following documents are on file in the Office of Undergraduate Admissions:
  - Completed UA Little Rock application form
  - Valid ACT or SAT scores completed high school transcript or GED scores, and official college transcripts through the previous fall semester
  - Required immunization records.
2. Obtain application advising from the Department of Nursing prior to submitting an application.
3. Have successfully completed or are eligible to enroll in MATH 1302 and in RHET 1311 or their equivalents. All developmental courses must be completed.
4. Have successfully completed or be enrolled in 4 credit hours of Anatomy and Physiology, either BIOL 1433 - Essentials of Anatomy and Physiology or BIOL 1411 - Introduction to Human Anatomy and Physiology I, BIOL 1412 - Introduction to Human Anatomy and Physiology II. A three-hour course will not meet this requirement.
5. Have a minimum cumulative UA Little Rock GPA of 2.0, and have a minimum GPA of 2.6 in



required core courses (detailed below); GPA in required core courses is based solely on the courses completed at the time of application.

6. Submit a completed Department of Nursing Application Form between January 1 and the priority deadline of February 28. Enclose a copy of all college/university transcripts and scores for credit by examination in required core courses. The first group of students will be accepted from this pool of applicants and will be ranked by required core course GPA. The department continues to accept applications after the February 28th priority deadline and will admit additional students based on space availability.
7. Students who speak English as a second language must have a TOEFL score of 83 (Internet exam), 207 (computerized exam) or 540 (paper exam).

Seating is limited for both the Accelerated and Traditional options. Students who are interested in the Accelerated Option must have all AAS required core courses (detailed below) completed prior to the second summer semester of the program.

Admission preference is given to students who have completed or are in progress to complete all AAS required core courses at the time of application. Additionally, preference is given to students who have not repeated, withdrawn, or failed required Core Courses. Students who are classified as Re-Entry (see below) are not qualified for the Accelerated Traditional Option. Students who request consideration for the Accelerated Option and are not selected will automatically be considered for the Traditional Option. Students have the option of continuing into upper-level BSN coursework upon successful completion of NURS 2550 and NURS 2350.

## Requirements for Transition Option (LPN/LPTNs and Qualified Paramedics) of Associate of Applied Science in Nursing and Bachelor of Science in Nursing

### To be admitted, LPNs/LPTNs must:

- Be a graduate of a state board of nursing approved LPN or LPTN program. Have a current, unencumbered LPN or LPTN license in the State of Arkansas or a mutual recognition licensure recognized by the Arkansas State Board of Nursing Nurse License Compact, and

- Have proof of active employment (minimum of 1,000 hours) as an LPN/LPTN over the last 2 years. Volunteer work is not considered active employment. Submit an employment verification letter with the application. Employment verification letter must be on official letterhead and must include either the number of hours worked by the applicant OR a statement that the applicant has worked a minimum of 1,000 hours over the past 24 months. Applicants who work as an LPN or LPTN in more than one facility may submit more than one employment verification letter if all worked hours total a minimum of 1,000 hours over the past 24 months.

### OR

- A new LPN/LPTN graduate who has authorization to test for LPN licensure is eligible for conditional admission to the transition option. After successfully completing the NCLEX-PN will be eligible for admission into the Transition Option. LPN or LPTN licensure must be obtained prior to entering nursing courses with a clinical component.
- Meet advanced placement testing and work experience requirements: Less than 12 months after LPN/LPTN graduation: No testing required for admission to Transition option.
- Greater than 12 months after LPN/LPTN graduation: No entry testing is required if during the past 24 months have had at least 1,000 hours of nursing employment. Employment verification letters must be provided with the application. LPN/LPTNs who graduated greater than 12 months who have not had at least 1,000 hours of nursing employment must complete the Elsevier HESI LPN-ADN Entrance Exam. Exam results will show areas of weakness as remediation materials. LPNs/LPTNs are strongly encouraged to complete all remediation materials to improve their chances of success in the nursing program.

### To be admitted, Paramedics must:

- Be a graduate of a paramedic program affiliated with an accredited college or university.
- Hold current certification from the Arkansas Department of Health as an Arkansas Paramedic and be currently registered as a paramedic with the National Registry of Emergency Medical Technicians.
- Have proof of active employment as a paramedic for a minimum of 1,000 hours over the last 24

months. Volunteer work is not considered active employment. Submit employment verification with the application. The employment verification letter must be on official letterhead and must include either the number of hours worked by the applicant OR a statement that the applicant has worked a minimum of 1,000 hours over the past 24 months. Applicants who work as a Paramedic for more than one entity may submit more than one employment verification letter if all worked hours total a minimum of 1,000 hours over the past 24 months.

- Complete the Elsevier HESI EMS-ADN Entrance Exam. Exam results will show areas of weakness as remediation materials. Paramedics are strongly encouraged to complete all remediation materials to improve their chances of success in the nursing program.

- Students previously enrolled in another nursing program must forward a letter requesting a transfer and attach copies of all college/university transcripts. Letters and transcripts should be sent to the department chairperson.
- Students who are requesting a transfer from another nursing program are also required to provide a letter of eligibility to re-enter their previous nursing program in order to be eligible for consideration for entry into the UA Little Rock nursing program.
- If a student has failed a nursing course the request for transfer is classified as an academic re-entry request and re-entry policies apply. Students who have failed or withdrawn from more than one nursing course are not eligible for consideration for entry into the UA Little Rock nursing program.

**To be admitted as a Transfer Student:**

Transfer equivalency information for required core courses is available on the Arkansas Department of Higher Education website at [acts.adhe.edu](http://acts.adhe.edu). It is the responsibility of the transfer student to confirm that transfer courses are equivalent to the required core courses.

Track	Summer II or Summer IV	Fall	Spring	Summer	Fall	Spring
<b>Accelerated</b>	NURS 1200 NURS 1202	NURS 1505	NURS 1410 NURS 1420	NURS 2410 NURS 2420	NURS 2550 NURS 2350	
<b>Traditional</b>	NURS 1200 NURS 1202	NURS 1505	NURS 1410 NURS 1420		NURS 2410 NURS 2420	NURS 2550 NURS 2350

**Transition Option (LPN/LPTNs and Qualified Paramedics)**

- Transition option students initially enroll in NURS 1415 - Nursing Role Transition, which prepares them for their roles as registered nurses (RN).
- Upon completion of the AAS program, students are awarded 9 credit hours in nursing for NURS 1200, NURS 1202, and NURS 1505. Students enter in May and complete the program the following May.

Track	Summer II	Summer IV	Fall	Spring
Transition	NURS 1415	NURS 1420	NURS 2410 NURS 2420	NURS 2550 NURS 2350

## **Program Progression Requirements**

### **Initial Licensure and Transition Options (Associate of Applied Science and Bachelor of Science in Nursing)**

To progress beyond NURS 1202, students must successfully pass the NURS 1202 course and complete the following requirements:

- Submission of required documents by designated date (specified on letter of acceptance)
- Maintain a minimum cumulative grade point average of at least 2.00 on all work attempted at the UA Little Rock.
- Attendance at the scheduled department orientation session

Students have the option of continuing into upper-level BSN coursework upon successful completion of NURS 2550 and NURS 2350.

Transition option students initially enroll in NURS 1415 - Nursing Role Transition, which prepares them for their roles as registered nurses (RN). Upon completion of NURS 2550 and NURS 2350, students are awarded 9 lower-level nursing credits for NURS 1200, NURS 1202, and NURS 1505. Students enter in May and complete the program the following May.

Completion of the Associate of Applied Science degree in nursing requires a minimum grade of C in all courses. Upon completion of all AAS required courses, students can apply to sit for NCLEX-RN state board exams. Students must apply for reentry if they withdraw or do not earn a C or higher in any nursing course. The Reentry Committee will review applicants for reentry and accept students based on clinical space availability. Students are allowed one re-entry per five years.

Completion of the Bachelor of Science in Nursing requires a minimum grade of C in all required courses. Students must progress through all lower-level nursing courses with a C or better. It is recommended that students complete lower- and upper-level core coursework while completing lower-level nursing courses to graduate within four years. Students must complete NURS 2550 and NURS 2350 to progress into upper-level nursing courses. Students will be eligible to graduate with an associate of applied science in nursing and apply to sit for NCLEX-RN exam upon completion of lower-level nursing courses. Students must hold a valid, unencumbered RN license prior to enrollment in some upper-level nursing courses. A minimum UA Little Rock cumulative grade point average of at least 2.00 on all work attempted at the University must be maintained. Students must complete upper-level nursing courses within 3 years of enrollment into NURS 3310.

## Traditional Option and Accelerated Traditional Options

The Department of Nursing offers both a Traditional Option and an Accelerated Traditional Option for students seeking an Associate of Applied Science (AAS) in nursing. Seating is limited for both options. Students who are interested in the Accelerated Option must have all required core courses (detailed below) completed prior to the second summer semester of the program.

However, preference is given to students who have completed or are in progress to complete all required core courses at the time of application. Additionally, preference is given to students who have not repeated, withdrawn, or failed required core courses. Students who are classified as Re-Entry are not qualified for the Accelerated Traditional Option. Students who request consideration for the Accelerated Option who are not selected will be considered for the Traditional Option.

Track	Summer II or Summer IV	Fall	Spring	Summer	Fall	Spring
<b>Accelerated</b>	NURS 1200 NURS 1202	NURS 1505 NURS 1205 NURS 1205	NURS 1410 NURS 1420 NURS 1420	NURS 2410 NURS 2420	NURS 2550 NURS 2350 NURS 2420	NURS 2350

<b>Traditional</b>	NURS 1200 NURS 1202	NURS 1505	NURS 1410	NURS 2410	NURS 2550
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## Transition Option (LPN/LPTNs and Qualified Paramedics)

Transition option students initially enroll in NURS 1415 - Nursing Role Transition, which prepares them for their roles as registered nurses (RN). Upon completion of the AAS program, students are awarded 10 credit hours in nursing for NURS 1300, NURS 1205, and NURS 1505. Students enter in May and complete the program the following May.

Track	Summer II	Summer IV	Fall	Spring
<b>Transition</b>	NURS 1415	NURS 1420	NURS 2410 NURS 2420	NURS 2550 NURS 2350

## Equivalencies and Credit by Examination

UA Little Rock offers credit by examination with some restrictions for courses; see Credit by Examination under the "Academic Requirements, Regulations, & Policies" section of this catalog. Credit by examination for NURS 1200, NURS 1202, and NURS 1505 is available to qualified paramedics and to diploma program transfers with certain restrictions. Information about credit by examination in nursing courses is available from the Department of Nursing.

## Traditional/Accelerated Traditional Admission

Students who are offered acceptance into the Traditional or Accelerated Traditional Option will initially be conditionally admitted to the nursing program. Upon must completion of the following, students will be officially admitted to the nursing program:

- Submission of required documents by designated date (specified on letter of conditional admission)
- Maintenance of required GPA (required core course(s) and UA Little Rock.
- Attendance at the scheduled department orientation session

## Transition Option (LPN/LPTNs and Qualified Paramedics)

### Application Requirements

#### LPNs/LPTNs must:

- Be a graduate of a state board of nursing approved LPN or LPTN program. Have a current, unencumbered LPN or LPTN license in the State of Arkansas or a mutual recognition licensure recognized by the Arkansas State Board of Nursing Nurse License Compact, and
- Have proof of active employment (minimum of 1,000 hours) as an LPN/LPTN over the last 2 years. Volunteer work is not considered active employment. Submit an employment verification letter with the application. Employment verification letter must be on official letterhead and must include either the number of hours worked by the applicant OR a statement that the applicant has worked a minimum of 1,000 hours over the past 24 months. Applicants who work as an LPN in more than one facility may submit more than one employment verification letter if all worked hours total a minimum of 1,000 hours over the past 24 months.

#### OR

- A new LPN/LPTN graduate who has authorization to test for LPN licensure is eligible for conditional admission to the transition option. After successfully completing the NCLEX-PN will be fully admitted into the Transition Option. LPN licensure must be obtained prior to entering nursing courses with a clinical component.
- Meet advanced placement testing and work experience requirements: Less than 12 months after LPN/LPTN graduation: No testing required for admission to Transition option.
- Greater than 12 months after LPN/LPTN graduation: No entry testing is required if during the past 24 months have had at least 1,000 hours of nursing employment. Employment verification letters must be provided with the application. LPN/LPTNs who graduated greater than 12 months who have not had at least 1,000 hours of nursing employment must complete the Elsevier HESI LPN-ADN Entrance Exam. Exam results will show areas of weakness as remediation materials. LPNs/LPTNs are strongly encouraged to complete all remediation materials to improve their chances of success in the nursing program.

#### Paramedics must:

- Be a graduate of a paramedic program affiliated with an accredited college or university.
- Hold current certification from the Arkansas Department of Health as an Arkansas Paramedic and be currently registered as a paramedic with the National Registry of EMTs.
- Have proof of active employment as a paramedic for a minimum of 1,000 hours over the last 24 months. Volunteer work is not considered active employment. Submit employment verification with the application. The employment verification letter must be on official letterhead and must include either the number of hours worked by the applicant OR a statement that the applicant has worked a minimum of 1,000 hours over the past 24 months. Applicants who work as a Paramedic for more than one entity may submit more than one employment verification letter if all worked hours total a minimum of 1,000 hours over the past 24 months.
- Complete the Elsevier HESI EMS-ADN Entrance Exam. Exam results will show areas of weakness as remediation materials. Paramedics are strongly encouraged to complete all remediation materials to improve their chances of success in the nursing program.

## Nursing, A.A.S.

**General:** 60 minimum total hours, including 15 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### General Education Courses (27)

- RHET 1311 - Composition I
- RHET 1312 - Composition II
- MATH 1302 - College Algebra
- BIOL 1433 - Essentials of Anatomy and Physiology
- BIOL 2401 - Microbiology
- CHEM 1400 - Fundamental Chemistry I

Select one from below:

- PSYC 2300 - Psychology and the Human Experience
- SOCI 2300 - Introduction to Sociology

Select one from below:

- HIST 2311 - U.S. History to 1877
- HIST 2312 - U.S. History since 1877
- POLS 1310 - American National Government

### Second Language Proficiency

(none required)

### Major (33 hours)

#### Required Nursing Courses

- NURS 1200 - Introduction to Nursing: Concepts I
- NURS 1202 - Nursing: Concepts II
- NURS 1505 - Adult Nursing I
- NURS 1410 - Adult Nursing II
- NURS 1420 - Mental Health Nursing
- NURS 2410 - OB/Reproductive Health Nursing
- NURS 2420 - Pediatric Nursing
- NURS 2550 - Adult Nursing III
- NURS 2350 - Competency for Entry into Practice

### Unrestricted General Electives

(none required)

### Laboratory Credits

Laboratory credits include one credit for three hours of laboratory time.

### Graduation Requirements

- Minimum UA Little Rock GPA of 2.0.
- Grade of C or greater in all required core courses.
- Grade of C or greater in all required lower-level nursing courses.

## Nursing RN to BSN Completion, B.S.

The Bachelor of Science in Nursing (BSN) Completion option offers RN graduates, of either an associate or diploma program, an avenue to pursue a BSN. The BSN ladder program offers UA Little Rock AAS graduates a seamless transition into the final year of the nursing program. The coursework for the BSN builds on the curriculum foundation of the core Registered Nurse program. It is available as an online program.

The BSN program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road, NE, Suite 850, Atlanta, GA 30326, (404) 975-5000. Additional information is located at [ualr.edu/nursing](http://ualr.edu/nursing).

## RN-BSN Completion Curriculum Plans

### 12 Month Track (Curriculum Plan)

Term 1		Term 2		Term 3	
Session 1	Session 2	Session 1	Session 2	Session 1	Session 2
NURS 3220 NURS 3310	NURS 3230 NURS 3420 Elective	NURS 3440 NURS 3350	NURS 4415 Elective	NURS 3430 NURS 4420	NURS 4430 Elective

### 18 Month Track (Curriculum Plan)

Term 1		Term 2		Term 3		Term 4		Term 5
Session 1	Session 2	Session 1	Session 2	Session 1	Session 2	Session 1	Session 2	Session 1
NURS 3220 NURS 3310	NURS 3230 Elective	NURS 3420 Elective	NURS 3430	NURS 3440	NURS 3350 Elective	NURS 4415	NURS 4420	NURS 4430

|

## Nursing, B.S.

**General:** 121 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

#### Standard Core (29 hours)

See General Education Requirements.

### College Core (6 hours)

- MATH 1302 - College Algebra
- Humanities/Social Sciences/Communication – Spoken/ Interdisciplinary (3 credits)

### Second Language Proficiency

(none required)

### Major (86 hours)

#### Required Science Courses (12 credits)

- BIOL 1411 - Introduction to Human Anatomy and Physiology I
- BIOL 1412 - Introduction to Human Anatomy and Physiology II
- BIOL 2401 - Microbiology

### Required Lower Level Nursing Courses (34 credits)

Students may have 34 hours of lower level nursing courses waived for having a valid, unencumbered RN license.

### Required Upper-Level Nursing Courses (34 credits)

(Students must have a valid RN license or be a recent graduate of an approved nursing program prior to taking these courses)

- NURS 3220 - Nursing Health Assessment I
- NURS 3230 - Nursing Health Assessment II

### Students must achieve a C or greater in each of these courses.

- NURS 3310 - Professional Nursing Role Development
- NURS 3420 - Wellness Promotion
- NURS 3430 - Healthcare Economics

- NURS 3440 - Research and Evidenced-Based Practice in Nursing
- NURS 3350 - Ethics, Legalities, and Advocacy
- NURS 4415 - Community Health Needs
- NURS 4420 - Leadership and Management
- NURS 4430 - Integration of Concepts

### One of the following\*:

\*Please note that the required statistics course is not a business statistics course.

- PSYC 2310 - General Psychological Statistics
- PSYC 2340 - Statistics and Methods
- STAT 2350 - Introduction to Statistical Methods
- SOCI 3381 - Social Statistics

### One of the following:

- RHET 3316 - Writing for the Workplace
- RHET 3326 - Technical Writing

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 121 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Note:** Typically, a BSN student will have 8 upper-level unrestricted elective credits to fulfill.

### Upper-level elective options:

The Department of Nursing offers the following upper-level elective options:

- NURS 3305 - Informatics in Nursing (Elective)
- NURS 4110 - Special Topics in Nursing
- NURS 4210 - Special Topics in Nursing
- NURS 4310 - Special Topics in Nursing
- NURS 4305 - Standardized Participant in Simulation

### Program Progression

Completion of the baccalaureate of science degree in nursing requires a minimum grade of C in all upper-level nursing courses and required core courses. Students who do not successfully complete NURS 3310 may not enroll in additional upper-level nursing courses until a passing grade in NURS 3310 is earned. Students must maintain unencumbered RN licensure, maintain required nursing program documents and forms, and demonstrate professional conduct in the student role. A minimum UA



Little Rock cumulative grade point average of at least 2.00 on all work attempted at the University must be maintained. The program must be completed in three years from the date of initial enrollment in NURS 3310.

## **Integrated Practice Experience Credits (IPE)**

Courses which include integrated practice projects (IPP) are three credit hours theory and one credit hour lab.

## **Graduation Requirements**

- Minimum UA Little Rock GPA of 2.0.
- Grade of C or greater in all required core courses.
- Grade of C or greater in of all required upper-level nursing courses.

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## School of Social Work

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Ross Hall, Suite 401 | (501) 569-3046  
(501) 569-3184 (fax) | [ualr.edu/socialwork](http://ualr.edu/socialwork)

<b>Director:</b>	Kapp, Stephen, Professor
<b>Professor</b>	Jones, Kim Turney, Howard
<b>Associate Professors:</b>	Crisp, Catherine; MSW Program Coordinator Lloyd, E. Christopher Otters, Rosalie; Gerontology Program Coordinator Turturro, Carolyn L.
<b>Assistant Professors:</b>	Burse, Jacqueline R. Danforth, Laura Pelts, Michael Ruhr, Lindsay
<b>Instructors:</b>	Atkins, May; BSW Program Coordinator Fowler, Elizabeth; MSW Field Coordinator Namir, David; BSW Field Coordinator Logan, Katie; Admissions Coordinator Moore, Kelly

The mission of the UA Little Rock School of Social Work is to prepare ethical graduates who accept and appreciate diversity, who empower people and communities to meet the challenges of poverty and social and economic injustice, and who serve oppressed and vulnerable populations at the local, state, national, and international levels.

Consistent with the mission of the social work profession, our students are prepared to apply the values of social justice and self-determination to their work with individuals, groups, and communities. Empowering students to recognize the implications of race, gender, and economic hardship prepares them to more effectively deal with the complexity of the human condition. Through the application of these concepts, students develop the analytical and technical skills necessary for professional social work.

## General Information

Social work is a growing, dynamic profession that offers many challenges and many rewards. The School of Social Work at the University of Arkansas at Little Rock is committed to the development of students seeking exciting careers as professional social workers. Our aim is to deliver social work education in a style that challenges students to think differently about problems faced by our most vulnerable populations. Across this country, social work professionals serve public and private agencies as invaluable resources for the less fortunate.

The Bachelor of Social Work (BSW) program is accredited by the Council on Social Work Education. We admitted our first class of students in 1997 and graduated our first class in 1999. If you'd like more information about the BSW Program, please visit our webpage at [ualr.edu/socialwork/bachelor-social-work](http://ualr.edu/socialwork/bachelor-social-work). If after reading the information about our program, you still have questions, email us at [socialwork@ualr.edu](mailto:socialwork@ualr.edu). In your email, please let us know if you are a current student at UA Little Rock, a transfer student, already have a bachelor's degree in a different discipline, or are a high school student currently considering attending UA Little Rock and majoring in social work. If you are currently attending UA Little Rock, please include your T# in your correspondence with us. The Bachelor of Social Work (BSW) program is a 120-hour degree program that provides a foundation for a professional career in social work. The program's principal educational objective is to prepare students for beginning generalist social work practice within a liberal arts perspective to address the human service needs of diverse client populations.

The program focuses on developing and advancing the knowledge base, practice skills, and value system of students so they are able to further the well-being and functioning of people, especially those who live in poverty or have been otherwise marginalized in society and to promote social and economic justice. A student can declare a social work major as early as his or her freshman year. No minor is required. Application for full admission into the program may be made when the student is nearing completion of 50 credit hours, 35 of which are in the core curriculum. Other requirements for admission include an overall cumulative GPA of 2.5 and a cumulative GPA of 2.5 in the following prerequisite courses: SOWK 1301, SOCI 2300, and PSYC 2300.

In addition, the application process requires a personal statement from the student, three letters of reference, and copies of all transcripts. The BSW application process occurs in the spring, with admitted students beginning the

program in the fall semester. Application materials are available online at [ualr.edu/socialwork](http://ualr.edu/socialwork). Upon admission to the program, students begin their professional social work training, which includes two semesters of experience in the field. Students must maintain a 2.5 GPA to remain in the BSW

## **Social Work, B.S.W.**

**General:** 120 minimum total hours, including 65 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

### **Core (35 hours)**

3 hours of Social Sciences in the Core must be satisfied by either PSYC 2300 and SOCI 2300, both of which are prerequisites for the major. 3 hours of Interdisciplinary Studies should be satisfied by ACOM 1300.

### **Second Language Requirement**

(None required)

### **Major (68 hours)**

#### **Program Prerequisite (3 hours)**

- SOWK 1301 - Introduction to Social Work

#### **Social Work Foundation Courses (33 hours)**

- SOWK 3302 - Social Work and Diversity
- SOWK 3303 - Human Behavior in the Social Environment I
- SOWK 3313 - Social Welfare Policy
- SOWK 3304 - Human Behavior in the Social Environment II
- SOWK 3314 - Social Welfare Policy II
- SOWK 3331 - Social Work Practice I
- SOWK 3381 - Statistics for Social Workers
- SOWK 3322 - Methods of Social Work Research
- SOWK 4332 - Social Work Practice II
- SOWK 4316 - Addictions in SOWK
- SOWK 4333 - Social Work Practice III

#### **Social Work Field Courses (14 hours)**

- SOWK 4212 - Field Seminar I
- SOWK 4541 - Field Experience I
- SOWK 4213 - Field Seminar II
- SOWK 4542 - Field Experience II

#### **Other Required Courses (6 hours)**

- PSYC 3360 - Abnormal Psychology
- One 3-hour upper-level RHET (3000/4000) course

#### **Upper Level Rhetoric Course**

- RHET 3301 - Editing for Usage, Style, and Clarity  
or
- RHET 3315 - Persuasive Writing  
or
- RHET 3326 - Technical Writing

#### **Upper Level Related Field Electives (12 hours)**

These courses include but are not limited to, 3000 or 4000 level courses in Gerontology, Political Science, Sociology and Anthropology, Psychology, Criminal Justice, Human Services Administration, Health Sciences, & Public Administration.

#### **Minor**

(None required)

#### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

#### **Gerontology Minor**

#### **Total (18 hours)**

A minor in gerontology requires 18 credit hours of gerontology, including these three required courses:

### Required Courses (9 hours)

- GERO 2300 - Introduction to Aging and Older Adults (Older Adults)  
**or**
- GERO 4310 - Social Gerontology  
**or**
- SOWK 4310 - Social Gerontology
- GERO 4336 - The Social Aspects of Death and Dying  
**or**
- SOWK 4336 - Social Aspects Death & Dying
- GERO 4337 - Adult Development and Aging  
**or**
- SOWK 4337 - Adult Development and Aging

### Electives (3 hours)

Up to two pre-approved courses with aging content in other disciplines can be substituted for two of the electives. For more information, consult the Gerontology Coordinator in the School of Social Work.

Choose from approved electives:

- GERO 4315 - Interdisciplinary Health Care of the Elderly
- GERO 4330 - Animal Assisted Therapy  
**or**
- SOWK 4330 - Animal Assisted Therapy
- GERO 4346 - Family in Late Life  
**or**
- SOWK 4346 - Family in Late Life
- GERO 4385 - Topics Seminar
- GERO 4390 - Directed Study

### Human Services Minor

The interdisciplinary human services minor provides an opportunity to sample course work in several professional areas in human services. This minor is an excellent option for students whose career path may bring them into contact with various social services, law enforcement or public administration.

The Human Services Minor requires 18 hours of coursework.

### Required Courses (12 hours)

- ACOM 2310 - Human Communication Concepts
- GERO 2300 - Introduction to Aging and Older Adults
- PADM 3331 - Public Administration
- SOWK 1301 - Introduction to Social Work

### Program Electives (6 hours)

Select two from below:

- ACOM 4311 - Organizational Communication
- ACOM 4323 - Family Communication
- AUSP 2360 - Introduction to Speech and Hearing Disorders
- CRJU 4305 - Juvenile Law and Process
- CRJU 4307 - Drug Abuse
- GERO 4315 - Interdisciplinary Health Care of the Elderly
- GERO 4336 - The Social Aspects of Death and Dying
- GERO 4346 - Family in Late Life
- SOCI 3334 - Social Problems
- SOCI 3350 - Family Violence
- SOWK 3313 - Social Welfare Policy

### Social Work Minor Program Requirements

The social work minor is intended only for students who have previously been admitted to the Bachelor of Social Work (BSW) Program but did not complete their degree. This minor consists of 18 credits and includes the following courses: SOWK 1301 and 15 credits from the following courses: SOWK 3302, SOWK 3303, SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3322, SOWK 3331, and SOWK 3381. In order to minor in social work, students must have been admitted to the BSW Program, have successfully completed any course they wish to count towards the minor with a grade of C or above and have a 2.5 GPA in all social work courses. It should be noted that the Council on Social Work Education, the accrediting body for social work education, does not recognize a minor in social work. Consequently, no professional privileges or practice rights will stem from the minor in social work and the students who minor in it will not graduate with the BSW degree.

# Donaghey College of Engineering and Information Technology

EIT, Room 621 | (501) 569-3333 | (501) 569-8002  
(fax) ualr.edu/eit

<b>Dean:</b>	Lawrence Whitman, Professor
<b>Associate Dean:</b>	Jeffrey Connelly, Professor
<b>Assistant Dean:</b>	Vernard Henley
<b>Executive Director of Finance &amp; Administration:</b>	Shawna Diaz-Davis
<b>Director of Student Services:</b>	Amy Frets
<b>Senior Recruitment/Outreach Coordinator:</b>	Ashley Henry-Saorrano
<b>Education Counselor:</b>	Erin Flowers

The vision of the Donaghey College of Engineering and Information Technology (EIT) is to prepare career-ready graduates who can address the evolving needs of employers and to address complex challenges through the integration of innovative education, research, and service.

The mission of the Donaghey College of Engineering and Information Technology is to:

- provide innovative and diversified programs to enable our students to become qualified employees, to develop professionally, and to engage in lifelong learning;
- engage in the pursuit of groundbreaking research, novel applications, and entrepreneurial innovations;
- offer service programs that address the needs of our community and region; and
- foster and grow mutually beneficial partnerships with alumni, industry, educators, government agencies, and other stakeholders through collaborative endeavors.

In meeting this mission, the College offers professional undergraduate degrees in Architectural & Construction

Engineering, Civil and Construction Engineering, Computer Science, Construction Management, Mechanical Engineering Technology, Electronics and Computer Engineering Technology, Environmental Engineering, Geology, Information Science, Systems Engineering, Mechanical Systems Engineering, and Electrical and Computer Systems Engineering.

## General Information

EIT is committed to providing the engineering, construction, earth science, and IT workforce that will build Arkansas' future, and to developing a quality faculty that can contribute both to our overall educational needs and to the intellectual base of the state. To accomplish these goals, EIT will work with all interested students to provide the necessary intellectual basis for them to be successful and will provide its faculty with facilities and resources to make major contributions to our state. We work closely with UAMS and other educational institutions in the state and enhance our resources through the acquisition of external funds from federal agencies, private foundations, and other private enterprises.

Outreach to the community includes partnering with high schools across the state for in-school activities and summer programs held on the UA Little Rock campus. Specific emphasis is on partnerships with local and regional industries, including an extensive internship program, company-sponsored senior design projects, and advisory council participation that provide direct industry input into EIT curricula.

EIT strives to be the college of choice for students from the state who are interested in an engineering-, construction-earth science-, environmental-, or technology-based education; to have a faculty that is admired and respected regionally, nationally, and internationally; and to be the institution that area industries turn to for new employees and intellectual support for their growth strategies.

## Academic Advising

Students majoring in, or interested in majoring in, programs within the College of Engineering and Information Technology (see "University Advising" for the list of majors) are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours.

After reaching approximately 45 hours, EIT majors will be advised by the appropriate advisor in the college. All

students must meet with an advisor, each semester, prior to registration. Refer to [ualr.edu/advising/who-is-my-advisor](http://ualr.edu/advising/who-is-my-advisor) to determine the appropriate advisor and to learn how to schedule an appointment. For more information, please contact the office of EIT Student Services at (501) 569-3226.

## **EIT Core Requirements**

### **University Core (29 hours)**

See "General Education Requirements."

### **EIT College Core (6 hours)**

In addition to the 29-hour University Standard Core, EIT majors must complete the EIT core.

### **Math (3 hours)**

All Courses approved by the Core Council. See "General Education Requirements."

### **Humanities or Social Sciences or Communication– Spoken or Interdisciplinary (3 hours)**

All Courses approved by the Core Council. See "General Education Requirements."

(Engineering programs replace these 3 flex credit hours with 3 hours of mathematics and/or science per the State Minimum Core.)

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## Department of Computer Science

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EIT, Room 579 | (501) 569-8130 | (501) 569-8144  
(fax) | (501) 569-8256 (lab) |  
ualr.edu/computerscience

<b>Interim Chairperson:</b>	Baker, Albert, Assistant Professor
<b>Professors:</b>	Bayrak, Coskun Chiang, Chia-Chu Milanova, Mariofanna G. Minsker, Steven Tang, Peiyi
<b>Associate Professors:</b>	Xie, Mengjun

The department offers courses covering a wide range of topics in computer science, including programming and programming languages, data structures and algorithms, assembly language, computer architecture, networking, operating systems, compilers, software engineering, file structures, database systems, graphics, artificial intelligence, and theory of computation.

The department seeks to prepare students both for careers in the computing industry and for advanced study in computer science. The department maintains close ties with local computing industries and encourages its students to participate in the many cooperative and internship opportunities made available through these contacts.

### General Information

The BS in Computer Science program is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

### Admission Requirements

Students seeking a degree in computer science must apply to the department for admission to the program. Students will be assigned an advisor upon admission.

### Degree Requirements

Requirements for the B.S. degree in computer science include the core computer science and mathematics courses and upper-level electives selected from computer science.

### Computer Programming, A.C.S.

The associate of computer science degree requires at least 60 hours including the core computer science courses and approved electives selected from computer science, mathematics, statistics, accounting, management, and engineering technology. Approved electives are chosen via consultation with a Departmental advisor.

### Approved Electives (23 hours)

Approved electives are chosen in consultation with a Departmental advisor.

### Suggested Curriculum

#### Freshman Year

- RHET 1311 - Composition I
- RHET 1312 - Composition II
- ACOM 1300 - Introduction to Communication
  
- HIST 2311 - U.S. History to 1877  
or
- HIST 2312 - U.S. History since 1877  
or
- POLS 1310 - American National Government
  
- MATH 1302 - College Algebra
- MATH 1303 - Trigonometry
- CPSC 1375 - Programming I
- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 1310 - Internet Technologies
- Approved electives (8 hours)

#### Sophomore Year

- CPSC 2376 - Programming II  
or

- CPSC 2377 - Introduction to Game Programming
- CPSC 2380 - Data Structures and Algorithms
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
- Approved Electives (18 hours)

## Information Assurance, B.P.S.

### General Education Core (35 hour)

#### Professional Core

(15 hours required of all BPS degrees that are maintained by the BPS Curriculum Committee)

\*\*\*\*The course numbers in parenthesis are the prerequisite course requirements (e.g., MGMT 3340 below has a prerequisite of MGMT 3300)\*\*\*\*

#### Applied Organizational Administration and Behaviors

- MGMT 3340 - Managing People in Organizations
- MGMT 3320 - Human Resources Management

#### Organizational Systems

- MGMT 3300 - Principles of Management

#### Communications

- ACOM 3320 - Persuasive Presentations
- RHET 3316 - Writing for the Workplace

#### Professional Core Electives

(Select 6 hours from a list of electives maintained by the BPS Curriculum Committee)

- ITEC 3610 - Introduction to Information Technology and Applications
- PSYC 3370 - Industrial Psychology
- PSYC 4325 - Personnel Psychology
- PSYC 4363 - Organizational Psychology
- RHET 3301 - Editing for Usage, Style, and Clarity
- RHET 3315 - Persuasive Writing
- ACOM 3340 - Communication Ethics
- ACOM 3330 - Professional Communication
- SOCI 3330 - Racial and Minority Groups

- SOCI 3334 - Social Problems
- SOCI 4365 - Sociology of Organizations

#### Concentration

(Minimum of 18 hours developed and maintained by the departmental faculty administering the concentration)

- CPSC 1175 - Introduction to Computer Science Laboratory (co-req with CPSC 1375)
- CPSC 1375 - Programming I
- IFAS 2300 - Introduction to Information Assurance
- IFAS 3300 - Computer Forensics
- CPSC 2376 - Programming II  
**or**
- CPSC 2377 - Introduction to Game Programming
- CPSC 2380 - Data Structures and Algorithms
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
- CPSC 3370 - Net-centric Computing: Systems Concepts
- CPSC 4360 - Computer Security
- CRJU 3309 - Cybercrime

#### Concentration/Electives

(Additional coursework related to the concentration to bring the total number of hours in the concentration to 48) Concentration electives may be chosen from the recommended list below:

- MATH 1451 - Calculus I  
**or**
- MATH 2310 - Discrete Mathematics
- IFSC 2200 - Ethics in the Profession
- STAT 3352 - Applied Statistics I
- CPSC 4376 - Applied Cryptography
- Other appropriate courses identified by the academic advisor

#### Unrestricted General Electives

(Remaining hours to reach 120 total hours, 45 hours of upper-level courses and/or 30 hours in residence)



## Computer Science, B.S.

### First-Year Colloquium (1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- CPSC 1105 - First Year Experience for CPSC/IFSC Majors

### Standard UA Little Rock Core (21 hours)

- Written Communication (6)
- U.S. Traditions (3)
- Fine Arts (3)
- Social Science (3)
- History of Civilization (3)
- Humanities (3)

Students may take any of the courses approved by the Core Curriculum Council in the above categories to satisfy the core requirements above.

### EIT College Core (15 hours)

#### Mathematics (4)

- Students should take MATH 1451 in this category.

#### Science (8)

- Students should take CHEM 1402 (General Chem I) or PHYS 2321/PHYS 2121 (Physics for Sci/Eng I) and (if not both of the former) one of {ERSC 1302/ERSC 1102, ERSC 1304/ERSC 1104, ERSC 2303/ERSC 2103, BIOL 1400, BIOL 1401, ASTR 1301/ASTR 1101}.

#### Humanities/Soc. Sci./Oral Communication/Interdisciplinary (3)

Students may take any of the courses approved by the Core Curriculum Council in the above categories to satisfy the core requirements above.

## Major (69 hours)

### Additional Math courses (13 hours):

- MATH 1451 - Calculus I (counted under EIT core. See "EIT College Core" section above.)
- MATH 1452 - Calculus II
- MATH 2310 - Discrete Mathematics
  
- MATH 3310 - Algebraic Structures  
or
- MATH 3312 - Linear Algebra
  
- STAT 3352 - Applied Statistics I

### Additional Science Course (4 hours):

(See EIT science core above). After taking PHYS 2321/PHYS 2121 or CHEM 1402, students should complete the year sequence in either physics or chemistry via the next course in sequence (PHYS 2322/PHYS 2122 or CHEM 1403).

### Additional Math/Science Elective (3 hours)

A minimum of 3 additional hours of mathematics or science courses for majors must be taken in addition to the requirements listed above.

### Major Requirements (40 hours):

\* Students must receive a grade of C or greater in this class.

- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 1375 - Programming I \*
- CPSC 2376 - Programming II \*
- CPSC 2380 - Data Structures and Algorithms \*
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
- CPSC 3375 - Database Concepts I
- CPSC 3380 - Operating Systems
- CPSC 3383 - Language Structure
- CPSC 3482 - Computer Organization I

- CPSC 4373 - Fundamentals of Software Engineering
- CPSC 4392 - Capstone Project
- IFSC 1310 - Web Technologies
- IFSC 2200 - Ethics in the Profession
- RHET 3326 - Technical Writing

**Electives (9 hours):**

- Upper-level Computer Science courses with advisor approval

**Unrestricted General Electives (14, of which at least 8 should be UL)**

Remaining hours to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

**Suggested Curriculum**

**First Semester, Fall (15 hours)**

- RHET 1311 - Composition I
- MATH 1451 - Calculus I
- HIST 1311 - History of Civilization I  
**or**
- HIST 1312 - History of Civilization II
- CPSC 1375 - Programming I
- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 1105 - First Year Experience for CPSC/IFSC Majors  
**or**
- IFSC 1105 - First Year Experience for IFSC/CPSC Majors

**Second Semester, Spring (16 hours)**

- RHET 1312 - Composition II
- MATH 1452 - Calculus II
- CPSC 1310 - Internet Technologies  
**or**
- IFSC 1310 - Web Technologies

- CPSC 2376 - Programming II
- ACOM 1300 - Introduction to Communication (or other suitable EIT College Core course in this category)

**Third Semester, Fall (16 hours)**

- MATH 2310 - Discrete Mathematics
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
- CPSC 2380 - Data Structures and Algorithms
- PHYS 2321 - Physics for Scientists and Engineers I  
**and**
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory  
**or**
- CHEM 1402 - General Chemistry I
- HIST 2311 - U.S. History to 1877  
**or**
- HIST 2312 - U.S. History since 1877  
**or**
- POLS 1310 - American National Government

**Fourth Semester, Spring (15 hours)**

- Unrestricted elective (3)
- CPSC 3380 - Operating Systems
- CPSC 3375 - Database Concepts I
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory  
**and**
- PHYS 2322 - Physics for Scientists and Engineers II  
**or**
- CHEM 1403 - General Chemistry II
- IFSC 2200 - Ethics in the Profession

**Fifth Semester, Fall (16 hours)**

- Fine Arts core requirement (3 hours)

- CPSC 3383 - Language Structure
- CPSC 3482 - Computer Organization I
- MATH 3310 - Algebraic Structures  
or
- MATH 3312 - Linear Algebra
- Upper-level unrestricted elective (3 hours)

#### **Sixth Semester, Spring (15 hours)**

- RHET 3326 - Technical Writing
- Social Sciences core requirement (3 hours)
- Upper-level CPSC elective (3 hours)
- Math/Science Elective (3 hours)
- Humanities core requirement (3 hours)

#### **Seventh Semester, Fall (15 hours)**

- CPSC 4373 - Fundamentals of Software Engineering
- Unrestricted Elective (2 hours)
- Upper-level CPSC elective (3 hours)
- STAT 3352 - Applied Statistics I
- Core science course with lab (4 hours)

#### **Eighth Semester, Spring (12 hours)**

- Upper-level CPSC elective (3 hours)
- CPSC 4392 - Capstone Project
- Upper-level unrestricted electives (6 hours)

### **Computer Science, GAME, B.S.**

**General:** 120 total hours, including 46 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### **First-Year Colloquium (0-1 hour)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

- CPSC 1105 - First Year Experience for CPSC/IFSC Majors

### **Standard UA Little Rock Core (21 hours)**

- Written Communication (6)
- U.S. Traditions (3)
- Fine Arts (3)
- History of Civilization (3)
- Humanities (3)

Students may take any of the courses approved by the Core Curriculum Council in the five above categories to satisfy the core requirements above.

#### **Social Science (3)**

- Students should take either PSYC 2300 (Intro Psychology) or ECON 2301 (Survey of Economics) in this category.

### **EIT College Core (15 hours)**

#### **Mathematics (4)**

- Students should take MATH 1451 in this category

#### **Science (8)**

- PHYS 2321/PHYS 2121 (Physics for Sci/Eng I) and one of {ERSC 1302/ERSC 1102, ERSC 1304/ERSC 1104, ERSC 2303/ERSC 2103, BIOL 1400, BIOL 1401, ASTR 1301/ASTR 1101, CHEM 1402}.

#### **Humanities/Soc. Sci./Oral Communication/Interdisciplinary (3)**

Students may take any of the courses approved by the Core Curriculum Council in the above categories to satisfy the core requirements above.

### **Major (84 hours)**

#### **Additional Math courses (13 hours):**

- MATH 1451 - Calculus I (counted under EIT core. See "EIT College Core" section above.)
- MATH 1452 - Calculus II
- MATH 2310 - Discrete Mathematics
- MATH 3312 - Linear Algebra
- STAT 3352 - Applied Statistics I

**Additional Science Course (4 hours):**

- PHYS 2322 - Physics for Scientists and Engineers II  
**and**
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory

**Additional Math/Science Elective (3 hours)**

A minimum of 3 additional hours of mathematics or science courses for majors must be taken in addition to the requirements listed above.

**Major Requirements (64 hours):**

\* Students must receive a grade of C or greater in this class.

- ARST 1315 - Two-Dimensional Design
- ARST 2318 - Computer Applications in Art
- ARST 3385 - Vector Graphics for Illustrators and Designers
- ARST 3386 - Digital Imaging for Illustrators and Designers
- CPSC 1175 - Introduction to Computer Science Laboratory \*
- CPSC 1375 - Programming I \*
- CPSC 2377 - Introduction to Game Programming \*
- CPSC 2380 - Data Structures and Algorithms \*
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
- CPSC 3375 - Database Concepts I
- CPSC 3380 - Operating Systems
- CPSC 3383 - Language Structure
- CPSC 3482 - Computer Organization I
- CPSC 4366 - Interactive Computer Graphics and Animation
- CPSC 4373 - Fundamentals of Software Engineering
- CPSC 4377 - Advanced Game Programming
- CPSC 4383 - Artificial Intelligence
- CPSC 4392 - Capstone Project
- CPSC 4367 - Mobile Apps Development
- IFSC 1310 - Web Technologies

- IFSC 2200 - Ethics in the Profession
- RHET 3326 - Technical Writing

**Suggested Curriculum****First Semester, Fall (14-15 hours)**

- RHET 1311 - Composition I
- MATH 1451 - Calculus I
- CPSC 1375 - Programming I
- CPSC 1175 - Introduction to Computer Science Laboratory
  
- CPSC 1105 - First Year Experience for CPSC/IFSC Majors (0-1 hour)  
**or**
- IFSC 1105 - First Year Experience for IFSC/CPSC Majors (0-1 hour)
  
- ACOM 1300 - Introduction to Communication (or other suitable EIT College Core course in this category)

**Second Semester, Spring (16 hours)**

- RHET 1312 - Composition II
- MATH 1452 - Calculus II
  
- CPSC 1310 - Internet Technologies  
**or**
- IFSC 1310 - Web Technologies
  
- CPSC 2377 - Introduction to Game Programming
- ARST 1315 - Two-Dimensional Design

**Third Semester, Fall (15 hours)**

- MATH 2310 - Discrete Mathematics
- CPSC 2380 - Data Structures and Algorithms
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
- ARST 2318 - Computer Applications in Art
  
- PSYC 2300 - Psychology and the Human Experience  
**or**
- ECON 2301 - Survey of Economics

#### Fourth Semester, Spring (15 hours)

- MATH 3312 - Linear Algebra
- STAT 3352 - Applied Statistics I
- CPSC 3375 - Database Concepts I
  
- HIST 1311 - History of Civilization I  
**or**
- HIST 1312 - History of Civilization II
  
- RHET 3326 - Technical Writing

#### Fifth Semester, Fall (16 hours)

- HIST 2311 - U.S. History to 1877  
**or**
- HIST 2312 - U.S. History since 1877  
**or**
- POLS 1310 - American National Government
  
- CPSC 3383 - Language Structure
- CPSC 4383 - Artificial Intelligence
- CPSC 4367 - Mobile Apps Development
  
- PHYS 2321 - Physics for Scientists and Engineers I  
**and**
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory

#### Sixth Semester, Spring (16 hours)

- ARST 3386 - Digital Imaging for Illustrators and Designers
- CPSC 4366 - Interactive Computer Graphics and Animation
- CPSC 4377 - Advanced Game Programming
- CPSC 3380 - Operating Systems
  
- PHYS 2322 - Physics for Scientists and Engineers II  
**and**
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory

#### Seventh Semester, Fall (15 hours)

- CPSC 4373 - Fundamentals of Software Engineering
- Fine Arts core requirement (3 hours)
- ARST 3385 - Vector Graphics for Illustrators and Designers
- IFSC 2200 - Ethics in the Profession
- CPSC 3482 - Computer Organization I

#### Eighth Semester, Fall (15 hours)

- CPSC 4392 - Capstone Project
- Math/Science Elective (3 hours)
- Core science with lab (4 hours) (see EIT College science core above)
- Humanities core requirement (3 hours)

## Computer Science Minor

### Program Requirements

The minor in computer science requires:

- CPSC 1375 - Programming I
- CPSC 1175 - Introduction to Computer Science Laboratory
  
- CPSC 2376 - Programming II  
**or**
- CPSC 2377 - Introduction to Game Programming
  
- CPSC 2380 - Data Structures and Algorithms
- CPSC 2382 - Introduction to Computer Systems and Assembly Language
  
- CPSC 3380 - Operating Systems  
**or**
- CPSC 3370 - Net-centric Computing: Systems Concepts
  
- MATH 1451 - Calculus I  
**and**
- MATH 1452 - Calculus II

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences  
**and**
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences
- One three-hour upper-level computer science course

## Information Assurance Minor

### Program Requirements

The minor and technical certificate program in information assurance (IA) is designed to provide students with the knowledge and capacity to implement information security and to solve IA problems. The program goals are to heighten awareness of IA in the academic community, prepare graduates who are capable of evaluating IA situations, and contribute to finding appropriate solutions to IA problems.

For students who currently hold degrees in areas other than IA, the program provides the environment to develop their knowledge and capacity for implementing information security and to do research in the area. It will also benefit students who wish to supplement their educations with knowledge of how to evaluate and improve the security of data from both technical and social perspectives.

### Minor in Information Assurance

The IA minor is not limited to students in the Donaghey College of Engineering and Information Technology (EIT). In addition to students in computer-related programs such as Computer Science, Information Science, or Systems Engineering, the minor is also designed to include those with interests in Criminal Justice or Business Management who may not have extensive backgrounds in computers, math, or technology.

### Minor and/or Certificate in Information Assurance

The IA Minor and Technical Certificate in Information Assurance consist of 20 hours in seven courses. All courses must be completed with a grade of C or greater.

Students matriculating through colleges other than EIT must obtain written consent from the instructors before enrolling in a course offered by EIT.

## Curriculum

### Required Prerequisite (3 hours)

- IFAS 2300 - Introduction to Information Assurance

### Core Courses (8 hours)

- CRJU 3309 - Cybercrime
- IFAS 3300 - Computer Forensics
- IFSC 2200 - Ethics in the Profession

### Computer Networking Course (3 hours)

- MGMT 4310 - Network Technologies
- IFSC 3315 - Applied Networking
- CPSC 4384 - Computer Networks  
**or**
- CPSC 3370 - Net-centric Computing: Systems Concepts
- SYEN 3332 - Communication Networks

### Database Course (3 hours)

- MGMT 4350 - Business Data Management
- IFSC 3320 - Database Concepts
- CPSC 3375 - Database Concepts I
- SYEN 3360 - Data Communications

### Approved Elective (3 hours)

- SYEN 3318 - Decision and Risk Analysis
- MGMT 4311 - Security Issues and Advanced Topics in Network Technologies
- IFSC 4339 - Network Security
- IFSC 4330 - Database Security
- CPSC 3380 - Operating Systems  
**or**
- CPSC 3370 - Net-centric Computing: Systems Concepts
- CPSC 4376 - Applied Cryptography

## **Information Assurance Technical Certificate**

Students or working professionals who may or may not already have an undergraduate or graduate degree may elect to earn a Technical Certificate in Information Assurance. The technical certificate program is provided by the Department of Computer Science; contact the department chairperson for current information. The requirements for certification are the same as the minor program. Note: This graded certificate does not replace traditional certification programs such as the Certified Information Systems Security Professional (CISSP) certification.

## **Minor and/or Certificate in Information Assurance**

The IA Minor and Technical Certificate in Information Assurance consist of 20 hours in seven courses. All courses must be completed with a grade of C or greater.

Students matriculating through colleges other than EIT must obtain written consent from the instructors before enrolling in a course offered by EIT.

**Department of Construction  
Management and Civil and  
Construction Engineering**

ETAS, Room 203, (501) 569-8133, (501) 569-8341  
(fax) ualr.edu/constructionmanagement

<b>Chair:</b>	Bray, Hank, Professor
<b>Coordinator of Graduate Construction Management Program:</b>	Carr, Jim, Professor
<b>Interim Coordinator of Architectural, Civil, and Construction Engineering Programs:</b>	Bray, Hank, Professor
<b>Coordinator of Undergraduate Construction Management Programs</b>	Manry, David, Assistant Professor
<b>Interim Coordinator of Environmental Engineering Programs:</b>	Bray, Hank, Professor
<b>Professor:</b>	Tramel, Mike
<b>Associate Professors:</b>	Ray, Chris
<b>Assistant Professor:</b>	Turner, Anne
<b>Instructor:</b>	Scheiderer, Stuart
<b>Advanced Instructor:</b>	Squires, Mark
<b>Adjunct Instructors:</b>	Beavers, Lanny Gursoy, Gozde McKenney, Christopher
<b>Laboratory Specialist and Lecturer:</b>	Blackmon, Larry
<b>Administrative Assistant:</b>	Robinson, Kesha

Construction, our nation's largest industry, encompasses the residential sector, commercial and retail buildings, office and high-rise structures, major industrial and process complexes, and engineering infrastructures such as highways, dams, bridges, airports, and seaports. The complexity of projects demands that professional constructors and engineers possess detailed knowledge of the many aspects of the industry to effectively lead and manage the design and construction processes.

The construction-related programs provide curricula that equip for a wide range of design, managerial, and supervisory roles within this multi-faceted, dynamic industry. Technological, computer and software orientation assist our graduates to develop into contributing members of the architectural, engineering, and construction industry with high paying entry level jobs. There are substantial opportunities for rapid advancement and salary increases with experience in the industry.

Career opportunities for our graduates can be found with general and specialty contractors, architectural and engineering design firms, testing laboratories, government agencies, financial institutions, insurance and surety companies, and manufacturers of construction equipment and products. The courses provide an in-depth study of construction management, construction science, engineering science, engineering design, business, mathematics, and sciences. Extensive applications with construction and engineering computer software and hardware emphasize the most current technologies used by industry.

## Admission Policy

After admission to UA Little Rock, any student may declare a major or minor in construction management. Admission to one of the department's engineering majors requires the readiness to take Calculus I and General Chemistry. Students may be provisionally admitted into one of the engineering majors before this, but they may require more than four years to complete the degree requirements.

## Contact Information

To discuss either of the undergraduate construction management programs, either of the construction engineering programs, or the environmental engineering program, students should visit Hank Bray in ETAS 203, call (501) 569-8133, or send email to hgbray@ualr.edu.



To discuss the undergraduate construction management programs, students should visit David Manry in ETAS 202D, call (501) 683-7235, or send email to [dwmanry@ualr.edu](mailto:dwmanry@ualr.edu).

To discuss the graduate program in construction management, students should visit Jim Carr in ETAS 202E, call (501) 569-8065, or send email to [jkarr1@ualr.edu](mailto:jkarr1@ualr.edu).

## Work Experience Requirement

All Bachelor of Science students in the department are required to complete a minimum of 800 contact hours of practical work experience in an approved construction- or engineering-related activity. This stipulation provides the graduate with valuable industry experience and insights and is part of the educational process.

## Accreditation

The four-year baccalaureate construction management program is accredited by the American Council for Construction Education (ACCE). The ACCE is recognized by the Council for Higher Education Accreditation as the national accrediting agency for four-year baccalaureate programs in construction education. Accreditation is a means for recognizing educational institutions that achieve and maintain a level of performance, integrity, and quality that entitles them to the confidence of the educational community and the public they serve. The UA Little Rock construction management program is the only such accredited program in the University of Arkansas system.

The four-year baccalaureate construction management program is also accredited by the Applied Science Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

The two-year associate's degree program in construction science is not accredited.

The four-year baccalaureate civil and construction engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

The four-year baccalaureate architectural and construction engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

A new engineering program cannot seek accreditation until at least one student has graduated from the program. As new programs, the four-year baccalaureate degree

programs in architectural and construction engineering and in environmental engineering are not accredited.

## Student Activities

The UA Little Rock construction management program has five student chapters and one honor society for student involvement. The student chapters are affiliated with the Associated General Contractors (AGC), the Associated Builders and Contractors (ABC), the National Association of Home Builders (NAHB). The Arkansas chapter of each association sponsors the student chapters and provides opportunities for students to interact and network with members of their organizations. Special student membership is also available with the American Concrete Institute (ACI), American Society of Professional Estimators (ASPE), National Association of Women in Construction (NAWIC), and the International Code Council (ICC). Students who meet the requirements can become members of Sigma Lambda Chi, the International Honor Society for Leaders in Construction. The UA Little Rock construction management program is a member of the Associated Schools of Construction (ASC) and participates in the ASC regional construction management competitions.

Engineering students have the opportunity to become involved with several engineering organizations, including the American Society of Civil Engineers (ASCE), the American Society of Mechanical Engineers (ASME), the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), the Society of Women Engineers (SWE), and Engineers Without Borders (EWB). Engineering students can participate in regional and national student competitions, such as the Steel Bridge Competition, the Concrete Canoe Competition, the Big Beam Contest, and the Charles Pankow Foundation Annual Architectural Engineering Student Design Competition.

## Construction Science, A.S.

The associate of science construction science program prepares students to work in the construction industry and continue their studies seamlessly in the baccalaureate construction management program.

A minor is not required. Students seeking an Associate of Science in Construction Management degree must achieve at least a 2.00 grade point average (GPA) in the major (all required CNMG courses).

**General:** 63 total hours, including 20 hours above the freshman level, and 15 hours in residence

## First-Year Colloquium (0-1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See First-Year Colloquium Section for details)

<sup>(1)</sup> Transfer, post-baccalaureate, and other students with more than 12 hours of prior college work may substitute a CNMG elective for CNMG 1101 and CNMG 1201, at the discretion of the program coordinator.

- CNMG 1101 - First-Year Colloquium in Construction <sup>(1)</sup>

## UA Little Rock General Education Requirements (35 credit hours)

### UA Little Rock Standard Core (29 hours)

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- Science (8 hours)

### EIT College Core (6 hours)

- Mathematics (3 hours)
- Humanities, Social Sciences, Oral Communication, or Interdisciplinary (3 hours)

## Major Requirements (27 credit hours)

### Business/Construction Electives (6 hours)

- Any six hours of ACCT, BINS, CNMG, ECON, FINC, IBUS, MGMT, or MKTG courses

### Construction Core (12 credit hours)

<sup>(1)</sup> Transfer, post-baccalaureate, and other students with more than 12 hours of prior college work may substitute a CNMG elective for CNMG 1101 and CNMG 1201, at the discretion of the program coordinator.

- CNMG 1101 - First-Year Colloquium in Construction <sup>(1)</sup>
- CNMG 1201 - The Construction Industry <sup>(1)</sup>

- CNMG 1305 - Drawings and Specifications
- CNMG 2313 - Construction Materials and Methods
- CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems

### Construction Electives (9 credit hours)

- Any nine hours of CNMG courses

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 60 minimum total hours, 20 hours above the freshman level, and/or 15 hours in residence.

## Construction Concentration, B.P.S.

### Construction Concentration Program Requirements

The professional studies program is an interdisciplinary baccalaureate degree program that develops communication and management skills and provides basic knowledge in the field of construction.

A minor is not required. Students seeking a Bachelor of Professional Studies—Construction Concentration degree must achieve at least a 2.00 grade point average (GPA) in the concentration (all required CNMG courses).

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

<sup>(1)</sup> Transfer, post-baccalaureate, and other students with more than 12 hours of prior college work may substitute a CNMG elective for CNMG 1101 and CNMG 1201, at the discretion of the program coordinator.

- CNMG 1101 - First-Year Colloquium in Construction <sup>(1)</sup>

**UA Little Rock General Education Requirements (35 credit hours)**

UA Little Rock Standard Core (29 hours)

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- Science (8 hours)

EIT College Core (6 hours)

- Mathematics (3 hours)
- ACOM 1300 - Introduction to Communication (3 hours)

**Major (39 hours)**

BPS Professional Core (15 hours)

- MGMT 3300 - Principles of Management
- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- RHET 3316 - Writing for the Workplace
- ACOM 3320 - Persuasive Presentations

BPS Core Electives (6 hours – select from the following)

- ITEC 3610 - Introduction to Information Technology and Applications
- PSYC 3370 - Industrial Psychology
- PSYC 4325 - Personnel Psychology
- PSYC 4363 - Organizational Psychology
- RHET 3301 - Editing for Usage, Style, and Clarity
- RHET 3315 - Persuasive Writing
- ACOM 3330 - Professional Communication
- ACOM 3340 - Communication Ethics
- SOCI 3330 - Racial and Minority Groups
- SOCI 3334 - Social Problems
- SOCI 4365 - Sociology of Organizations

Construction Concentration (18 credit hours)

Required Construction Courses (12 hours)

- CNMG 1305 - Drawings and Specifications

- CNMG 2313 - Construction Materials and Methods
- CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems
- CNMG 2318 - Building Information Modeling

Construction Electives (6 hours – select from the following)

- CNMG 3321 - Steel Construction
- CNMG 3327 - Field Engineering and Construction Equipment
- CNMG 3339 - Estimating I
- CNMG 4310 - Construction Financial Management
- CNMG 4311 - Estimating II
- CNMG 4318 - Advanced BIM
- CNMG 4323 - Construction Administration
- CNMG 4329 - Construction Planning and Scheduling
- CNMG 4334 - Construction Contracts and Law
- CNMG 4342 - Construction Safety

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

**Goals, Objectives, and Outcomes for the Professional Studies – Construction Concentration Program**

The goals of the professional studies – construction concentration program are to:

- Prepare students for successful careers in the architecture, engineering, and construction (AEC) industry or related fields.
- Provide employers with a well-educated workforce that is ready and able to perform valuable construction services immediately after graduation.

- Encourage the growth of knowledge-based industry and stimulate economic growth in Arkansas.

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies. The educational objectives of the professional studies – construction concentration program are to produce graduates who:

1. Rapidly become employed in architecture, engineering, construction, or related fields or pursuing graduate or professional education in construction management, building construction, business, law, etc.
2. Engage in lifelong learning, through on-the-job training, participation in professional societies, additional formal education, continuing education and professional development, research, and self-study, in order to use state-of-the-art knowledge to build safe and effective buildings and infrastructure and/or provide high quality service to the general public, employers, clients, and other professionals.

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program. The professional studies – construction concentration program will produce graduates who have:

- a. an ability to apply knowledge of mathematics and applied and/or natural sciences to areas relevant to the
- b. an ability to design and conduct experiments, or test hypotheses, as well as to analyze and interpret data
- c. an ability to formulate or design a system, process, procedure or program to meet desired needs
- d. an ability to function on multidisciplinary teams
- e. an ability to identify and solve technical or scientific problems
- f. an understanding of professional and ethical responsibility
- g. an ability to communicate effectively
- h. the broad education necessary to understand the impact of technical and/or scientific solutions in a global and societal context
- i. a recognition of the need for and an ability to engage in life-long learning

- j. knowledge of contemporary issues
- k. an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.

## Architectural and Construction Engineering, B.S.

The architectural and construction engineering program focuses on structural engineering, mechanical engineering, electrical engineering, and construction engineering, in the context of integrated building system design and construction. The program also introduces students to architectural history and design principles.

A minor is not required. Students seeking a Bachelor of Science in Architectural and Construction Engineering degree must pass each CNMG course with a grade of C or greater, must achieve at least a 2.00 grade point average (GPA) in the major (all required MATH, STAT, CHEM, ERSC, PHYS, CNMG, and SYEN courses), and also must pass both the Fundamentals of Engineering (FE) and the Associate Constructor (AC) examinations.

**General:** 128 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- CNMG 1101 - First-Year Colloquium in Construction
- or**
- any other FYC Course

### UA Little Rock Standard Core (29 hours)

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- Science (8 hours)

### **EIT College Core (6 hours)**

- Mathematics (3 hours)
- Additional Math and Science (3 hours)

### **Major Requirements (93 credit hours)**

#### **Humanities and Social Science (0 hours beyond the General Education Requirements)**

- ARHA 2306 - Introduction to Architecture
- ECON 2301 - Survey of Economics  
**or**
- ECON 2322 - Principles of Microeconomics
- PHIL 2321 - Ethics and Society: Professional Applications

#### **Mathematics and Science (32 credit hours—18 hours beyond the EIT College Core\*\*)**

- CHEM 1406 - General Chemistry for Engineers  
**or**
- CHEM 1402 - General Chemistry I
- ERSC 4371 - Engineering Geology \*\*  
**or**
- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory  
  
**or**
- ERSC 1304 - Earth and the Environment  
**and**
- ERSC 1104 - Earth and the Environment Lab
- MATH 1451 - Calculus I (\*\*1 hour exceeds EIT College Core)
- MATH 1452 - Calculus II (\*\*1 hour exceeds EIT College Core)
- MATH 2453 - Calculus III \*\*
- MATH 3322 - Introduction to Differential Equations \*\*
- PHYS 2321 - Physics for Scientists and Engineers I

- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2322 - Physics for Scientists and Engineers II \*\*
- STAT 3352 - Applied Statistics I \*\*

#### **Engineering and Construction (72 credit hours)**

- CNMG 1085 - Architecture, Engineering, and Construction (AEC) Seminar (each semester)
- CNMG 1305 - Drawings and Specifications
- CNMG 1313 - Civil Engineering Materials with Lab
- CNMG 1385 - Infrastructure, Environment, and Society
- CNMG 2313 - Construction Materials and Methods
- CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems
- CNMG 2370 - Engineering Statics
- CNMG 2385 - Architectural History and Design
- CNMG 3302 - Engineering Economy
- CNMG 3312 - Engineering Structural Analysis
- CNMG 3327 - Field Engineering and Construction Equipment
- CNMG 3339 - Estimating I
- CNMG 3347 - Engineering Soil Mechanics with Lab
- CNMG 3374 - Hydraulic Engineering with Lab
- CNMG 3376 - Engineering Structural Mechanics
- CNMG 3378 - Engineering Thermodynamics
- CNMG 4321 - Reinforced Concrete Design
- CNMG 4323 - Construction Administration
- CNMG 4329 - Construction Planning and Scheduling
- CNMG 4334 - Construction Contracts and Law
- CNMG 4342 - Construction Safety
- CNMG 4351 - Foundation Design
- CNMG 4371 - Structural Steel Design
- CNMG 4380 - Heating, Ventilating, Air-Conditioning, and Refrigeration (HVACR) Engineering Fundamentals

- CNMG 4185 - Professional Engineering Seminar
- CNMG 4285 - Engineering Design Project
- SYEN 2315 - Circuits and Systems

### Engineering Elective (3 hours)

- Any 3 hours of engineering courses approved by the program coordinator.

### Professional Requirements

- Pass the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) Examination.
- Pass the American Institute of Construction (AIC) Associate Constructor (AC) Examination.
- Document at least 800 hours of practical work experience in approved engineering- or construction-related activities, such as student competitions, part-time or full-time employment, internships, cooperative education, community service learning projects, or prior experience.

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

### Goals, Objectives, and Outcomes for the Architectural and Construction Engineering Program

The goals of the architectural and construction engineering program are to:

- Prepare students for successful engineering or management careers in the architecture, engineering, and construction (AEC) industry or related fields.
- Provide employers with a well-educated workforce that is ready and able to perform valuable architectural and construction

engineering and managerial services immediately after graduation.

- Encourage the growth of knowledge-based industry and stimulate economic growth in Arkansas.

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies. The educational objectives of the architectural and construction engineering program are to produce graduates who:

- Rapidly become certified Engineer Interns (EI) and Associate Constructors (AC) employed in architecture, engineering, construction, or related fields or pursuing graduate or professional education in engineering, business, law, architecture, etc.
- Become licensed Professional Engineers (PE) and/or Certified Professional Constructors (CPC) after gaining the required professional experience and the requisite knowledge to pass the licensing and/or certification exams.
- Engage in lifelong learning, through on-the-job training, participation in professional societies, additional formal education, continuing education and professional development, research, and self-study, in order to use state-of-the-art knowledge to design and build safe and effective buildings and/or provide high quality service to the general public, employers, clients, and other professionals.

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program. The architectural and construction engineering program will produce graduates who have:

- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to apply knowledge of mathematics, science, and
- An ability to function on multidisciplinary teams.
- An ability to identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.

- g. An ability to communicate effectively.
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. A recognition of the need for, and an ability to engage in life-long learning.
- j. A knowledge of contemporary issues.
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Civil and Construction Engineering, B.S.

The civil and construction engineering program focuses on structural engineering, geotechnical engineering, environmental engineering, and construction engineering. However, the program also exposes students to other major areas of civil engineering, including materials engineering, water resources engineering, highway engineering, and surveying.

A minor is not required. Students seeking a Bachelor of Science in Civil and Construction Engineering degree must pass each CNMG course with a grade of C or greater, must achieve at least a 2.00 grade point average (GPA) in the major (all required MATH, STAT, CHEM, ERSC, PHYS, CNMG and SYEN courses), and also must pass both the Fundamentals of Engineering (FE) and the Associate Constructor (AC) examinations.

**General:** 128 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See First-Year Colloquium Section for details)

- CNMG 1101 - First-Year Colloquium in Construction
- or
- any other FYC course

### UA Little Rock General Education Requirements (35 credit hours)

**UA Little Rock Standard Core (29 hours)**

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- Science (8 hours)

### EIT College Core (6 hours)

- Mathematics (3 hours)
- Additional Mathematics/Sciences (3 hours)

### Second Language Proficiency

(none required)

### Major (93 hours)

**Mathematics and Science (32 credit hours—18 hours beyond the EIT College Core\*\*)**

- CHEM 1406 - General Chemistry for Engineers
- or
- CHEM 1402 - General Chemistry I
- ERSC 4371 - Engineering Geology \*\*
- or
- ERSC 1302 - Physical Geology
- and
- ERSC 1102 - Physical Geology Laboratory
- or
- ERSC 1304 - Earth and the Environment
- and
- ERSC 1104 - Earth and the Environment Lab
- ERSC 4372 - Surface Water Hydrology \*\*
- or
- ERSC 4473 - Hydrogeology
- MATH 1451 - Calculus I (\*\*1 hour exceeds EIT College Core)
- MATH 1452 - Calculus II (\*\*1 hour exceeds EIT College Core)
- MATH 2453 - Calculus III \*\*
- MATH 3322 - Introduction to Differential Equations \*\*
- PHYS 2321 - Physics for Scientists and Engineers I

- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- STAT 3352 - Applied Statistics I \*\*

**Engineering and Construction (75 credit hours)**

- CNMG 1085 - Architecture, Engineering, and Construction (AEC) Seminar (each semester)
- CNMG 1305 - Drawings and Specifications
- CNMG 1385 - Infrastructure, Environment, and Society
- CNMG 2313 - Construction Materials and Methods
- CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems
- CNMG 2316 - Construction Surveying with Lab
- CNMG 2370 - Engineering Statics
- CNMG 3302 - Engineering Economy
- CNMG 3312 - Engineering Structural Analysis
- CNMG 3313 - Civil Engineering Materials with Lab
- CNMG 3327 - Field Engineering and Construction Equipment
- CNMG 3339 - Estimating I
- CNMG 3347 - Engineering Soil Mechanics with Lab
- CNMG 3357 - Introduction to Environmental Engineering with Lab
- CNMG 3374 - Hydraulic Engineering with Lab
- CNMG 3376 - Engineering Structural Mechanics
- CNMG 4321 - Reinforced Concrete Design
- CNMG 4323 - Construction Administration
- CNMG 4329 - Construction Planning and Scheduling
- CNMG 4334 - Construction Contracts and Law
- CNMG 4342 - Construction Safety
- CNMG 4351 - Foundation Design
- CNMG 4354 - Highway Engineering
- CNMG 4357 - Water and Wastewater Engineering
- CNMG 4371 - Structural Steel Design
- CNMG 4185 - Professional Engineering Seminar

- CNMG 4285 - Engineering Design Project

**Professional Requirements**

- Pass the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) Examination.
- Pass the American Institute of Construction (AIC) Associate Constructor (AC) Examination.
- Document at least 800 hours of practical work experience in approved construction-related activities, such as student

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

**Goals, Objectives, and Outcomes for the Civil and Construction Engineering Program**

The goals of the construction management program are to:

- Prepare students for successful engineering or management careers in the architecture, engineering, and construction (AEC) industry or related fields.
- Provide employers with a well-educated workforce that is ready and able to perform valuable civil and construction engineering and managerial services immediately after graduation.
- Encourage the growth of knowledge-based industry and stimulate economic growth in Arkansas.

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies. The educational objectives of the civil and construction engineering program are to produce graduates who:

- Rapidly become certified Engineer Interns (EI) and Associate Constructors (AC) employed in architecture, engineering, construction, or related fields or pursuing graduate or professional education in engineering, business, law, architecture, etc.



- Become licensed Professional Engineers (PE) and/or Certified Professional Constructors (CPC) after gaining the required professional experience and the requisite knowledge to pass the licensing and/or certification exams.
- Engage in lifelong learning, through on-the-job training, participation in professional societies, additional formal education, continuing education and professional development, research, and self-study, in order to use state-of-the-art knowledge to design and build safe and effective buildings and infrastructure and/or provide high quality service to the general public, employers, clients, and other professionals.

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program. The civil and construction engineering program will produce graduates who have:

- a. An ability to apply knowledge of mathematics, science, and engineering.
- b. An ability to design and conduct experiments, as well as to analyze and interpret data.
- c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- d. An ability to function on multidisciplinary teams.
- e. An ability to identify, formulate, and solve engineering problems.
- f. An understanding of professional and ethical responsibility.
- g. An ability to communicate effectively.
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. A recognition of the need for, and an ability to engage in life-long learning.
- j. A knowledge of contemporary issues.
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Construction Management, B.S.

### Construction Management Program Requirements

The construction management program is an interdisciplinary baccalaureate degree program that builds upon construction methods, engineering techniques, and business courses offered in the Donaghey College of Engineering and Information Technology and the College of Business. The integrated curriculum provides a foundation for the capstone courses offered in the senior year and the required passage of the Associate Constructor (AC) examination.

A minor is not required. Students seeking a Bachelor of Science in Construction Management degree must achieve at least a 2.00 grade-point average (GPA) in the major (all required CNMG courses), and also score at least 60% on the Associate Constructor (AC) examination.

**General:** 123 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### First-Year Colloquium (0-1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See First-Year Colloquium Section for details)

<sup>(1)</sup> Transfer, post-baccalaureate, and other students with more than 12 hours of prior college work may substitute a CNMG elective for CNMG 1101 and CNMG 1201, at the discretion of the program coordinator.

- CNMG 1101 - First-Year Colloquium in Construction <sup>(1)</sup>

#### UA Little Rock General Education Requirements (35 credit hours)

UA Little Rock Standard Core (29 hours)

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- Science (8 hours)

EIT College Core (6 hours)

- Mathematics (3 hours)
- Humanities, Social Sciences, Oral Communication, or Interdisciplinary (3 hours)

**Major (88 hours)**

Communications (9 hours—0 hours beyond the General Education Requirements)

- RHET 1311 - Composition I
- RHET 1312 - Composition II
  
- ACOM 1300 - Introduction to Communication
- CNMG 1385 - Infrastructure, Environment, and Society

Business (12 hours—9 hours beyond the General Education Requirements\*\*)

- ACCT 2310 - Principles of Accounting I \*\* or another accounting course
  
- ECON 2301 - Survey of Economics
- ECON 2322 - Principles of Microeconomics or another economics course
  
- MGMT 3300 - Principles of Management \*\* or another management course
  
- MGMT 4391 - Employment Law \*\*
- MKTG 2380 - Legal Environment of Business or another business law course

Mathematics and Science (17 hours—6 hours beyond the EIT College Core\*\*)

- MATH 1302 - College Algebra
- MATH 1401 - Pre-Calculus
  
- MATH 1303 - Trigonometry \*\*
- MATH 1401 - Precalculus
  
- Math elective (3 hours) \*\*
  
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

or

- MATH 1451 - Calculus I
- or
- PSYC 2340 - Statistics and Methods I
- or
- STAT 2350 - Introduction to Statistical Methods or another math course beyond college algebra and trig.

Physical Science electives (8 hours)

- Any two CHEM, ERSC, or PHYS core courses, including associated lab courses

Construction and Engineering (64 credit hours)

<sup>(1)</sup> Transfer, post-baccalaureate, and other students with more than 12 hours of prior college work may substitute a CNMG elective for CNMG 1101 and CNMG 1201, at the discretion of the program coordinator.

- CNMG 1085 - Architecture, Engineering, and Construction (AEC) Seminar (each semester)
- CNMG 1101 - First-Year Colloquium in Construction <sup>(1)</sup>
- CNMG 1201 - The Construction Industry <sup>(1)</sup>
- CNMG 1305 - Drawings and Specifications
- CNMG 2313 - Construction Materials and Methods
- CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems
- CNMG 2316 - Construction Surveying with Lab
- CNMG 2318 - Building Information Modeling
- CNMG 2333 - Statics and Strength of Materials
- CNMG 3195 - Community Service Projects
- CNMG 3321 - Steel Construction
- CNMG 3322 - Concrete Construction
- CNMG 3327 - Field Engineering and Construction Equipment
- CNMG 3339 - Estimating I
- CNMG 3347 - Engineering Soil Mechanics with Lab
- CNMG 4310 - Construction Financial Management
- CNMG 4311 - Estimating II
- CNMG 4318 - Advanced BIM
- CNMG 4323 - Construction Administration

- CNMG 4329 - Construction Planning and Scheduling
- CNMG 4334 - Construction Contracts and Law
- CNMG 4342 - Construction Safety
- CNMG 4345 - Construction Management Capstone
- CNMG 4361 - Green Construction

#### Business Elective (3 hours)

- Any 3 additional hours of ACCT, BINS, ECON, FINC, IBUS, MGMT, or MKTG courses

#### Computing Requirement (3 hours)

- BINS 1310 - Fundamentals of Information Technology  
**or**
- CPSC 1370 - Computer Literacy

#### Construction Elective (3 hours)

- Any 3 additional hours of CNMG courses or any courses approved by the program coordinator.

#### Professional Requirements

- Score at least 60% on the American Institute of Constructors (AIC) Associate Constructor (AC) Exam.
- Document at least 800 hours of practical work experience in approved engineering- or construction-related activities, such as student competitions, part-time or full-time employment, internships, cooperative education, community service learning projects, or prior experience.

#### Minor

(none required)

#### Unrestricted General Electives

Remaining hours, if any, to reach 123 minimum total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence.

## Goals, Objectives, and Outcomes for the Construction Management Program

The goals of the construction management program are to: Prepare students for successful careers in the architecture, engineering, and construction (AEC) industry or related fields.

- Prepare students for successful careers in the architecture, engineering, and construction (AEC) industry or related fields.
- Provide employers with a well-educated workforce that is ready and able to perform valuable construction management services immediately after graduation.
- Encourage the growth of knowledge-based industry and stimulate economic growth in Arkansas.

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies. The educational objectives of the construction management program are to produce graduates who:

1. Rapidly become certified Construction Managers-In-Training (CMIT) and/or certified Associate Constructors (AC) employed in architecture, engineering, construction, or related fields or pursuing graduate or professional education in construction management, building construction, business, law, etc.
2. Become Certified Construction Managers (CCM) and/or Certified Professional Constructors (CPC) after gaining the required professional experience and the requisite knowledge to pass the certification exams.
3. Engage in lifelong learning, through on-the-job training, participation in professional societies, additional formal education, continuing education and professional development, research, and self-study, in order to use state-of-the-art knowledge to build safe and effective buildings and infrastructure and/or provide high quality service to the general public, employers, clients, and other professionals.

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program. The

construction management program will produce graduates who have:

- a. an ability to apply knowledge of mathematics and applied and/or natural sciences to areas relevant to the discipline
- b. an ability to design and conduct experiments, or test hypotheses, as well as to analyze and interpret data
- c. an ability to formulate or design a system, process, procedure or program to meet desired needs
- d. an ability to function on multidisciplinary teams
- e. an ability to identify and solve technical or scientific problems
- f. an understanding of professional and ethical responsibility
- g. an ability to communicate effectively
- h. the broad education necessary to understand the impact of technical and/or scientific solutions in a global and societal context
- i. a recognition of the need for and an ability to engage in lifelong learning
- j. knowledge of contemporary issues
- k. an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.

## Environmental Engineering, B.S.

The environmental engineering program focuses on the transport and fate of chemical species in air, water, and soil. For example, environmental engineers design air pollution control devices, water, and wastewater treatment plants, and solid waste management systems.

Students seeking a Bachelor of Science in Environmental Engineering degree must:

- pass each CNMG course with a grade of C or greater
- achieve at least a 2.0 grade point average (GPA) in the major (all required MATH, STAT, BIOL, CHEM, ERSC, PHYS, and CNMG courses)
- and also must take the Fundamentals of Engineering (FE) examination.
- a minor is not required.

**General:** 124 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

## First-Year Colloquium (0-1 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- CNMG 1101 - First-Year Colloquium in Construction

## University Core (35 hours)

### Standard Core (29 hours)

Select courses from the following disciplines:

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- Science (8 hours)

### EIT College Core (6 hours)

Select courses from the following disciplines:

- Mathematics (3 hours)
- Additional Math and Science (3 hours)

## Major Requirements

### Humanities and Social Science (0 hours beyond the General Education Requirements)

Select one from below:

- ECON 2301 - Survey of Economics
  - ECON 2322 - Principles of Microeconomics
- And**
- PHIL 2321 - Ethics and Society: Professional Applications
  - POLS 1310 - American National Government

### Mathematics and Science (Indicates EIT College Core\*\*)

- BIOL 1400 - Evolutionary and Environmental Biology

- BIOL 2401 - Microbiology \*\*
- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II \*\*
- ERSC 1102 - Physical Geology Laboratory \*\*
- ERSC 1302 - Physical Geology
- ERSC 4372 - Surface Water Hydrology \*\*
- ERSC 4473 - Hydrogeology \*\*
- MATH 1451 - Calculus I (\*\*1 hour exceeds EIT College Core)
- MATH 1452 - Calculus II \*\*
- MATH 2453 - Calculus III \*\*
- MATH 3322 - Introduction to Differential Equations \*\*
- PHYS 2321 - Physics for Scientists and Engineers I \*\*
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory \*\*
- STAT 3352 - Applied Statistics I \*\*

Environmental Science Elective (Select two from below)\*\*

- CHEM 2310 - Analytical Chemistry I \*\*
- CHEM 3350 - General Organic Chemistry I \*\*
- ERSC 4322 - Environmental Geology \*\*
- ERSC 4371 - Engineering Geology
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)

**Engineering (48 credit hours)**

- CNMG 1085 - Architecture, Engineering, and Construction (AEC) Seminar (each semester)
- CNMG 1385 - Infrastructure, Environment, and Society
- CNMG 2370 - Engineering Statics
- CNMG 3302 - Engineering Economy
- CNMG 3313 - Civil Engineering Materials with Lab
- CNMG 3347 - Engineering Soil Mechanics with Lab
- CNMG 3357 - Introduction to Environmental Engineering with Lab
- CNMG 3374 - Hydraulic Engineering with Lab

- CNMG 3376 - Engineering Structural Mechanics
- CNMG 3378 - Engineering Thermodynamics
- CNMG 4357 - Water and Wastewater Engineering
- CNMG 4362 - Water Resources Engineering
- CNMG 4364 - Air Pollution Engineering
- CNMG 4366 - Solid and Hazardous Waste Management
- CNMG 4368 - Environmental Risk Assessment
- CNMG 4369 - Soil and Groundwater Remediation
- CNMG 4185 - Professional Engineering Seminar
- CNMG 4285 - Engineering Design Project

## Professional Requirements

- Take the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) Examination.
- Document at least 800 hours of practical work experience in approved engineering- or construction-related activities, such as student competitions, part-time or full-time employment, internships, cooperative education, community service learning projects, or prior experience.

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Goals, Objectives, and Outcomes for the Environmental Engineering Program

The goals of the program are to:

- Prepare students for successful careers in environmental engineering, civil engineering, or related fields.
- Provide employers with a well-educated workforce that is ready and able to perform

valuable environmental and civil engineering services immediately after graduation.

- Encourage the growth of knowledge-based industry and stimulate economic growth in Arkansas.

ABET Program Educational Objectives are broad statements that describe what graduates are expected to attain within a few years of graduation. These objectives must be consistent with the mission of the institution, the needs of the program's various constituencies, and the ABET Criteria for Accrediting Engineering Programs. They must be reviewed and revised periodically, through a process that involves the program's constituencies.

The objectives of the program are to produce engineering graduates who:

- Are certified Engineering Interns (EI) employed in environmental engineering, civil engineering, or related fields or are pursuing graduate or professional education in engineering, medicine, business, law, etc.
- Become licensed Professional Engineers (PE) and Board Certified Environmental Engineers (BCEE) after gaining the required professional experience and the additional requisite knowledge to pass the licensing and certification exams.
- Engage in lifelong learning, e.g., through additional formal education, continuing education, professional development, research, and self-study, in order to use state-of-the art knowledge to design safe and effective environmental systems and programs and to provide high quality services to the general public, employers, clients, and other professionals.

ABET Student Outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire as they progress through the program.

The environmental engineering program will produce graduates who have:

- a. An ability to design and conduct experiments, as well as to analyze and interpret data.
- b. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- c. An ability to apply knowledge of mathematics, science, and
- d. An ability to function on multidisciplinary teams.

- e. An ability to identify, formulate, and solve engineering problems.
- f. An understanding of professional and ethical responsibility.
- g. An ability to communicate effectively.
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. A recognition of the need for, and an ability to engage in life-long learning.
- j. A knowledge of contemporary issues.
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Construction Management, B.S. to M.S.

The Early Entry Bachelor of Science to Master of Science in Construction Management program is designed to provide a student working towards a Bachelor of Science (B.S.) in Construction Management a means to complete the requirements for their undergraduate degree along with a Master of Science (M.S.) degree in Construction Management in a shorter amount of time than the traditional path.

Undergraduate students who are enrolled in the B.S. program in Construction Management can apply to Graduate School using an early entry program form for admission into the M.S. program in Construction Management.

## Admission Requirements

- Undergraduate students may apply and accepted any time after completing 75 or more hours of undergraduate coursework. However, at least 90 hours of undergraduate coursework must have been completed by the time the first graduate course is taken.
- All applicants must have at least a 3.2 overall GPA.
- All applicants must complete an application for and be accepted into the Early Entry B.S. to M.S. in Construction Management program and the UA Little Rock Graduate School.
- All applicants must complete an Early Entry Program form and be approved for admission by the Department of Construction Management and Civil and Construction Engineering graduate

coordinator and the UA Little Rock Graduate School. The Early Entry form must be approved by the Department of Construction Management and Civil and Construction Engineering graduate coordinator before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.

- Contact the Department of Construction Management and Civil and Construction Engineering to apply.

## Graduate Credit

- Once accepted into a graduate program, students can take up to 12 hours of graduate coursework, which will count towards both the baccalaureate degree and the graduate degree. Individual graduate programs may allow fewer graduate hours to be taken at the undergraduate level; students should check with their prospective program to determine these limits.
- Students must finish their baccalaureate degrees before they complete 15 hours of graduate coursework.

## Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with a graduate level advisor upon acceptance to the Early Entry program to map out the graduate courses they will take.
- Accepted students will have provisional status in the graduate program, pending the award of their baccalaureate degree.
- Early Entry students who fail to meet the Graduate School admission requirement of an overall 3.0 undergraduate GPA and no grades below a B once they obtain their baccalaureate degree will be dismissed from the graduate program.
- Students accepted into the Early Entry program will be subject to the same policies as traditionally matriculated graduate students.
- The Early Entry program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the Early Entry program may be applied to a graduate degree.

## Construction Management Minor

### Program Requirements

The minor in construction management is available to all UA Little Rock students who want to learn about construction materials, methods, and management. Students are required to take eighteen credit hours of approved CNMG courses.

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## Department of Earth Sciences

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Fribourgh Hall, Room 307 | (501) 569-3546  
ualr.edu/earthsciences

<b>Chairperson:</b>	McMillan, Margaret E.; Professor
<b>Professors:</b>	Connelly, Jeffrey B.
<b>Associate Professors:</b>	DeAngelis, Michael T. Ruhl, Laura S.
<b>Assistant Professor:</b>	Shroat-Lewis, René A.
<b>Instructor:</b>	Spinler, Joshua C.

The Department of Earth Sciences offers a Bachelor of Science in Geology, with an optional concentration in Environmental Geology. Areas of study can include (but are not limited to): climate studies, energy resources, engineering geology, environmental geochemistry, geochemistry, geoinformatics (including GIS), geomorphology, geoscience education, hydrogeology, isotope geochemistry, medical geology, mineralogy, oceanography, paleontology, petrology, petroleum geology, planetary geology, sedimentology, seismology, stratigraphy, structural geology, tectonics, and volcanology. Students will learn to relate these areas of study to understanding the Earth, and how Earth processes affect and are affected by humanity. Students are encouraged to obtain a scientific understanding of earth systems on a global scale.

The Earth Sciences provide career opportunities for employment in industry, government, and teaching. Students interested in this area of study are urged to consult the departmental faculty regarding curricular plans and career goals. The department also offers minors in Geology and Environmental Geology. Departmental faculty also advise graduate students in the Applied Sciences graduate program.

### General Information

Professional courses, numbered 3320 and above, are designed for geology majors and minors; biology, chemistry, physics, and engineering majors; students interested in science teaching; and for other students with

a deeper interest in the field. For example, ERSC 3460, ERSC 4322, ERSC 4353, and ERSC 4421 courses are recommended for biology students; ERSC 4372, ERSC 4322, ERSC 4323, ERSC 4372, and ERSC 4473 courses are recommended for all students in environmental fields; and ERSC 4371, ERSC 4372, and ERSC 4473 courses are recommended for students in civil engineering, environmental engineering, and construction management.

### Laboratory Science Requirement Courses

The core curriculum requirements for Laboratory Science may be met by taking any of the following courses:

- **ERSC 1302 - Physical Geology and ERSC 1102 - Physical Geology Laboratory**
- **ERSC 1304 - Earth and the Environment and**
- **ERSC 1104 - Earth and the Environment Lab**
- **ERSC 2303 - Historical Geology and ERSC 2103 - Historical Geology Laboratory**

### Goals, Objectives, and Outcomes of the B.S. in Geology Program

The goals of the program are to:

1. Prepare students for successful scientific, technical or management careers in the geosciences or related fields
2. Provide employers with a well-educated workforce that is ready and able to perform valuable scientific, technical or managerial services immediately after graduation
3. Encourage the growth of knowledge-based industry and stimulate economic growth in Arkansas
4. Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies. The educational objectives of the program are to produce graduates who:
  - are pursuing productive careers as professional geologists engaged in continuous professional growth along their chosen career path, or are



pursuing graduate or professional education in geology or related fields;

- are able to become Geologist in Training (GIT) and are able to become licensed Professional Geologists (PG) after gaining the required professional experience and the requisite knowledge to pass the licensing exams;
- engage in lifelong learning, through on-the-job training, participation in professional societies, additional formal education, continuing education and professional development, research, and self-study, in order to use state-of-the-art knowledge to solve geologic problems and/or provide high-quality service to the general public, employers, clients, and other professionals.

Student outcomes describe what students are expected to know and are able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program. Students finishing the program will have:

1. An ability to identify, formulate, and solve broadly-defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.
2. An ability to formulate or design a system, process, procedure or program to meet desired needs.
3. An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.
4. An ability to communicate effectively with a range of audiences.
5. An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.
6. An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

## Geology, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

## First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

## University Core (35 hours)

See General Education Requirements. (Geology majors should complete the following for their Laboratory Science core requirement: ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104; ERSC 2303/ ERSC 2103)

## Second Language Proficiency

(none required)

## Major (62-64 hours)

### Earth Science Foundation Courses (31 hours)

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory  
  
**or**
- ERSC 1304 - Earth and the Environment  
**and**
- ERSC 1104 - Earth and the Environment Lab
  
- ERSC 2303 - Historical Geology  
**and**
- ERSC 2103 - Historical Geology Laboratory
  
- ERSC 3320 - Field Geology I
- ERSC 3410 - Mineralogy
- ERSC 3411 - Igneous and Metamorphic Petrology
- ERSC 3430 - Structural Geology
- ERSC 3440 - Sedimentology and Stratigraphy
- ERSC 4190 - Senior Seminar
- ERSC 4320 - Field Geology II
- ERSC 4473 - Hydrogeology
- ERSC 4090 - Graduation Preparation

### ERSC Electives (5 hours)

Select at least 5 hours from any 3000-4000 level ERSC courses (except ERSC 3390, which may not be counted toward the BS in Geology).

### Supporting Courses (23 hours)

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II
  
- PHYS 1321 - College Physics I  
**and**
- PHYS 1121 - College Physics I Laboratory  
**with**
- PHYS 1322 - College Physics II  
**and**
- PHYS 1122 - College Physics II Laboratory
  
- or**
- PHYS 2321 - Physics for Scientists and Engineers I  
**and**
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory  
**with**
- PHYS 2322 - Physics for Scientists and Engineers II  
**and**
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
  
- MATH 1451 - Calculus I  
**or**
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

Any one of the following courses:

- MATH 1452 - Calculus II
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences
- STAT 2350 - Introduction to Statistical Methods
- STAT 3352 - Applied Statistics I

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## ASBOG Fundamentals of Geology Examination

The department recommends that Geology majors take the ASBOG Fundamentals of Geology licensing exam in their senior year or immediately after graduation. The following courses are recommended as preparatory courses for the Fundamentals of Geology exam:

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
  
- ERSC 1304 - Earth and the Environment  
**and**
- ERSC 1104 - Earth and the Environment Lab
  
- ERSC 2303 - Historical Geology  
**and**
- ERSC 2103 - Historical Geology Laboratory
  
- ERSC 3320 - Field Geology I
- ERSC 3410 - Mineralogy
- ERSC 3411 - Igneous and Metamorphic Petrology
- ERSC 3430 - Structural Geology
- ERSC 3440 - Sedimentology and Stratigraphy
- ERSC 3460 - Paleobiology
- ERSC 4320 - Field Geology II
- ERSC 4322 - Environmental Geology
- ERSC 4371 - Engineering Geology
- ERSC 4372 - Surface Water Hydrology
- ERSC 4419 - Geomorphology
- ERSC 4473 - Hydrogeology

## Geology, Environmental Geology Concentration, B.S.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

## First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

## University Core (35 hours)

See General Education Requirements. (Geology majors should complete the following for their Laboratory Science core requirement: ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104; ERSC 2303/ERSC 2103)

## Second Language Proficiency

(none required)

## Major/Minor (75-77 hours)

### Earth Science Foundation Courses (42 hours)

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
- or**
- ERSC 1304 - Earth and the Environment  
**and**
- ERSC 1104 - Earth and the Environment Lab
- ERSC 2303 - Historical Geology  
**and**
- ERSC 2103 - Historical Geology Laboratory
- ERSC 3320 - Field Geology I
- ERSC 3410 - Mineralogy
- ERSC 3411 - Igneous and Metamorphic Petrology
- ERSC 3430 - Structural Geology
- ERSC 3440 - Sedimentology and Stratigraphy
- ERSC 4190 - Senior Seminar
- ERSC 4320 - Field Geology II
- ERSC 4322 - Environmental Geology

- ERSC 4421 - Introduction to Geographic Information Systems (GIS)
- ERSC 4473 - Hydrogeology
- ERSC 4090 - Graduation Preparation

### Electives

(select 15 hours, up to seven of which may be from the non-ERSC courses listed below)

- ERSC 3380 - Oceanography
- ERSC 3460 - Paleobiology
- ERSC 4195 - Internship in Earth Science
- ERSC 4295 - Internship in Earth Science
- ERSC 4395 - Internship in Earth Science
- ERSC 4199 - Special Topics (must be approved)
- ERSC 4299 - Special Topics (must be approved)
- ERSC 4399 - Special Topics (must be approved)
- ERSC 4499 - Special Topics (must be approved)
- ERSC 4323 - Geology of Arkansas
- ERSC 4353 - Geology and Ecology of Bahamas
- ERSC 4371 - Engineering Geology
- ERSC 4372 - Surface Water Hydrology
- ERSC 4391 - Cooperative Education in Earth Science
- ERSC 4419 - Geomorphology
- ERSC 4422 - Applied GIS
- ERSC 4426 - Introduction to Remote Sensing
- ERSC 4473 - Hydrogeology
- BIOL 3303 - Principles of Ecology
- BIOL 4310 - Evolution
- BIOL 4415 - Biometry
- CHEM 4342 - Environmental Chemistry
- CNMG 3347 - Engineering Soil Mechanics with Lab
- PHYS 3320 - Physics of the Earth

### Supporting Courses (22-24 hours)

- CHEM 1402 - General Chemistry I
- CHEM 1403 - General Chemistry II

- PHYS 1321 - College Physics I  
**and**
- PHYS 1121 - College Physics I Laboratory  
**with**
- PHYS 1322 - College Physics II  
**and**
- PHYS 1122 - College Physics II Laboratory

**or**

- PHYS 2321 - Physics for Scientists and Engineers I  
**and**
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory  
**with**
- PHYS 2322 - Physics for Scientists and Engineers II  
**and**
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
  
- MATH 1451 - Calculus I  
**or**
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

Any one of the following:

- MATH 1452 - Calculus II
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences
- STAT 2350 - Introduction to Statistical Methods
- STAT 3352 - Applied Statistics I

### **Minor**

(none required)

### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## **ASBOG Fundamentals of Geology Examination**

The department recommends that Geology majors take the ASBOG Fundamentals of Geology licensing exam in their senior year or immediately after graduation. The following courses are recommended as preparatory courses for the Fundamentals of Geology exam:

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
  
- ERSC 1304 - Earth and the Environment  
**and**
- ERSC 1104 - Earth and the Environment Lab
  
- ERSC 2303 - Historical Geology  
**and**
- ERSC 2103 - Historical Geology Laboratory
  
- ERSC 3320 - Field Geology I
- ERSC 3410 - Mineralogy
- ERSC 3411 - Igneous and Metamorphic Petrology
- ERSC 3430 - Structural Geology
- ERSC 3440 - Sedimentology and Stratigraphy
- ERSC 3460 - Paleobiology
- ERSC 4320 - Field Geology II
- ERSC 4322 - Environmental Geology
- ERSC 4371 - Engineering Geology
- ERSC 4372 - Surface Water Hydrology
- ERSC 4473 - Hydrogeology
- ERSC 4419 - Geomorphology

## **Environmental Geology Minor**

### **Required Courses (12 hours)**

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
  
- ERSC 2303 - Historical Geology  
**and**

- ERSC 2103 - Historical Geology Laboratory
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)

## Electives

(select 8 hours from the courses listed below)

- ERSC 3380 - Oceanography
- ERSC 3390 - Weather Studies
- ERSC 4195 - Internship in Earth Science
- ERSC 4295 - Internship in Earth Science
- ERSC 4395 - Internship in Earth Science
- ERSC 4199 - Special Topics (must be approved)
- ERSC 4299 - Special Topics (must be approved)
- ERSC 4399 - Special Topics (must be approved)
- ERSC 4499 - Special Topics (must be approved)

- ERSC 4322 - Environmental Geology
- ERSC 4371 - Engineering Geology
- ERSC 4473 - Hydrogeology
- ERSC 4419 - Geomorphology
- ERSC 4422 - Applied GIS

## Geology Minor

### Required Courses (8 hours)

- ERSC 1302 - Physical Geology  
**and**
- ERSC 1102 - Physical Geology Laboratory
- ERSC 2303 - Historical Geology  
**and**
- ERSC 2103 - Historical Geology Laboratory
- Electives (select 12 hours of ERSC electives)

## Department of Engineering Technology

Engineering Technology Applied Sciences Building  
(ETAS), Room 227 | (501) 569-8200  
(501) 569-8206 (fax) | ualr.edu/et

<b>Chairperson:</b>	Pidugu, Srikanth; P.E.; Professor
<b>Professors:</b>	Bakr, Mamdouh M.; P.E. Patangia, H.C. Menhart, Steve
<b>Associate Professors:</b>	Luneau, M. David Jr., P.E. Zhang, Wenle "Bill"
<b>Assistant Professor</b>	Jajam, Kailash Sharma, Ashokkumar
<b>Adjunct Instructors:</b>	Alobaidi, Wissam Copeland, Curtis Gilbert, Ben Hawkins, Seth Hendricks, Chris Hite, Jon Mastro, Paul Neeley, Jason Tomany, Armand

Engineering technology emphasizes hands-on learning and the practical aspects of engineering. It stresses the understanding and application of established engineering principles to the design, fabrication, and testing of electronic and mechanical products and systems. Engineering technology is a creative blend of the physical sciences, engineering knowledge, methods, and technical skills.

Engineering technology courses emphasize the application of engineering principles to analyze and solve practical engineering problems. Many courses have laboratories and laboratory experience is an integral part of the learning process in the program.

The primary goal of the department is to provide integrated educational opportunities to students whose technological interests and aptitudes are application-oriented. The department fosters applied research, creative design, and service activities, which involve students and faculty. Graduates of the department

programs are highly sought after and are recognized by the industry for their practical problem-solving skills.

### Programs and Areas of Specialization

The department offers Associate of Engineering Technology and Bachelor of Science degrees in Electronics and Computer Engineering Technology and Mechanical Engineering Technology. The B.S. degrees in Engineering Technology require four years of full-time study and do not require a minor. The A.E.T. degrees require two years of full-time study. The department also offers minors in Engineering Technology and Computer Integrated Manufacturing.

### Admission to the Programs

The minimum requirement for admission is that students are eligible to enroll in MATH 1302 and RHET 1311. As soon as students meet those requirements, it is important that they declare a major and be assigned a faculty advisor in order to graduate in a timely manner. Students intending to major in Engineering Technology may be advised by department faculty advisors before meeting the Department's minimum requirements. The Electronics and Computer Engineering Technology and Mechanical Engineering Technology degrees, consistent with the mission of the university and college, provide educational training in engineering technology specialties and prepare the graduates for entry-level positions in the industry.

### Scholarships, Co-op, Internship, and Other Employment Opportunities

The department offers a limited number of merit scholarships for continuing students in each program area. Scholarships are offered on the basis of academic record. Cooperative experience (Co-op) and internship arrangements with local industries are also available. The objective is to provide work experience to students within the discipline while allowing the flexibility to pursue a reduced course load. The department makes an effort to accommodate persons with relevant industrial experience or previous college work. Such a student can apply with appropriate support materials to receive academic credit. The number of hours and course equivalencies are to be decided by a faculty advisor and the chair of the

department. Credit for some courses may also be earned by departmental examination. The department and the university provide assistance in job placement. Graduates are well accepted by industry because of their knowledge of applied engineering and practical problem-solving skills.

## Accreditation

The two-year Associate of Engineering Technology and the four-year Bachelor of Science degrees in Electronics and Computer Engineering Technology and Mechanical Engineering Technology are accredited by the Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

### Engineering Technology Student Outcomes

The Student Outcomes for the Mechanical Engineering Technology program and for the Electronics and Computer Engineering Technology can be found on the Engineering Technology web pages at the following address: [ualr.edu/engineeringtechnology/assessment/](http://ualr.edu/engineeringtechnology/assessment/)

## Student Professional Societies

Several opportunities exist for students to interact with peers through student chapters of professional societies such as the Institute of Electrical and Electronics Engineers (IEEE), American Society of Mechanical Engineers (ASME), American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), Society for Women Engineers (SWE), and Tau Alpha Pi, the honor society of Engineering Technology. The Industrial Advisory Council of Engineering Technology consists of members from local industry and provides excellent interaction with industry for students and faculty.

## FAA's Airway Facilities Collegiate Training

The electronics and computer engineering technology program is an approved site for the Federal Aviation Administration's (FAA) Airway Facilities Collegiate Training Initiative (AF-CTI). Students selected to participate in the FAA initiative pursue the associate degree program in electronics and computer engineering technology and are required to pass a Basic Electronics Screening Tool (BEST) Test before being hired. For more details, contact the program coordinator of the Electronics and Computer Engineering Technology program.

## Electronics and Computer Engineering Technology Program

Professor David Luneau, Coordinator

The field of electronics and computer engineering technology extends over a wide spectrum of modern applications where knowledge of both electronics and computer hardware/software is equally important. It is essential for many modern industries that graduates work comfortably across the boundaries of both electronics and computers. This curriculum offers a single, unified bachelor's degree program in electronics and computer engineering technology to prepare students to take on the technological challenges of the 21st century. It provides a strong and comprehensive foundation in both areas, and technical electives are available for students to concentrate in either or both fields depending on their interests.

The curriculum requires that students develop a strong background in mathematics, science, and communication skills. In addition, students must master a progressively involved sequence of technical courses, which instill a knowledge of theory, analysis, and practical design. The heavy laboratory emphasis with modern and industry standard equipment provides extensive hands-on experience in a variety of fields including analog and digital electronics, computer networks and systems, microprocessors, telecommunications, embedded systems, robotics, PLCs, industrial control, and signal processing. The electronics and computer engineering technology program enjoys strong support of the industrial community, and an industrial program advisory board provides periodic input to make changes in program offerings to reflect the changing needs of industries. Local companies provide cooperative education assignments for students to receive meaningful industrial experience while earning both academic credit and income to defray their educational expenses.

## Associate of Engineering Technology Degree

This degree requires two years of study of electronics, computers, science, mathematics, and general academics to prepare students for employment as electronics technicians. Graduates of the program can also apply their credits toward the Bachelor of Science degree in Electronics and Computer Engineering Technology. Two

additional years of study are required to meet the requirements for the baccalaureate degree.

## **Bachelor of Science Degree**

The baccalaureate degree program requires the students to complete two additional years beyond the Associate of Engineering Technology curriculum. Students receive greater depth and breadth of knowledge in the technical field and more mathematics, humanities, and social science courses are included. A number of technical electives are allowed in the curriculum, and students choose the electives to match their career objectives. No minor is required for the degree.

## **Mechanical Engineering Technology Program**

Professor Srikanth Pidugu, Coordinator Leadership in corporate America is projected to come from the ranks of technologists who have the breadth of knowledge of design, manufacturing technology, and management skills. The mechanical engineering technology program provides a strong and comprehensive foundation in these areas and introduces to students the ideas of fabrication processes, management of people and projects, and cost and quality control. The program focuses on fundamental concepts of statics, dynamics, mechanics of materials, and computer two- and three-dimensional graphics of components. The degree program emphasizes product development, design, manufacturing, design of mechanical systems such as thermal power systems, heating, ventilating and air conditioning, and addresses the area of plastics and composites. The program prepares students for entry-level positions in a variety of career areas in product design, testing, manufacturing, and in plant design and operation. Technical knowledge in the mechanical field is based upon a broad foundation in mathematics, science, and applied science. The program emphasizes applications and extensive hands-on experience in addition to theoretical concepts. In addition to the traditional approach to mechanical design and manufacturing, the program emphasizes computer applications such as computer-aided manufacturing, computer-aided engineering, data acquisition and sensors, robotics, and programmable logic controllers.

The mechanical engineering technology program enjoys strong support from the industrial community and has a successful cooperative education program with a number of local industries. The cooperative education program allows students to practice in the industry, gaining early

experience while earning academic credit and income to help with their educational expenses. Students may enroll in the co-op program beginning in their junior year.

The department offers both a two-year associate and four-year bachelor's degree program.

## **Associate of Engineering Technology Degree**

The Associate of Engineering Technology is a two-year degree program, which provides students with the background and skill for supporting level positions in the mechanical and manufacturing fields. These include computer graphics, computer-aided manufacturing and CNC programming, fluid power, technical sales, and plant maintenance. The curriculum requires students to take courses in mechanical, manufacturing, and electronics and computer engineering technology in addition to mathematics, science, and general education. Students must complete the associate degree program before they are allowed to enroll in the baccalaureate program.

The associate degree in mechanical engineering technology majors may take only up to nine credit hours of junior and senior level courses in the program. Associate degree graduates may transfer their credits toward the bachelor's degree in mechanical engineering technology.

## **Bachelor of Science in Mechanical Engineering Technology**

The baccalaureate degree program requires the students to complete two additional years beyond the Associate of Engineering Technology curriculum. No minor is required for the degree.

Students receive greater depth and breadth of knowledge in the mechanical field and take additional courses in mathematics, science, humanities, and social science. Students choose technical electives to meet their career goals.

The bachelor of science curriculum requires completion of the associate degree curriculum detailed previously and the requirements detailed in the chart above.



## Electronics & Computer Engineering Technology, A.E.T.

**General:** 64 [approved exception] total hours, including 20 hours above the freshman level, and 15 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See "Undergraduate Academic Advising.")

- ECET 1302 - Freshman Year Experience in Technology & Computers

### First Semester (15 hours)

- ECET 1302 - Freshman Year Experience in Technology & Computers
- RHET 1311 - Composition I
- MATH 1302 - College Algebra
  
- HIST 2311 - U.S. History to 1877  
or
- HIST 2312 - U.S. History since 1877  
or
- POLS 1310 - American National Government
  
- ETME 1300 - Computer Graphics

### Second Semester (15 hours)

- RHET 1312 - Composition II
- MATH 1303 - Trigonometry
- ECET 1404 - Circuit Analysis I
- IFSC 1202 - Introduction to Object-oriented Technology
- PHIL 2320 - Ethics and Society

### Third Semester (17 hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- PHYS 1321 - College Physics I

- PHYS 1121 - College Physics I Laboratory
- ECET 2305 - Circuit Analysis II
- ECET 2105 - Circuits and Simulation Laboratory
- ECET 3308 - Robotics and Programmable Logic Controllers (PLCs)
  
- RHET 3316 - Writing for the Workplace  
or
- RHET 3326 - Technical Writing  
or
- BINS 3380 - Business Communication

### Fourth Semester (17 hours)

- ECET 2352 - Introduction to Digital Systems
- ECET 2152 - Introductory Digital Laboratory
- CPSC 1375 - Programming I
- CPSC 1175 - Introduction to Computer Science Laboratory
- PHYS 1322 - College Physics II
- PHYS 1122 - College Physics II Laboratory
- ECET 2169 - Sophomore Design Project
- ECET 3405 - Electronic Devices I

## Mechanical Engineering Technology, A.E.T.

**General:** 63 [approved exception] total hours

Including 20 hours above the freshman level, and 15 hours in residence

### First Semester (13 hours)

- ETME 1110 - FYE: Mechanical Engineering Technology
- MATH 1302 - College Algebra
- RHET 1311 - Composition I
  
- HIST 2311 - U.S. History to 1877  
or
- HIST 2312 - U.S. History since 1877  
or
- POLS 1310 - American National Government

## Fine Arts Core (3 hours)

### Second Semester (17 hours)

- ETME 1300 - Computer Graphics
- ECET 1404 - Circuit Analysis I
- RHET 1312 - Composition II
- MATH 1303 - Trigonometry
- ETME 2317 - Manufacturing Processes
- ETME 2117 - Manufacturing Processes Laboratory

### Third Semester (16 hours)

- ETME 2303 - Computer-Aided Design (CAD)
- ETME 2302 - Properties of Materials
- ECET 3308 - Robotics and Programmable Logic Controllers (PLCs)
- PHYS 1321 - College Physics I
- PHYS 1121 - College Physics I Laboratory
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences

### Fourth Semester (17 hours)

- ETME 2333 - Advanced Computer-Aided Design
- ETME 3417 - Statics and Dynamics
- PHIL 2320 - Ethics and Society
- ETME 2320 - Fluid Mechanics and Power
- PHYS 1322 - College Physics II
- PHYS 1122 - College Physics II Laboratory

## Electronics & Computer Engineering Technology, B.S.

**General:** 125 [approved exception] total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

## First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- ECET 1302 - Freshman Year Experience in Technology & Computers

## University Core (35 hours)

### Standard Core (29 hours)

See General Education Requirements.

- Communication-Written (6 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Science (8 hours)

### EIT College Core (6 hours)

- Mathematics (3 hours)
- Additional Mathematics/Science (3 hours)

## Major (87 hours)

### Ethics in the Profession (0 hours beyond General Education Requirements)

- PHIL 2320 - Ethics and Society (satisfies Humanities core)

### Mathematics and Science (6 hours beyond General Education Requirements)

- MATH 1302 - College Algebra (satisfies Math core)
- MATH 1303 - Trigonometry
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences (satisfies additional Math/Science core)
- PHYS 1321 - College Physics I (satisfies Science core)

- PHYS 1121 - College Physics I Laboratory (satisfies Science core)
- PHYS 1322 - College Physics II (satisfies Science core)
- PHYS 1122 - College Physics II Laboratory (satisfies Science core)

**Upper-level Writing Select One (3 hours):**

- RHET 3316 - Writing for the Workplace
- RHET 3326 - Technical Writing
- BINS 3380 - Business Communication

**Electronics and Computer Information Technology (78 hours)**

- IFSC 1202 - Introduction to Object-oriented Technology
- ETME 1300 - Computer Graphics
- CPSC 1375 - Programming I
- CPSC 1175 - Introduction to Computer Science Laboratory
- CPSC 2376 - Programming II
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences
- ECET 1404 - Circuit Analysis I
- ECET 2305 - Circuit Analysis II
- ECET 2105 - Circuits and Simulation Laboratory
- ECET 2352 - Introduction to Digital Systems
- ECET 2152 - Introductory Digital Laboratory
- ECET 2169 - Sophomore Design Project
- ECET 3308 - Robotics and Programmable Logic Controllers (PLCs)
- ECET 3405 - Electronic Devices I
- ECET 3406 - Electronic Devices II
- ECET 3450 - Microcontroller Applications
- ECET 4407 - Digital System Design
- ECET 4450 - Embedded Systems
- ECET 3360 - Data Acquisition and Sensors
- ECET 3409 - Signal Analysis
- ECET 4351 - System Design
- ECET 4479 - Communication Systems

- ECET 4306 - Data and Computer Communications
- ECET 4349 - Photovoltaics and Renewable Energy
- ECET 4149 - Photovoltaics and Renewable Energy Laboratory
- ECET 4370 - Senior Design Project

**Technical Electives (6 hours)**

To be decided in consultation with advisor

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 125 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Mechanical Engineering Technology, B.S.**

**General:** 122 [approved exception] total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

**First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. Hours do not count towards degree requirements.

- ETME 1110 - FYE: Mechanical Engineering Technology

**University Core (35 hours)**

**Standard Core (29 hours)**

See General Education Requirements.

- Communication-Written (6 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)

- History of Civilization (3 hours)
- U.S. History/Government (3 hours)
- Science (8 hours)

**EIT College Core (6 hours)**

- Mathematics
- Additional Mathematics/Science

**Major (86 hours)**

**Ethics in Profession (0 hours beyond the General Education Requirements)**

- PHIL 2320 - Ethics and Society (satisfies Humanities core)

**Mathematics and Science (10 hours beyond the General Education Requirements)**

- CHEM 1402 - General Chemistry I
- MATH 1302 - College Algebra (satisfies Math core)
- MATH 1303 - Trigonometry
- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences (satisfies Additional Math/Science core)
- PHYS 1321 - College Physics I (satisfies Science core)
- PHYS 1121 - College Physics I Laboratory (satisfies Science core)
- PHYS 1322 - College Physics II (satisfies Science core)
- PHYS 1122 - College Physics II Laboratory (satisfies Science core)

**Upper-level Writing Select One (3 hours):**

- RHET 3316 - Writing for the Workplace
- RHET 3326 - Technical Writing
- BINS 3380 - Business Communication

**Mechanical Engineering Technology (73 hours)**

- IFSC 1202 - Introduction to Object-oriented Technology
- ETME 1300 - Computer Graphics
- ECET 1404 - Circuit Analysis I
- ECET 3308 - Robotics and Programmable Logic Controllers (PLCs)
- ETME 2302 - Properties of Materials
- ETME 2303 - Computer-Aided Design (CAD)
- ETME 2317 - Manufacturing Processes
- ETME 2117 - Manufacturing Processes Laboratory
- ETME 2320 - Fluid Mechanics and Power
- ETME 2333 - Advanced Computer-Aided Design
- ETME 3301 - Applied Mechanics of Materials
- ETME 3303 - Applied Thermal Science
- ETME 3311 - Mechanical Instrumentation
- ETME 3312 - Production Systems
- ETME 3315 - Thermal Systems Design
- ETME 3324 - Plastics and Composites
- ETME 3328 - Computer Aided Manufacturing (CAM)
- ETME 3330 - Quality Control
- ETME 3361 - Cost Analysis and Estimation
- ETME 3417 - Statics and Dynamics
- ETME 4317 - Machine Design
- ETME 4321 - Computer Aided Engineering (CAE)
- ETME 4187 - Senior Project I
- ETME 4387 - Senior Project II

**Electives Select one from below (3 hours):**

- ETME 3191 - Cooperative Education
- ETME 3291 - Cooperative Education
- ETME 3305 - Industrial Energy Utilization
- ETME 3318 - Industrial and Environmental Safety
- ETME 3322 - Project Management
- ETME 4385 - Robotics and Automation

## Minor

(None required)

## Unrestricted General Electives

Remaining hours, if any, to reach 122 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Electronics & Computer Engineering Technology, A.E.T./B.S.

### Fifth Semester (14 hours)

- CPSC 2376 - Programming II
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences
- ECET 3406 - Electronic Devices II
- ECET 3450 - Microcontroller Applications

### Sixth Semester (14 hours)

- ECET 4450 - Embedded Systems
- ECET 3360 - Data Acquisition and Sensors
- ECET 3409 - Signal Analysis
- Fine Arts Core (3 hours)

### Seventh Semester (17 hours)

- ECET 4351 - System Design
- ECET 4407 - Digital System Design
- ECET 4479 - Communication Systems
- Approved Technical Elective (3 hours)
- Social Sciences Core (3 hours)

### Eighth Semester (16 hours)

- ECET 4306 - Data and Computer Communications
- ECET 4370 - Senior Design Project
- ECET 4349 - Photovoltaics and Renewable Energy

- ECET 4149 - Photovoltaics and Renewable Lab
- Approved Technical Elective (3 hours)

- HIST 1311 - History of Civilization I  
or
- HIST 1312 - History of Civilization II

## Mechanical Engineering Technology, A.E.T./B.S.

### Fifth Semester (17 hours)

- ETME 3312 - Production Systems
- ETME 3303 - Applied Thermal Science
- ETME 3301 - Applied Mechanics of Materials
- MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences
- IFSC 1202 - Introduction to Object-oriented Technology
- HIST 1311 - History of Civilization I  
or
- HIST 1312 - History of Civilization II

### Sixth Semester (16 hours)

- ETME 3361 - Cost Analysis and Estimation
- ETME 3315 - Thermal Systems Design
- ETME 3328 - Computer Aided Manufacturing (CAM)
- CHEM 1402 - General Chemistry I
- RHET 3316 - Writing for the Workplace  
or
- RHET 3326 - Technical Writing  
or
- BINS 3380 - Business Communication

### Seventh Semester (14 hours)

- ETME 4317 - Machine Design
- ETME 4321 - Computer Aided Engineering (CAE)
- ETME 4287 - Senior Project I

- ETME 3324 - Plastics and Composites
- ETME 3311 - Mechanical Instrumentation

### **Eighth Semester (12 hours)**

- ETME 4387 - Senior Project II
- ETME 3330 - Quality Control
- Approved Technical Elective (3 hours)
- Social Sciences (3 hours)

### **Minor**

### **Computer Integrated Manufacturing, Minor**

#### **Required Courses**

- ETME 1300 - Computer Graphics
- ETME 2117 - Manufacturing Processes  
Laboratory
- ETME 2317 - Manufacturing Processes
- ETME 3312 - Production Systems
- ETME 3328 - Computer Aided  
Manufacturing (CAM)
- ETME 3330 - Quality Control
- ETME 4385 - Robotics and Automation
- Approved technical elective (3 hours)

### **Engineering Technology Minor Program Requirements**

The minor in Engineering Technology is available to all UA Little Rock students who want to learn about general principles or specific topics in the fields of Mechanical or Electronics & Computer Engineering Technology. Students are required to make a plan with an academic advisor in the department consisting of eighteen credit hours of approved ETME and/or ECET courses in line with their interests. Students interested in the Engineering Technology Minor should contact the Chair of the Department.

## Department of Information Science

EIT, Room 550 | (501) 569-8951 | (501) 683-7049  
(fax) ualr.edu/informationscience

<b>Chair:</b>	Pierce, Elizabeth; Associate Professor
<b>Maulden-Entergy Chair</b>	Agarwal, Nitin
<b>Professors:</b>	Berleant, Daniel Dagtas, Serhan Talbur, John Tudoreanu, Mihail Wang, Richard Wu, Ningning Xu, Xiaowei Yang, Mary
<b>Associate Professors:</b>	Reiners, Dirk
<b>Technical Director of the MidSouth Bioinformatics Center:</b>	Williams, Phil
<b>Information Technology Minor Program and E-Commerce, Instructors:</b>	Wallace, Thomas; Senior Instructor Bruce Bauer; Advanced Instructor
<b>Emeritus Faculty:</b>	Wigand, Rolf; Professor Bruhn, Russel; Professor

The Department of Information Science seeks to expand human and technical capabilities through information in a world where information is of central importance to personal, organizational, social, political, technical, and economic progress. Information Science makes sense of the data that people gather using information technologies and systems. The programs that reside in the Department of Information Science focus on the transformation of data to actionable insights using a variety of techniques that extract meaning from the data stored within those information technologies and systems.

The information science program combines the techniques of computer science with the knowledge of information management to produce graduates who are qualified for professional positions in the information technology/systems field. Students develop the skills needed for creating more efficient and effective information systems, designing better information

products, managing and securing data resources, and dealing with emerging information technologies. Graduates find positions in a variety of roles including application developers, database administrators, network specialists, data analysts, systems analysts, and web/social media specialists.

The information science experience emphasizes laboratory environments and hands-on projects using appropriate software to aid in understanding the theory. An additional goal of the information science curriculum is to develop communication and team skills of students. For this reason, many courses incorporate written reports and oral presentations. Other courses reinforce the importance of group dynamics through completion of team projects.

## General Information

Our Bachelor of Science in Information Science degree emphasizes the design and development of information systems using a variety of technologies (web, server, desktop, mobile) to prepare students for careers helping organizations and their employees to work with the data that they need for effective decision making. Our Bachelor of Science in E-Commerce degree combines web technologies and business to prepare students for careers in web retail and social media management. Our Bachelor of Arts in Web Design and Development degree combines web technologies with the arts and the social sciences to prepare students for careers in web design, content management, and usability experience. Minors in Information Technology and Bioinformatics help round out the department's offerings. Our department also offers graduate study opportunities in Information Quality (Certificate, MS, and Ph.D.), Information Science (Certificate, MS, and Ph.D.), and Bioinformatics (MS and Ph.D.).

## Web Design & Development, B.A.

### Web Design & Development Program Requirements

This is an interdisciplinary program designed collaboratively by faculty from the Department Art (CALs), Rhetoric and Writing (SSC), Mass Communication (SSC), Information Science (EIT) and the Information Technology Program. The program will be administered via the Information Technology Program. Capstone Courses will be cross-listed as needed.

The program is designed to cater to both traditional university students as well as working professionals in multiple fields. Responsive web sites and mobile apps are efforts that are being undertaken by many industries and disciplines today, from healthcare to retail to virtually any industry which has a need to communicate with its stakeholders. As such, opportunities extend to recent graduates, those seeking a professional upgrade or certification, or employees seeking to "reinvent" themselves with new skill sets.

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### **First-Year Colloquium (1 hour)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- IFSC 1105 - First Year Experience for IFSC/CPSC Majors

#### **University Core (29 hours)**

See "General Education Requirements."

EIT College Core (6 hours)

Science (8 hours)

- Choose from the List of Approved Core Science

Mathematics (3 hours)

- MATH 1302 - College Algebra

Humanities or Social Sciences or Communication—Spoken or Interdisciplinary (3 hours)

- ACOM 1300 - Introduction to Communication

#### **Degree Credit Hours (84 hours)**

Foundations (18 hours)

- IFSC 1105 - First Year Experience for IFSC/CPSC Majors
- IFSC 1310 - Web Technologies
- ARST 1310 - Basic Drawing
- ARST 1315 - Two-Dimensional Design
- ARST 2318 - Computer Applications in Art

- MCOM 2300 - Introduction to Media Production
- RHET 3326 - Technical Writing

Content Courses (45 hours)

- ITEC 3610 - Introduction to Information Technology and Applications (IT Minor First Semester)
- ITEC 3650 - Guided Applications in Information Technology and Industry Processes (IT Minor First Semester)
- MCOM 3310 - Introduction to Web Principles and Design Prerequisite: MCOM 2300
- MCOM 3390 - Non-linear Video Editing I
- ARST 3340 - Introduction to Graphic Design
- ARST 3341 - Typography
- MCOM 4340 - Introduction to Digital Graphics and Animation
- ARST 4348 - Production Design for the Internet Prerequisite: ARST 2318
- MCOM 4385 - Advanced Web Design Prerequisite: MCOM 2300
- RHET 4371 - Writing on the Web
- RHET 4305 - Document Design
- IFSC 4399 - Special Topics Prerequisite: IFSC 1310
- RHET 4372 - Usability Testing and Design

Cooperative Experience (Capstone 6 hours)

- ITEC 4610 - Project Development and Portfolio Defense (IT Minor Capstone Semester)

General Elective Hours (15 hours)

Program Electives

Information Science

- IFSC 3300 - Web Client Applications
- IFSC 4360 - Social Computing
- IFSC 4301 - Information, Computing, and the Future
- IFSC 4350 - Electronic Commerce
- IFSC 3320 - Database Concepts



## Art

- ARST 3385 - Vector Graphics for Illustrators and Designers
- ARST 3386 - Digital Imaging for Illustrators and Designers
- ARST 4340 - Print Design
- ARST 4341 - Package Design

## Mass Communications

- MCOM 4320 - Non-linear Video Editing II
- MCOM 4350 - Design and Production

## Rhetoric and Writing

- RHET 4307 - Writing Software Documentation

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## E-Commerce, B.S.

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

## First-Year Colloquium (1 hour)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

- IFSC 1105 - First Year Experience for IFSC/CPSC Majors

## University Core (35 hours)

See General Education Requirements for a full list of approved Core Curriculum Courses.

## Standard Core (21 hours)

- RHET 1311 - Composition I
- RHET 1312 - Composition II
- Select one course from Fine Arts
- Select one course from Humanities
- Select one course from History of Civilization
- Select one course from U.S. Traditions
- PSYC 2300 - Psychology and the Human Experience

## EIT College Core (14 hours)

- MATH 1302 - College Algebra
- Select 8 hours from Science College List
- ACOM 1300 - Introduction to Communication

## Major (84 hours)

### Quantitative Reasoning (9 Hours)

- MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences
- STAT 2350 - Introduction to Statistical Methods  
**or**
- PSYC 3335 - Statistics and Methods for Non-majors
- BINS 3352 - Data Analysis/Visualization

### Information Technology (36 hours):

- IFAS 2300 - Introduction to Information Assurance
- RHET 3316 - Writing for the Workplace  
**or**
- RHET 3326 - Technical Writing
- ITEC 3610 - Introduction to Information Technology and Applications
- ITEC 3650 - Guided Applications in Information Technology and Industry Processes

- ITEC 4610 - Project Development and Portfolio Defense
- IFSC 3300 - Web Client Applications
- IFSC 3342 - Mobile Web Development
- IFSC 4350 - Electronic Commerce
- IFSC 4365 - Web Server Applications

**Business (9 hours)**

- ECON 2322 - Principles of Microeconomics
- MGMT 3300 - Principles of Management
  
- MKTG 3385 - Consumer Analysis and Behavior
- or**
- PSYC 3375 - Psychology of Consumer Behavior

**Advertising/Public Relation Minor (15 hours)**

- MKTG 3350 - Principles of Marketing
- MKTG 4310 - Marketing Research
- ADVT 3300 - Advertising: an IMC Approach
- ADVT 3310 - Advertising IMC Development
  
- ADVT 3340 - Public Relations
- or**
- ADVT 4320 - Advertising IMC Implementation

**Major Electives (15 hours)**

**Choose 5 Upper-level Courses** in the following areas. In general, courses in these areas will be approved by the advisor:

- Information Science
- Computer Science
- Psychology
- Sociology
- Applied Communication
- Art (Digital Art)
- Speech, Rhetoric
- Other UA Little Rock Minors
- Special Topics
- Independent Studies
- Internships/Cooperative Education
- Other Courses with Advisor Permission

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Information Science, B.S.**

The Bachelor of Science in Information Science requires at least 39 hours of information science and an additional 12 hours of IFSC specialization electives. Courses eligible for specialization elective credit must focus on a specific topic relevant to information systems and therefore are normally upper-level courses in information science, computer science, business, and relevant courses from other majors. A minor is not required for this curriculum.

**General:** 120 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

**First-Year Colloquium (1 hour)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See University Policies for details)

- IFSC 1105 - First Year Experience for IFSC/CPSC Majors

**Core Requirement (35 hours)**

**Standard Core (29 hours)**

See "General Education Requirements."

**EIT College Core (14 hours)**

**Science (8 hours)**

Choose from the List of Approved Core Science

**Mathematics (3 hours)**

- MATH 1302 - College Algebra

**Flex (3 hours)**

- ACOM 1300 - Introduction to Communication preferred

## Major (83 hours)

### Additional Math courses (10 hours):

- MATH 1451 - Calculus I (C or better)
- MATH 2310 - Discrete Mathematics
- STAT 3352 - Applied Statistics I

### Additional Requirements (23 hours)

- ECON 2301 - Survey of Economics  
**or**
- ECON 2322 - Principles of Microeconomics
  
- ACCT 2310 - Principles of Accounting I
- MKTG 3350 - Principles of Marketing
- MGMT 3300 - Principles of Management
  
- MGMT 3320 - Human Resources Management  
**and**
- MGMT 3362 - Venture Management and Decision Making  
**and**
- MGMT 4361 - Business Planning and Product Introduction  
**and**
- MGMT 4372 - Construction Business Management  
**and**
- MGMT 4377 - International Business Management  
**or**
- MKTG 2380 - Legal Environment of Business (or other approved Business course)
  
- BINS 4331 - Management of Information Resources
- IFSC 2200 - Ethics in the Profession
  
- RHET 3316 - Writing for the Workplace  
**or**
- RHET 3326 - Technical Writing

### Major Requirements (38 hours):

- IFSC 1202 - Introduction to Object-oriented Technology

- IFSC 1310 - Web Technologies
- IFSC 2300 - Object-oriented Technology
- IFSC 2305 - Computer Systems
- IFSC 2315 - Information Systems Software
- IFSC 2340 - Human Computer Interface
- IFSC 3300 - Web Client Applications
- IFSC 3315 - Applied Networking
- IFSC 3320 - Database Concepts
- IFSC 3330 - Current Trends in Database Technology
- IFSC 3360 - System Analysis and Design
- IFSC 4396 - Capstone Project I
- IFSC 4398 - Capstone Project II

### Information Science Specialization Electives (12 hours)

To be selected in consultation with advisor

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Information Science, B.S. to Information Quality, M.S.

Undergraduate students enrolled in the B.S. program in Information Science can apply to Graduate School using an early entry program form for admission into the M.S. program in Information Science (MSIS) or Information Quality (MSIQ) programs.

The Bachelor of Science to Master of Science in Information Science is designed to provide a student working towards a B.S. in Information Science a means to complete the requirements for their undergraduate degree along with an M.S. degree in Information Science in a shorter amount of time than the traditional path.

Students are strongly encouraged to apply to the Early Entry B.S. to M.S. program before the end of their junior year to help ensure that they have the full subsequent year to begin taking appropriate courses for graduate

credit, lessening the course load they will need to carry in their fifth year.

## Admission Requirements

- Undergraduate students can apply for the Early Entry Bachelor of Science to Master of Science in Information Quality program any time after completing 75 hours or more of undergraduate coursework. Students must have completed MATH 1451 (or acceptable transfer work) with a C or better.
- All applicants must have at least an overall GPA of 3.5. Students who have transferred to our program can participate in the B.S. to M.S. program provided their relevant transfer coursework (i.e., courses taken at another institution used to meet our IFSC degree requirements) also meet the 3.5 minimum GPA criteria. The GRE requirement for the M.S. program is waived for students with an overall GPA of 3.5 or higher.

## Admission Requirements, GRE Exam, and Graduate Certificates

The graduate Information Quality program requires the GRE exam.

Students who successfully complete Graduate Certificates in Data Science or Information Quality are eligible to waive the GRE requirement and continue in the Information Quality or Information Quality M.S. programs. Courses in the Graduate Certificate are an embedded subset of their respective Master programs and students in Early Entry Graduate Certificate programs are required to complete the Certificate courses first. They are then eligible to apply for the M.S. based on successful performance in their first four graduate courses:

- Students with an overall GPA between 3.2 and 3.5 may apply using the GRE option.
- Students taking the GRE who score in the 50th percentile or higher for Verbal and Quantitative can enter the Early Entry B.S. to M.S. program with a lesser GPA.
- Applicants with an overall GPA of less than 3.2 are not eligible to participate in the Early Entry B.S. to M.S. program.

## How to Apply

### Things to Know

- All applicants must complete an application for and be accepted into the or Information Quality M.S. program and the UA Little Rock Graduate School.
- All applicants must complete an Early Entry B.S. to M.S. Program form and have it approved by the Graduate Coordinator and Graduate School. This form must be approved before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.
- Once accepted into the program, students need to maintain at least a 3.0 overall average in their undergraduate coursework and per UA Little Rock Graduate School Guidelines, a 3.0 overall average in their graduate coursework.

Once a completed application has been received by the Information Quality Department, the student will be notified quickly, generally within 30 days, whether they have been accepted into the MSIQ Early Entry B.S. to M.S. program. The program accepts a limited number of students each year, and applicants will be considered for admission on a competitive basis.

### Application Instructions

- Complete graduate application form for the UA Little Rock Graduate School,
- Complete Early Entry B.S. to M.S. Program form for the MSIQ program.
- Submit transcript including transferred courses (Note: GPA must be recalculated to include all relevant transfer work being applied towards the completion of the B.S. in Information Quality).
- Submit written statements of career goals and reasons for applying to the Early Entry B.S. to M.S. program.
- Submit two letters of recommendation, one of which must be from a university faculty member (letters must be submitted directly by recommenders)
- Submit your application to the Early Entry B.S. to M.S. Program Coordinator, Dr. Elizabeth Pierce at [expierce@ualr.edu](mailto:expierce@ualr.edu) as a single WORD or PDF document.

## Students Rights and Responsibilities

Acceptance into the B.S. to M.S. program indicates a commitment by the student to pursue the M.S. degree after the completion of the B.S. in Information Quality.

- Students may request a break of up to two semesters between the completion of their B.S. and the start of their MSIQ courses per the UA Little Rock Graduate Student Leave of Absence Policy (Policy#509.12). However, if a student does not resume their graduate studies after their approved leave time expires, the student will then be released from the Early Entry B.S. to M.S. Program. The student is then welcome to apply to the MSIQ programs using the regular admission process and to be advised accordingly.
- The MSIQ graduate program also offers the option of a Graduate Certificate in Information Quality (4 courses). Students will be encouraged to complete the four courses that make up the Graduate Certificate first. While any four courses of the M.S. could be taken by the student while they are an undergraduate, taking the four courses that make up the certificate allows the student to at least complete a Graduate Certificate in conjunction with their B.S. if they choose not to finish the M.S. program.

**Note:** Students interested in earning the Graduate Certificate in addition to the M.S. degree will need to request admission to both programs.

**Note:** The MSIQ is offered using distance technologies so it is possible for students to complete the degree remotely.

### Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with the Early Entry B.S. to M.S. Program Coordinator upon acceptance to the B.S. to M.S. program to map out the graduate courses they will take.
- Accepted students will have provisional status in the graduate program pending the award of their baccalaureate degree.
- If at the end of his/ her baccalaureate degree, an Early Entry B.S. to M.S. student has failed to meet the Graduate School admission requirements of a 3.0 overall undergraduate GPA with no grades below a B, she/he will be dismissed from the graduate program.

Students will be advised to review the Scholastic Standards of the UA Little Rock Graduate School (Policy 509.15) so they are aware that if they are academically dismissed from the B.S. to M.S. program then they are not eligible to pursue any other graduate study options at UA Little Rock.

- Students accepted into the Early B.S. to M.S. program will be subject to the same policies as traditionally matriculated graduate students.
- The Early B.S. to M.S. program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the B.S. to M.S. program may be applied to a graduate degree.

## Information Science and Information Quality Courses

To see the courses and detailed information for the Information Science B.S. degree, Graduate Certificate, and M.S. degree, see links below:

- Information Science, B.S.
- Information Quality, Graduate Certificate, select the Graduate Catalog at [catalog.uarl.edu](http://catalog.uarl.edu).
- Information Quality, M.S., select the Graduate Catalog at [catalog.uarl.edu](http://catalog.uarl.edu).

## Information Science, B.S. to M.S.

Undergraduate students enrolled in the B.S. program in Information Science can apply to Graduate School using an early entry program form for admission into the M.S. program in Information Science (MSIS) or Information Quality (MSIQ) programs.

The Bachelor of Science to Master of Science in Information Science is designed to provide a student working towards a B.S. in Information Science a means to complete the requirements for their undergraduate degree along with an M.S. degree in Information Science in a shorter amount of time than the traditional path.

Students are strongly encouraged to apply to the Early Entry B.S. to M.S. program before the end of their junior year to help ensure that they have the full subsequent year to begin taking appropriate courses for graduate credit, lessening the course load they will need to carry in their fifth year.

## Admission Requirements

- Undergraduate students can apply for the Early Entry Bachelor of Science to Master of Science in Information Science program any time after completing 75 hours or more of undergraduate coursework. Students must have completed MATH 1451 (or acceptable transfer work) with a C or better.
- All applicants must have at least an overall GPA of 3.5. Students who have transferred to our program can participate in the B.S. to M.S. program provided their relevant transfer coursework (i.e., courses taken at another institution used to meet our IFSC degree requirements) also meet the 3.5 minimum GPA criteria. The GRE requirement for the M.S. program is waived for students with an overall GPA of 3.5 or higher.

### Admission Requirements, GRE Exam, and Graduate Certificates

The graduate Information Science program requires the GRE exam.

Students who successfully complete Graduate Certificates in Data Science or Information Quality are eligible to waive the GRE requirement and continue in the Information Science or Information Quality M.S. programs. Courses in the Graduate Certificate are an embedded subset of their respective Master programs and students in Early Entry Graduate Certificate programs are required to complete the Certificate courses first. They are then eligible to apply for the M.S. based on successful performance in their first four graduate courses:

- Students with an overall GPA between 3.2 and 3.5 may apply using the GRE option.
- Students taking the GRE who score in the 50th percentile or higher for Verbal and Quantitative can enter the Early Entry B.S. to M.S. program with a lesser GPA.
- Applicants with an overall GPA of less than 3.2 are not eligible to participate in the Early Entry B.S. to M.S. program.

### How to Apply Things to Know

- All applicants must complete an application for and be accepted into the or Information Science M.S. program and the UA Little Rock Graduate School.

- All applicants must complete an Early Entry B.S. to M.S. Program form and have it approved by the Graduate Coordinator and Graduate School. This form must be approved before the student begins graduate coursework. Failure to obtain prior approval negates the ability to "double count" courses.
- Once accepted into the program, students need to maintain at least a 3.0 overall average in their undergraduate coursework and per UA Little Rock Graduate School Guidelines, a 3.0 overall average in their graduate coursework.

Once a completed application has been received by the Information Science Department, the student will be notified quickly, generally within 30 days, whether they have been accepted into the MSIS Early Entry B.S. to M.S. program. The program accepts a limited number of students each year, and applicants will be considered for admission on a competitive basis.

### Application Instructions

- Complete graduate application form for the UA Little Rock Graduate School,
- Complete Early Entry B.S. to M.S. Program form for the MSIS program.
- Submit transcript including transferred courses (Note: GPA must be recalculated to include all relevant transfer work being applied towards the completion of the B.S. in Information Science).
- Submit written statements of career goals and reasons for applying to the Early Entry B.S. to M.S. program.
- Submit two letters of recommendation, one of which must be from a university faculty member (letters must be submitted directly by recommenders)
- Submit your application to the Early Entry B.S. to M.S. Program Coordinator, Dr. Elizabeth Pierce at [expierce@ualr.edu](mailto:expierce@ualr.edu) as a single WORD or PDF document.

### Students Rights and Responsibilities

Acceptance into the B.S. to M.S. program indicates a commitment by the student to pursue the M.S. degree after the completion of the B.S. in Information Science.

- Students may request a break of up to two semesters between the completion of their B.S. and the start of their MSIS courses per the UA Little Rock Graduate Student Leave of Absence

Policy (Policy#509.12). However, if a student does not resume their graduate studies after their approved leave time expires, the student will then be released from the Early Entry B.S. to M.S. Program. The student is then welcome to apply to the MSIS programs using the regular admission process and to be advised accordingly.

- The MSIS graduate program also offers the option of a Graduate Certificate in Information Science (4 courses). Students will be encouraged to complete the four courses that make up the Graduate Certificate first. While any four courses of the M.S. could be taken by the student while they are an undergraduate, taking the four courses that make up the certificate allows the student to at least complete a Graduate Certificate in conjunction with their B.S. if they choose not to finish the M.S. program.

**Note:** Students interested in earning the Graduate Certificate in addition to the M.S. degree will need to request admission to both programs.

**Note:** The MSIS is offered using distance technologies so it is possible for students to complete the degree remotely.

## Program Restrictions

- To ensure that they follow the proper degree plan, students must meet with the Early Entry B.S. to M.S. Program Coordinator upon acceptance to the B.S. to M.S. program to map out the graduate courses they will take.
- Accepted students will have provisional status in the graduate program pending the award of their baccalaureate degree.
- If at the end of his/ her baccalaureate degree, an Early Entry B.S. to M.S. student has failed to meet the Graduate School admission requirements of a 3.0 overall undergraduate GPA with no grades below a B, she/he will be dismissed from the graduate program.

Students will be advised to review the Scholastic Standards of the UA Little Rock Graduate School (Policy 509.15) so they are aware that if they are academically dismissed from the B.S. to M.S. program then they are not eligible to pursue any other graduate study options at UA Little Rock.

- Students accepted into the Early B.S. to M.S. program will be subject to the same policies as traditionally matriculated graduate students.
- The Early B.S. to M.S. program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the B.S. to M.S. program may be applied to a graduate degree.

## Information Science Courses

To see the courses and detailed information for the Information Science B.S. degree, Graduate Certificate, and M.S. degree, see links below:

- Information Science, B.S.
- Information Science, Graduate Certificate, select the Graduate Catalog at [catalog.uarl.edu](http://catalog.uarl.edu).
- Information Science, M.S., select the Graduate Catalog at [catalog.uarl.edu](http://catalog.uarl.edu).

## Bioinformatics Minor

### Program Requirements

Bioinformaticists research, develop, and apply computational tools and approaches for analyzing and understanding of biological, medical, behavioral, and health data. Many of the advances in the life sciences have been made possible through the application of bioinformatics (e.g., the assembly of the human genome). The preponderance of massive amounts of data generated in sequencing labs, microarray facilities, population studies, and ecological analyses provides many opportunities for using information science techniques to manage the data and gain new insights into the knowledge it contains. The bioinformatics minor at UA Little Rock trains students in the areas of information science and biology and prepares them to apply computational techniques to a variety of life science areas. Building upon a student's major in biology, computer science, or information science, students are prepared to work in this exciting, fast-growing, and interdisciplinary field.

For students or professionals who have completed, or are completing an undergraduate major in biology, computer science, or information science, the minor in bioinformatics consists of 19 credit hours. All courses must be completed with a grade of C or greater.

### Prerequisite Courses (11 hours)

- BIOL 1401 - Science of Biology  
or
- BIOL 1400 - Evolutionary and Environmental Biology
  
- CHEM 1402 - General Chemistry I
- MATH 1302 - College Algebra

### Required Courses (19 hours):

- IFSC 1202 - Introduction to Object-oriented Technology (Other programming courses may substitute)
- BINF 3345 - Introduction to Bioinformatics
- BINF 4445 - Bioinformatics Theory and Applications
- BIOL 2401 - Microbiology
- BIOL 3300 - Genetics
- One elective course chosen with advisor approval from BIOL, CHEM, IFSC, CPSC, or STAT course catalogs. Internship or independent research study with a faculty mentor can also be used as an elective.

## Information Technology Minor

### Program Requirements

Thomas Wallace, Program Coordinator, Advanced Instructor

### Admission Standards and Procedures

The information technology (IT) minor is intended for students majoring in the arts, humanities, social sciences, sciences, and other programs that do not have an intensive computing component. These students do not need to have extensive background in computers or technology, but they should demonstrate:

- Problem-solving skills
- Leadership abilities
- Oral and written communication skills
- Interests in information technology

Visit [ualr.edu/informationtechnology](http://ualr.edu/informationtechnology) for a description of the IT minor or to schedule an advising appointment. Materials may also be obtained at the Information Science office, EIT Building, Room 533, phone (501) 569-8743.

### Admission Requirements

To apply for this program, students must complete or have completed the following:

- Completion of 30 or more semester hours and a GPA of 2.5 or greater.
- Declaration of a major at UA Little Rock.

### Curriculum

The IT minor consists of three six-hour courses, ITEC 3610, ITEC 3650, and ITEC 4610. The courses must be taken in sequence. The grading scale for the courses is A, B, I, and NC. An I is given for incomplete work in one or more areas as defined in the Undergraduate Catalog with the exception that a grade of I will convert to a grade of NC instead of F. Any student receiving a grade of NC (No Credit) in an ITEC course will be removed from the program.



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## Department of Systems Engineering

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EIT, Room 518 | (501) 569-3100 | (501) 569-8698  
(fax) ualr.edu/systemsengineering

<b>Chairperson:</b>	Nisanci, Ibrahim, Professor
<b>Undergraduate Coordinators:</b>	Kim Jung (ECSE) Iqbal, Kamran (ABET for ECSE) Wright, Andrew (MSEG & ABET)
<b>Graduate Coordinator:</b>	Zhang, Jing (MS, Ph.D.)
<b>Professors:</b>	Al-Rizzo, Hussain Biris, Alexandru Chan, Yupo Iqbal, Kamran Kim, Jung Liu, Xian Mohan, Seshadri Reddy, Rama Ye, Cang
<b>Associate Professors:</b>	Wright, Andrew Zhang, Jing
<b>Assistant Professors:</b>	Lee, Jin Saedi, Soheil

Engineering challenges of the 21st century are rarely solved by focusing on only one engineering discipline. Complex engineering "systems" manage the world's electrical, computer and mechanical infrastructures, and the understanding of the interrelationships between the components of those systems is at the heart of UA Little Rock's systems engineering programs.

Our forward-looking programs equip students to understand the integration of diverse components needed to create complex systems. Graduates develop a strong core understanding of the concepts of systems engineering, mechanical systems engineering, and electrical and computer systems engineering. The systems engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

## Programs and Areas of Specialization

Beyond their understanding of integrated systems engineering solutions, our graduates have all the specialized expertise required to succeed and be professionally licensed in their area of specialization.

Our department offers the following three programs:

1. **Systems Engineering (SYEN)** program provides students with tools and knowledge to design, build, operate, maintain, and monitor complex production systems and prepare students for leadership positions in managing these systems throughout their life cycles.
2. **Mechanical Systems Engineering (MSEG)** program is a unique, interdisciplinary program which combines the strengths of traditional mechanical engineering with a core of systems engineering concepts. This combination allows students to look at mechanical engineering design from a systems perspective. Mechanical systems engineers focus on the interfaces between components where design tradeoffs are informed by overall system performance.
3. **Electrical and Computer Systems Engineering (ECSE)** program teaches the design and analysis of various electrical systems including complex networks, digital and analog circuits, control and power systems, integration of hardware, software, and operating systems with the goal of analyzing and optimizing computer systems, including networked systems.

These programs are designed to provide a broad-based education in the design and analysis of complex production, mechanical and electrical and computer systems and include electives to provide flexibility to target a specific career area or acquire broad background in related disciplines. Electives allow our graduates tremendous latitude in career choices. Students may choose one or more minors, but a minor is not a degree requirement.

## Admission Requirements

Students must be eligible to enroll in MATH 1451 - Calculus I and RHET 1312 - Composition II to be admitted into the Systems Engineering programs. Students who wish to major in Systems Engineering programs but need to take MATH 1302 - College Algebra, or MATH 1303 - Trigonometry, or MATH 1401 - Pre-Calculus may be

provisionally admitted into the major once they have enrolled in these courses. However, they may require more time to complete the programs. The Systems Engineering department offers three programs which include Systems Engineering, Mechanical Systems Engineering, and Electrical and Computer Systems Engineering.

## Electrical and Computer Systems Engineering, B.S.

**General:** 128 total hours

### First-Year Colloquium

- SYEN 1304 - Introduction to Electrical Engineering (First-year Experience Course required for first-time freshman only)

### University Core (35 hours)

See General Education Requirements for a full list of approved Core Curriculum Courses.

### Standard Core (29 hours)

### EIT College Core (6 hours)

### Math, Science and Humanities (21 hours after the EIT and Standard Cores are satisfied.)

- Engineering Calculus I
- Engineering Physics I & Lab
- General Chemistry
- Differential Equations Engineering Calculus II
- Engineering Calculus III
- Discrete Math
- Engineering Physics II & Lab
- Linear Algebra
- PHIL 2321 - Ethics and Society: Professional Applications

### Systems & General Engineering Courses (12 hours)

- SYEN 3301 - Engineering Economy

- SYEN 3316 - Discrete Event Systems Modeling and Simulation
- SYEN 3318 - Decision and Risk Analysis
- SYEN 3320 - Systems Engineering Design and Analysis

### Electrical and Computer Systems Engineering Required Courses (47 hours)

- SYEN 1301 - Introduction to Computer Systems
- SYEN 1302 - C/C++ Programming for Engineers and Scientists
- SYEN 2110 - Computational Engineering Laboratory
- SYEN 2315 - Circuits and Systems  
**And**
- SYEN 2115 - Circuits and Systems Laboratory
- SYEN 3314 - Probability Theory and Random Variables
- SYEN 3330 - Digital Systems  
**And**
- SYEN 3130 - Digital Systems Laboratory
- SYEN 3332 - Communication Networks
- SYEN 3334 - Advanced Microprocessor Systems  
**And**
- SYEN 3134 - Advanced Microprocessor Systems Laboratory
- SYEN 3336 - Computer Architecture
- SYEN 3350 - Signals and Systems
- SYEN 3351 - Network Analysis
- SYEN 3352 - Analog and Digital Electronics  
**And**
- SYEN 3152 - Analog and Digital Electronics Laboratory
- SYEN 3354 - Digital and Analog Communication  
**And**
- SYEN 3154 - Digital and Analog Communications Laboratory
- SYEN 3356 - Electromagnetic Fields and Waves

- SYEN 3358 - Fundamentals of Power Systems  
**And**
- SYEN 3158 - Power Systems Laboratory
- SYEN 3364 - Introduction to Control Systems Engineering

### Senior Capstone Design (4 hours)

- SYEN 4185 - System Engineering Capstone Design I
- SYEN 4386 - Systems Engineering Capstone Design II

### Electives (9 hours)

Major Electives: Remaining hours, if any, to reach 128 total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence must be chosen from upper-level courses from MSEG, SYEN, ETME, CVCE, or ARCE with the approval of an advisor.

### Fundamentals of Engineering Examination

The department recommends that students specializing in mechanical and electrical options take the Fundamentals of Engineering Examination in their senior year. The following set of courses represents the recommended set of preparatory courses for the Fundamentals of Engineering Exam:

- MATH 1451 - Calculus I
- MATH 1452 - Calculus II
- MATH 2453 - Calculus III
- MATH 3312 - Linear Algebra
- MATH 3322 - Introduction to Differential Equations
- CHEM 1402 - General Chemistry I  
**or**
- CHEM 1406 - General Chemistry for Engineers
- SYEN 3301 - Engineering Economy
- SYEN 1301 - Introduction to Computer Systems
- SYEN 1302 - C/C++ Programming for Engineers and Scientists
- SYEN 1207 - Introduction to Mechanical Engineering
- SYEN 2315 - Circuits and Systems

### and

- SYEN 2115 - Circuits and Systems Laboratory
- SYEN 3301 - Engineering Economy
- SYEN 3314 - Probability Theory and Random Variables
- SYEN 2370 - Engineering Statics <sup>1</sup>
- SYEN 3371 - Dynamics I <sup>1</sup>
- SYEN 3372 - Engineering Materials <sup>1</sup>
- SYEN 3378 - Engineering Thermodynamics <sup>1</sup>
- SYEN 4374 - Fluid Mechanics II <sup>1</sup>
- SYEN 3373 - Introduction to the Mechanics of Materials <sup>1</sup>

### Note

<sup>1</sup> Required for Mechanical option

## Mechanical Systems Engineering, B.S.

**General:** 128 total hours

### First-Year Colloquium (0-2 hours)

- SYEN 1210 - Introduction to Systems Engineering (FYC)

### University Core (29 hours)

### EIT College Core (6 hours)

### Major

### Additional Math, Science, and Humanities (16 hours)

Additional Math, Science, and Humanities (16 hours after the EIT and Standard Cores are satisfied)

- PHIL 2321 - Ethics and Society: Professional Applications
- MATH 1451 - Calculus I
- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- CHEM 1402 - General Chemistry I

- **or**
- CHEM 1406 - General Chemistry for Engineers
- MATH 3322 - Introduction to Differential Equations
- MATH 1452 - Calculus II
- MATH 2453 - Calculus III
- PHYS 2322 - Physics for Scientists and Engineers II
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory
- MATH 3312 - Linear Algebra

### **Systems & General Engineering Courses (28 hours)**

- PHYS 3350 - Electronics
- **or**
- SYEN 4326 - Measurement Techniques
- SYEN 1302 - C/C++ Programming for Engineers and Scientists
- SYEN 4185 - System Engineering Capstone Design I
- SYEN 4386 - Systems Engineering Capstone Design II
- SYEN 3314 - Probability Theory and Random Variables
- **or**
- STAT 3350 - Introduction to Probability
- SYEN 3301 - Engineering Economy
- **or**
- CNMG 3302 - Engineering Economy
- SYEN 3312 - Optimization Methods in Systems Engineering
- SYEN 3316 - Discrete Event Systems Modeling and Simulation
- SYEN 3318 - Decision and Risk Analysis
- SYEN 3320 - Systems Engineering Design and Analysis

### **Mechanical Engineering Required Courses (37 hours)**

- SYEN 1207 - Introduction to Mechanical Engineering
- SYEN 2117 - Fabrication Laboratory I
- **or**

- ETME 2117 - Manufacturing Processes Laboratory
- SYEN 4174 - Mechanical Engineering Laboratory I
- SYEN 4176 - Mechanical Engineering Laboratory II
- SYEN 2233 - Solid Modeling and Design
- SYEN 2370 - Engineering Statics
- **or**
- CNMG 2370 - Engineering Statics
- SYEN 3364 - Introduction to Control Systems Engineering
- SYEN 3370 - Introduction to Vibrations
- SYEN 3371 - Dynamics I
- SYEN 3372 - Engineering Materials
- SYEN 3373 - Introduction to the Mechanics of Materials
- SYEN 3378 - Engineering Thermodynamics
- **or**
- CNMG 3378 - Engineering Thermodynamics
- SYEN 3379 - Elements of Mechanical Design
- SYEN 4374 - Fluid Mechanics II
- SYEN 4379 - Heat Transfer

### **Mechanical Engineering Electives (12 credits)**

These courses should be chosen from the following list; however, students may choose up to six hours of upper-level courses from SYEN, ETME, CVCE, or ARCE with the approval of an advisor.

- SYEN 4182 - MEMS and Microsystems Laboratory
- SYEN 4282 - MEMS and Microsystems
- SYEN 4315 - Advanced Dynamics
- SYEN 4320 - Linear State-Space Control Systems
- SYEN 4325 - Fuzzy Logic in Control and Systems Engineering
- SYEN 4327 - Acoustics
- SYEN 4329 - Robust and Optimal Control
- SYEN 4335 - Mechatronics
- SYEN 4350 - Digital Signal Processing

- SYEN 4371 - Introductory Continuum Mechanics
- SYEN 4372 - Mechatronics II
- SYEN 4375 - Mechanical Vibration
- SYEN 4376 - Mechanics of Materials II
- SYEN 4380 - HVACR Engineering Fundamentals
- SYEN 4381 - Thermal Powerplant Engineering
- SYEN 4383 - Finite Element Analysis
- SYEN 4384 - Computer Methods in Fluids and Heat Transfer

### Unrestricted General Electives

Remaining hours, if any, to reach 128 total hours, 45 hours of upper-level courses (3000-4000 level), or 30 hours in residence must be chosen from upper-level courses from SYEN, ETME, CVCE, or ARCE with the approval of an advisor.

### Systems Engineering, B.S.

**General:** 127 total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

#### First-Year Colloquium (0-2 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of college credit. (Does not count towards the 126-127 hours required for the degree.)

- SYEN 1210 - Introduction to Systems Engineering

#### Standard Core (29 hours)

#### EIT College Core (6 hours)

#### Major (92 hours)

**Additional Math, Science, and Humanities (16 hours after the Standard and EIT cores are satisfied)**

- PHIL 2321 - Ethics and Society: Professional Applications

- MATH 1451 - Calculus I
- MATH 1452 - Calculus II
- MATH 2453 - Calculus III
- MATH 3312 - Linear Algebra
- MATH 3322 - Introduction to Differential Equations
- CHEM 1406 - General Chemistry for Engineers
- **or**
- CHEM 1402 - General Chemistry I
- PHYS 2321 - Physics for Scientists and Engineers I
- PHYS 2121 - Physics for Scientists and Engineers I Laboratory
- PHYS 2322 - Physics for Scientists and Engineers II
- PHYS 2122 - Physics for Scientists and Engineers II Laboratory

#### Systems Engineering Foundation Courses (31 hours)

- SYEN 1207 - Introduction to Mechanical Engineering
- SYEN 1301 - Introduction to Computer Systems
- SYEN 1302 - C/C++ Programming for Engineers and Scientists
- SYEN 2110 - Computational Engineering Laboratory
- SYEN 2315 - Circuits and Systems
- SYEN 2115 - Circuits and Systems Laboratory
- SYEN 3301 - Engineering Economy
- SYEN 3312 - Optimization Methods in Systems Engineering
- SYEN 3314 - Probability Theory and Random Variables
- SYEN 3316 - Discrete Event Systems Modeling and Simulation
- SYEN 3318 - Decision and Risk Analysis
- SYEN 3320 - Systems Engineering Design and Analysis

**Senior Capstone Design (4 hours)**

- SYEN 4185 - System Engineering Capstone Design I
- SYEN 4386 - Systems Engineering Capstone Design II

**Major Electives (12 hours)****Computer Option (29 hours)**

- SYEN 1301 - Introduction to Computer Systems  
**or**
- SYEN 1304 - Introduction to Electrical Engineering
  
- SYEN 3330 - Digital Systems
- SYEN 3130 - Digital Systems Laboratory
- SYEN 3332 - Communication Networks
- SYEN 3334 - Advanced Microprocessor Systems
- SYEN 3134 - Advanced Microprocessor Systems Laboratory
- SYEN 3336 - Computer Architecture
- SYEN 3362 - Algorithm Design
- SYEN 4331 - Advanced Computer Architecture
- SYEN 4332 - Applied Operating Systems
- SYEN 4334 - Software System Engineering
- SYEN 4366 - Advanced Digital Systems

**Electrical Option (29 hours)**

- SYEN 1304 - Introduction to Electrical Engineering  
**or**
- SYEN 1301 - Introduction to Computer Systems
  
- SYEN 3330 - Digital Systems
- SYEN 3130 - Digital Systems Laboratory
- SYEN 3334 - Advanced Microprocessor Systems
- SYEN 3134 - Advanced Microprocessor Systems Laboratory
- SYEN 3350 - Signals and Systems

- SYEN 3150 - Signals and Systems Laboratory
- SYEN 3351 - Network Analysis
- SYEN 3352 - Analog and Digital Electronics
- SYEN 3152 - Analog and Digital Electronics Laboratory
- SYEN 3356 - Electromagnetic Fields and Waves
- SYEN 3358 - Fundamentals of Power Systems
- SYEN 3158 - Power Systems Laboratory
- SYEN 3364 - Introduction to Control Systems Engineering

**Mechanical Option (29 hours)**

- SYEN 1207 - Introduction to Mechanical Engineering
- SYEN 2117 - Fabrication Laboratory I
- SYEN 2233 - Solid Modeling and Design
- SYEN 2370 - Engineering Statics
- SYEN 3371 - Dynamics I
- SYEN 3372 - Engineering Materials
- SYEN 3373 - Introduction to the Mechanics of Materials
- SYEN 3378 - Engineering Thermodynamics
- SYEN 3379 - Elements of Mechanical Design
- SYEN 4374 - Fluid Mechanics II
- SYEN 4174 - Mechanical Engineering Laboratory I
- SYEN 4176 - Mechanical Engineering Laboratory II
- SYEN 4379 - Heat Transfer

**Minor**

(none required)

**Unrestricted General Electives**

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## College of Social Sciences and Communication

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Ross Hall, Room 208 | (501) 569-3244  
(501) 569-3592 (fax) | ualr.edu/cssc

<b>Interim Dean:</b>	Julien Mirivel, Professor
<b>Interim Associate Dean:</b>	Olaf Hoerschelmann, Professor
<b>Assistant to the Dean:</b>	Lindsey Stroud
<b>Finance Director:</b>	Sabrenna Rodgers-Lee
<b>Administrative Specialist:</b>	Christina Owens
<b>Assistant Dean of Learning and Student Success:</b>	Samantha DeVilbiss
<b>Advisor:</b>	Louis Scivally
<b>Administrative Support Supervisor (The Link):</b>	Casaundra Blue
<b>Learning Technology Specialist:</b>	Larry Rhodes

The College of Social Sciences and Communication includes 7 units offering degrees at the associate, baccalaureate, masters, and doctoral levels, including the School of Mass Communication, the School of Public Affairs, and the departments of Applied Communication, Criminal Justice, Psychology, Rhetoric and Writing, and Sociology and Anthropology. The college also supports several interdisciplinary research centers and institutes, including University Television, KLRE/KUAR public radio, the Survey Research Center, the Center for Nonprofit Organizations, and the Center for Public Collaboration.

Our academic programs enable students through hands-on coursework and training in social science, communication, and public affairs to better understand the human experience and our global society. Students are prepared to use their knowledge and skill to enrich, inform, and help improve their communities and the world.

## Interdisciplinary Programs: Majors, Minors, and Special Centers

The following interdisciplinary majors, minors, and special centers are housed within the college. For program details and contact information for advising, see the coordinator and home department indicated for each.

- **Nonprofit Leadership Studies** (minor or certificate in non-profit management): Joe Giammo, School of Public Affairs
- **Gender Studies** (minor): Juliana Flinn, Department of Sociology and Anthropology
- **International Studies** (major and minor): Joseph Giammo, School of Public Affairs
- **Legal Studies** (minor): Joe Giammo, School of Public Affairs
- **Middle Eastern Studies** (minor): Eric Wiebelhaus-Brahm, School of Public Affairs

## University Core (35 hours)

### Standard Core (29 hours)

All Courses approved by the Core Council. See "General Education Requirements."

### College Core (6 hours) Math (3 hours)

MATH 1302 - College Algebra or Core Course with College Algebra as a prerequisite.

### Flex – Humanities/Social Sciences/Communication- Speech/Interdisciplinary (3 hours)

ACOM 1300 Applied Communication or any approved core Fine Arts, Humanities, or Social Sciences course

## Academic Advising

Students majoring in, or interested in major in, programs within the College of Arts, Letters, and Sciences (see "University Advising" for the list of majors) are advised in the Trojan Academic Advising and Support Center until they earn approximately 45 credit hours. After reaching approximately 45 hours, CSSC majors will be advised in the CSSC Advising & Support Center – The Link. To make

an advising appointment, call the Link at 501-537-0784 or schedule an appointment online at [ualr.edu/cssc/link](http://ualr.edu/cssc/link).

The Link is an essential resource for all undergraduates in the college. The Link helps students in a variety of areas and advisors are paired with students based on their academic areas of focus. Advisors are available by scheduled or walk-in appointments and can meet either in-person or by phone. All students must meet with an advisor prior to registration. The Link is located in Ross Hall, Room 120.

## **Applied Science, B.A.S. Applied Science Program Requirements**

The College of Social Sciences and Communication (CSSC) is home to the Bachelor of Applied Science (BAS). The BAS is a degree designed with the working adult in mind. It is an interdisciplinary degree, which means students will reap the benefit of taking classes that are designed to provide a seamless transition from technical fields to an appropriate bachelor's degree program.

The BAS is a degree-completion program. Students pursuing the BAS must have earned an Associate of Applied Science (AAS) from a regionally-accredited college or university, or 40 hours of technical military credits. The proposed degree program is designed for students who desire to enhance their knowledge, analytical abilities and critical thinking skills for upward mobility in their field.

Contact Louis Scivally in the CSSC Dean's office for further information. You may email, [lfscivally@ualr.edu](mailto:lfscivally@ualr.edu) or call him, (501) 537-1930.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

### **Core (35 hours)**

Standard Core (29 hours)

All Courses approved by the Core Council. See "General Education Requirements."

College Core (6 hours)

All Courses approved by the Core Council. See "General Education Requirements."

### **Second Language Proficiency**

(none required)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### **Major (76-81 hours)**

Technical Area (45 AAS hours or 40 hours military credit)

Concentration

(36 hours related to the managerial, social, and behavioral aspects of organizational leadership)

(No more than 24 hours (8 courses) can be from the College of Business)

Required Organizational Leadership Courses (6 courses-18 hours):

- MGMT 3300 - Principles of Management
- MGMT 3320 - Human Resources Management
- MGMT 3340 - Managing People in Organizations
- MKTG 3350 - Principles of Marketing
- ACOM 3330 - Professional Communication
- RHET 3316 - Writing for the Workplace

Professional Course Electives (at least 18 hours)

Other appropriate courses identified by the academic advisor may be used as electives

- BINS 3352 - Data Analysis/Visualization
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)
- ITEC 3610 - Introduction to Information Technology and Applications
- MGMT 3362 - Venture Management and Decision Making
- MGMT 4377 - International Business Management
- MKTG 3385 - Consumer Analysis and Behavior



- MKTG 4370 - Business-to-Business Marketing
- PSYC 3370 - Industrial Psychology
- PSYC 4325 - Personnel Psychology
- PSYC 4363 - Organizational Psychology
- RHET 3301 - Editing for Usage, Style, and Clarity
- RHET 3315 - Persuasive Writing
- ACOM 3320 - Persuasive Presentations
- ACOM 3340 - Communication Ethics
- SOCI 3330 - Racial and Minority Groups
- SOCI 3334 - Social Problems
- SOCI 4365 - Sociology of Organizations

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours to reach 120 total hours, 45 hours of upper-level courses and/or 30 hours in residence.

## Department of Criminal Justice

Ross Hall, Room 500 | (501) 569-3195  
(501) 569-3075, ( fax) | ualr.edu/criminaljustice

<b>Chairperson:</b>	Parker Mary, Professor
<b>Professors:</b>	Golden, James Montague, David
<b>Associate Professor:</b>	Ten Bensel, Tusty
<b>Assistant Professors:</b>	Lewis, Richard Lytle, Robert Smith, Mary Rhodes, Tricia
<b>Advanced Instructor:</b>	Garcia, Eduardo Raptopoulos, Kilby
<b>Instructors:</b>	Hurst, James

The department provides courses for students pursuing careers in law enforcement, corrections, and juvenile and adult courts. A bachelor of arts in criminal justice, an associate of science in law enforcement, and a minor in criminal justice are available through the department.

### General Information

#### Major in Criminal Justice

A major in criminal justice requires 30 credit hours, including CRJU 2300, CRJU 3303, CRJU 3304, CRJU 4300, and CRJU 4304. Although the department will consider similar courses from other schools as substitutes for the CRJU required courses, the acceptance of those courses is solely at the department's discretion.

Students majoring in criminal justice must complete at least 15 hours within the Department of Criminal Justice at UA Little Rock. Completion of RHET 1311, RHET 1312 and GPA of 2.25 or better is recommended for admission to the CRJU program. Students may be advised within the department before fully meeting the recommended standards for admission to the major. For information regarding graduate study in criminal justice, see the UA Little Rock Graduate Catalog.

#### Minor in Criminal Justice

A minor in criminal justice requires 18 credit hours, which must include CRJU 2300.

#### Law Enforcement, A.S.

This two-year associate degree program in law enforcement requires 60 hours, including CRJU 2300 and CRJU 3304. Students pursuing the AS in law enforcement must take at least nine of the required criminal justice hours within the Department of Criminal Justice at UA Little Rock. Twenty of the 60 hours must be at the 2000-level or higher. Credits earned for the associate degree may be applied to the Bachelor of Arts in Criminal Justice.

**General:** 60 minimum total hours, including 20 hours of 2000-level courses or higher, and 30 hours in residence.

#### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

#### Core (35 hours)

See "General Education Requirements." CRJU 2300 Introduction to Criminal Justice (also counts toward the core)

#### Second Language Proficiency (0-6 hours)

The foreign language program requirement is 6 hours of the same second language (Elementary I and Elementary II) or demonstration of equivalent proficiency.

#### Major (15 hours)

##### Required Courses (6 hours)

- CRJU 2300 - Introduction to Criminal Justice (also counts toward the core)
- CRJU 3304 - Police and Society

##### Electives (Select 9 hours)

- CRJU 3301 - Criminal Evidence
- CRJU 3302 - Legal Aspects of Law Enforcement
- CRJU 3303 - Survey of Corrections

- CRJU 3105 - Seminar in Criminal Justice
- CRJU 3205 - Seminar in Criminal Justice
- CRJU 3305 - Seminar in Criminal Justice
- CRJU 3306 - Police Administration and Management
- CRJU 3307 - Criminal Law
- CRJU 3309 - Cybercrime
- CRJU 3310 - Race/Ethnicity and Criminal Justice
- CRJU 3311 - Gangs
- CRJU 3312 - Victimology
- CRJU 3313 - Crime and Science: An Introduction to Forensic Science
- CRJU 3314 - Statistics in Criminal Justice
- CRJU 3315 - Sex Crimes
- CRJU 3318 - History and Globalization of the Drug Trade
- CRJU 3337 - Juvenile Delinquency
- CRJU 3338 - Criminological Theory
- CRJU 3348 - Internship I
- CRJU 3349 - Internship II
- CRJU 3390 - Neighborhood Studies
- CRJU 3396 - Psychology and the Criminal Process
- CRJU 4199 - Criminal Justice Workshop
- CRJU 4299 - Criminal Justice Workshop
- CRJU 4300 - Crime and Behavior
- CRJU 4301 - Judicial System and Process
- CRJU 4302 - Law and Society
- CRJU 4303 - Readings in Criminal Justice
- CRJU 4304 - Research Methods
- CRJU 4305 - Juvenile Law and Process
- CRJU 4307 - Drug Abuse
- CRJU 4309 - Crime Prevention
- CRJU 4310 - Terrorism
- CRJU 4311 - Security Management
- CRJU 4312 - Homeland Security
- CRJU 4313 - Information Security
- CRJU 4120 - Independent Study
- CRJU 4220 - Independent Study
- CRJU 4320 - Independent Study
- CRJU 4332 - Corrections Psychology
- CRJU 4333 - Cooperative Education
- CRJU 4351 - Constitutional Law II
- CRJU 4380 - Comparative Criminal Justice Systems

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 60 minimum total hours, 20 hours of 2000-level courses or higher and/or 30 hours in residence.

## Criminal Justice, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit. (See Academic Requirements, Regulations, & Policies for details)

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency (0-6 hours)

The foreign language program requirement is 6 hours of the same second language (Elementary I and Elementary II) or demonstration of equivalent proficiency.

### Major (30 hours)

#### Required Courses (15 hours)

- CRJU 2300 - Introduction to Criminal Justice (also counts toward the core)
- CRJU 3303 - Survey of Corrections
- CRJU 3304 - Police and Society
- CRJU 4300 - Crime and Behavior
- CRJU 4304 - Research Methods

### Electives (Select 15 hours)

- CRJU 3301 - Criminal Evidence
- CRJU 3302 - Legal Aspects of Law Enforcement
- CRJU 3105 - Seminar in Criminal Justice
- CRJU 3205 - Seminar in Criminal Justice
- CRJU 3305 - Seminar in Criminal Justice
- CRJU 3306 - Police Administration and Management
- CRJU 3307 - Criminal Law
- CRJU 3309 - Cybercrime
- CRJU 3310 - Race/Ethnicity and Criminal Justice
- CRJU 3311 - Gangs
- CRJU 3312 - Victimology
- CRJU 3313 - Crime and Science: An Introduction to Forensic Science
- CRJU 3314 - Statistics in Criminal Justice
- CRJU 3315 - Sex Crimes
- CRJU 3318 - History and Globalization of the Drug Trade
- CRJU 3337 - Juvenile Delinquency
- CRJU 3338 - Criminological Theory
- CRJU 3348 - Internship I
- CRJU 3349 - Internship II
- CRJU 3390 - Neighborhood Studies
- CRJU 3396 - Psychology and the Criminal Process
- CRJU 4199 - Criminal Justice Workshop
- CRJU 4299 - Criminal Justice Workshop
- CRJU 4301 - Judicial System and Process
- CRJU 4302 - Law and Society
- CRJU 4303 - Readings in Criminal Justice
- CRJU 4305 - Juvenile Law and Process
- CRJU 4307 - Drug Abuse
- CRJU 4309 - Crime Prevention
- CRJU 4310 - Terrorism
- CRJU 4311 - Security Management
- CRJU 4312 - Homeland Security
- CRJU 4313 - Information Security
- CRJU 4120 - Independent Study
- CRJU 4220 - Independent Study
- CRJU 4320 - Independent Study
- CRJU 4332 - Corrections Psychology
- CRJU 4333 - Cooperative Education
- CRJU 4351 - Constitutional Law II

- CRJU 4380 - Comparative Criminal Justice Systems

### Minor

(12-29 hours—typical minor requires 18)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

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## Department of Psychology

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Stabler Hall room 602 | (501) 569-3171  
(501) 569-3047 (fax) | ualr.edu/psychology

<b>Professors:</b>	Blevins-Knabe, Belinda L. Corwyn, Robert Mastin, David F. Sherwin, Elisabeth D.
<b>Associate Professors:</b>	Faucett, John M. Hines, Robert J. Moore, Bruce D.
<b>Assistant Professors:</b>	Tennial, Rachel E.
<b>Emeritus Professors:</b>	Webb, Roger A.

The Department of Psychology strives for excellence in teaching, scholarship, and service. We apply psychological knowledge, skills, and tools to further the understanding of human behavior by using the scientific method for the benefit of our students, the UA Little Rock campus community, and the citizens of the state of Arkansas.

### General Information

#### Major in Psychology

Minimum requirements for a psychology major are 34 hours of psychology (16 hours must be in residence) as specified below with a grade of C or greater in all psychology courses counted toward the major. Students pursuing a professional career in psychology are advised that the master's degree is the minimum training necessary. Prospective psychology majors, regardless of whether they plan to go to graduate school, should select courses with early and continuing advice from the department faculty. It is important that students plan their program of courses carefully. A wide range of courses is recommended as preparation for the requirements of different schools.

PSYC 3369, PSYC 3469, PSYC 4221, PSYC 4321, and PSYC 4495 are suggested to upper-level pre-professional majors. They provide experience in the actual work done by professional psychologists in ways not possible in lecture courses and are valuable credentials in application to graduate school. A maximum of six hours of these courses can be applied toward the major.

### Psi Chi Chapter

Membership in the UA Little Rock Chapter of Psi Chi, the National Honor Society in Psychology, is available to students interested in psychology as a topic or as a profession, and who meet the membership requirements. Requirements are:

- Declaring a major or minor in psychology, or completing three semesters of college courses and nine semester hours of psychology courses
- Having an overall cumulative GPA of 3.00, a minimum GPA of 3.00 in psychology courses, and a rank in the upper 35 percent of the class (undergraduates)

### Psychology, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

#### University Core (35 hours)

See General Education Requirements.

#### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

#### Major (34 hours)

##### Required Courses (16 hours)

- PSYC 2300 - Psychology and the Human Experience
- PSYC 3320 - Introduction to Applied Psychology
- PSYC 3341 - Research Methods I
- PSYC 3435 - Statistics and Methods I
- PSYC 4392 - Capstone

## Focus Areas (9 hours)

Students are required to take at least one upper-level course in each of the following three focus areas:

### Focus Area A (3 hours)

- PSYC 3330 - Health Psychology
- PSYC 3350 - Social Psychology
- PSYC 3356 - Developmental Psychology
- PSYC 3360 - Abnormal Psychology
- PSYC 4337 - Adult Psychology and Aging

### Focus Area B (3 hours)

- PSYC 3305 - Sensation-Perception
- PSYC 3380 - Cognitive Psychology
- PSYC 4320 - Physiological Psychology
- PSYC 4330 - Learning and Memory

### Focus Area C (3 hours)

- PSYC 3370 - Industrial Psychology
- PSYC 3375 - Psychology of Consumer Behavior
- PSYC 4325 - Personnel Psychology
- PSYC 4363 - Organizational Psychology
- PSYC 4380 - Human Factors Psychology

## Psychology Electives (9 upper-level hours in PSYC)

### Minor

(12-29 hours-Typical minor requires 18 hours)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Psychology Minor

The department offers three minors serving different objectives.

- Industrial Psychology
- Developmental Psychology
- General Psychology

Students may not major and minor in psychology. All three minors require 18 hours, including PSYC 2300. For all minors, a maximum of three hours of independent study, internship, or practicum may be applied to the required hours. Students should be advised that it may take two years to complete a minor since some courses may be offered only every other year.

### Industrial Psychology

The remaining 15 hours would be chosen from the following seven courses: applied psychology, personnel psychology, industrial psychology, organizational psychology, human factors psychology, psychology of consumer behavior, psychological tests, and the statistics course (PSYC 2340). A student may substitute a business or mathematics statistics course for psychological statistics. The minor in industrial psychology is designed to complement a variety of majors, including management, marketing, advertising/ public relations, communication, education, sociology, and political science.

### Developmental Psychology

The remaining 15 hours would consist of the following courses: developmental, social and personality development, infancy, psychological disorders of childhood, and adolescence.

### General Psychology

An additional 15 hours selected from any upper-level courses. It is flexible enough to permit the student to structure a program to meet personal needs and wishes.

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## School of Public Affairs

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Stabler Hall, Room 610 | (501) 569-3331  
(501) 569-8271 (fax) | ualr.edu/publicaffairs

<b>Interim Director:</b>	Chatham-Carpenter, April; Professor
<b>Professors:</b>	Rice, Daryl H. Scranton, Margaret E. Stevenson, Jerry
<b>Associate Professor:</b>	Giammo, Joseph D., Glazier, Rebecca Wiebelhaus-Brahm, Eric
<b>Assistant Professor:</b>	Leach, Kirk Williams, Christopher

The School of Public Affairs offers courses for students interested in understanding government and politics, public administration, community development, and non-profit organizations, all at the international, national, state, and local levels.

Courses in the School strive to instill in students a number of important skills, including critical thinking, analysis, writing, and the practical application of ideas to real-world situations. The combination of substantive knowledge and practical skills instilled by courses in the School provides a solid background to help our students to excel as leaders in a variety of fields, including politics, government service, law, teaching, the non-profit sector, and business.

### Teacher Licensure

See "Education Minor" for details and contact the School of Public Affairs as soon as possible for program advising.

### Community Management and Development, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

### UA Little Rock Standard and CSSC College Core (35 hours)

COMD majors are required to complete ACOM 1300 (Speech Communication) as part of their Humanities/Social Sciences/Communications-Speech/Interdisciplinary core requirement.

### Major (39 hours)

#### Foundational Competencies (24 hours)

Communication competency (6 credit hours)

Written communication:

3 credit hours from the following (in consultation with academic advisor):

- MCOM 2380 - Strategic Communication Principles
- RHET 3316 - Writing for the Workplace
- RHET 3326 - Technical Writing

Speech communication:

3 credit hours from the following (in consultation with academic advisor):

- ACOM 3300 - Interpersonal Communication
- ACOM 3320 - Persuasive Presentations
- ACOM 3322 - Group Communication
- ACOM 3323 - Conflict Management
- ACOM 3330 - Professional Communication
- ACOM 4312 - Intercultural Communication
- ACOM 4311 - Organizational Communication
- ACOM 4357 - Communication and Managing Difference

Management competency

(6 credit hours from the following in consultation with academic advisor):

- ACCT 2310 - Principles of Accounting I
- ACCT 2330 - Principles of Accounting II
- CRJU 3306 - Police Administration and Management
- HHPS 4378 - Organization and Administration of Health Education Programs
- MGMT 3300 - Principles of Management
- MGMT 3320 - Human Resources Management

- MGMT 3340 - Managing People in Organizations
- PADM 3331 - Public Administration
- PADM 4313 - Public Personnel Administration
- NPLS 3300 - Management of Nonprofit Agencies
- PSYC 3370 - Industrial Psychology

**Analytic competency**

(6 credit hours from the following in consultation with academic advisor):

- ANTH 3381 - Social Statistics
- BINS 3305 - Business Information Systems
- BINS 3352 - Data Analysis/Visualization
- CRJU 3314 - Statistics in Criminal Justice
- CRJU 4304 - Research Methods
- ECON 2310 - Business Statistics I
- ECON 2312 - Quantitative Methods
- ERSC 4421 - Introduction to Geographic Information Systems (GIS)
- ERSC 4422 - Applied GIS
- GEOG 3333 - Geospatial Technologies
- IFSC 1202 - Introduction to Object-oriented Technology
- IFSC 1310 - Web Technologies
- ITEC 3610 - Introduction to Information Technology and Applications
- MCOM 3315 - Mass Media Research
- POLS 3302 - Methods of Political Inquiry
- POLS 3304 - Qualitative Methods in Political Science
- PSYC 2340 - Statistics and Methods I
- PSYC 3341 - Research Methods I
- PSYC 3342 - Statistics and Methods II
- PSYC 3346 - Honors Research Methods I
- SOCI 3381 - Social Statistics
- SOCI 3385 - Research Methods
- SOWK 3322 - Methods of Social Work Research
- SOWK 3381 - Statistics for Social Workers
- ACOM 2311 - Introduction to Communication Research
- STAT 2350 - Introduction to Statistical Methods
- STAT 3351 - Statistical Inference
- STAT 3352 - Applied Statistics I

Urban social science competency (6 credit hours):

- POLS 4355 - Urban Planning and Land Use

3 credit hours from the following

(in consultation with academic advisor):

- ANTH 4310 - Urban Anthropology
- ANTH 4324 - The City  
or
- HIST 4324 - The City
- CRJU 2301 - Police and Community Crime Prevention
- EDFN 2300 - American Education
- GEOG 3320 - Urban Geography
- HIST 4359 - American Urban History
- POLS 4308 - Topics in Urban Studies
- POLS 4356 - Urban Policy and Government
- PSYC 3308 - Urban Environmental Psychology
- SOCI 3341 - Urban Sociology

**Experiential learning (6 credit hours)**

Students must complete coursework in foundational competencies before beginning the experiential learning requirement.

- CRJU 3390 - Neighborhood Studies  
or
- GEOG 3390 - Neighborhood Studies  
or
- HIST 3390 - Neighborhood Studies

3 credit hours in approved internship

3 credit hours in approved internship or from the following courses, in consultation with academic advisor:

- ANTH 4312 - Eating Cultures
- ANTH 4440 - Applied Anthropology
- ACOM 3320 - Persuasive Presentations
- ACOM 4350 - Effective Crisis Communication

**Directed electives (9 credit hours)**

In additional 3000 level and above courses selected in consultation with academic advisor.

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours in upper-level courses (3000-4000 level), and/or 30 hours in residence.



# International Studies, B.A.

## International Studies Program Requirements

The international studies program embraces an interdisciplinary curriculum which emphasizes global awareness in preparation for careers in international service. It enhances the development of advanced foreign language and communication skills and offers crucial insights into the scope of international and global problems.

The international studies curriculum is designed for students interested in seeking employment with a U.S. agency or company involved in international affairs or attracted to work experience overseas. Military and diplomatic service, commercial enterprises, educational agencies, and development and human rights organizations offer opportunities for persons well-versed in global concerns. In addition, the international studies major provides a solid foundation for potential graduate study in the social sciences, the humanities, journalism, and international business and law.

Because of the rigorous nature and the complexity of this curriculum, students are encouraged to contact the international studies coordinator during their freshman year to become familiar with the program and to discuss a feasible course of study.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### University Core (35 hours)

See General Education Requirements.

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

## Major (39 hours)

### Foundational Courses (12 hours)

- INTS 2303 - Introduction to Globalization

Select one from below:

- ANTH 2316 - Cultural Anthropology
- ECON 2301 - Survey of Economics
- GEOG 2312 - Cultural Geography
- POLS 2303 - Introduction to International Politics

**And**

- ACOM 4312 - Intercultural Communication

**And**

Select one from below:

- INTS 4360 - International Studies Capstone
- INTS 4101 - Senior Research Project
- INTS 4102 - Senior Research Project
- INTS 4103 - Senior Research Project

### Methods (3 hours)

Select a methods course from below or select another methods course approved by the advisor:

- ANTH 3381 - Social Statistics
- ANTH 4485 - Ethnographic Methods
- HIST 4309 - The Historian's Craft
- POLS 3302 - Methods of Political Inquiry
- POLS 3304 - Qualitative Methods in Political Science
- RHET 3300 - Introduction to Research
- SOCI 3381 - Social Statistics

### Second Language (6 hours)

6 hours of a second language beyond the 2311 course or its equivalent. This would include FREN 2311, SPAN 2311, CHIN 2311, and ARAB 2311. Students who DO NOT test out of any language courses would need a total of 15 hours of foreign language in order to satisfy this requirement. Students who DO test out of one or more courses would need fewer hours.

### Upper-level Electives (18 hours)

Upper-level electives are chosen in consultation with an advisor to be clustered in one or more thematic areas for Interdisciplinary study.

No more than 9 hours of these electives can be taken from the same department.

#### Field Experience Requirement (0 hours)

Students must complete one of the following. Coursework taken to satisfy this requirement may also be used to satisfy another major requirement:

- INTS 4350 - Internship
- Any course counting toward the major with a service-learning component
- Any travel course or study abroad program
- Relevant experience in an internationally-focused paid or volunteer position of at least 15 weeks. (Students taking this option will not receive course credit but will have the requirement waived.)

#### Upper-level Electives Outside the Major (12 hours)

- Any upper-level courses outside the International Studies program.

#### Minor

(none required)

#### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Legal Studies, B.A.

### Legal Studies (Supplementary Major)

The School of Public Affairs BA in Legal Studies supplemental major is perfect for students interested in going to law school. The major emphasizes building the skills that you will need to succeed, including critical thinking and effective communication, while also offering an opportunity to gain background information in a variety of areas of law.

There is no recommended set of prelaw courses, and there is no recommended prelaw major. Indeed, legal issues arise in every domain in society, from business to education, artistic creation to construction. So pick a major you love and will do well in. It will be helpful, though, if you

use your minor or elective hours to become familiar with the United States legal system and to take additional challenging courses requiring complex reading and writing. Also, courses that introduce you to broad legal principles may present you with enough information to decide whether or not you want to continue with a legal education.

Students considering attending law school will be required to complete the following during the application process:

- your LSAT score,
- your compiled GPA, which includes all undergraduate courses taken at all institutions—even ones you've retaken, and
- several written essays.

Your complete application should indicate you have challenged your thinking and reasoning skills in a variety of courses. Above all, you should be able to read and write well.

For additional information and resources on applying to law school, visit the UA Little Rock William H. Bowen School of Law School website at [ualr.edu/law](http://ualr.edu/law).

## Legal Studies Program Requirements

The Bachelor of Arts in Legal Studies is known as a supplemental major. A supplemental major (also known at other institutions as "dependent" or "secondary") is a type of second major that requires students to have a primary major as well. The primary major determines any university-level requirements. The supplemental major is a particularly good device when designing interdisciplinary programs, such as the study of law. Law plays a role in all areas of experience, from business to poetry. Thus it is appropriate for an undergraduate legal studies degree to be attached or "supplemental" to some other area of expertise. Students will be able to declare the supplemental major in Legal Studies with any primary major.

The major will provide undergraduate students with an opportunity to become familiar with legal ideas, legal institutions, and the legal process. The major is designed to stimulate critical thinking and understanding about the theoretical frameworks, historical dynamics, and cultural embeddedness of law.

**General:** 120 minimum total hours

**Core (35 hours)**

See "General Education Requirements."

### Primary Major (30-36 hours)

### Second Language Proficiency

(determined by primary major)

Completion of 2000-level second language course or demonstrate equivalent proficiency. (See "Second Language Requirements")

### Supplemental Major (33 hours)

Legal Studies Supplemental Major Requirements

Foundations (9 hours):

Take all four

- ACOM 1300 - Introduction to Communication (also counts toward Core)
- POLS 1310 - American National Government (also counts toward Core)
- PHIL 1330 - Introduction to Critical Thinking  
**or**
- PHIL 2350 - Introduction to Logic
- LGST 3300 - Introduction to Legal Studies (prerequisites: Comp II, POLS 1310, and PHIL 1330 or PHIL 2350)

Advanced Communication (6 hours):

take one speech, one writing

- RHET 3315 - Persuasive Writing
- RHET 3316 - Writing for the Workplace
- RHET 3326 - Technical Writing
- RHET 4306 - Writing for Business and Government
- RHET 4315 - Advanced Persuasive Writing
- RHET 4325 - Legal Writing, Reasoning, and Argument
- ACOM 3316 - Interviewing
- ACOM 3320 - Persuasive Presentations
- ACOM 3323 - Conflict Management
- ACOM 3330 - Professional Communication
- ACOM 3340 - Communication Ethics
- ACOM 4350 - Effective Crisis Communication

Legal Institutions and Processes (3 hours)

- POLS 3325 - Legislative Process and Behavior
- POLS 4301 - Judicial System and Process

- CRJU 4301 - Judicial System and Process

Substantive Law (6 hours)

- CRJU 3301 - Criminal Evidence
- CRJU 3307 - Criminal Law
- CRJU 4305 - Juvenile Law and Process
- CRJU 4351 - Constitutional Law II
- ENHS 3310 - Environmental Regulations
- HHPS 4325 - Legal and Ethical Issues in Sport
- MCOM 4352 - News Media and the First Amendment
- MGMT 4341 - Labor and Industrial Relations
- MGMT 4391 - Employment Law
- MKTG 2380 - Legal Environment of Business
- MKTG 3381 - Advanced Business Law
- FINC 4378 - Real Estate Law
- POLS 4341 - Seminar in International Relations
- POLS 4350 - Constitutional Law: Governmental Powers
- POLS 4351 - Constitutional Law – Civil Liberties

Perspectives on the Law (6 hours)

- ANTH 4313 - Race and Human Variation
- ANTH 4355 - Forensic Anthropology
- ANTH 4155 - Forensic Anthropology Laboratory
- CRJU 3310 - Race/Ethnicity and Criminal Justice
- CRJU 3312 - Victimology
- CRJU 3313 - Crime and Science: An Introduction to Forensic Science
- CRJU 3337 - Juvenile Delinquency
- CRJU 3338 - Criminological Theory
- CRJU 3396 - Psychology and the Criminal Process
- CRJU 4302 - Law and Society  
**or**
- POLS 4302 - Law and Society
- SOCI 3346 - Sociology of the Family
- SOCI 3350 - Family Violence
- HIST 4355 - History of Arkansas  
**or**
- RACE 4355 - History of Race and Ethnicity in America
- HIST 4358 - Civil Rights since 1954

- HIST 4363 - Law in American History
- MCOM 3360 - Law, Policy, Ethics
- PHIL 3341 - Contemporary Ethical Theory
- PHIL 3346 - Social and Political Philosophy
- PHIL 3347 - Philosophy of Law
- PHIL 4373 - Philosophy of Race
- POLS 3390 - American Political Thought
- POLS 4360 - Selected Topics in Political Science
- PSYC 3356 - Developmental Psychology
- PSYC 3358 - Adolescent Psychology
- PSYC 3350 - Social Psychology
- PSYC 3360 - Abnormal Psychology
- PSYC 4301 - Drug Abuse
- SOCI 3334 - Social Problems
- SOCI 3335 - Sociology of Deviant Behavior
- SOCI 3337 - Juvenile Delinquency

## Political Science with Education Licensure, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### Major (33 hours)

#### Political Science Foundation Courses (6 hours)

- POLS 1310 - American National Government (Also counts toward the core)
- POLS 2303 - Introduction to International Politics (Also counts toward the core)

#### American Politics (6 hours)

- POLS 3300 - American Political Parties
- POLS 3303 - American State and Local Government
- POLS 3305 - Elections and Public Opinion
- POLS 3320 - The American Presidency
- POLS 3350 - Arkansas Government and Politics
- POLS 4350 - Constitutional Law: Governmental Powers
- POLS 4351 - Constitutional Law: Civil Liberties

#### International Politics (6 hours)

- POLS 3360 - Comparative Government: Western
- POLS 3365 - The European Union
- POLS 3370 - Comparative Politics: Developing Areas
- POLS 4320 - American Foreign Policy
- POLS 4331 - International Organizations
- POLS 4340 - International Relations

#### Normative and Empirical Analysis (3 hours)

- POLS 3302 - Methods of Political Inquiry
- POLS 3304 - Qualitative Methods in Political Science
- POLS 3390 - American Political Thought
- POLS 4380 - Classical Political Theory
- POLS 4390 - Modern Political Theory
- POLS 4395 - Seminar in Political Science Research

#### Field Experience

Students must complete one of the following. Coursework taken to satisfy this requirement may also be used to satisfy a subfield or elective requirement for the major.

A paid or volunteer position of at least 15 weeks with a government agency, elected official, campaign, interest group, or other politically-oriented organization. (Students taking this option will not receive course credit but will have the requirement waived.) In order to use this option to satisfy the requirement, students must provide evidence of the position and submit a paper describing the work that they did to the internship coordinator for approval.

- POLS 3338 - Cooperative Education in Political Science I & II
- POLS 3339 - Cooperative Education in Political Science I & II

- POLS 3348 - Internship I
- POLS 4348 - Internship II
- Any POLS course with a service-learning component.
- Any travel course or study abroad program

#### **Electives (12 hours)**

- Four upper-level political science (POLS) courses.

#### **Minor**

(12-29 hours-Typical minor requires 18 hours)

Students who want to complete the Political Science major with secondary teacher licensure must complete both the Secondary Education and Social Studies minors. (See "Secondary Teacher Licensure" for details.)

#### **Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

#### **Political Science, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### **First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

#### **Core (35 hours)**

See General Education Requirements for more details.

#### **Second Language Proficiency (0-9 hours)**

Completion of 2000-level second language course or demonstrate equivalent proficiency. See General Education Requirements for more details.

#### **Major (33 hours)**

##### **Political Science Foundation Courses (6 hours)**

- POLS 1310 - American National Government (Also counts toward the core)
- POLS 2303 - Introduction to International Politics (Also counts toward the core)

##### **American Politics (6 hours)**

- POLS 3300 - American Political Parties
- POLS 3303 - American State and Local Government
- POLS 3305 - Elections and Public Opinion
- POLS 3320 - The American Presidency
- POLS 3350 - Arkansas Government and Politics
- POLS 4350 - Constitutional Law: Governmental Powers
- POLS 4351 - Constitutional Law: Civil Liberties

##### **International Politics (6 hours)**

- POLS 3360 - Comparative Government: Western
- POLS 3365 - The European Union
- POLS 3370 - Comparative Politics: Developing Areas
- POLS 4320 - American Foreign Policy
- POLS 4331 - International Organizations
- POLS 4340 - International Relations

##### **Normative and Empirical Analysis (3 hours)**

- POLS 3302 - Methods of Political Inquiry
- POLS 3304 - Qualitative Methods in Political Science
- POLS 3390 - American Political Thought
- POLS 4380 - Classical Political Theory
- POLS 4390 - Modern Political Theory
- POLS 4395 - Seminar in Political Science Research

## Field Experience

Students must complete one of the following. Coursework taken to satisfy this requirement may also be used to satisfy a subfield or elective requirement for the major.

Any POLS course with a service learning component Any travel course or study abroad program A paid or volunteer position of at least 15 weeks with a government agency, elected official, campaign, interest group, or other politically-oriented organization. (Students taking this option will not receive course credit, but will have the requirement waived.) In order to use this option to satisfy the requirement, students must provide evidence of the position and submit a paper describing the work that they did to the internship coordinator for approval.

- POLS 3338 - Cooperative Education in Political Science I & II
- POLS 3339 - Cooperative Education in Political Science I & II
- POLS 3348 - Internship I
- POLS 4348 - Internship II

## Electives (12 hours)

- Four upper-level political science (POLS) courses.

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Public Administration, Bachelor's Degree to M.P.A.

**Note:** *The Early Entry Bachelor's Degree to M.P.A. in Public Administration is open to any major at UA Little Rock as long as they meet program requirements.*

Exceptional undergraduate students may apply and be accepted into the Master of Public Administration (MPA) program and begin working toward their graduate degree

while completing their baccalaureate degree. The Early Entry MPA program is open to all undergraduate majors. The program offers a streamlined process for graduating students who want to pursue professional careers in public or nonprofit organizations.

## Admission Requirements

- Undergraduate students may apply and be accepted provisionally into the MPA graduate program any time after completing 75 or more hours of undergraduate course work. However, at least 90 hours of undergraduate coursework must have been completed by the time the first MPA course is taken.
- All applicants must have at least a 3.2 cumulative GPA at UA Little Rock in order to be considered.

## How to Apply

- Complete an Early Entry Program form. (*Contact the UA Little Rock School of Public Affairs for the form.*)
- Complete an interview and gain approval for admission from the MPA graduate coordinator.

**Note:** The MPA graduate coordinator's decision is final and cannot be appealed. The Early Entry form must be approved by the MPA graduate coordinator before the student begins graduate course work. Failure to obtain prior approval negates the ability to "double count" courses.

- After the Early Entry program form is approved by the MPA graduate coordinator, complete the online graduate application to be officially accepted into the MPA program and the UA Little Rock Graduate School.

## Program Restrictions

- Students must meet with the MPA graduate coordinator upon acceptance to map out and approve the course of study.
- Accepted students get provisional status in the Graduate School, pending the award of their baccalaureate degree.
- If at the end of the baccalaureate degree, the student has failed to meet the Graduate School admission requirement for the MPA program of

3.0 overall GPA, the student will be dismissed from the MPA program.

- Students accepted into the Early Entry program will be subject to the same policies as traditionally matriculated students.
- The Early Entry program may not be used in conjunction with the credit reservation program; therefore, no graduate courses taken before admission to the Early Entry program may be applied to the MPA degree.

## Graduate Credit

- Early Entry students will be required to enroll in only one course their first semester and they must make a B or better in the following course in order to continue the program:
  - PADM 7301 The Profession of Public Administration
- Early Entry students can only enroll in 12 hours towards their MPA as an undergraduate student. These courses will count towards both the baccalaureate degree and the MPA degree.
- Students must complete their baccalaureate degree before they complete 15 hours of graduate MPA coursework.

*\*Early entry students can enroll in only 12 MPA hours as an undergraduate.*

## Public Administration Courses

To see the courses and detailed information for the Public Administration, MPA degree, see link below:

- Public Administration, MPA, select the Graduate Catalog at [catalog.ualr.edu](http://catalog.ualr.edu).

## International Studies Minor

### Program Requirements

The minor in international studies is designed for students who have an interest in foreign cultures and global affairs and would like to complement their major or career related field with foreign language and international skills.

The international studies minor consists of 21 hours. Students must complete an intermediate foreign language course (2311 or above), INTS 2301 and INTS 2302, and 4 hours of related upper-level courses chosen in consultation with the international studies coordinator.

## Legal Studies Minor

### Program Requirements

Joseph D. Giammo, Coordinator | Ross Hall 642 | (501) 569-3331 | [jdgiammo@ualr.edu](mailto:jdgiammo@ualr.edu)

The legal studies minor provides the opportunity to develop a greater understanding of law and legal institutions. The program is broadly humanistic, giving students a general knowledge of the institutional, philosophical, and historical character of the legal system. Course work in the program is designed to help students understand and use written and spoken language, to foster a critical understanding of the human institutions and values with which the law deals, and to stimulate creative thinking.

A minor in legal studies is not designed specifically to prepare a student for law school. There is no recommended major or minor for law school. If you are interested in attending law school, the best preparation is an undergraduate curriculum that requires you to investigate information, analyze it, and explain your conclusions clearly. Most often a broad liberal arts background is the best preparation for these tasks. See "Legal Studies" for further information about preparation for law school.

The minor requires 18 hours, which must be approved by the coordinator. No more than nine hours may be chosen from any one discipline. The student's individual needs and interests are important considerations in the course selection process. This minor may also be chosen as one of the concentrations in the Bachelor of Arts in Interdisciplinary Studies curriculum. Before beginning the program, students should get a list of approved courses for the minor by contacting the coordinator.

For more information contact the coordinator, Dr. Joseph Giammo. His phone number is 569-3331 and his e-mail address is [jdgiammo@ualr.edu](mailto:jdgiammo@ualr.edu).

## Middle Eastern Studies Minor

Eric Wiebelhaus-Brahm, Coordinator

Faculty: Rebecca Glazier, Department of Political Science

Simon Hawkins, Department of Sociology and Anthropology

Krista Lewis, Department of Sociology and Anthropology

Eric Wiebelhaus-Brahm, Department of Political Science  
Navin Shafeek Amin, Department of Sociology and Anthropology

The Middle Eastern Studies minor is an interdisciplinary program that gives student the opportunity to study the Middle East in-depth by combining existing course offerings from a number of disciplines. The minor is available to students from a wide variety of majors, and is particularly valuable option for students majoring in International Studies, Political Science, Anthropology, or History. The minor consists of 18 credit hours, including three required upper-division courses in politics, cultures and history of the Middle East, and three elective courses with a focus on the Middle East. The list of available elective courses is expanding.

The minor is a part of a broader Middle Eastern Studies Program, funded by the King Fahd endowment. The program offers, on competitive basis, grants for Middle Eastern Studies students studying at UA Little Rock and for UA Little Rock faculty with interest in the Middle East. The program also supports a series of monthly lectures and events on the Middle East. For further information, please contact the program chair.

### **Minor description:**

The minor requires 18 upper level hours to include:

- POLS 4375 - Politics of the Middle East  
**and**
- POLS 5375 - Politics of the Middle East
  
- ANTH 3319 - Cultures of the Middle East
  
- HIST 3336 - Islam and the Modern Middle East  
**or**
- HIST 4390 - Special Topics in History

### **9 hours of elective credit**

Students can transfer their credits for other minor-related coursework, including study of Middle Eastern Languages. Other elective courses may be substituted with prior consent of the program coordinator.

9 hours of elective credit selected from courses with a Middle Eastern focus including the following courses:

- POLS 3301 - Seminar in Political Science

- RELS 3370 - Judaism
- RELS 3336 - Islam
- ANTH 4325 - Egyptology
- GEOG 4300 - Special Topics
- POLS 3101 - Seminar in Political Science

## **Nonprofit Leadership Studies**

### **Program Requirements**

UA Little Rock is affiliated with the Nonprofit Leadership Alliance, the organization which awards a certificate and CNP (Certified Nonprofit Professional) credential when a student graduates and completes the Nonprofit Leadership Studies program. To complete the program, students must enroll with the Nonprofit Leadership Alliance, pay a one-time \$25.00 enrollment fee, and at graduation pay a \$35 credentialing fee. Students who have difficulty paying these fees should consult the Campus Director.

Nonprofit Leadership Studies is a competency-based 20-hour minor, certificate, and credential program designed to prepare and certify students to work for nonprofit organizations. To complete the minor, earn the Nonprofit Leadership Alliance certificate, and CNP (Certified Nonprofit Professional) credential, students must demonstrate that they have acquired the Nonprofit Leadership Alliance competencies. The Nonprofit Leadership Studies Campus Director is responsible for certifying that a student has acquired the required competencies. Students acquire these competencies through courses, 300 hours of internship, two semesters of leadership and service activities, and participation in the Nonprofit Leadership Alliance Management Institute. Requirements are as follows:

- NPLS 1100 - Introduction to Nonprofit Professional Studies
- NPLS 3300 - Management of Nonprofit Agencies
- NPLS 4310 - Strategic Fund Development
- NPLS 4301 - Internship
- NPLS 4302 - Internship
- NPLS 4310 - Strategic Fund Development
- NPLS 4320 - Volunteer Management

### **Two or more electives**



Students may also seek Nonprofit Leadership Studies certification and credential without seeking the minor by completing the same set of requirements.

Two or more electives for a total of at least 5 hours selected from the following:

- MCOM 4380 - Public Relations Writing
- MGMT 3300 - Principles of Management
- MKTG 3350 - Principles of Marketing
- NPLS 4320 - Volunteer Management
- NPLS 4390 - Special Topics
  
- NPLS 4180 - Independent Study  
or
- NPLS 4280 - Independent Study  
or
- NPLS 4380 - Independent Study
  
- RHET 4375 - Grant Writing
- SOWK 3302 - Social Work and Diversity
- SOWK 3322 - Methods of Social Work Research
- HHPS 4378 - Organization and Administration of Health Education Programs
- HHPS 4380 - Health Education Program Evaluation
- HHPS 4382 - Cultural Competence in Health Education

## Political Science Minor

### Program Requirements

A minor in political science requires 18 credit hours, including POLS 1310 American National Government, POLS 2303 Introduction to International Politics, and at least 9 hours of upper-level courses.

## Presidential Studies Minor

Joseph Giammo, Coordinator

The Presidential Studies minor enables students to gain a greater understanding of the presidency as an institution and as an actor within several arenas: government and politics, the economy, media and communications, and culture and society. As an interdisciplinary minor,

Presidential Studies allows students to study multiple approaches for understanding the presidency and different aspects of presidential behavior, the executive branch, and public policy. Course work in the program is designed to enhance students' understanding of how the presidency and executive branch operate and the institution's impact on society at home and abroad.

The minor is well suited to combine with a major in Political Science, History, Mass Communications, Rhetoric and Writing, Speech Communication, and Professional and Technical Writing. This minor may be chosen as one of the concentrations in the Bachelor of Arts in Interdisciplinary Studies curriculum. The minor requires 21 hours. Students who declare the minor must be advised by the coordinator.

Students' individual needs and interests are important considerations in the course selection and advising process. During registration, students should confirm with the coordinator that the courses they plan to take meet the requirements for the minor. Students who plan to take online courses or courses at other campuses must first seek written approval from the coordinator and apply for concurrent enrollment.

### Required Courses (6 hours)

- POLS 3320 - The American Presidency
- POLS 4360 - Selected Topics in Political Science

### History Requirements (6 hours)

- HIST 3352 - American Revolution, 1763-1787
- HIST 3353 - The New Republic: The US, 1787-1848
- HIST 3355 - American Civil War and Reconstruction, 1848-1876
- HIST 3356 - The Gilded Age: The US, 1876-1900
- HIST 3357 - The Age of Reform: The US, 1900-1939
- HIST 3358 - Recent America: The US, 1939-present
- HIST 4385 - U.S. Diplomatic History
- HIST 4387 - Great Decisions in American Foreign Policy (if not taken below as POLS 4387)

### **Political Science Requirements (6 hours)**

- POLS 3301 - Seminar in Political Science
- POLS 3331 - Public Administration (if not taken below as PADM 3331)
- POLS 4345 - The Clinton Presidency
- POLS 4350 - Constitutional Law: Governmental Powers
- POLS 4387 - Great Decisions in American Foreign Policy (if not taken above as HIST 4387)

### **One course from the following (3 hours)**

- RHET 4306 - Writing for Business and Government
- PADM 3331 - Public Administration (if not taken above as POLS 3331)
- HIST 4391 - Seminar in United States History
- HIST 4395 - History Internship
- POLS 3348 - Internship I
- POLS 4348 - Internship II
- PSYC 4290 - Senior Seminar
- PSYC 4390 - Senior Seminar
- ACOM 4313 - Seminar: Studies in Communication
- MCOM 4384 - Topics in Mass Communication
- MCOM 4370 - Special Topics: RTVF
- RHET 4347 - Topics in Nonfiction Writing

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**Department of  
Sociology and Anthropology**

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Stabler Hall 405 | (501) 569-3173 | (501) 569-8458  
(fax) ualr.edu/sociology | ualr.edu/anthropology

<b>Chairperson:</b>	Lewis, Krista, Associate Professor
<b>Professors:</b>	Briscoe, David L. Flinn, Juliana Ito, Kinko Sanderson, Robert E.
<b>Associate Professor:</b>	López-Ramírez, Adriana
<b>Assistant Professor:</b>	King, Kathryn Shafeek Amin, Neveen Willis, Don
<b>Emeritus Professor:</b>	Richard, Terry

The mission of the Department of Sociology and Anthropology is to provide high-quality programs of teaching, research, scholarship, and service within the disciplines of sociology and anthropology. The department draws on the diverse strengths and expertise of a highly dedicated faculty with Ph.D. degrees from prestigious universities.

Courses offered by the department are designed to help students acquire an analytical understanding of social processes, cultural diversity, statuses, human evolution and biology, the development of social complexity, and roles in institutions. This understanding is designed to provide liberal education as well as to prepare students for career opportunities related to sociology and anthropology while establishing a sound foundation for those who plan to undertake graduate studies in these or related fields.

## Awards and Scholarships

### Katherine J. Hardie Award in Anthropology

This award is given to the outstanding graduating senior in anthropology each year. The recipient's name will be engraved on the Hardie Memorial Plaque displayed in the department office. In addition, the recipient will receive an individual plaque.

### Outstanding Graduate Award in Sociology

This award honors the graduating senior sociology major with outstanding academic achievement and engagement with the discipline.

### Mark Hartmann Anthropology Student Fellowship

The purpose of this award is to provide financial assistance to students for participation in anthropological fieldwork or field school concurrently with their studies in pursuit or enrichment of a degree in Anthropology at the University of Arkansas at Little Rock. Expenses covered by this award may include but are not limited to, tuition and related travel expenses.

### Beth and Earl Richard Endowed Scholarship

This scholarship is awarded to a full or part-time UA Little Rock student major in Sociology or Anthropology. Selection is based on academic accomplishment with financial need as a secondary consideration.

## Student Organizations

The department seeks to promote a sense of collegiality among students. This is reflected in the student-governed Anthropology Club (Juliana Flinn, faculty sponsor) and Sociology Club (Naveen Shafeek Amin, faculty sponsor). Students new to the department should check with the faculty sponsor for meeting times and activities.

In addition, the honors sociology organization, Alpha Kappa Delta, and the honors anthropology organization, Lambda Alpha, provide majors with high grade point averages access to professional and social activities.

## Internships

Internships are available and highly recommended for all majors. Placements are offered in nearly 50 public and private agencies and organizations throughout central Arkansas. Students interested in field experience should talk to their advisor or the department chair.

## Prerequisites

The department requires that prerequisites be met for all classes. Students wishing to enroll in a course without the specified prerequisite courses must petition the department for permission to enroll.

## Anthropology, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency (0-6 hours)

The foreign language program requirement is 6 hours of the same second language (Elementary I and II) or a minimum language competency equivalent to the Elementary II level.

### Major (32 hours)

#### Anthropology Foundation Courses (19 hours)

- ANTH 1415 - Physical Anthropology (also counts toward the core)
- ANTH 2316 - Cultural Anthropology (also counts toward the core)
  
- ANTH 3313 - Archaeology  
or
- ANTH 3320 - Buried Cities, Ancient Lives
  
- ANTH 4382 - Anthropological Theory
- ANTH 4316 - Linguistic Anthropology
- ANTH 4395 - Senior Seminar in Holism

### Electives (13 hours)

A minimum of 13 upper-level elective hours in Anthropology. One or more of the following methods-intensive courses are strongly recommended as part of the electives for the Anthropology major:

- ANTH 3381 - Social Statistics
- ANTH 4440 - Applied Anthropology
  
- ANTH 4355 - Forensic Anthropology  
and
- ANTH 4155 - Forensic Anthropology Laboratory
  
- ANTH 4467 - Primatology
- ANTH 4485 - Ethnographic Methods
- ANTH 4487 - Archaeological Investigation
- ANTH 4600 - Archaeological Field Research

### Minor

(none required)

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Sociology, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

## Second Language Proficiency (0-6 hours)

The foreign language program requirement is 6 hours of the same second language (Elementary I and II) or a minimum language competency equivalent to the Elementary II level.

## Major (30 hours)

- SOCI 2300 - Introduction to Sociology
- SOCI 3381 - Social Statistics
  
- SOCI 3383 - Classical Sociological Theory  
or
- SOCI 3384 - Contemporary Sociological Theory
  
- SOCI 3385 - Research Methods
- SOCI 4387 - Senior Capstone Seminar
- 15 upper-level credit hours of SOCI courses

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Anthropology Minor

### Program Requirements

A minor in anthropology requires 18 credit hours of anthropology, including ANTH 1415 Physical Anthropology and ANTH 2316 Cultural Anthropology.

## Gender Studies Minor

### Program Requirements

The Gender Studies program is an 18-hour interdisciplinary minor. The minor is designed to help students understand and define the changing roles of

women and men brought about by social, economic, political, legal and other changes in society.

### Required Courses (6 hours)

- GNST 2300 - Introduction to Gender Studies
- GNST 4300 - Gender Studies Senior Seminar

### Program Electives (12 hours)

Select four courses from below:

- ACOM 3315 - Gender Communication
- ANTH 3318 - Sexuality, Society, and Culture
- ANTH 3388 - Relatives and Relations: Anthropology of Kinship, Marriage, and Family
- ENGL 3340 - Women in Literature
- GNST 4190 - Independent Study
- GNST 4195 - Internship
- GNST 4290 - Independent Study
- GNST 4295 - Internship
- GNST 4390 - Independent Study
- GNST 4395 - Internship
- HIST 4371 - Women in World History
- HIST 4372 - Perspectives on Women in American History
- PHIL 4333 - Feminist Theory
- PSYC 3366 - Psychology of Women
- SOCI 3333 - Women in a Changing Society
- SOCI 3346 - Sociology of the Family
- SOCI 3350 - Family Violence

## Sociology Minor

### Program Requirements

A minor in sociology requires 18 credit hours of sociology, including SOCI 2300 Introduction to Sociology and either SOCI 3383 Classical Sociological Theory or SOCI 3384 Contemporary Sociological Theory.

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## School of Mass Communication

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Stabler Hall, Room 705 | (501) 569-3250  
(501) 569-8371 (fax) | ualr.edu/masscomm

<b>Interim Director:</b>	Edwards, Tim, Professor
<b>Professors:</b>	Byrne-McCollum, Jamie Hoerschelmann, Olaf
<b>Associate Professors:</b>	Barnes, Amy Boateng, Kwasi Rhodes, Carlton M. "Sonny"
<b>Assistant Professors:</b>	Colvin, Joseph Etheridge, Chris Robinson, Chris
<b>Senior Instructor:</b>	Weekley, David C.
<b>Emeriti:</b>	Giese, J. Mark Guerra, David Plopper, Bruce Rollberg, Jeanne

The School of Mass Communication (SMC) combines the strengths of courses in radio, television, film, new media, and journalism to provide students with exposure to a broad spectrum of media studies needed in today's information world.

Students may receive a degree in Mass Communication with an emphasis in either Journalism, Strategic Communication, Motion Picture, Media Production and Design, or Mass Media. If choosing the Media Production and Design emphasis, students must select either the Motion Picture option or the Media Production option. The School also offers students a variety of mass communication minors.

The School also offers a Master of Arts degree in mass communication. See the UA Little Rock Graduate Catalog for details.

### General Information

All emphases in the BA in Mass Communication are 42 hours plus 12-hours of upper-level courses outside the major. The Journalism, Strategic Communication, Motion Picture, and Media Production and Design emphasis have a capstone class. Students in the Mass Media option will

work with his or her advisor to design a capstone experience. Students should take their capstone course during their final semester in residence or as near to it as possible.

For returning or transfer students, skills courses completed more than five years ago may not count toward degree requirements and are subject to evaluation on a case-by-case basis. Opportunities exist to gain credit for professional experience or certification.

All material submitted by students as assignments in classes may be used for broadcast or publication. Students taking writing courses must have at least minimal word processing ability.

Students who seek a major from the School of Mass Communication may not seek a minor from the School of Mass Communication.

### Student Organizations

The School sponsors chapters of Kappa Tau Alpha, the national journalism scholarship society, the National Association of Black Journalists, the Public Relations Student Society of America, the National Broadcasting Society, and the Society of Professional Journalists.

## Scholarships

School of Mass Communication majors are invited to apply for the following annual scholarships (Scholarship opportunities may vary each year):

<ul style="list-style-type: none"><li>Arkansas Democrat-Gazette</li><li>Arkansas Fly Fishers</li><li>William K. Rutherford Freedom of Information Act Scholarship</li><li>Herbert and Gertrude Latkin</li><li>Harry Ashmore Award</li><li>Roy Mitchell</li><li>Edith Wood Sweezy Memorial Scholarship in Journalism</li><li>Governor Orval E. Faubus Scholarship</li><li>Jason Irby Scholarship</li><li>Arkansas Broadcasters Association Scholarship</li><li>K. A. Engel Endowed Scholarship</li></ul>	<ul style="list-style-type: none"><li>R.D. Doubleday Scholarship</li><li>Jane and John Thompson Journalism Scholarship</li><li>Television Broadcasters of Arkansas Scholarship</li><li>Golden Mike Award endowed by Steve Stephens and Belinda Shults</li><li>TreDay.Com Scholarship Project</li><li>Jerol Garrison Scholarship</li><li>Signal Media Scholarship</li><li>Dan and Johnnie Winn Memorial Scholarship</li><li>THV 11 Media Scholarship</li><li>Patrick and Leslie Rhode Endowed Scholarship</li></ul>
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## Facilities

The School's facilities include a professionally equipped television studio, television field production equipment, two audio production labs, and nonlinear editing laboratories. Three computer labs are also available for Web composition and design, graphic design, nonlinear editing, and word processing.

The School houses University Television, operates the LR Angle website, and has cooperative arrangements with KUAR and KLRE, two public radio stations that are affiliated with the University. Students produce programs for all of these media outlets.

## Admission to the Mass Communication Major

After admission to UA Little Rock, any student may declare a major in Mass Communication. To discuss opportunities in the School of Mass Communication, students should visit the School director in Stabler Hall 705, or call the school at (501) 569-3250.

## School of Mass Communication Minors

The School of Mass Communication offers five minors. Students majoring in the School may not minor in the School.

## Mass Communication, Journalism Emphasis, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency

(none required)

### Major (42 hours)

#### School of Mass Communication Foundation Courses (9 hours)

- MCOM 1300 - Careers in Mass Media FYC
- MCOM 2330 - Mass Media and Society
- MCOM 3310 - Introduction to Web Principles and Design

### Emphasis Requirements (30 hours)

- MCOM 2300 - Introduction to Media Production
- MCOM 2350 - Beginning Reporting
- MCOM 3350 - Introduction to News Editing
- MCOM 3365 - Radio-Television Journalism
- MCOM 3366 - Electronic News Gathering
- MCOM 3375 - Multimedia News Reporting
- MCOM 4352 - News Media and the First Amendment
  
- MCOM 4359 - Feature and Magazine Journalism  
**or**
- MCOM 4388 - Reporting of Public Affairs
  
- MCOM 4394 - Multimedia Journalism Capstone
  
- MCOM 3380 - Mass Communication Practicum  
**or**
- MCOM 4390 - Mass Communication Internship

### Emphasis Electives (3 hours)

Select one course from:

- MCOM 3315 - Mass Media Research
- MCOM 3330 - Photojournalism
- MCOM 3345 - Studio Production
- MCOM 3370 - Announcing and Performance
- MCOM 3380 - Mass Communication Practicum
- MCOM 3390 - Non-linear Video Editing I
- MCOM 4330 - Lighting
- MCOM 4332 - Digital Audio Production
- MCOM 4340 - Introduction to Digital Graphics and Animation
- MCOM 4353 - History of the Mass Media in America
- MCOM 4354 - Documentary Techniques
- MCOM 4375 - Journalistic Freedom and Responsibility
- MCOM 4384 - Topics in Mass Communication
- MCOM 4385 - Advanced Web Design
- MCOM 4386 - Images of Minorities in the Media
- MCOM 4390 - Mass Communication Internship
- MCOM 4391 - Mass Communication Cooperative Education

### Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

### Mass Communication, Mass Media Emphasis, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency

(none required)

### Major (42 hours)

#### School of Mass Communication Foundation Courses (9 hours)

- MCOM 1300 - Careers in Mass Media FYC
- MCOM 2330 - Mass Media and Society
- MCOM 3310 - Introduction to Web Principles and Design

#### Emphasis Requirements (6 hours)

- MCOM 3315 - Mass Media Research
- MCOM 3360 - Law, Policy, Ethics

#### Emphasis Electives (27 hours)

After completing the 15 hours SMC Foundation classes and emphasis requirements, students in this emphasis will select 27 hours from two of the three remaining Mass Communication emphases (Journalism, Media Production and Design, Strategic Communication), with at least 18 hours in upper-level courses.



Students must develop a course of study plan in consultation with their advisor prior to beginning coursework. All study plans must be approved by students' advisors. No degree plan will be considered approved until it is signed by the student's advisor and the School of Mass Communication director.

## Minor

(none required)

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Mass Communication, Media Production & Design Emphasis, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000level), and 30 hours in residence.

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

### Core (35 hours)

See "General Education Requirements."

### Second Language Proficiency (0-9 hours)

Completion of 2000-level second language course or demonstrate equivalent proficiency.

### Major (42 hours)

#### School of Mass Communication Foundation Courses (9 hours)

- MCOM 1300 - Careers in Mass Media FYC
- MCOM 2330 - Mass Media and Society
- MCOM 3310 - Introduction to Web Principles and Design

#### Media Production and Design Emphasis (9 hours)

- MCOM 2300 - Introduction to Media Production
- MCOM 3360 - Law, Policy, Ethics
- MCOM 3390 - Non-linear Video Editing I

#### Media Production Option (18 hours)

- MCOM 2350 - Beginning Reporting
- MCOM 3345 - Studio Production
- MCOM 4354 - Documentary Techniques  
**or**
- MCOM 4342 - Cinema Techniques
- MCOM 4332 - Digital Audio Production  
**or**
- MCOM 4340 - Introduction to Digital Graphics and Animation  
**or**
- MCOM 4385 - Advanced Web Design  
**or**
- MCOM 4320 - Non-linear Video Editing II
- MCOM 4330 - Lighting
- MCOM 4395 - Producing and Directing

#### Media Production Electives (6 hours)

#### Research and Theory:

- MCOM 3315 - Mass Media Research  
**or**
- MCOM 4355 - History of Mass Media  
**or**
- MCOM 4357 - Seminar in Radio-Television Journalism  
**or**
- MCOM 4384 - Topics in Mass Communication  
**or**
- MCOM 4386 - Image of Minorities in the Media
- Any advisor approved upper-level MCOM course (3 hours)

#### Motion Picture Option (18 hours)

- MCOM 4308 - Screenwriting
- MCOM 4330 - Lighting
- MCOM 4342 - Cinema Techniques
- MCOM 4354 - Documentary Techniques

- MCOM 4332 - Digital Audio Production  
**or**
- MCOM 4340 - Introduction to Digital Graphics and Animation  
**or**
- MCOM 4320 - Non-linear Video Editing II
- MCOM 4395 - Producing and Directing

**Motion Picture Electives (6 hours)**

**Research and Theory:**

- MCOM 3315 - Mass Media Research  
**or**
- MCOM 3355 - History of the American Movies  
**or**
- MCOM 3356 - Movie Criticism  
**or**
- MCOM 3357 - Movie Genres  
**or**
- MCOM 3358 - Film Directors
- Advisor approved upper-level MCOM course (3 hours)

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

**Mass Communication, Strategic Communication Emphasis, B.A.**

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

**First-Year Colloquium (0-3 hours)**

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.

**Core (35 hours)**

See "General Education Requirements."

**Second Language Proficiency**

(none required)

**Major (42 hours)**

**School of Mass Communication Foundation Courses (9 hours)**

- MCOM 1300 - Careers in Mass Media FYC
- MCOM 2330 - Mass Media and Society
- MCOM 3310 - Introduction to Web Principles and Design

**Emphasis Requirements (24 hours)**

- MCOM 2380 - Strategic Communication Principles
- MCOM 2350 - Beginning Reporting
- MCOM 3315 - Mass Media Research
- MCOM 3320 - Advanced Reporting
- MCOM 3360 - Law, Policy, Ethics
- MCOM 4380 - Public Relations Writing
- MCOM 4381 - Public Relations Cases
- MCOM 4382 - Public Relations Campaigns

**Emphasis Electives (9 hours)**

Choose one course from each of the following groups:

Group I (3 hours):

- ADVT 3300 - Advertising: an IMC Approach
- MKTG 3350 - Principles of Marketing
- MCOM 4390 - Mass Communication Internship

Group II (3 hours):

- MCOM 4312 - Management Strategies
- MCOM 4350 - Design and Production
- MCOM 4359 - Feature and Magazine Journalism
- MCOM 4385 - Advanced Web Design

Group III (3 hours):

- Any upper-level course chosen in consultation with an advisor

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Film Minor (Mass Communication)

For guidance in determining which outside courses are appropriate in a given semester, please contact the School Director in Stabler Hall 705, or call (501) 569-3250.

### Program Requirements

A minor in Film requires these 18 hours:

- MCOM 2306 - Introduction to Motion Pictures
- Five additional film courses, at least one from outside the School.

### Film courses

Film courses offered in the School of Mass Communication are:

- MCOM 3355 - History of the American Movies
- MCOM 3356 - Movie Criticism
- MCOM 3390 - Non-linear Video Editing I
- MCOM 4308 - Screenwriting
- MCOM 4320 - Non-linear Video Editing II
- MCOM 4330 - Lighting
- MCOM 4342 - Cinema Techniques
- MCOM 4354 - Documentary Techniques
- MCOM 3357 - Film Genres
- MCOM 3358 - Film Directors

### The following could apply

The following could apply, depending on the subject matter:

- MCOM 4389 - Independent Study
- MCOM 4390 - Mass Communication Internship
- MCOM 4391 - Mass Communication Cooperative Education

## Journalism Minor

### Program Requirements

A minor in journalism requires these 21 hours of courses:

- MCOM 2320 - Issues in Mass Media Writing
- MCOM 2330 - Mass Media and Society
- MCOM 2350 - Beginning Reporting
  
- MCOM 3360 - Law, Policy, Ethics  
**or**
- MCOM 4352 - News Media and the First Amendment
  
- MCOM 3365 - Radio-Television Journalism
- Six upper-level hours from one of the two journalism options

## Mass Media Minor

### Program Requirements

Students seeking a minor in Mass Media must meet with an advisor in the School of Mass Communication to design a plan of study for the minor prior to beginning coursework. All minor study plans must be approved by the student's School of Mass Communication advisor. No minor study plan will be considered approved until it is signed by the student's SMC advisor and the School of Mass Communication director. This minor is designed for the student who is seeking study in a specific area of mass media not addressed in the other minors offered by the School of Mass Communication.

A minor in Mass Media requires 18 hours, including the following two courses:

- MCOM 2320 - Issues in Mass Media Writing
- MCOM 2330 - Mass Media and Society

## Media Production and Design Minor

### Program Requirements

A minor in Media Production and Design requires these 21 hours of courses:

- MCOM 2300 - Introduction to Media Production
- MCOM 2308 - Introduction to Scriptwriting
- MCOM 2320 - Issues in Mass Media Writing
- MCOM 2330 - Mass Media and Society
  
- MCOM 3345 - Studio Production  
or
- MCOM 4342 - Cinema Techniques  
or
- MCOM 4354 - Documentary Techniques
  
- MCOM 3390 - Non-linear Video Editing I
- One upper-level (3000-4000) elective from the Media Production and Design emphasis.

## Strategic Communication Minor

### Program Requirements

A minor in Strategic Communication requires the following 21 hours:

- MCOM 2320 - Issues in Mass Media Writing
- MCOM 2330 - Mass Media and Society
- MCOM 2350 - Beginning Reporting
- MCOM 4380 - Public Relations Writing
- MCOM 4381 - Public Relations Cases
- ADVT 3340 - Public Relations
  
- MCOM 4310 - Media Sales  
or
- MCOM 4312 - Management Strategies  
or
- ADVT 3300 - Advertising: an IMC Approach  
or
- MKTG 3350 - Principles of Marketing

## Journalism Endorsement

### Program Requirements

The School of Mass Communication also offers a Journalism Endorsement curriculum for any teacher certified in grades 7-12. The Journalism Endorsement curriculum consists of the following four courses, at least three of which must be completed at UA Little Rock.

Students desiring to complete one class at a campus other than UA Little Rock must obtain prior approval from the School of Mass Communication.

- MCOM 2330 - Mass Media and Society
- MCOM 2350 - Beginning Reporting
- MCOM 3320 - Advanced Reporting
- MCOM 3330 - Photojournalism

## Department of Rhetoric and Writing

Student Union-B 100 | (501) 569-3160  
(501) 569-8279 (fax) | ualr.edu/rhetoric

<b>Chairperson:</b>	Carter, Joyce L., Professor
<b>Professors:</b>	Jensen, George H. L'Eplattenier, Barbara E. Matson, Joanne L. Nahrwold, Cynthia A.
<b>Associate Professors:</b>	Cox, Earnest L. Harris, Heidi Kuralt, Karen M. Robertson, Sherry Williams, Joseph J.
<b>Assistant Professor</b>	Martin, Londie
<b>Instructors:</b>	Beavers, Melvin Bowling, Susan Graham, Greg Scaife, Tammy
<b>Director of the University Writing Center:</b>	James, Caleb, Senior Instructor
<b>Director of Composition:</b>	Ray, Brian, Associate Professor
<b>Graduate Coordinator:</b>	Kuralt, Karen M.
<b>Emeriti:</b>	Anderson, Charles M. Barr, Suzann W. Chadwick, Frankie L. Crisp, Huey D. Crisp, Sally Freeland, Betty Harris, Cheryl L. Herrmann, Andrea W. Holland, Allison D. Isom, Toran E. Kleine, Michael W. Lankford, Gale Smith, Marcia M.

## General Information

The department offers students first-year composition, a variety of specialized courses to help improve writing skills, a bachelor's in professional and technical writing, and a master's degree in professional and technical writing. The department also maintains the University Writing Center, where all students who wish to work on specific writing needs are welcome.

## First-Year Composition

The first-year composition sequence consists of RHET 1311 - Composition I and RHET 1312 - Composition II. These courses fulfill the UA Little Rock core curriculum requirements for written communication. Students must complete RHET 1311 with a grade of C or greater before enrolling in RHET 1312. Together, these courses help students develop the writing skills needed to pursue a college degree. In addition, RHET 0310 - Composition Fundamentals is offered for students who are not prepared for RHET 1311; RHET 0310 is taken concurrently with RHET 1311.

## Honors composition

Students with an ACT English score of 27 or greater and who have an A or B in high school English are invited to enroll in RHET 1320 - Honors Composition. Students who feel they qualify for Honors Composition but who do not receive invitations should contact the Department of Rhetoric and Writing Office at (501) 569-3160. RHET 1320 satisfies the core curriculum requirement in written literacy.

## Exempting RHET 1311

Students with an ACT English score of 29 or greater or a COMPASS score of 99 or greater are automatically exempted. They may enroll either in RHET 1320 or in RHET 1312 to complete the core curriculum composition requirement

## Testing Out of Composition

Students who feel they already have the requisite skills of either RHET 1311 or RHET 1312 may attempt to complete these requirements by examination. For information about test dates, required fees, and test content, students should contact the Office of Testing Services. The tests parallel

the contents of RHET 1311 and RHET 1312. A student who successfully tests out of a course will receive no grade but will receive three credit hours toward graduation.

## Transfer Students

Students transferring with 60 or more hours to UA Little Rock and who met the first-year composition requirement at the college previously attended may be exempt from UA Little Rock's first-year composition requirement.

## Degrees

### Major in Professional and Technical Writing

After admission to UA Little Rock, any student may declare a major in Professional and Technical Writing. To discuss the major, students are encouraged to visit the Chair of the Department of Rhetoric and Writing in SUB 100. Appointments may be arranged by calling (501) 569-3160.

The Department of Rhetoric and Writing seeks to develop written and rhetorical literacy among its majors, UA Little Rock students, and the larger communities of which it is a part. Its alumni work as technical writers, grant writers, freelance writers, teachers, non-fiction writers, ghostwriters, web developers, user experience (UX) designers, and editors.

### Minor in Writing

A minor in writing requires 18 hours beyond the core curriculum requirements, selected from the following rhetoric and writing courses.

### Course Sequencing

The Department of Rhetoric and Writing strongly advises that, as much as possible, majors take required courses in the following sequence immediately after declaring the major:

RHET 3322 - Introduction to Professional and Technical Writing

RHET 3301 - Editing for Usage, Style, and Clarity

Note that RHET 3315 - Persuasive Writing, RHET 3317 - Nonfiction, and RHET 3326 - Technical Writing are prerequisites for most 4000-level courses, so they should

be taken as soon as possible after the introductory courses. RHET 4305 - Document Design applies to all types of professional writing and should also be taken early in the major.

Students should take RHET 4301 - Theories of Rhetoric and Writing in their first semester as a senior, and take RHET 4190 - Colloquium in Rhetoric and Writing in their last semester before graduation. Departmental advisors will assist majors in sequencing the courses to fit their schedules.

### Professional and Technical Writing, B.A.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

#### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit

#### Core (35 hours)

PTW majors are encouraged to take MCOM 2330 Mass Media and Society as part of their Social Sciences requirement in the Core.

#### Standard Core (29 hours)

All Courses approved by the Core Council. See "General Education Requirements."

#### College Core (6 hours)

All Courses approved by the Core Council. See "General Education Requirements."

#### Second Language Proficiency (5 hours)

Students completing a Professional and Technical Writing degree must complete a minimum of 5 hours of language courses (linguistics, second language, or programming language) to satisfy the language requirement or demonstrate equivalent proficiency as measured by a competency test.

**Choose from one of the following categories:**

Linguistics

- ENGL 3313 - Introduction to the Study of Language
- ENGL 3311 - History of the English Language
- ENGL 3312 - Grammar, Morphology, & Syntax
- ANTH 4316 - Linguistic Anthropology

World Language

- Any foreign language offered by UA Little Rock. (see "Department of World Languages")  
**or**
- INTR 1320 - American Sign Language I  
**and**
- INTR 1321 - American Sign Language II

Computer Programming Language

- IFSC 1202 - Introduction to Object-oriented Technology
- IFSC 2300 - Object-oriented Technology
- CPSC 1375 - Programming I
- CPSC 2376 - Programming II

**Major (36 hours)**

**College and/or Program Foundation Courses (21 hours)**

- RHET 3322 - Introduction to Professional and Technical Writing
- RHET 3301 - Editing for Usage, Style, and Clarity
- RHET 3315 - Persuasive Writing
- RHET 3326 - Technical Writing
- RHET 3317 - Nonfiction
- RHET 4301 - Theories of Rhetoric and Writing
- RHET 4305 - Document Design
- RHET 4190 - Colloquium in Rhetoric and Writing

**Electives (15 hours)**

The electives may not include RHET 3316, not more than 6 hours total in the following: internships, independent writing projects, and/or upper-level MCOM courses. We

recommend students take RHET 3300 Introduction to Research.

- RHET 3300 - Introduction to Research
- RHET 3320 - Contemporary Issues in Language and Rhetoric
- RHET 4100 - Independent Study
- RHET 4200 - Independent Study
- RHET 4191 - Writing Internship
- RHET 4192 - Writing Internship
- RHET 4304 - Technical Style and Editing
- RHET 4306 - Writing for Business and Government
- RHET 4307 - Writing Software Documentation
- RHET 4315 - Advanced Persuasive Writing
- RHET 4317 - The Personal Essay
- RHET 4318 - Memoir
- RHET 4321 - Editing for Publication
- RHET 4322 - Advanced Editing
- RHET 4323 - Production for Editors
- RHET 4324 - Publishing Inside Out
- RHET 4325 - Legal Writing, Reasoning, and Argument
- RHET 4326 - Technology of the Book
- RHET 4345 - Topics in Persuasive Writing (may be repeated)
- RHET 4346 - Topics in Technical Communication (may be repeated)
- RHET 4347 - Topics in Nonfiction Writing (may be repeated)
- RHET 4371 - Writing on the Web
- RHET 4372 - Usability Testing and Design
- RHET 4375 - Grant Writing
- RHET 4395 - Cooperative Education
- RHET 4396 - Cooperative Education
- RHET 4398 - Senior Writing Project
- RHET 4399 - Senior Writing Project

**Minor**

(none required)

**Unrestricted General Electives**

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residenc

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## Department of Applied Communication

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Speech Building, Room 237 | (501) 569-3158  
(501) 569-3196 (fax) | ualr.edu/appliedcomm

<b>Chairperson:</b>	Chatham-Carpenter, April, Professor
<b>Professors:</b>	Driskill, Gerald W. Mirivel, Julien Thombre, Avinash Thompson, Carol L.
<b>Associate Professor:</b>	McIntyre, Kristen
<b>Assistant Professor:</b>	Oliver, Bailey
<b>Senior Instructors:</b>	Johnston, Cheryl
<b>Instructor:</b>	Halford, Katie

The mission of the Department of Applied Communication is to foster the co-creation of better social worlds through positive communication.

Majors, minors and all students taking our courses engage in practical application of communication principles that equip them for improving their professional and personal lives. When employers list skills they most desire in employees, we find that our department addresses at least 8 of those top skills.

### Introductory Course in Applied Communication

The department also offers ACOM 1300, which is an option in many UA Little Rock college cores and required by some UA Little Rock college cores or specific programs. ACOM 1300 develops competency in foundational interpersonal communication skills as well as foundational public speaking skills, making this a course that will undoubtedly set students up for success throughout their undergraduate work at UA Little Rock as well as their future careers.

Students who feel they already possess the competencies developed in ACOM 1300 may attempt to test out. For information about test dates, required fees, and test content, students should contact the Office of Testing Services.

## Major in Applied Communication

The curriculum in the Applied Communication major (formerly Speech Communication) is designed to support the learning needs of students with a desire to communicate more effectively in their personal and professional lives. Effective communication skills and knowledge are highly sought after by employers. Our students work in for-profit, non-profit, healthcare, and governmental contexts.

The major requires 34 credit hours beyond ACOM 1300, including 9 hours of foundational courses, 9 hours of applied courses, 4 hours of capstone courses, and 12 hours of electives in organizational and interpersonal communication.

Recommended minors for this curriculum are Management, Nonprofit Leadership Studies, Information Technology, Professional & Technical Writing, Human Services, Health Sciences, Criminal Justice, Psychology, Innovation & Entrepreneurship, Journalism, Marketing, and Professional Selling. Potential majors may secure an advisor by contacting the department. A grade of C or greater must be attained to fulfill a course requirement for the major.

## Graduate Program

The department offers a master's degree in Applied Communication Studies. See the UA Little Rock Graduate Catalog for details.

## Applied Communication, B.A.

**Note:** The subject code for courses previously identified by the ACOM subject code are now identified by the ACOM subject code. All courses taken prior to this change that bears the ACOM code still count toward all Applied Communication major and minor requirements.

**General:** 120 minimum total hours, including 45 hours of upper-level courses (3000-4000 level), and 30 hours in residence

### First-Year Colloquium (0-3 hours)

Required of full-time freshmen entering college for the first time and transfer students with less than 12 hours of credit.



## Core (35 hours)

See "General Education Requirements."

## Standard Core (29 hours)

All Courses approved by the Core Council. See "General Education Requirements."

## College Core (6 hours)

All Courses approved by the Core Council. See "General Education Requirements."

## Major (37 hours)

### Required Courses: (25 hours)

Foundational Courses (12 hours)

- ACOM 1300 - Introduction to Communication [typically taken as core course]
- ACOM 2310 - Human Communication Concepts
- ACOM 2311 - Introduction to Communication Research
- ACOM 3320 - Persuasive Presentations (formerly Advanced Public Speaking)

Applied Courses (9 hours)

- ACOM 3300 - Interpersonal Communication  
**or**
- ACOM 3323 - Conflict Management
- ACOM 3340 - Communication Ethics  
**or**
- ACOM 3330 - Professional Communication
- ACOM 4312 - Intercultural Communication  
**or**
- ACOM 4357 - Communication and Managing Difference (formerly Communicating with Difference)

Capstone Courses (4 hours)

- ACOM 4300 - Senior Capstone Project (formerly Senior Seminar)  
**or**
- ACOM 4310 - Applied Communication Research (formerly Investigations into Communication Research)

- ACOM 4110 - Senior Portfolio Presentation (formerly Senior Presentation)

### Electives (Select 12 hours)

Choose 6 hours of courses from BOTH of the following Professional Context list of courses listed below, for a total of 12 hours of coursework. Courses must not have been taken to meet required coursework for the major, and will not be double-counted in categories.

#### Interpersonal Group Electives

- ACOM 3300 - Interpersonal Communication
- ACOM 3315 - Gender Communication
- ACOM 3322 - Group Communication
- ACOM 3323 - Conflict Management
- ACOM 3340 - Communication Ethics
- ACOM 3350 - Nonverbal Communication
- ACOM 4100 - Independent Study (max of 3 hours can count in this category)
- ACOM 4201 - Independent Study (max of 3 hours can count in this category)
- ACOM 4301 - Independent Study (max of 3 hours can count in this category)
- ACOM 4313 - Seminar: Studies in Communication
- ACOM 4314 - Communication Skill Center Internship (max of 3 hours can count in this category)  
**or**
- ACOM 4315 - Internship in Communication (max of 3 hours can count in this category)
- ACOM 4323 - Family Communication
- ACOM 4357 - Communication and Managing Difference

#### Organizational Group Electives

- ACOM 3316 - Interviewing
- ACOM 3322 - Group Communication
- ACOM 3330 - Professional Communication
- ACOM 3340 - Communication Ethics
- ACOM 4100 - Independent Study (max of 3 hours can count in this category)
- ACOM 4201 - Independent Study (max of 3 hours can count in this category)
- ACOM 4301 - Independent Study (max of 3 hours can count in this category)
- ACOM 4311 - Organizational Communication
- ACOM 4312 - Intercultural Communication

- ACOM 4313 - Seminar: Studies in Communication
- ACOM 4314 - Communication Skill Center Internship (max of 3 hours can count in this category)  
**or**
- ACOM 4315 - Internship in Communication (max of 3 hours can count in this category)
- ACOM 4324 - Organizational Communication Seminar
- ACOM 4350 - Effective Crisis Communication

## Unrestricted General Electives

Remaining hours, if any, to reach 120 minimum total hours, 45 hours of upper-level courses (3000-4000 level), and/or 30 hours in residence.

## Applied Communication Studies, Bachelor's Degree to M.A.

**Note:** *The Early Entry Bachelor's Degree to M.A. in Applied Communication is open to students who major or minor in Applied Communication and meet additional program requirements.*

Undergraduate students enrolled in the Applied Communication, B.A. or the Applied Communication Minor programs can apply to Graduate School using an early entry program form for admission into the Master of Arts in Applied Communication Studies.

The Bachelor's Degree to M.A. in Applied Communication Studies is designed to provide a student working towards a baccalaureate degree with a major or minor in Applied Communication a means to complete a master's degree in a shorter amount of time than the traditional path.

## Admission Requirements

- Undergraduate students may apply after completing 75 hours of undergraduate coursework, but cannot enroll in graduate courses until they have completed 90 undergraduate hours by the time the first graduate course is taken.
- All applicants must have at least a 3.0 overall GPA in all their undergraduate coursework, and a

3.2 GPA in 12 or more hours in the Applied Communications program to include:

- ACOM 2310 - Human Communication Concepts
- ACOM 2311 - Introduction to Communication Research
- ACOM 3320 - Persuasive Presentations
- And one additional ACOM or equivalent class

## How to Apply

### Things to Know

- All applicants must complete an "Early Entry Program" form and be interviewed and approved by the Graduate Coordinator based on a review and discussion with graduate faculty.
- A list of three faculty references with contact information is required as part of the recommendation process. Formal letters are not required.
- The Early Entry form must be approved by the Graduate Coordinator before the student begins graduate course work. Failure to obtain prior approval negates the ability to "double count" courses.
- After the Early Entry form is approved by the Graduate Coordinator, applicants must complete the Graduate School application and be accepted into the UA Little Rock Graduate School to be officially accepted into the Applied Communication Studies program.

### Application Instructions

- Complete graduate application form for the UA Little Rock Graduate School,
- Complete Early Entry Program form for the program.
- Submit a list of three faculty references with contact information as part of the recommendation process. Formal letters are not required
- Submit your Early Entry Program application to the Graduate Coordinator. Applications may be submitted by email to [appliedcomm@ualr.edu](mailto:appliedcomm@ualr.edu) as a single WORD or PDF document.

## Graduate Credit

- Once accepted into the graduate program, students can take up to 12 hours of approved

MAACS coursework, which will count toward the baccalaureate degree and the MAACS degree.

- Students must complete their baccalaureate degree before they complete 15 hours of graduate MAACS course work.

### Program Restrictions

- Students must meet with the Graduate Coordinator after acceptance into the Early Entry program to map out and approve their graduate courses.
- Accepted students will be granted provisional admission into the Graduate School. Their admission status will be changed to regular admission after the award of their baccalaureate degree if they have maintained a 3.2 GPA or higher in 12 hours of approved MAACS course work.
- If at the end of a student's baccalaureate degree, an Early Entry student has failed to meet the following Graduate School admission requirements, the student will need to seek alternate paths to admission:
  - Maintain an overall undergraduate GPA of 2.7
  - Or maintained the program requirement of a 3.2 GPA or higher in 12 hours of approved MAACS coursework.

**Note:** If a student fails to meet either of these two requirements, the student can discuss their options with the Graduate Coordinator.

- Students accepted into the Early Entry program will be subject to the same policies as traditionally admitted MAACS graduate students.

### Applied Communication Studies Courses

To see the courses and detailed information for the Applied Communication, B.A to the Applied Communication Studies, M.A. degree, see links below:

- Applied Communication, B.A
- Applied Communication Minor
- Applied Communication, M.A., select the Graduate Catalog at [catalog.ualr.edu](http://catalog.ualr.edu).

## Applied Communication Minor

### Program Requirements

The minor in Applied Communication requires 18 hours beyond ACOM 1300, including ACOM 2310, ACOM 3320, and 12 upper-level hours in applied communication.

## Professional Communication Minor

### Program Requirements

The minor in professional communication is designed to enhance professional communication skills necessary for success in a student's chosen career. The minor requires 18 hours beyond ACOM 1300, including ACOM 2310, ACOM 3320, nine hours from ACOM 3316, ACOM 3322, ACOM 3323, ACOM 3330, ACOM 3340, and ACOM 4311 and 3 additional upper-level hours in Applied Communication.

## Applied Communication Education (Teacher Licensure)

### Program Requirements

Students seeking a teacher licensure in Applied Communication should contact an advisor in the department about the appropriate coursework to be prepared to take the subject matter Praxis exam upon graduating with a BA degree, and take an education graduate certificate or master's degree after graduating.

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## Couse Descriptions

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The following is a listing of all undergraduate course codes. Click on the four-letter code to review the undergraduate courses within that discipline. To find classes being offered for the upcoming semester, use the Class Search.

Graduate courses are found within the Graduate Catalog, Clinton School of Public Service Website, and the Law School Website.

**Note:** The subject code for courses previously identified by the SPCH subject code are now identified by the ACOM subject code. All courses taken prior to this change that bear the ACOM code still count toward all Applied communication major and minor requirement.

### Accounting

#### **ACCT 2310 - Principles of Accounting I**

Three credit hours. Introduction to the field of accounting, fundamentals of financial accounting, recording, summarizing, and reporting cycle. Principles of asset valuation and income measurement; accounting systems and internal controls. (ACTS Course Number ACCT 2003)

**Prerequisites:** 70% score on Information Technology Qualifying Exam and MATH 1302.

#### **ACCT 2330 - Principles of Accounting II**

Three credit hours. Accounting course. Continuation of ACCT 2310. Reporting for external investors. Management accounting and decision making. (ACTS Course Number ACCT 2013) **Prerequisites:** 70% score on Information Technology Qualifying Exam, and ACCT 2310 and MATH 1302. Note: A grade of C or higher is required in ACCT 2310 and ACCT 2330 to register in any higher level

#### **ACCT 3311 - Intermediate Financial Accounting I**

Three credit hours. Conceptual and historical framework underlying contemporary accounting and financial reporting; form and content of financial statements; revenue recognition; present value mathematics in accounting; measuring and reporting for cash and receivables; inventories; property, plant, and equipment.

**Prerequisites:** ACCT 2310 and ACCT 2330, each with a grade of C or greater; MATH 1302 or equivalent; 70% score on Accounting Qualifying Exam, 70% score on Information Technology Qualifying Exam.

#### **ACCT 3312 - Intermediate Financial Accounting II**

Three credit hours. Continuation of financial accounting. Measuring and reporting, current liabilities and contingencies, long term liabilities, stockholders equity, income taxes, pensions, leases, cash flows, and special revenue recognition situations. **Prerequisites:** ACCT 2310, ACCT 2330, and ACCT 3311, each with a grade of C or greater.

#### **ACCT 3321 - Federal Taxation I**

Three credit hours. Introduction to federal income taxation, with emphasis on personal business and investment income and deductions, property transactions, and other topics related to taxation of individuals.

**Prerequisites:** ACCT 2310 and ACCT 2330 with C or greater or consent of the instructor.

#### **ACCT 3330 - Intermediate Cost and Managerial Accounting I**

Three credit hours. Conceptual framework for managerial accounting, measurement and reporting of cost information, including historical and standard cost systems, cost behavior analysis, budgeting, variance analysis, responsibility accounting, performance measurement, and management control systems.

**Prerequisites:** ACCT 2310, ACCT 2330, and ECON 3355, each with a grade of C or greater; MATH 1302; 70% score on Information Technology Qualifying Exam.

#### **ACCT 3341 - Accounting Information Systems**

Three credit hours. Review of the evolution of accounting systems from manual systems to advanced automated systems, with emphasis on processing requirements and the EDP tools used in the automation of information systems; study of the internal control needs of accounting systems, both manual and EDP; microcomputer based projects. **Prerequisites:** ACCT 2310, ACCT 2330, and ACCT 3311, each with a grade of C or greater.

#### **ACCT 3361 - Accounting for Governments, NotforProfits, and Other Financial Issues**

Three credit hours. Fund accounting for governmental and notforprofit entities. Financial and budgetary control, the budgetary process in government, special accounting, and reporting problems of the public and notforprofit sector. **Prerequisites:** ACCT 3311 with C or greater.

#### **ACCT 3391 - Cooperative Education in Accounting**

Three credit hours. Provides experience in an organizational setting designed to integrate accounting theory and practice. A written project, designed in consultation with the faculty member, and a minimum of 200 hours working for a participating employer during a semester are required. The exact activities and responsibilities related to the work experience must be specified in written agreements between the student, faculty member, employer, and the Office of Cooperative Education. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance. **Prerequisites:** ACCT 2310, ACCT 2330, and ACCT 3311, each with a grade of C or greater; major in Accounting; junior standing; GPA of 3.0 or higher in all work completed; consent of Department Chair prior to registration. **Concurrent:** ACCT 3311 permitted

#### **ACCT 4199 - Independent Study**

Two or three credit hours. Independent investigation under faculty supervision of topics not offered in regular courses. **Prerequisites:** Senior standing, consent of instructor.

**ACCT 4299 - Independent Study**

Two or three credit hours. Independent investigation under faculty supervision of topics not offered in regular courses. **Prerequisites:** Senior standing, consent of instructor.

**ACCT 4311 - Accounting Issues**

This is the capstone course for the undergraduate accounting major. Topics to be covered include career planning, professional certifications, ethical standards for accountants and emerging issues for the accounting profession. Accounting program assessment is done in this course. **Prerequisites:** ACCT 2310, ACCT 2330, ACCT 3311, ACCT 3312, ACCT 3321, ACCT 3330, ACCT 3341, ACCT 3361, ACCT 4314, and ACCT 4351, each with a grade of C or greater. **Concurrent:** ACCT 3321, ACCT 3361, ACCT 4314, and ACCT 4351 permitted.

**ACCT 4314 - Advanced Financial Accounting**

Three credit hours. Accounting for temporary and longterm investments, business combinations, consolidated financial reporting, and international operations. **Prerequisites:** ACCT 3312 with C or greater.

**ACCT 4316 - International Accounting**

Three credit hours. This course examines international financial reporting developments, procedures, and standards (IFRS) with an emphasis on the convergence of US GAAP and International Financial Reporting Standards. Attention is also given to the financial reporting requirements of multinational enterprises operating in a global environment. **Prerequisites:** ACCT 2310, ACCT 2330, ACCT 3311, ACCT 3312, and ACCT 4314, each with a grade of C or greater.

**ACCT 4322 - Federal Taxation II**

Three credit hours. Federal income tax topics related to partnerships and partners, corporations and shareholders, trusts and estates, research methods in tax practice, survey of the unified estate and gift tax law. Dual listed in the Graduate Catalog as ACCT 5322. **Prerequisites:** ACCT 3321 with C or greater.

**ACCT 4323 - Research in Federal Taxation**

Three credit hours. Methods and tools of tax research as applied to both closed fact and controllable fact cases. Methods for locating and assessing relevant authority on specific tax questions is emphasized. **Prerequisites:** ACCT 3321 with C or greater.

**ACCT 4351 - Auditing Theory and Practice I**

Three credit hours. Nature, history, and social role of auditing. Fundamentals of contemporary auditing theory and practice with emphasis on collection and evaluation of audit evidence and the audit report. Introduction to operations auditing, statistical sampling, and auditing EDP systems. **Prerequisites:** ACCT 2310, ACCT 2330, ACCT 3311, ACCT 3312, ACCT 3330, and ACCT 3341, each with C or greater.

**ACCT 4352 - Advanced Auditing**

Two primary areas are explored: techniques for auditing more effectively and efficiently, and extending auditing skills to other professional services. The course places heavy emphasis on student research and case analyses. **Prerequisites:** ACCT 4351.

**ACCT 4366 - Federal Corporate Taxation**

Study of federal income taxation provisions affecting the formation, operation, liquidation, acquisition, and reorganization of Subchapter C corporations. There will be an emphasis on research and tax planning.

**Prerequisites:** ACCT 3321 – ACCT 2310, ACCT 2330, ACCT 3311, ACCT 3312, ACCT 3330, ACCT 3341, and ACCT 4323, each with a grade of C or greater.

**Concurrent:** ACCT 4323 is permitted.

**ACCT 4381 - Legal, Ethical, and Regulatory Environment for Accountants**

Three credit hours. A comprehensive overview of business law and ethics topics, such as the Uniform Commercial Code, accountant's liability, government regulation of business, agency, contracts, debtor creditor relationships, real property, insurance, and other topics covered in the CPA exam. Dual listed in the Graduate Catalog as ACCT 5381. **Prerequisites:** MKTG 2380 - Legal Environment of Business (or equivalent) with C or greater.

**ACCT 4392 - Internship**

Three credit hours. Practical experience in an organizational setting designed to integrate accounting theory and applications. A written report is required. Course is offered on a CR/NC basis only, with credit being equivalent to C or greater performance. **Prerequisites:** at least 90 semester hours earned with a minimum overall grade point average of 3.00; B or higher grade in all upper level accounting courses completed to include a minimum of twelve semester hours; consent of instructor and department chairperson.

**ACCT 4399 - Independent Study**

Two or three credit hours. Independent investigation under faculty supervision of topics not offered in regular courses. **Prerequisites:** Senior standing, consent of instructor.

**Applied Communication****ACOM 1300 - Introduction to Communication**

Three credit hours. This course focuses on the development of effective and ethical communication skills needed to foster positive communication in a variety of contexts. Students will explore the basic principles of communication related to perception, verbal and nonverbal communication, interpersonal communication, and public speaking. Students have the opportunity to learn through service, writing, reading, discussing, listening, and participating in critical thinking and problem solving activities.

**ACOM 2310 - Human Communication Concepts**

Three credit hours. An introduction to the field of communication by an overview of communication theories and concepts, emphasizing how humans communicate to co construct a social world with others. Students engage in practical and ethical application of concepts to their professional and personal lives. **Prerequisites:** ACOM 1300 or consent of instructor; majors/minors should take in their first year in the program.

**ACOM 2311 - Introduction to Communication Research**

Three credit hours. Introduction to applied research methods, increasing students' awareness of how such research is developed, conducted, and communicated. Topics include developing research questions, research ethics, types of research done in the field, and the role of case studies in applied communication research. Students will complete a case study analysis of a particular event or place. **Prerequisites:** ACOM 1300; **Prerequisite or Corequisite:** ACCT 2310 or consent of the instructor; majors should take in their first year in the program.

**ACOM 2314 - Communication Skill Center Undergraduate Internship**

Three credit hours. An opportunity to apply communication concepts and skills in a professional setting. Interns gain experience working in the Communication Skill Center, assisting in its daily operation, and supporting the ACOM 1300 program by being a peer mentor. An application and interview process must be completed before enrolling in this course. for up to 6 hours credit. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3300 - Interpersonal Communication**

Three credit hours. Enhances the student's ability to understand and participate in effective interpersonal communication with a focus on positive communication as a way to encourage strong social relationships. Focus on using major interpersonal theories and concepts to develop a heightened awareness of relationship issues, as well as communication competence in relationships. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3301 - Honors Interpersonal Communication**

Three credit hours. Enhances the student's ability to understand and participate in effective interpersonal communication with a focus on positive communication as a way to encourage strong social relationships. Focus on using major interpersonal theories and concepts to develop a heightened awareness of relationship issues, as well as communication competence in relationships. This course replaces ACOM 3300 in the Applied Communication major for honors students. **Prerequisites:** ACOM 1300 with a grade of "C" or better or consent of instructor; admission to UA Little Rock Honors College.

**ACOM 3315 - Gender Communication**

Three credit hours. An examination of gender constructs as they influence verbal and nonverbal interaction. Topics include the ways communication in families, schools, media, and society creates and perpetuates gender roles, and how socially created gender differences in public and private setting affect success, satisfaction, and self esteem. Focus on using major gender communication theories and concepts to develop a heightened awareness of gender issues that relate to human interaction. **Prerequisites:** ACOM 1300, or declared minor in Gender Studies, or consent of the instructor.

**ACOM 3316 - Interviewing**

Three credit hours. This course develops the student's ability to effectively prepare for and participate in a variety of interview situations. Topics include impression management, rapport building, interview organization, effective questions and answers, and effective listening. The focus is on using in-class activities to develop effective interviewing skills. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3320 - Persuasive Presentations**

Three credit hours. This course develops the student's ability to prepare and deliver an effective persuasive presentation. Topics include audience analysis, critical thinking and listening, the use of supporting materials and presentational aids, ethical implications of public presentations, and the development of a communication orientation to public speaking. **Prerequisites:** ACOM 1300 or consent of the instructor; majors/ minors should take in their first year in the program.

**ACOM 3321 - Honors Persuasive Presentations**

Three credit hours. This course develops the student's ability to prepare and deliver an effective persuasive presentation. Topics include audience analysis, critical thinking and listening, the use of supporting materials and presentational aids, ethical implications of public presentations, and the development of a communication orientation to public speaking. This course replaces ACOM 3320 in the Applied Communication major for honors students. **Prerequisites:** ACOM 1300 with a grade of "C" or better or consent of the instructor; admissions to UA Little Rock Honors College; majors/ minors should take in their first year in the program.

**ACOM 3322 - Group Communication**

Three credit hours. The principles of group/team interaction are studied and applied in a series of group discussions dealing with information gathering, problem solving, and decision making. Activities identify the effects of an individual's characteristics on the group and of group action on the individual. The focus is on using in-class and group activities to develop effective group interaction skills and presentation skills. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3323 - Conflict Management**

Three credit hours. Development of the student's ability to manage conflict in organizations, groups, and personal relationships effectively. Topics include theories, styles, patterns, and systems of conflict as well as conflict management techniques of negotiation and mediation. The course uses in-class activities to understand the factors and dynamics of conflict resolution better and to develop effective conflict management skills that include forgiveness and reconciliation. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3324 - Honors Conflict Management**

Three credit hours. Development of the student's ability to manage conflict in organizations, groups, and personal relationships effectively. Topics include theories, styles, patterns, and systems of conflict as well as conflict management techniques of negotiation and mediation. The course uses in-class activities to understand the factors and dynamics of conflict resolution better and to develop effective conflict management skills that include forgiveness and reconciliation. This course replaces ACOM 3323 in the Applied Communication major for honors students. **Prerequisites:** ACOM 1300 with a grade of "C" or better or consent of the instructor; admission to UA Little Rock Honors College.

**ACOM 3330 - Professional Communication**

Three credit hours. This course focuses on building positive relationships in organizations. Topics include effective leadership, coaching/mentoring, dealing with difficult people, and civility in the workplace. In-class activities, presentations and case studies are used to develop effective professional communication skills. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3340 - Communication Ethics**

Three credit hours. This course explores the relationship between positive communication, personal character, and the common ethical questions encountered in communication. These questions look at what principles should guide human behavior, what it takes to communicate wisely and ethically, and what the relational, cultural, social and organizational consequences of ethical and unethical communicative behaviors are. The focus is on illustrating the importance of ethics through practical applications of communication-based principles. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 3341 - Honors Communication Ethics**

Three credit hours. This course explores the relationship between positive communication, personal character, and the common ethical questions encountered in communication. These questions look at what principles should guide human behavior, what it takes to communicate wisely and ethically, and what the relational, cultural, social and organizational consequences of ethical and unethical communicative behaviors are. The focus is on illustrating the importance of ethics through practical applications of communication – based principles. This course replaces ACOM 3340 in the Applied Communication major for honors students. **Prerequisites:** ACOM 1300 or consent of the instructor, and admission to UA Little Rock Honors College.

**ACOM 3350 - Nonverbal Communication**

Three credit hours. Examination of codes of nonverbal communication within personal, interpersonal, and professional contexts. Topics include the role of appearance, body language, space, touch, paralanguage, artifacts, and time in communication; interpersonal attractiveness; credibility; dominance; and impression management. focus on using major nonverbal communication theories and concepts to develop a heightened awareness of the role of nonverbal communication in human interaction. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 4101 - Independent Study**

One credit hours. Students will read and do research in a selected area of communication. Projects and papers must be approved by the instructor and department chair prior to registration. **Prerequisites:** ACOM 2301 and ACOM 2311 or consent of the instructor.

**ACOM 4110 - Senior Portfolio Presentation**

Students will create and present a career portfolio of their college work, representing the learning goals of the major, to faculty and potential employers. Multiple assignment options will be provided for the portfolio presentation requirement. Credit/no-credit. **Prerequisite or Corequisite:** ACOM 4300.

**ACOM 4201 - Independent Study**

Two credit hours. Students will read and do research in a selected area of communication. Projects and papers must be approved by the instructor and department chair prior to registration. This may be repeated for up to 6 credit hours. **Prerequisites:** ACOM 2310 and ACOM 2311 or consent of the instructor.



**ACOM 4300 - Senior Capstone Project**

Integration of learning about human communication in various contexts, culminating in an applied qualitative research project and presentation. Intended to be taken in last semester before graduation. Credit/no-credit.

**Prerequisites:** ACOM 2310, ACOM 2311, ACOM 3320, and 5 hours in Applied Communication or department chair approval.

**ACOM 4301 - Independent Study**

Two credit hours. Students will read and do research in a selected area of communication. Projects and papers must be approved by the instructor and department chair prior to registration. This may be repeated for up to 6 credit hours. **Prerequisites:** ACOM 2310 and ACOM 2311 or consent of the instructor.

**ACOM 4310 - Applied Communication Research**

Three credit hours. Examination of the applied role of communication research in a variety of contemporary organizations using quantitative and/or qualitative approaches. Focus on identifying the practical applications of research for organizational members by completing a quantitative or qualitative research study. Dual listed in the Graduate Catalog as ACOM 5310. **Prerequisites:** ACOM 2311 or consent of the instructor.

**ACOM 4311 - Organizational Communication**

Three credit hours. Students develop an ability to understand and apply major theories and concepts from communication theories to varied organizational contexts. Topics such as leadership, motivation, planned change, conflict, diversity, and decision making are explored through practical application to cases and during class activities. Dual listed in the Graduate Catalog as ACOM 5311. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 4312 - Intercultural Communication**

Three credit hours. An exploration of the relationship between communication and varied ethnic and national cultures across multiple contexts, including work, community, medical, and interpersonal. Topics such as culture shock, language, conflict, and cultural identity are explored. Class activities and case studies focused on developing competent and ethical application of major intercultural theories and concepts. Dual listed in the Graduate Catalog as ACOM 5312. **Prerequisites:** ACOM 1300 or declared major/minor in International Studies or consent of the instructor.

**ACOM 4313 - Seminar: Studies in Communication**

Three credit hours. Investigation of specific communication theories, skills, and practices. Focus is on an in-depth treatment of a content area not typically represented in other courses in the major. May be repeated for credit. Dual listed in the Graduate Catalog as ACOM 5313. **Prerequisites:** ACOM 1300 or consent of the instructor.

**ACOM 4314 - Communication Skill Center Internship**

Three credit hours. An opportunity to apply communication concepts and skills in a professional setting within the department. Interns gain experience working in the Communication Skill Center, assisting in its daily operation. Focus is on experiencing and analyzing communication in real-world situations. An application and interview process must be completed before enrolling in this course. May be repeated for up to 12 hours credit: 6 hours toward fulfillment of the major (3 hours for the minor) and 6 hours toward fulfillment of general electives.

**Prerequisites:** ACOM 3320 or consent of the Communication Skill Center director.

**ACOM 4315 - Internship in Communication**

One hundred fifty hours minimum of work for three credit hours. An opportunity to apply communication concepts and skills in a professional setting outside the department. Focus on experiencing and analyzing communication in real-world situations. An application and interview process must be completed before enrolling in this course. May be repeated for up to 6 hours credit. May be repeated up to 12 hours credit: 6 hours toward fulfillment of the major (3 hours for the minor) and 6 hours toward fulfillment of general electives. **Prerequisites:** junior standing; 2.50 overall GPA and 3.00 within the department, minimum of 18 hours in the program and approval of the internship director.

**ACOM 4317 - Honors Intercultural Communication**

Three credit hours. An exploration of the relationship between communication and varied ethnic and national cultures across multiple contexts, including work, community, medical, and interpersonal. Topics such as culture shock, language, conflict, and cultural identity are explored. Class activities and case studies focused on developing competent and ethical application of major intercultural theories and concepts. This course replaces ACOM 4312 in the applied communication major for honors students. **Prerequisites:** ACOM 1300 with a grade of "C" or better, or declared major/minor in International Studies, or consent of the instructor; admission to UA Little Rock Honors College.

**ACOM 4320 - Transformations in Health Communication**

Three credit hours. This course introduces students to theories and issues in the field of health communication and personal transformation practices. The focus is on using in-class activities to better understand the dynamics of meanings of health and to develop effective personal-management skills. Dual listed in the Graduate Catalog as ACOM 5320.

**ACOM 4323 - Family Communication**

Three credit hours. Study of communication phenomena in the family setting. Examination of how communication creates and influences the development, maintenance, and enhancement of family relationships. Case analysis and course activities focus on co-constructing family relationships with effective communication skills.

**Prerequisites:** ACOM 1300 or consent of the instructor.

### **ACOM 4324 - Organizational Communication Seminar**

Three credit hours. Special topics in organizational communication including but not limited to organizational identification, risk and issue management, organizational change, or critical approaches to organizational communication. Focus on giving students an in-depth understanding of a specialized aspect of organizational communication. Dual listed in the Graduate Catalog as ACOM 5324. **Prerequisites:** ACOM 1300.

### **ACOM 4350 - Effective Crisis Communication**

Three credit hours. This course investigates and analyzes instances of effective and ineffective crisis communication. Students will examine the internal organizational processes and the larger environment within which various organizations exist focusing on issues such as stakeholders, legal environments, and the larger social and cultural contexts. Focus on media, image, and resiliency theories of crisis communication, and their practical implications for organizations. **Prerequisites:** ACOM 1300 or consent of the instructor.

### **ACOM 4357 - Communication and Managing Difference**

Three credit hours. This course explores communication and difference in such areas as race and ethnicity, social class, age, sexual orientation, and disability. Through applying communication theories and ideas to our experiences in each of the targeted areas, we can emerge with tools to manage communication across lines of difference and create more positive social worlds. Dual listed in the Graduate Catalog as ACOM 5357. **Prerequisites:** ACOM 1300 or consent of the instructor.

## **Adult Education**

### **ADED 4301 - Psychology of Adult Learning**

Three credit hours. Examination of the research related to adult learning and development as it can be applied to the practice of adult education. Adult learning theories of the cognitivists, behaviorists, and humanists; stages and basic theories of development. Dual listed in the Graduate Catalog as ADED 5301. **Prerequisites:** course work in adult education.

### **ADED 4303 - Teaching Adults**

Three credit hours. Examination of the teaching/learning process from planning to presentation. Micro-teaching involving the integration of adult learning principles will be conducted. Dual listed in the Graduate Catalog as ADED 5303. **Prerequisites:** course work in adult education.

### **ADED 4304 - Methods and Materials in Adult Education**

Three credit hours. An overview of the methods used to create an adult learning environment and techniques that are considered most effective. A process used for evaluating adult education materials will also be considered. Dual listed in the Graduate Catalog as ADED 5304. **Prerequisites:** course work in adult education.

## **Advertising**

### **ADVT 3300 - Advertising: an IMC Approach**

Three credit hours. Fundamentals of local, national, and international advertising are covered, including social, ethical, and legal/regulatory aspects. Major members of the industry are discussed including advertisers, agencies, and the media. The advertising process is detailed, including research, strategic marketing planning, copywriting, art direction, and media planning and selection. **Prerequisites:** MKTG 3350.

### **ADVT 3310 - Advertising IMC Development**

Three credit hours. Fundamentals of advertising from the advertiser's perspective as an integrated element of the promotion mix are covered, including the administration of advertising campaigns, budgets, media planning, and advertising research. **Prerequisites:** ADVT 3300.

### **ADVT 3340 - Public Relations**

Three credit hours. History and development of public relations as an influential part of the management function is discussed, including the public relations process of fact finding, opinion research, planning, communicating, and evaluating. Decision making and application of management policy as it relates to the organization's various publics is covered. **Prerequisites:** ADVT 3300.

### **ADVT 4290 - Independent Study**

Two or three credit hours. **Prerequisites:** prior consent of instructor, marketing or advertising/public relations major or minor with a minimum 3.00 GPA.

### **ADVT 4320 - Advertising IMC Implementation**

Three credit hours. Writing advertising copy and creating visual graphics are covered, along with production techniques used in newspaper, magazine, radio, television, outdoor, direct mail, and other media. Different creative philosophies are studied, and creative consistency with the marketing strategy based on research is stressed. **Prerequisites:** ADVT 3300.

### **ADVT 4390 - Independent Study**

Two or three credit hours. **Prerequisites:** prior consent of instructor, marketing or advertising/public relations major or minor with a minimum 3.00 GPA.

## **Anthropology**

### **ANTH 1415 - Physical Anthropology**

Three hours lecture. Two hours laboratory per week. A hands-on examination of the study of past and present human and nonhuman primates as biological organisms. Topics include human genetics, variation and osteology, nonhuman primate taxonomy and behavior, forensic anthropology and the human fossil record.

### **ANTH 2301 - World Cultures**

See INTS 2301.

**ANTH 2316 - Cultural Anthropology**

Three credit hours. Examines the concept of culture, cultural processes, and anthropological theories. Topics include subsistence strategies, politics, religion, gender, ethnicity, economics, marriage, stratification, and socialization. Case studies from both small-scale and largescale societies. Required for majors. (ACTS Course Number ANTH 2013) **Prerequisites:** RHET 1311 recommended.

**ANTH 3312 - North American Indians**

Three credit hours. A study of Indian cultures from the Arctic to northern Mexico from immediately after European contact to the present. **Prerequisites:** ANTH 2316.

**ANTH 3313 - Archaeology**

Three credit hours. What techniques do they use to answer them? What is archaeology's role in addressing cultural heritage issues and other contemporary social concerns? The course will develop problem-solving skills, ethics, and a greater understanding of the diversity of human ways of life. Lecture, discussion, and activities.

**ANTH 3318 - Sexuality, Society, and Culture**

Three credit hours. This course provides a social scientific examination of the nature of sexuality cross-culturally as well as in Western society. Examines sexuality in a broader sociocultural context and cultural construction used from prehistoric to postmodern eras as a form of reproduction and a means for deep expression of intimacy with others and as a device for the domination and exploitation of people of various social categories.

**ANTH 3319 - Cultures of the Middle East**

Three credit hours. The anthropological study of Middle Eastern culture and society; covers the political conflicts and cultural adaptations in the region. The course also focuses on ethnic differentiation, and the influence of Islam upon all the cultures and peoples of the Middle East.

**ANTH 3320 - Buried Cities, Ancient Lives**

Three credit hours. Asking the question "How did we get here?", this course offers a long-term perspective on human diversity and the forces of cultural change by examining the archaeological record. Why, how, and where did early cities and states arise? What did ancient cultures contribute to today's world? Investigation of the daily lives of past peoples, technological innovations, ancient religions, and the emergence of complex economic, agricultural, and political systems. Lecture and discussion.

**ANTH 3378 - Medical Anthropology**

Three credit hours. Comparison of non-Western and Western medical systems, definitions of health and disease, kinds of treatment, and varieties of cures; examination of the problem of how to adapt Western medicine to the needs of diverse cultural and ethnic groups. **Prerequisites:** ANTH 1415 or ANTH 2316.

**ANTH 3381 - Social Statistics**

Three credit hours. (See SOCI 3381) Basic statistical techniques and their corresponding theoretical premises, which are often used in statistical reasoning in sociology. Qualitative variables, characteristics of attributes, measures of their variation, correlation, and tests of significance are stressed. **Prerequisites:** Recommended: MATH 1301 or equivalent.

**ANTH 3383 - Human Paleontology**

Three credit hours. Study of the fossil evidence for human evolution and the scientific principles that apply to that study; interpretation of morphological patterns in a functional and adaptive framework; interaction of cultural and biological aspects of hominid development.

**Prerequisites:** grade of C or better in ANTH 1415 .

**ANTH 3388 - Relatives and Relations: Anthropology of Kinship, Marriage, and Family**

Three credit hours. **Prerequisites:** ANTH 2316. Systematic treatment of marriage, descent, and alliances on a cross-cultural basis. Examination of social behavior and terminologies related to kinship systems drawn from traditional and modern societies.

**ANTH 4155 - Forensic Anthropology Laboratory**

One credit hours. Emphasizes hands-on experience in using anthropometric, morphological and statistical techniques employed in age and stature estimation as well as sex and race determination. Laboratory exercises also include forensic archaeology, treatment and proper handling of forensic anthropology evidence, and how to write a forensic anthropology report. Dual listed in the Graduate Catalog as ANTH 5155. **Prerequisites:** ANTH 4355. **Corequisites:** ANTH 4355

**ANTH 4180 - Independent Study**

One, two, or three credit hours. **Prerequisites:** ANTH 1415 or ANTH 2316, junior or senior standing, consent of chairperson.

**ANTH 4280 - Independent Study**

One, two, or three credit hours. **Prerequisites:** ANTH 1415 or ANTH 2316, junior or senior standing, consent of chairperson.

**ANTH 4301 - Anthropology of Death**

Three credit hours. Death is one of the few true human universals. However, there is tremendous temporal and cross-cultural variation in the attitudes toward and the practices associated with death. This class explores this variation from a holistic, anthropological viewpoint incorporating concepts from cultural anthropology, biological anthropology, and archaeology. Topics include medical versus social death, mourning practices, memorialization, and forms of burial. Dual listed in the Graduate Catalog as ANTH 5301.

**ANTH 4310 - Urban Anthropology**

Three credit hours. A survey of urbanization throughout the world, with emphasis on urban adaptation of rural migrants and the phenomenon of urbanization in emerging nations. **Prerequisites:** ANTH 2316.

**ANTH 4312 - Eating Cultures**

Three credit hours. Are we what we eat? Where does our food come from? This course is a broad exploration of human foodways from local to global scales. Students will learn to critically consider issues including social and cultural food diversity, early foodways, traditional diets, nutritional anthropology, small scale vs. industrial food production, the relationship of food to the environment, hunger and obesity, local food movements, and food as a means of social negotiation and communication. Special emphasis on food issues in the US and Arkansas today.

**ANTH 4313 - Race and Human Variation**

Three credit hours. This course explores the role of genetics, evolution, and adaptation in producing modern human biological variation. It will also focus on how this variation is/was interpreted around the world in general and in modern and historic North America in particular. We will explore the fallacy of biological race and the simultaneous importance of the cultural concept of race. **Prerequisites:** ANTH 1415 and ANTH 2316 or permission of the instructor.

**ANTH 4316 - Linguistic Anthropology**

Three credit hours. Introduction to the subfield of linguistic anthropology. Examines the impact of linguistic structure on culture, socioeconomic factors in linguistic variation, intercultural and intracultural verbal and nonverbal communication. Also examines the theories and methods of descriptive anthropological linguistics applied to non Indo-European languages and introduces the student to structural linguistic analysis. Required for majors.

**ANTH 4320 - Sociocultural Change**

Three credit hours. Sociocultural change resulting from contact of acculturation, question of acceptance and rejection, pressures toward change, the role of the individual, appraisal of anthropological information and theory in a changing world. **Prerequisites:** ANTH 2316.

**ANTH 4321 - Religion, Society, and Culture**

Three credit hours. Introduction to the role of shamans, witches, diviners, cultic and magic belief systems, function of myth, ritual, religious symbolism, meaning of spirit possession, revitalization, and ancestor worship in tribal, peasant, and modern societies.

**ANTH 4324 - The City**

This interdisciplinary course focuses on "The City," looking at the city through the lenses of anthropology, history, urban planning, geography, and the history of architecture. We will focus on the city in the imagination (the idea of the city), the city in space (urban designs and plans), and the city in time (the development of cities over the years). While readings and examples will range throughout history and across the globe, each of the three parts of the course will include an assignment looking specifically at our own urban laboratory: Little Rock.

**ANTH 4325 - Egyptology**

Three credit hours. This course will survey the archaeology of Egyptian civilization, from the earliest settlement of the Nile River Valley through the conquest of Alexander the Great and his successors. The course will also consider the origins of the field of Egyptology as well as a number of key archaeological sites representing the lives of the elite as well as the ordinary citizens of the Nile River Valley.

**ANTH 4327 - Internship**

Three credit hours. Practical experience consisting of at least 90 hours of supervised work in a private or public organization. The objective is for students to apply theoretical orientations and anthropological skills in a work situation.

**ANTH 4340 - Applied Anthropology**

Three credit hours. Selected topics concerning the contribution of anthropology to social services and social planning, especially in the fields of education, health care, law enforcement, and economic development. **Prerequisites:** 15 hours of anthropology or consent of instructor.

**ANTH 4355 - Forensic Anthropology**

Three credit hours. Forensic anthropology applied to knowledge of human variation to legal matters. The primary emphasis in this course will be human skeletal variation. The theoretical basis of sex determination, age estimation and ethnic origin classification based upon skeletal characteristics will be examined. Other issues such as fire death scene investigation, interval since death, and forensic archaeology also will be addressed. Dual listed in the Graduate Catalog as ANTH 5355. This course will be offered once a year. **Prerequisites:** ANTH 1415 or consent of instructor.

**ANTH 4380 - Independent Study**

One, two, or three credit hours. **Prerequisites:** ANTH 1415 or ANTH 2316, junior or senior standing, consent of chairperson.

**ANTH 4382 - Anthropological Theory**

Three credit hours. Examines the range of theories used to describe and explain variability in sociocultural phenomena. Explores the organization of particular theories as well as issues that separate divergent theories. Major theoretical orientations to be explored include evolutionism, Marxism, Freudianism, structuralism, structural-functionalism, ethnoscience, diffusionism, historical particularism, cultural ecology, sociobiology, and cultural materialism. Required for majors. **Prerequisites:** ANTH 1415 or ANTH 2316.

**ANTH 4390 - Teaching Internship**

Three credit hours. Working with individual instructors, upper-level majors assist lower-level students by holding study sessions twice a week for those enrolled in ANTH 1300, 1315, or ANTH 2316 and performing other tasks determined through consultation with the instructor. **Prerequisites:** consent of instructor.

**ANTH 4395 - Senior Seminar in Holism**

Three credit hours. Senior capstone course. Students read and discuss current work bridging the subfields of anthropology and write essays on their understandings of selected goals for the major. **Prerequisites:** completion of major core.

**ANTH 4398 - Special Topics**

Three credit hours. Selected topics in anthropology.

**ANTH 4399 - Anthropology Cooperative Learning Internship**

Three credit hours. Students will work under the direction of specialists in these areas or specialists in related areas. Credit will be awarded based on at least 200 hours of work during the semester and fulfillment of the contractual obligations agreed to by both UA Little Rock and the public/private agency where placement occurs. **Prerequisites:** declared major, 60 hours of course work completed, consent of the department chairperson and director of cooperative education. Placement in an applied work experience in either physical or cultural anthropology or archaeology.

**ANTH 4467 - Primatology**

Four credit hours. This course will explore the social systems, behavior, and ecology of nonhuman primates through the examination of behavioral and biological diversity within the primate order from an evolutionary perspective. Course material will draw heavily on field studies of primates and emphasize their behavior in natural environmental and social settings. The lab portion of the class will complement lecture and reading material with practical experience in scientific research and writing. In addition to lecture, we will also meet regularly at the Little Rock Zoo to practice observational field methods used by primatologists. **Prerequisites:** Grade of C or better in ANTH 1415.

**ANTH 4485 - Ethnographic Methods**

Four credit hours. Instruction and supervised practice in data gathering methods and analyses in native or ethnic settings. Lectures and discussions twice weekly. The fourth hour is reserved for field study. Data gathering methods, analysis in native or ethnic settings. Dual listed in the Graduate Catalog as ANTH 5485. **Prerequisites:** ANTH 2316.

**ANTH 4487 - Archaeological Investigation**

Four credit hours. Hands-on experience in archaeological methods. Focus on how and why to conduct archaeological research and public archaeology. Emphasis on field and laboratory activities, methodologies, and research design that respects and involves living human communities. May be repeated once for additional credit. **Prerequisites:** Grade of C or better in ANTH 3313 or consent of instructor.

**ANTH 4600 - Archaeological Field Research**

Six credit hours. Introduction to methods and theory of archaeological research, Arkansas prehistory, and public archaeology through excavation, laboratory experience, and lectures. Meets daily, off campus.

## Arabic

**ARAB 1311 - Elementary Arabic I**

Three credit hours. A course for beginners with no knowledge of Arabic. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic grammar and a limited reading ability. Chinese culture is also introduced.

**ARAB 1312 - Elementary Arabic II**

Three credit hours. Continuation of ARAB 1311. **Prerequisites:** ARAB 1311 or equivalent.

**ARAB 2311 - Intermediate Arabic**

Three credit hours. A continuation of ARAB 1312, the intermediate course leads to greater facility in the spoken language and to more advanced reading skills. **Prerequisites:** ARAB 1312 or equivalent.

## Applied Design

**ARAD 3310 - Introduction to Furniture Design**

Three credit hours. A beginning course in the fundamentals of furniture design and construction. Students will design multiple furniture items and develop working drawings and scale models; learn basic material selection; and employ appropriate wood joinery and finishing. The course will require the use of hand and power tools while constructing a basic freestanding bench and table.

**ARAD 3320 - Introduction to Metalsmithing & Jewelry**

Three credit hours. This course is an introduction to principle techniques involved in jewelry making and metalsmithing. Basic fabrication, forging, forming, connections (hot and cold), surface treatments, and finishing methods will be covered. An emphasis will be placed on the students' mastery of problem solving, layout and design, and attention to craftsmanship in the execution of their projects. Visual presentations covering practicing smiths and historic trends will accompany the course curriculum to expose students to past and contemporary methods and ideologies in the field of jewelry and metalsmithing. Through discussions and critiques students will expand their ability to effectively speak about their work and constructively evaluate the work of their peers. The skills acquired in this course will provide the foundation for subsequent ideas and techniques related to the field of metalsmithing and jewelry.

**ARAD 3330 - Introduction to Fiber Design**

Three credit hours. A beginning course in the fundamentals of fiber design. This course explores traditional and contemporary techniques and processes on fabric and other fiber surfaces and will introduce students to basic surface design techniques as well as basic loom and off loom weaving. Students will design and construct several samples and objects utilizing the materials and methods demonstrated throughout the course.

**ARAD 3340 - Introduction to Blacksmithing**

Three credit hours. This course will focus on basic blacksmithing techniques such as how to light a coal fire, connecting multiple pieces of stock using traditional blacksmithing processes, basic skills and a working knowledge of how to operate properly all equipment in the studio. **Prerequisites:** ARST 2315 and ARST 3360.

**ARAD 3350 - Introduction to Ceramics**

Three credit hours. This is an introductory ceramics course which will include the history, development, and aesthetics of ceramic vessels and sculpture. Students will learn basic technical aspects of building with clay, working with glazes, and the firing of ceramic objects. Emphasis will be placed on problem solving and the development of ideas. Creative process, critical thinking, and the development of design skills are also important elements of this course.

**ARAD 4115 - Advanced Problems in Design**

One, two, or three credit hours. Experimental materials and techniques in applied design, including the correlation of visual design elements with those of various multidimensional work not usually covered by normal course offerings. Course content, subtitle, and organization vary.

**ARAD 4190 - Advanced Studio Project**

One credit hours. This course is intended for students who have completed a majority of studio courses offered in the applied design area of the student's emphasis. Instructor approval must be obtained prior to enrollment. In this advanced course students will propose an appropriate studio project of their own design. Repeatable for additional credit. **Prerequisites:** Consent of instructor.

**ARAD 4215 - Advanced Problems in Design**

One, two, or three credit hours. Experimental materials and techniques in applied design, including the correlation of visual design elements with those of various multidimensional work not usually covered by normal course offerings. Course content, subtitle, and organization vary.

**ARAD 4310 - Case Furniture Design**

Three credit hours. An advanced course in furniture design and construction. Students will be introduced to basic wood box and cabinet design and construction. Students will design multiple furniture items and develop working drawings and scale models, practice appropriate material selection; and employ complex wood joinery and finishing. The course will require the use of hand and power tools while constructing a free standing shelving unit and a wall mounted or free standing cabinet with doors and drawers. **Prerequisites:** ARST 2315, ARAD 3310.

**ARAD 4311 - Complex Furniture Design**

Three credit hours. An advanced course in complex furniture design and construction. Students will be introduced to ergonomic considerations in the design and construction of a chair. Students will develop working drawings and a scale model; practice appropriate material selection; and employ complex wood joinery and appropriate finishing. The course will require the use of hand and power tools while constructing a chair of unique or historical design integrating at least one material in addition to wood. **Prerequisites:** ARST 2315, ARAD 3310.

**ARAD 4312 - Plywood & Composites**

Three credit hours. An advanced course in Furniture Design where students will be introduced to working with non-solid wood materials in sheet-goods format such as plywood, MDF and other composites as well as the different techniques involved in veneering. Different bending techniques with appropriate molds and a vacuum bag will be covered as well. Students will design and construct several furniture objects by developing working drawings and a scale model; practice appropriate material selection; and employ complex and appropriate joinery and finishing. The course will require the use of hand and power tools while constructing a piece of furniture utilizing sheet goods and/or veneer. **Prerequisites:** ARAD 4310.

**ARAD 4313 - Lighting & Small Objects**

Three credit hours. An advanced course in Furniture Design that will introduce students to the basics of lighting and small functional object design and construction. Students will design and construct several functional pieces, by developing working drawings and a scale model; practice appropriate material selection; and employ complex and appropriate joinery and finishing. **Prerequisites:** ARAD 4310 and ARAD 4311.

**ARAD 4314 - Alternative Furniture Media**

Three credit hours. An advanced course in furniture design and construction that will introduce non-wood materials associated with furniture making. Examples are: metal, fiberglass, mold-making and casting nonmetals such as concrete, plaster and plastics as well as other alternative and experimental materials. Students will design and construct several furniture pieces by developing working drawings and a scale model; practice appropriate material selection; and employ complex and appropriate joinery and finishing. The pieces will utilize one or several of the techniques and materials covered in the course. Experimentation and material research is expected. **Prerequisites:** ARAD 4310 and ARAD 4311.

**ARAD 4315 - Advanced Problems in Design**

One, two, or three credit hours. Experimental materials and techniques in applied design, including the correlation of visual design elements with those of various multidimensional work not usually covered by normal course offerings. Course content, subtitle, and organization vary.

**ARAD 4320 - Surface Methods in Metals**

Three credit hours. This course is a continuation of techniques studied in ARAD 3320. Additional surface development techniques will be introduced and greater focus will be placed on a combination of surface treatments and stone setting methods. The resulting pieces will be directed to thoughtfully consider a relationship to the body. The new embellishment techniques will help students to continue to advance their technical skills and build a stronger sensitivity to the integration of innovative approaches and disparate materials in a cohesive manner for objects of adornment. **Prerequisites:** ARAD 3303.

**ARAD 4321 - Metal Hollowware & Color**

Three credit hours. This course will build upon the technical and conceptual foundation created in ARAD 4320. Within this course students will be introduced to various sheet forming techniques and finishing processes in the production of small-scale formed elements for jewelry, vessel forms, and small-scale sculptural objects derived from forming processes. Forming techniques covered in this class will consider direct methods of shaping flat sheet and techniques forming various seamed pieces. Investigation into the coloring techniques including patination and enameling will be considered as methods of embellishment for the forms created by the students. Continued critical discussion and increased technical rigor of this course will help students to gain a more comprehensive ability to conceive their ideas and effectively execute them. **Prerequisites:** ARAD 4320.

**ARAD 4322 - Small Metal Casting**

Three credit hours. Casting will be explored as a method for developing three-dimensional forms in metal derived from constructed and found models. Students will investigate direct and machine enabled methods of mold making and casting. Additional processes surrounding mass production of components will be considered in this course. Alternative methods and materials for casting will also be introduced in this course. An emphasis will be placed on combining previously learned techniques with newly acquired techniques in a method that is visually cohesive and technically proficient. **Prerequisites:** ARAD 4320.

**ARAD 4323 - Metal Mechanisms**

Three credit hours. This course will include a more extensive exploration of complex fabrication methods and development of mechanisms to be integrated into jewelry and metal objects derived from fabrication, forming, and casting techniques. Students will explore methods of hollow construction, mechanisms, and complex surface embellishments. Technical proficiency will be reinforced, as the projects in this course require more precise design and complex construction. A conceptual basis for the assignments in this course will require students to gain an awareness of thoughtfully integrating form, function and aesthetics as they give their ideas physical form. **Prerequisites:** ARAD 4321.

**ARAD 4324 - Complex Metal Vessels**

Three credit hours. Students in this intensive course will design and execute a large-scale functional vessel or series of vessels. The course will reinforce technical competency and an exploration of personal design skills in the creation of preliminary forms and finished piece for this course. An emphasis will be placed on research of historic and contemporary examples, design, appropriate technical methods, and selection and integration of materials. Students will be responsible for a comprehensive and sophisticated integration of previously acquired techniques to conceive and execute the final pieces. **Prerequisites:** ARAD 4321.

**ARAD 4340 - Intermediate Blacksmithing**

Three credit hours. This course will further explore the many possibilities of what blacksmithing can be in contemporary forge work. An emphasis will be placed on the traditional use of techniques whenever possible.

Various hot methods: fabrication processes, welding and limited use of machining methods will be explored.

**Prerequisites:** ARAD 3340.

**ARAD 4350 - Wheel Throwing**

Three credit hours. This course will focus on use of the potter's wheel, a thorough survey of wheel throwing processes through a traditional and functional emphasis.

Students will also explore making additions such as handles and spouts; creative process, critical thinking, and the development of design skills are also important elements of this course. Learning how to load and fire kilns and competency in basic glaze and clay formulation and application are also emphasized. **Prerequisites:** ARAD 3350.

**ARAD 4351 - Advanced Handbuilding**

Three credit hours. This course is a comprehensive exploration of hand-building techniques for the creation of both utilitarian vessels and nonfunctional ceramic sculpture. There will be further emphasis on exploring ceramic studio tools and techniques, and a continued exploration of clay and glaze formulation and application. The course will also address both traditional and alternative firing processes. **Prerequisites:** ARAD 3350.

**ARAD 4352 - Production Ceramics**

Three credit hours. This course focuses on the exploration of creating ceramic objects through a variety of advanced forming and finishing techniques to assist with a production oriented studio methodology. By utilizing a variety of traditional and contemporary processes, students will build a greater proficiency in technique, clay and glaze technology, and firing. **Prerequisites:** ARAD 4350.

**ARAD 4353 - Kiln Construction**

Three credit hours. A thorough study of the history of kiln building over time and cultures. The course will include the designing of a kiln for specific ceramic processes, which the students will build before the conclusion of the course. Students will also make enough work to conduct several firings. **Prerequisites:** ARAD 4350 or ARAD 4351 or consent of the instructor.

**ARAD 4354 - Ceramics Sculpture**

Three credit hours. Emphasis on clay as an expressive medium, stressing sculptural rather than functional concepts. Continued experience with glaze and clay formulation and application; students will also explore traditional and alternative methods of kiln firing.

**Prerequisites:** ARAD 4351.

**ARAD 4355 - Mold Making**

Three credit hours. A comprehensive course on mold making for the casting of 3-dimensional forms, focusing primarily on ceramic processes. Students will explore both historic and contemporary techniques for the creation of molds, both clay (bisque-fired) press-molds, and plaster molds that will be used for both press-molding and slip-casting. **Prerequisites:** ARAD 3350 or consent of the instructor.

**ARAD 4390 - Advanced Studio Project**

Three credit hours. This course is intended for students who have completed most, or all, studio courses offered in the applied design area of the student's emphasis.

Instructor approval must be obtained prior to enrollment. In this advanced course students will propose an appropriate studio project of their own design. Repeatable for additional credit. **Prerequisites:** Consent of instructor.

**ARAD 4398 - Applied Design Internship**

Three or six credit hours. This experience will provide students with a supervised, practical experience to put into practice the skills learned in the academic setting. It will develop aspects of the art profession appropriately learned in real work situations. It will provide an opportunity for art students to work under the supervision of a professional artist. **Prerequisites:** Departmental approval.

**ARAD 4698 - Applied Design Internship**

Three or six credit hours. This experience will provide students with a supervised, practical experience to put into practice the skills learned in the academic setting. It will develop aspects of the art profession appropriately learned in real work situations. It will provide an opportunity for art students to work under the supervision of a professional artist. **Prerequisites:** Departmental approval.

## Art Education

**ARED 3245 - Art for Elementary Teachers**

Two credit hours. An investigation of elementary-level art education focusing on materials and methods for teaching art history, art criticism, and studio production to children. Attention is given to the relationship of the visual arts to general education, developmental growth of children in art, curriculum planning, and current issues in art education. This course is offered for preprofessional teachers in the College of Education's Early Childhood Education program.

**ARED 3316 - Teaching Art in the Secondary School**

Three credit hours. Methods and materials for teaching art in the secondary school. (See "Secondary Teacher Licensure")



**ARED 4129 - Art Education Seminar**

One credit hours. This course focuses on helping students reflect and evaluate their art pedagogical practice. **Prerequisites:** ARED 4325, ARED 4326, ARED 4328.

**ARED 4194 - Independent Study**

May be taken for one, two, or three credit hours. Research on a subject selected in consultation with the instructor. Admission to this course must be approved by the art education advisor before registration. **Prerequisites:** consent of instructor.

**ARED 4294 - Independent Study**

May be taken for one, two, or three credit hours. Research on a subject selected in consultation with the instructor. Admission to this course must be approved by the art education advisor before registration. **Prerequisites:** consent of instructor.

**ARED 4310 - Special Topics in Art Education**

Three credit hours. Special topics for the study of Art Education as it may relate to social, political, legal or other topical interests especially areas not covered by normal course offerings. Course content, subtitle, and organization vary.

**ARED 4325 - Foundations in Art Education**

Three credit hours. A survey of the history of art education with an emphasis on the changing philosophies, theories of learning, and the subsequent goals and objectives made apparent in curriculum development. Dual listed in the Graduate Catalog as ARED 5325.

**ARED 4326 - Art and Cognitive Development**

Three credit hours. An investigation of the relationship of the visual arts to the developmental growth of children. Attention is given to current cognitive theory, motivational theory and curriculum issues in addressing all populations in art education, including special education and gifted and talented students.

**ARED 4327 - Art Theory and Criticism**

Three credit hours. The course prepares art education majors to discuss and analyze visual images found within the art world. Students will learn techniques and approaches for teaching aesthetics, art criticism and art history that can be implemented in curriculum for various grade levels.

**ARED 4328 - Curriculum and Assessment in Art Education**

Three credit hours. An investigation of contemporary art education curriculum and assessment models. The course prepares art education majors to develop curriculum and assessments that incorporate state and national art content standards for K-12 students. **Prerequisites:** ARED 4325, ARED 4326, ARED 4327.

**ARED 4394 - Independent Study**

May be taken for one, two, or three credit hours. Research on a subject selected in consultation with the instructor. Admission to this course must be approved by the art education advisor before registration. **Prerequisites:** consent of instructor.

**ARED 4600 - Internship**

Six credit hours. An educational internship in Art Education with a field component of a minimum of 12 weeks (420 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6) and upper (712) grades. **Prerequisites:** TCED 4383, TCED 4321, ARED 4328/ARED 4129, 2.75 GPA. **Concurrent:** TCED 4330.

## Art History and Appreciation

Prerequisites for all advanced courses in the history of art: ARHA 2310 for ancient and medieval; ARHA 2311 for all other courses; or consent of instructor. ARHA 2310 must precede ARHA 2311. Upper-level courses are offered no more frequently than once every two years; they are offered on an irregular basis during summer terms.

Each art history credit hour requires three clock hours of work each week. One hour is scheduled in class and the additional two hours are scheduled outside class. The undraped human figure appears as a significant subject throughout much of art history and is evident within the art history curriculum.

**ARHA 2305 - Introduction to Visual Art**

Three credit hours. Introduction to the creative process and history of art, vocabulary and descriptive terms used in the visual arts, and how to write about them. Attendance at arts events is required. Students will learn through writing, reading, discussing, listening, and participating in critical thinking and problem-solving activities. Fulfills core requirement in fine arts. (ACTS Course Number ARTA 1003) **Prerequisites:** Recommended RHET 1311.

**ARHA 2306 - Introduction to Architecture**

Three credit hours. Introduction to the creative design process, functions, and cultural history of architecture. Students will learn the vocabulary of architecture, specifically elements of form and space and principles of design. Visits to and reports on sites of architectural significance are required. Students will learn through writing, reading, discussing, listening, and participating in critical thinking and problem-solving activities. Fulfills core requirement in fine arts. **Prerequisites:** Recommended RHET 1311.

**ARHA 2310 - Survey of the History of Art I**

Three credit hours. Survey of the art history from prehistoric times to the Renaissance. (ACTS Course Number ARTA 2003)

**ARHA 2311 - Survey of the History of Art II**

Three credit hours. Survey of the history of art from the Renaissance through the contemporary period. (ACTS Course Number ARTA 2103) **Prerequisites:** ARHA 2310 or consent of instructor.

**ARHA 2312 - Survey of Non-Western Art**

Three credit hours. Introduction to art outside the Western European tradition which focuses on the major artistic traditions of India, China, Japan, Africa, Oceania, and the Americas. Emphasis is placed on recognition of major works of art and artistic style and what these reveal about the cultures that produced them. **Prerequisites:** ARHA 2310 or consent of instructor.

**ARHA 3301 - American Art**

Three credit hours. American art from the colonial period to early twentieth century. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 3302 - History of Photography and Related Visual Arts**

Three credit hours. Major figures in the history of art who used the camera as their medium, beginning with the nineteenth-century figures such as Daguerre and Fox-Talbot and continuing to the present. Emphasis on the analysis of photographs, motion pictures, and video works in terms of style, iconography, social history, and connoisseurship. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 3304 - Medieval Art**

Three credit hours. Early Christian, Byzantine, Carolingian, Ottonian, Romanesque, and Gothic art. **Prerequisites:** ARHA 2310 or consent of instructor.

**ARHA 3309 - History of Design**

Three credit hours. This course will present major artists and movements in the history of textiles, ceramics, metals, wood, and graphic design, with emphasis on the modern period. **Prerequisites:** ARHA 2311 or consent of the instructor.

**ARHA 3390 - Neighborhood Studies**

Three credit hours. Little Rock like other cities, is made up of multiple neighborhoods, each with unique culture and history. This course emphasizes community engagement through active study of the University District/Promise Neighborhood communities, using the disciplinary tools of art, criminal justice, and history. After studying neighborhoods through the lenses of these disciplines, students will engage in service learning with Promise Neighborhood Advisory Board members to address neighborhood issues. Cross listed as CRJU 3390, HIST 3390, GEOG 3390. **Prerequisites:** None.

**ARHA 4110 - Special Topics in Art History**

One, two, or three credit hours. Special topics for the study of individual artists, or particular periods, geographic areas, or media in the history of art, especially areas not covered by normal course offerings. Course content, subtitle, and organization vary.

**ARHA 4191 - Independent Study**

One, two, or three credit hours. Open only to superior students who seek to do special research on a topic selected in consultation with the instructor.

**Prerequisites:** consent of Department of Art and Design faculty.

**ARHA 4210 - Special Topics in Art History**

One, two, or three credit hours. Special topics for the study of individual artists, or particular periods, geographic areas, or media in the history of art, especially areas not covered by normal course offerings. Course content, subtitle, and organization vary.

**ARHA 4291 - Independent Study**

One, two, or three credit hours. Open only to superior students who seek to do special research on a topic selected in consultation with the instructor.

**Prerequisites:** consent of Department of Art and Design faculty.

**ARHA 4300 - Studies in the History of Art**

Three credit hours. A seminar for advanced students involving research on topics in art history, criticism, and aesthetics selected for study by students in consultation with art history faculty. Dual listed in the Graduate Catalog as ARHA 5300. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4301 - Art and Architecture Study Tour**

Three credit hours. Travel study tour involving directed reading and research on objects to be seen during the tour. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4302 - Art Museum Studies**

Three credit hours. An introduction to art museum operation, topics covered will include the acquisition, management, and care of works of art, exhibition planning and installation, administration functions, educational and community roles of museums, finance and fundraising. The goals of the course are to familiarize students with the day-to-day work of an art museum and to engage them in critical thinking about the broader context in which it operates. **Prerequisites:** 6 hours of upper-level art history courses or permission of instructor.

**ARHA 4304 - Ancient Art**

Three credit hours. A study of the history of ancient art and architecture with emphasis on the Greek and Roman periods. **Prerequisites:** ARHA 2310 or consent of instructor.

**ARHA 4305 - Italian Renaissance Art**

Three credit hours. Painting, sculpture, and architecture in Italy from c. 1300 to c. 1600. Dual listed in the Graduate Catalog as ARHA 5305. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4306 - Renaissance Art in Northern Europe**

Three credit hours. Painting, sculpture, architecture, and graphic arts in northern Europe (especially the Low Countries, France, and England), from the end of the Gothic period through the Reformation. Dual listed in the Graduate Catalog as ARHA 5306. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4307 - Eighteenth and Nineteenth-Century Art in Europe**

Three credit hours. Painting, sculpture, and architecture in Europe during the eighteenth and nineteenth centuries. Dual listed in the Graduate Catalog as ARHA 5307. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4308 - Art Since 1945**

Three credit hours. The study of major artists and art movements. Emphasis is placed on 1945 to present, as well as the importance of new materials, techniques and the critic's role in art. Dual listed in the Graduate Catalog as ARHA 5308.

**ARHA 4309 - History of Arkansas Architecture**

Three credit hours. The development of architecture in Arkansas from its origins to the present. Dual listed in the Graduate Catalog as ARHA 5309. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4310 - Special Topics in Art History**

One, two, or three credit hours. Special topics for the study of individual artists, or particular periods, geographic areas, or media in the history of art, especially areas not covered by normal course offerings. Course content, subtitle, and organization vary.

**ARHA 4315 - Modern Architecture**

Three credit hours. The focus will be upon European architecture from 1900 to 1930, and upon architecture in the U.S. from 1930 to 1970. Consideration will be given to both technological innovations and to issues current in architectural design, such as preservation and adaptive reuse of historic buildings. Dual listed in the Graduate Catalog as ARHA 5315. **Prerequisites:** ARHA 2305. A study of the major architectural developments in European and American architecture from 1900 to the present.

**ARHA 4384 - Baroque Art**

Three credit hours. Painting, sculpture, and architecture in northern Europe (the Netherlands, France), Spain, and Italy from 1600 to c. 1725. Dual listed in the Graduate Catalog as ARHA 5384. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4385 - Seminar in Italian Renaissance and Baroque Art**

Three credit hours. Directed research for advanced students on various problems of Italian Renaissance or Baroque art from c. 1300 to 1725. Taught by the seminar method. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4386 - Problems in Northern European Renaissance and Baroque Art**

Three credit hours. Directed research for advanced students on various problems of northern European art. Taught by the seminar method. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4387 - Late Nineteenth- and Early Twentieth-Century Art in Europe**

Three credit hours. Painting, sculpture, graphic arts, and architecture from the postimpressionist period until WW II. Dual listed in the Graduate Catalog as ARHA 5387. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4388 - Problems in Modern Art**

Three credit hours. Discussion of selected problems in painting, sculpture, or architecture of the eighteenth, nineteenth, or twentieth centuries. Taught by the seminar method. **Prerequisites:** ARHA 2311 or consent of instructor.

**ARHA 4391 - Independent Study**

One, two, or three credit hours. Open only to superior students who seek to do special research on a topic selected in consultation with the instructor.

**Prerequisites:** consent of Department of Art and Design faculty.

**ARHA 4397 - Capstone in Art History**

Three credit hours. An independent research project under faculty guidance. The project must be presented in writing and orally. Normally taken in a student's last semester. Offered Fall and Spring. **Prerequisites:** 21 hours in art history, including ARHA 4300. Required for art history majors.

**Studio Art**

Each studio art credit hour requires four clock hours of work each week. Two of these hours are scheduled and the additional hours occur outside of scheduled class time in the open studio workspace. Each studio is scheduled to be open for these additional hours.

The undraped human figure is a significant subject within the studio art curriculum.

**ARST 1201 - FYE: Visual Arts**

2 credit hours. Students will be introduced to a wide range of facilities, faculty and programs in the Department of Art. Students will be engaged in a range of assignments that will prepare students for coursework they will encounter in their art studies. Assignments and activities will include research problems, presentations, class readings, gallery visits and critical dialogs. Students will build foundational understanding of concepts and ideas that will encourage confidence and critical awareness in the visual arts.

**Prerequisites:** None.

**ARST 1310 - Basic Drawing**

Three credit hours. A beginning course in drawing with attention to the formal elements (Elements of Art and Principles of Design). Emphasis is placed on drawing realistically using line and/or value. Topics to be covered are; the use of line, creation of volume through the use of value, expressive mark-making, composition, and perspective.

**ARST 1315 - Two-Dimensional Design**

Three credit hours. Introduction to concepts of design in visual art. Emphasis on two-dimensional forms. Recommended for non-art majors who want to take some studio art courses.

**ARST 2310 - Figure Drawing**

Three credit hours. Introduction to figure drawing; emphasis on anatomy, composition, and orientation to media. The undraped human figure is the primary subject.

**Prerequisites:** ARST 1310.

**ARST 2315 - Three-Dimensional Design**

Three credit hours. Concepts of three-dimensional design. Emphasis on both form and content.

**Prerequisites:** ARST 1315.

**ARST 2318 - Computer Applications in Art**

Three credit hours. Problems in design utilizing computer technologies for the visual artist with an emphasis on proficiency in computer applications, design and computer-aided imagery.

**ARST 3310 - Drawing: Creative Invention**

Three credit hours. An advanced course with emphasis on invention and personal creative investigation.

**Prerequisites:** ARST 2310.

**ARST 3312 - Contemporary Crafts**

Three credit hours. An introductory course introducing students to the four areas of Contemporary Craft: wood, metal, ceramics and fiber through demos and assignments. The course will focus on developing proper technique associated with each material, developing a personal design aesthetic through the making of one-of-a-kind objects as well as the development of a high level of craftsmanship. This course will require some use of hand and power tools while students develop items from each area.

**ARST 3320 - Painting Fundamentals 1**

Three credit hours. An introduction to oil painting by working primarily from still life and landscape with emphasis on both representational and expressive approaches. **Prerequisites:** ARST 1310, ARST 1315, or consent of instructor.

**ARST 3321 - Painting Fundamentals 2**

Three credit hours. Continuation of previous study with emphasis on more complex and varied assignments.

**Prerequisites:** ARST 3320, or consent of instructor.

**ARST 3330 - Printmaking Basics**

Three credit hours. Introduction to basic woodcut, linoleum cut, etching, and lithography. **Prerequisites:** ARST 1310 and ARST 1315.

**ARST 3331 - Lithography Techniques**

Three credit hours. A complete study in lithography using a variety of drawing media and methods to include Bavarian Limestone and aluminum plate processes.

**Prerequisites:** ARST 3330.

**ARST 3340 - Introduction to Graphic Design**

Three credit hours. Instruction in the aesthetic, creative, and technical aspects of graphic design. Focus is given to the application of the elements of art and the principles of design to graphic design solutions, as well as effective use of typography. **Prerequisites:** ARST 1310, ARST 1315, ARST 2318; or consent of instructor.

**ARST 3341 - Typography**

Three credit hours. An exploration of the art and practice of type as a tool for visual communication; this course covers the history of typography, type anatomy, terminology, and technical handling. Critical thinking and problem solving skills will be encouraged with the practical application of design principles. **Prerequisites:** ARST 3340 or consent of instructor.

**ARST 3360 - Introduction to Sculpture**

Three credit hours. Basic additive, subtractive and reproductive processes in problems using figurative clay modeling, stone carving, mold making, plaster casting, concrete casting and metal casting.

**ARST 3361 - Figurative Clay Sculpture**

Three credit hours. Exploration of the human head and figure using basic additive and subtractive techniques. Students will sculpt from draped and undraped models in terra cotta clay to be fired. **Prerequisites:** ARST 2310.

**ARST 3370 - Introduction to Photography**

Three credit hours. An introduction to digital photography. The course emphasizes the technical skills, visual organization and conceptual content of an effective photograph. Prerequisite for all other photography courses. No previous experience is necessary, but students must provide their own digital camera with features specified by the instructor.

**ARST 3380 - Introduction to Illustration**

Three credit hours. Instruction in the use of traditional media and visualization techniques for illustrative purposes. Projects encourage visual thinking skills using black and white and color media including wet and dry process with an emphasis placed on achieving technical proficiency. A variety of media and surfaces will be explored. **Prerequisites:** ARST 1310, ARST 1315 and ARST 2310.

**ARST 3381 - Book Illustration**

Three credit hours. Instruction in the production of artwork for the book publishing industry. Discussion topics and projects develop students' skills in interpreting stories and manuscripts with unique visual imagery. **Prerequisites:** ARST 3380 or consent of instructor.

**ARST 3385 - Vector Graphics for Illustrators and Designers**

Three credit hours. A study of computer illustration software covering the most popular vector illustration programs in use today. Emphasis on aesthetic judgment and technical proficiency in developing works of art for illustration and design portfolio. **Prerequisites:** ARST 1310, ARST 1315 and ARST 2318 or consent of the instructor.

**ARST 3386 - Digital Imaging for Illustrators and Designers**

Three credit hours. Studio illustration and design techniques in Adobe Photoshop. Emphasis is placed on aesthetic judgment, technical proficiency and production techniques. **Prerequisites:** ARST 1310, ARST 1315 and ARST 2318 or consent of the instructor.

**ARST 4115 - Advanced Problems in Design**

One, two, or three credit hours. Experimental materials and techniques in two- and three-dimensional design, including the correlation of visual design elements with those of various multidimensional work not usually covered by normal course offerings. Course content, subtitle, and organization vary.

**ARST 4192 - Independent Study**

One, two, or three credit hours. Open only to the advanced student who seeks to do special research on a subject selected in consultation with the instructor. Admission to this course must be approved by the art department before registration.

**ARST 4215 - Advanced Problems in Design**

One, two, or three credit hours. Experimental materials and techniques in two- and three-dimensional design, including the correlation of visual design elements with those of various multidimensional work not usually covered by normal course offerings. Course content, subtitle, and organization vary.

**ARST 4292 - Independent Study**

One, two, or three credit hours. Open only to the advanced student who seeks to do special research on a subject selected in consultation with the instructor. Admission to this course must be approved by the art department before registration.

**ARST 4310 - Drawing: Concept Development**

Three credit hours. Exploration of perceptual and conceptual issues in drawing, including study of contemporary artists and trends to stimulate self-directed projects. **Prerequisites:** ARST 3310 or consent of instructor.

**ARST 4311 - Drawing: Contemporary Trends**

Three credit hours. A continuation of issues introduced in ARST 4310. Students will continue to expand their work in the context of current issues, aesthetic trends, and the current cultural milieu. **Prerequisites:** ARST 4310 or consent of instructor.

**ARST 4312 - Drawing: Personal Content**

Three credit hours. The focus of this course is the continuance of previous research and self-directed study in drawing and preparation of works for the senior exhibition. This course may be repeated once for an additional three credit hours. **Prerequisites:** ARST 4311 or consent of instructor.

**ARST 4315 - Advanced Problems in Design**

One, two, or three credit hours. Experimental materials and techniques in two- and three-dimensional design, including the correlation of visual design elements with those of various multidimensional work not usually covered by normal course offerings. Course content, subtitle, and organization vary.

**ARST 4320 - Painting: Personal Content I**

Three credit hours. An introduction to self-directed study with emphasis on various painting concepts while focusing on the establishment of a personal direction in painting. **Prerequisites:** ARST 3321, or consent of instructor.

**ARST 4321 - Painting: Personal Content 2**

Three credit hours. Continuation of previous research and self-directed study in painting emphasizing a more advanced level. **Prerequisites:** ARST 4320, or consent of instructor.

**ARST 4323 - Painting: Personal Content 3**

Three credit hours. Continuation of previous research and self-directed study in preparation for the BFA Project and the Senior Exhibition. **Prerequisites:** ARST 4321, or consent of instructor.

**ARST 4324 - Painting Portfolio**

Three credit hours. Emphasis on the continuing creation of a body of work in preparation for advancement to the next academic level; graduate school, career, etc. **Prerequisites:** ARST 4323, or consent of instructor.

**ARST 4330 - Color Intaglio-Etching Basics**

Three credit hours. Exploration of intaglio-etching basic color separation processes and multiple-plate printing techniques. **Prerequisites:** ARST 3330.

**ARST 4331 - Advanced Color Intaglio-Etching**

Three credit hours. Instruction in advanced color etching-intaglio techniques to include traditional and current trends in printmaking. **Prerequisites:** ARST 4330.

**ARST 4332 - Mixed Media Color Printmaking**

Three credit hours. Instruction in advanced color techniques to reflect current trends and innovative approaches to printmaking. **Prerequisites:** ARST 4331.

**ARST 4340 - Print Design**

Three credit hours. Instruction in varied aspects of graphic design theory, with emphasis on visual communication, client restrictions, and deadlines. Students also explore the production aspects of graphic design and technical proficiency in creating print-ready digital mechanicals. **Prerequisites:** ARST 3341 or consent of instructor.

**ARST 4341 - Package Design**

Three credit hours. Advanced graphic design practice with exploration of 3D forms and surface graphics. Students encounter design problems outside the scope of traditional print layouts by designing containers, point-of-purchase, and prototypes. **Prerequisites:** ARST 3341 or consent of instructor.

**ARST 4342 - Graphic Design Methodologies**

A study of advanced graphic design theory challenging students to address alternative design problems through conceptual and technical innovation. Exploration of traditional and new media techniques with print layout, multiple component design, advanced typography, motion graphics through both individual and collaborative projects. **Prerequisites:** ARST 4341 or consent of instructor.

**ARST 4348 - Production Design for the Internet**

Three credit hours. A study of computer software as tools for the graphic designer in the web design industry. Students complete a series of projects illustrating the different design and production capabilities of individual software programs and their interrelationships. Students produce a variety of projects, from small scale graphics to complete web sites. **Prerequisites:** ARST 3356 or consent of the instructor.

**ARST 4360 - Metal Casting Techniques**

Three credit hours. Design and assembly of small and large-scale functional objects and sculpture to cast in metal. Class focuses on complete process from inception of design to finished cast product. Different casting, pattern making, spruing, and patina finishing techniques are explored. **Prerequisites:** ARST 3360.

**ARST 4361 - Stone Carving Techniques**

Three credit hours. Explore the basics of stone carving through making a clay model, then transcribing that model into stone using hand tools, electrical power tools, air tools and finishes to realize a concept. **Prerequisites:** ARST 3360.

**ARST 4362 - Concrete Casting and Building**

Three credit hours. Explore basic techniques of building armatures for concrete fabrication; methods and materials for concrete casting; researching additives for structural strength; coloring agents for surface and body coloration with stains and paints; basic fabrication techniques for model building; and design approaches for assembly of small and large scale functional objects and sculpture. **Prerequisites:** ARST 3360.

**ARST 4363 - Metal Welding and Fabrication**

Three credit hours. Explore basic techniques of welding using oxyacetylene, electric arc, TIG, MIG; cutting methods using plasma torch and oxyacetylene; basic fabrication techniques for model building; and design approaches for assembly of small and large scale functional objects and sculpture. **Prerequisites:** ARST 3360.

**ARST 4370 - Photographic Lighting**

Three credit hours. Overview of portrait and commercial photography with an emphasis on studio lighting techniques. **Prerequisites:** ARST 3370.

**ARST 4371 - Alternative Photo Methods**

Three credit hours. Exploration of alternative and historical methods of photographic image creation and presentation. Assignments challenge each student to question traditional techniques and materials. **Prerequisites:** ARST 3370.

**ARST 4372 - Digital Color Photography**

Three credit hours. Introduction to digital color photography with an emphasis on the technical skills required. Students explore the theory and expressive uses of color as it pertains to photography. **Prerequisites:** ARST 3370.

**ARST 4373 - Advanced Problems in Photography**

Three credit hours. The further exploration of concepts introduced in other photography courses. Individual assignments based on each student's previous experience and interest. May be repeated for additional credit. **Prerequisites:** ARST 4370, ARST 4371, ARST 4372 or permission of the instructor based upon demonstrated equivalent experience.

**ARST 4374 - View Camera**

Three credit hours. Introduction to the traditional large-format view camera and use of 4x5" sheet film. Camera and accessories are provided by the department. **Prerequisites:** Prerequisite: ARST 3370.

**ARST 4380 - Concept Illustration**

Three credit hours. Instruction in the production of conceptual artwork for the movie and videogame industry. Discussions and projects include preliminary work, visualization methods and the creation of artwork in both traditional and digital media. **Prerequisites:** ARST 3381 or consent of instructor.

**ARST 4381 - Editorial Illustration**

Three credit hours. Instruction in the production of conceptually based artwork for editorial publication. Discussion topics include visual problem solving with individual and expressive imagery. Hands-on projects allow for a variety of approaches to the creation of finished artwork. **Prerequisites:** ARST 3380 or consent of instructor.

**ARST 4392 - Independent Study**

One, two, or three credit hours. Open only to the advanced student who seeks to do special research on a subject selected in consultation with the instructor. Admission to this course must be approved by the art department before registration.

**ARST 4394 - BFA Seminar**

Three credit hours. First term of advanced research, concept development and art production in the student's concentration area. Students develop independent projects supervised by thesis advisor and meet with BFA peers at regular intervals for critique and discussion. Specific course requirements are contracted with the BFA thesis adviser. Cannot be taken concurrently with BFA Thesis Project 2. **Prerequisites:** Completion of 3000 level coursework in emphasis area and acceptance to BFA Program.

**ARST 4395 - BFA Project**

Three credit hours. Final term of advanced research, concept development and art production in the student's concentration area. Students continue to meet with Faculty and BFA peers at regular intervals for critique and discussion. Specific course requirements are contracted with the BFA thesis adviser. Final requirements include a portfolio of work, artist's statement and an exhibition of the thesis project work in a format appropriate to the subject area. Cannot be taken concurrently with BFA Thesis Project 1. **Prerequisites:** Completion of 3000 level coursework in emphasis area, acceptance to BFA Program and completion of ARST 4394.

**ARST 4396 - Cooperative Education Internship**

Three credit hours. This experience provides the student with practical work experience in a professional setting. Students work under the supervision of a professional artist, business, agency, or other organization that offers opportunities for the student to apply their academic skills and background. The internship will be coordinated by the Cooperative Education Internship and Placement Office and a faculty advisor from the Department of Art and Design representing the student's area of emphasis. Repeatable for credit.

**ARST 4397 - Capstone: Studio Art**

Three credit hours. This course provides the capstone experience for senior art studio majors. Course includes career analysis, gallery portfolio presentation, photographing art, packing and shipping art, a mock interview or a project proposal presentation and the development of a resume, an artist statement and a gallery talk.

## Applied Science

**ASCI 4310 - Introduction to Signal Processing**

Three hours lecture. Three credit hours. Introduction to the fundamental concepts and mathematics in signal processing. Use of the fundamental transform techniques (Laplace transform, discrete Fourier transform, ztransform). Discrete time representation of signals, linear time invariant systems. Correlation, coherence, power spectral density, and time delays. Bode plots, poles and zeros, state space. Standard system models (ARMA, ARMAX). FIR and IIR filters. Dual listed in the Graduate Catalog as ASCI 5310. Cross listed as (SYEN 4310) **Prerequisites:** MATH 3322 or equivalent.

**ASCI 4355 - Elastic Wave Theory**

Three credit hours. Analysis of stress and infinitesimal strain. Perfect elasticity. Equation of motion in term of displacement. Vibration and waves. Theories of body and surface waves. Ray theory and energy partition. Dual listed in the Graduate Catalog as ASCI 5355. Cross listed as (SYEN 4371) **Prerequisites:** MATH 3322.

**ASCI 4360 - Potential Theory**

Three credit hours. Solution to Laplace equation using different boundary and initial conditions. One-, two-, and three-dimensional equations will be analyzed. Various coordinate systems (rectangular, cylindrical, and spherical) will be used in the solution of Laplace equation. Bessel function and orthogonality of Bessel function. Legendre function, Associate Legendre function, and orthogonality of Legendre function. Dual listed in the Graduate Catalog as ASCI 5360.

## Astronomy

**ASTR 1100 - Observational Astronomy**

One credit hours. An introduction to telescopes, the apparent movements of the sun, and constellations. Special facilities include the 12inch computer-controlled telescope with electronic camera and the Planetarium. The course includes lectures, discussions, demonstrations, and laboratory experiments. Offered nights only.

**ASTR 1101 - Introduction to Astronomy Laboratory**

One credit hours. A laboratory course designed to accompany ASTR 1301. A variety of activities in data acquisition and analysis which tie concepts discussed in the classroom to real-world experiences. Open laboratory, the planetarium, and observatory activities. (ACTS Course Number PHYS 1204) **Prerequisite or Corequisite:** ASTR 1301 or 1311.

**ASTR 1301 - Introduction to Astronomy**

Three credit hours. Study of the process of science by which knowledge about our place in the cosmos is obtained. Examples of possible observations and the inferences drawn from them. Emphasis on how we obtain our knowledge and the certainty of various parts of it. A core curriculum course. (ACTS Course Number PHYS 1204)

**ASTR 2300 - Intermediate Astronomy**

Three hours lecture. An Allegra-based astronomy course, with an emphasis on applying the tools of physics to understand the processes inherent in galaxies, cosmology and the structure and evolution of stars. Spring only. **Prerequisites:** MATH 0301 required. ASTR 1301 recommended.

**ASTR 3301 - Astronomical Techniques**

Three credit hours. A thorough introduction to the techniques of observational astronomy, starting with the basics of positional astronomy and systems of time. Includes discussions on the basics of light and effects of the atmosphere on astronomical observations, optical telescopes, detectors (including CCDs), photometry, astrometry, spectroscopy, and statistical methods. **Prerequisites:** PHYS 2322. ASTR 2300 recommended but not required.

**ASTR 3401 - Scientific Computing and Image Processing in Astronomy**

Four credit hours. Students work in a scientific computing environment using the UNIX/Linux operating system. Professional image processing software is used to analyze astronomical images from real data. Extensive use is made of internet resources. An integrated self-paced course equivalent to three lecture hours and two laboratory hours per week.

**ASTR 4301 - Astrophysics**

Three hours lecture. Three credit hours. An upper level course in astrophysics, with an emphasis on applying the tools of mechanics, electromagnetism, thermodynamics, and quantum theory to understand the processes inherent in galaxies, cosmology and the structure and evolution of stars. Dual listed in the Graduate Catalog as This course is ASTR 5301. Spring only. **Prerequisites:** PHYS 2322 required. ASTR 2300 recommended, but not required.

## Audiology/Speech Pathology

**AUSP 2360 - Introduction to Speech and Hearing Disorders**

Three credit hours. A description and discussion of speech, language, and hearing disorders; therapy surveys and assessment techniques.

**AUSP 3350 - Phonetics**

Three credit hours. In-depth study of principles of phonetics and their application to speech.

**AUSP 3360 - Language and Speech Acquisition**

Three credit hours. The study of normal verbal speech and language acquisition. **Prerequisites:** consent of instructor.

**AUSP 3361 - Speech Anatomy and Physiology**

Three credit hours. Anatomy and physiology of the speech and hearing mechanism and associated structures.

**AUSP 3363 - Disorders in Articulation**

Three credit hours. Theory, evaluation, and therapeutic procedures with functional and organic articulatory and phonological disorders. **Prerequisites:** AUSP 2360 and AUSP 3350 or consent of instructor.

**AUSP 3364 - Speech and Hearing Sciences**

Three credit hours. Speech and Hearing Sciences will cover the physical and psychological aspects of sound, and the fundamental processes underlying the production, measurement, and perception of speech and hearing.

**AUSP 3365 - Clinical Management**

Three credit hours. For majors only. Clinical procedures for working in various practicum settings, using diagnostic and therapeutic techniques, writing behavioral objectives, procedures for report writing, and practical experience with clinician-made and commercial materials. First in the series of practicum courses. **Prerequisites:** AUSP 2360.

**AUSP 4101 - Independent Study**

One, two, or three credit hours. Students will read and research in a selected area of communicative disorders. Projects and papers must be approved by the instructor before registration.

**AUSP 4162 - Practicum I**

One credit hours. For majors only. Supervised clinical practice in the areas of speech and/or language disorders. Requires at least 15 client clock hours. Must be taken first in clinical practicum series. **Prerequisites:** AUSP 3365, consent of instructor.

**AUSP 4163 - Practicum II**

One credit hours. For majors only. Only two practicums may be taken on the undergraduate level. **Prerequisites:** AUSP 3365, AUSP 4162, consent of instructor.



**AUSP 4164 - Practicum III**

One credit hours. For majors only. Supervised clinical activity in specialized areas. Requires 60 client clock hours. Only two practicums may be taken on the undergraduate level. **Prerequisites:** AUSP 3365, consent of instructor.

**AUSP 4201 - Independent Study**

One, two, or three credit hours. Students will read and research in a selected area of communicative disorders. Projects and papers must be approved by the instructor before registration.

**AUSP 4301 - Independent Study**

One, two, or three credit hours. Students will read and research in a selected area of communicative disorders. Projects and papers must be approved by the instructor before registration.

**AUSP 4310 - Neural Processing in Speech and Language**

Three credit hours. The purpose of this course is to provide students with a scientific understanding of neuroanatomy and neurophysiology including current research of nervous system structures and functions important for speech and language. **Prerequisites:** AUSP 3361 with a Grade C or better.

**AUSP 4363 - Voice and Stuttering Disorders**

Three credit hours. Etiology, evaluative, and therapeutic procedures for persons with voice disorders and with various types of verbal disfluency behaviors.

**Prerequisites:** AUSP 2360, AUSP 3361, AUSP 3350, or consent of instructor.

**AUSP 4364 - Differential Diagnosis of Speech and Language Disorders**

Three credit hours. Interview and test procedures used in evaluating speech and language disorders. Emphasis on use and interpretation of standardized test measures.

**Prerequisites:** AUSP 2360, AUSP 3360, AUSP 3363, or consent of instructor.

**AUSP 4366 - Language Disorders**

Three credit hours. Language disorders in adults and children including types of language disorders, etiology, neurological and theoretical correlates, diagnostic procedures and test interpretation, and treatment protocols. Dual listed in the Graduate Catalog as AUSP 5366. **Prerequisites:** AUSP 3360 or consent of instructor.

**AUSP 4368 - Audiology**

Three credit hours. Principles of auditory reception; the hearing mechanism; problems involved in measuring, evaluating, and conserving hearing. Clinical observation. Dual listed in the Graduate Catalog as AUSP 5368.

**Prerequisites:** AUSP 3362.

**AUSP 4369 - Audiologic Rehabilitation**

Three credit hours. Principles of audiologic habilitation/rehabilitation with infants, children, and adults with hearing loss. Discussion of communication and education options for children with hearing loss, counseling techniques, communication strategies, and the use of amplification and other assistive technologies.

**Prerequisites:** AUSP 2360, AUSP 4368, or consent of instructor.

## Bioinformatics

**BINF 3345 - Introduction to Bioinformatics**

Two hours lecture. One hours laboratory per week. Three credit hours. This course introduces the student to bioinformatics: the application of information science to studies in the life sciences. Using a project based approach, students will be exposed to programming, database, and analysis concepts and tools applicable to the life, medical, and health sciences along with an interdisciplinary approach to understanding the evolving field of biomedical informatics. **Prerequisites:** MATH 1302, BIOL 1400 or BIOL 1401, and IFSC 1202 (or equivalent programming course).

**BINF 4445 - Bioinformatics Theory and Applications**

Three hours lecture. Two hours laboratory per week. Four credit hours. An overview of concepts central to the study and application of bioinformatics drawing upon the fields of biostatistics, computer and information science, and the life sciences. Dual listed in the Graduate Catalog as BINF 5445. **Prerequisites:** Consent of instructor or the following: BIOL 3300, IFSC 3320, IFSC 2300, and STAT 3352 or equivalents. BINF 2345 is recommended.

## Business Information Systems

**BINS 1310 - Fundamentals of Information Technology**

Three credit hours. An introduction to computer information system concepts and the components and capabilities of a computer system. Emphasis on the development of spreadsheet and word processing competencies.

**BINS 1330 - Special Topics Info Systems**

Information technology topics relevant to Business Information Systems professionals. Topics include, but are not limited to, mobile applications development, introduction to object-oriented programming, and information security.

**BINS 2320 - Business Communication Skills**

Three credit hours. Basic principles of effective language usage in written business communication. (ACTS Course Number BUS 2013)

**BINS 3305 - Business Information Systems**

Three credit hours. This course provides an introduction to the impact of information systems on the management of organizations with emphasis on information systems as a tool for management of organizations. Students learn to use software (including integrated database tools) to facilitate managerial decision making, planning, and control. **Prerequisites:** 70% score on Information Technology Qualifying Exam or MGMT 1310 or equivalent.

**BINS 3307 - Systems Development Methodologies**

Three credit hours. Methods, tools, and techniques of system development. The system development life cycle will be studied using traditional and nontraditional methods. Development tools will be explored as well as key development techniques for system analysis and design.

**BINS 3352 - Data Analysis/Visualization**

Three credit hours. Development of analytical, data visualization and reporting, and collaboration skills necessary for success in a data driven business environment. Focus on cutting-edge technologies in a business context. **Prerequisites:** 70% score on Information Technology Qualifying Exam.

**BINS 3380 - Business Communication**

Three credit hours. Theories of communication applied to internal and external business communication, including composition of letters, memos, and reports. Emphasis on interpersonal communication theory and oral communication skills for business. **Prerequisites:** RHET 1312 and ACOM 1300.

**BINS 3392 - Cooperative Education I**

Three credit hours. Provides experience in an organizational setting designed to integrate theory and practice. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance. **Prerequisites:** consent of faculty sponsor and department chair prior to enrolling in the course.

**BINS 4100 - Independent Study**

One or three credit hours. Individual study in the application of sound business principles to the solution of business problems. **Prerequisites:** senior standing, business information systems major with a minimum GPA of 3.00, consent of instructor.

**BINS 4300 - Independent Study**

One or three credit hours. Individual study in the application of sound business principles to the solution of business problems. **Prerequisites:** senior standing, business information systems major with a minimum GPA of 3.00, consent of instructor.

**BINS 4309 - Seminar: Special Topics in CIS/MIS**

Three credit hours. Topics especially relevant to Business Information Systems professionals will be offered on an elective basis. Such topics include, but are not limited to data communication, e-commerce technologies, and IS security.

**BINS 4310 - Network Technologies**

Three credit hours. A study of the role of telecommunications in information resource management, with emphasis on business applications in a network environment. Principles of network design and installation, system component selection, administration, security, and control. Dual listed in the Graduate Catalog as BINS 5310. **Prerequisites:** Junior standing or consent of the instructor.

**BINS 4311 - Security Issues and Advanced Topics in Network Technologies**

Three credit hours. Advanced study of the role of telecommunications and computer networks in information resource management, with emphasis on security in network environments. Develops technical and critical thinking skills in a hands-on environment. **Prerequisites:** MGMT 4310 or consent of the instructor.

**BINS 4312 - Object-Oriented Programming**

Three credit hours. Beginning object-oriented programming course. Focuses on business problem solving and solution development.

**BINS 4314 - Advanced Programming**

Three credit hours. This advanced object-oriented programming course focuses on development techniques for business applications using industry-standard tools and platforms. **Prerequisites:** C or better in BINS 4312 or equivalent.

**BINS 4331 - Management of Information Resources**

Three credit hours. A study of a manager's role and decisions regarding information systems strategy, the management of information, technology operations, and information systems projects within the organization. **Prerequisites:** BINS 3305 or consent of the instructor.

**BINS 4350 - Business Database Management Systems**

Three credit hours. Addresses the concepts and principles underlying the design and application of relational database management systems. The course provides an in-depth study of the key concepts of relational database systems. Projects, which typically are implemented using current commercial database management systems software, are used to reinforce most of the concepts. Dual listed in the Graduate Catalog as BINS 5350.

**BINS 4351 - Data Analysis and Reporting**

Three credit hours. Students will gain practical experience is using advanced database techniques and data visualization, data warehousing, reporting, and other Business Intelligence (BI) tools. Contemporary BI tools and techniques will be used to create intelligent solutions to realistic business problems. Dual listed in the Graduate Catalog as This course is BINS 5351. **Prerequisites:** C or better in BINS 4350 (or MGMT 4350) or equivalent or consent of the instructor.

**BINS 4352 - Big Data Analytics Tools**

This course deals with the problem of extracting information from large databases and designing databased decision support systems. The extracted knowledge is subsequently used to support human decision-making in the areas of summarization, prediction, and explanation of observed phenomena (e.g. patterns, trends, and consumer behavior). Students will have the opportunity to analyze real-world datasets using industry standard analysis and visualization tools. **Prerequisites:** Junior Standing.

**BINS 4355 - Information Systems Development Project**

Three credit hours. Emphasis on development of an information system project using structured analysis methodology and tools developed in previous MIS courses. The class forms project teams; accepts developmental assignments; and follows the systems development life cycle process to design a new system. Students are required to produce a working system.

**Prerequisites:** BINS 3307, BINS 4312, and BINS 4350.

**BINS 4360 - Bus Analytics Project Development**

Students will investigate the integration of business analytics systems across different industries with a focus on strategic value creation. From a project management perspective, student teams will track analytics systems from the needs analysis stage to project delivery. Related security and ethics issues will be analyzed.

**Prerequisites:** C or better in BINS 4351, FINC 4355, MKTG 4310, and ACOM 3320.

**BINS 4393 - Cooperative Education II**

Three credit hours. Provides experience in an organizational setting designed to integrate theory and practice. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance.

**Prerequisites:** BINS 3392 and consent of instructor and department chair prior to enrolling in the course.

**BINS 4394 - Internship**

Three credit hours. Practical experience in an organizational setting designed to integrate theory and applications. A written report is required. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance. **Prerequisites:** at least 90 semester hours earned with a minimum overall grade point average of 3.0 or department approval; a minimum of 12 semester hours of upper-level business information systems courses completed; consent of instructor and department chair.

## Biology

**BIOL 1102 - Introductory Biology Laboratory**

Two hours laboratory per week. One credit hours. A laboratory course in introductory biology covering the general concepts of microscope use, cell organization, physical and chemical bases of life, energy processing, cell reproduction, plant tissue structures, animal structures, organismic reproduction and development, genetics, and evolution. Offered only to students who have transfer credit for three credit hours of introductory biology lecture or the equivalent.

**BIOL 1111 - Introduction to Human Anatomy and Physiology I Laboratory**

Three hours laboratory per week. One credit hours. A laboratory course designed to be taught inside the current BIOL 1411 course and offered only to students that have 3 hours of Biology Department approved transfer credit for A&P I lecture or equivalent. After an introduction, the following topics will be discussed: basic chemistry, cell biology, histology, integumentary system, skeletal system, nervous system, and sensory system. This course cannot be used for credit toward a biology major or minor. **Prerequisites:** Only for students that have taken A&P I lecture or equivalent elsewhere or completed an online A&P I lecture equivalent.

**BIOL 1112 - Introduction to Human Anatomy and Physiology II Laboratory**

Three hours laboratory per week. One credit hours. A laboratory course designed to be taught inside the current BIOL 1412 course and offered only to students that have 3 hours of Biology Department approved transfer credit for A&P II lecture or equivalent. After an introduction, the following topics will be discussed: muscular, digestive, respiratory, circulatory, lymphatic, urinary, reproductive, and endocrine organ systems. This course cannot be used for credit toward a biology major or minor. **Prerequisites:** Only for students that have taken A&P II lecture or equivalent elsewhere or completed an online A&P II lecture equivalent.

**BIOL 1400 - Evolutionary and Environmental Biology**

Three hours lecture. Two hours laboratory per week. Four credit hours. Evolutionary, ecological, and environmental interrelationships among organisms. Basic biological principles and modern technology form the basis for inquiry and debate. The impact of society upon global biodiversity is examined from competing viewpoints. The role of science in shaping society and the influence of society upon science are evaluated. Students learn through reading, writing, computer simulations, videos, field exercises, and through participation in critical thinking and problem-solving activities.

**BIOL 1401 - Science of Biology**

Three hours lecture. Two hours laboratory per week. Four credit hours. The process of science, including observation, evaluation, and predictions, will be applied to the understanding of biological principles. Illustration of the methods of science in the study of major biological concepts, including the cell theory, energy transformation, inheritance, and the theory of evolution. Selected biological systems will be surveyed to compare life forms and to examine related human issues. (ACTS Course Number BIOL 1014)

**BIOL 1402 - Biological Concepts I**

Three hours lecture. Three hours laboratory per week. Four credit hours. This course is designed for the well-prepared student who intends to major in the field of biology. It focuses on the principles that unify the science of biology. Students will develop a deep understanding of how scientific principles have been used to demonstrate that all organisms are parts of interacting systems from the molecular to the ecosystem level. The course relies heavily on the molecular and cellular basis of structure and function of organisms.

**BIOL 1411 - Introduction to Human Anatomy and Physiology I**

Three hours lecture. Three hours laboratory per week. Four credit hours. The first semester of a two-semester course emphasizing the anatomy and physiology of the human organism. After an introduction, the following topics will be discussed: basic chemistry, cell biology, histology, integumentary system, skeletal system, nervous system, and sensory system. This course cannot be used for credit toward a biology major or minor. (ACTS Course Number BIOL 2404)

**BIOL 1412 - Introduction to Human Anatomy and Physiology II**

Three hours lecture. Three hours laboratory per week. Four credit hours. The second semester of a two-semester course emphasizing the anatomy and physiology of the human organism. The muscular, digestive, respiratory, circulatory, lymphatic, urinary, reproductive, and endocrine organ systems will be covered during this term. This course cannot be used for credit toward a biology major or minor. (ACTS Course Number BIOL 2414) **Prerequisites:** BIOL 1411 or consent of instructor.

**BIOL 1433 - Essentials of Anatomy and Physiology**

Three hours lecture. Three hours laboratory per week. Four credit hours. This one-semester course is a study of the fundamentals of human anatomy and physiology. Topics include the hierarchy of body structure and organization, physiological processes and basic cellular chemistry. The structures and physiological functions of each body system are studied experimentally and in theory, with emphasis on the contributions that each makes to homeostasis, human health, and disease. Three hours of Lecture and Three Hours of Lab per week. Note that this course may not meet the requirements for Allied Health programs. Please consult the specific program's requirements. This course cannot be used for credit toward a biology major or minor.

**BIOL 2401 - Microbiology**

Two hours lecture. Four hours laboratory per week. Four credit hours. The morphology, physiology, and classification of microorganisms; the relationship of microorganisms to biotechnology, medicine, and nursing. (ACTS Course Number BIOL 2004) **Prerequisites:** BIOL 1400 or BIOL 1401, or BIOL 1411 and BIOL 1412, AND CHEM 1400 or CHEM 1402, or their equivalents.

**BIOL 2402 - Botany**

Three hours lecture. Three hours laboratory per week. Four credit hours. The structure and function of plants at the molecular, cellular, and organismal levels; survey of major plant groups. (ACTS Course Number BIOL 1034) **Prerequisites:** BIOL 1400 or BIOL 1401 or equivalent.

**BIOL 2403 - Zoology**

Three hours lecture. Three hours laboratory per week. Four credit hours. Acquaints the student with the nature of animals. A study of general principles including taxonomy, organ systems, similarities of structure, function, and behavior of animals. (ACTS Course Number BIOL 1054) **Prerequisites:** BIOL 1400 or BIOL 1401 or equivalent.

**BIOL 3100 - Genetics Laboratory**

Three hours laboratory per week. One credit hours. Selected experiments in genetics to emphasize techniques, analysis, and interpretation of the principles of inheritance in plants and animals. **Prerequisite or Corequisite:** BIOL 3300.

**BIOL 3103 - Principles of Ecology Lab**

Three hours laboratory per week. One credit hours. Basic methods and materials of ecological research. **Prerequisite or Corequisite:** BIOL 3303.

**BIOL 3199 - Special Topics**

One hours lecture. One, two, three, or four credit hours. Each special topics course must first be approved by the biology department, which will also decide if biology credit will be granted. The topics will represent specialized areas of study in the biological sciences. Credit will vary and will depend on the amount of time necessary to cover the topic. **Prerequisites:** variable, depending on instructor and course content.

**BIOL 3299 - Special Topics**

One to four hours lecture. One, two, three, or four credit hours. Each special topics course must first be approved by the biology department, which will also decide if biology credit will be granted. The topics will represent specialized areas of study in the biological sciences. Credit will vary and will depend on the amount of time necessary to cover the topic. **Prerequisites:** variable, depending on instructor and course content.

**BIOL 3300 - Genetics**

Three hours lecture. Three credit hours. Basic principles and theories of inheritance with applications to plant, animal, and human heredity. Emphasis on roles of DNA and RNA and the genetics of microorganisms.

**Prerequisites:** 12 hours of biology to include BIOL 1400 or BIOL 1401 or equivalent, four hours of chemistry; microbiology is recommended.

**BIOL 3303 - Principles of Ecology**

Three hours lecture. Three credit hours. Principles of Ecology Lab. An introduction to living organisms and relationships to their environment including the structure and interactions of populations, communities, ecosystems, and the biosphere. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2402 or BIOL 2403, or their equivalents.

**Corequisites:** Recommended corequisite: BIOL 3103.

**BIOL 3313 - Human Genetics**

Three hours lecture. Three credit hours. The basic concepts and mechanisms of human genetics in relationship to human uniqueness; impact on advances in healthcare, biotechnology; public policy, and the law. Study of genetics technology for detecting, treating, and preventing genetic disorders. This course cannot be used for credit toward a biology major or minor. **Prerequisites:** BIOL 1400 and BIOL 1401 or BIOL 1411 and BIOL 1412 or the consent of the instructor.

**BIOL 3391 - Cooperative Education in Biology**

Three credit hours. Cooperative education seeks to integrate academic and professional work experience. Students will be placed in a work setting consistent with their biological career objectives. This course requires a minimum of 200 semester work hours. No more than six hours independent study, undergraduate research, and/or cooperative education may be counted for biology elective credit (See "Independent Research and Study" on page 35). **Prerequisites:** junior standing, acceptance as a biology major, minimum GPA of 2.50, and consent of the department chairperson.

**BIOL 3399 - Special Topics**

One to four hours lecture. One, two, three, or four credit hours. Each special topics course must first be approved by the biology department, which will also decide if biology credit will be granted. The topics will represent specialized areas of study in the biological sciences. Credit will vary and will depend on the amount of time necessary to cover the topic. **Prerequisites:** variable, depending on instructor and course content.

**BIOL 3400 - Developmental Biology**

Three hours lecture. Three hours laboratory per week. Four credit hours. The development of organisms including the topics of gametogenesis, fertilization, cleavage, morphogenesis, organogenesis, cell differentiation, and regeneration. These topics will be approached from both the structural point of view of classical embryology and the more recent molecular mechanistic viewpoint. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403 or their equivalents.

**BIOL 3402 - Mammalian Anatomy**

Three hours lecture. Two hours laboratory per week. Four credit hours. A study of the gross anatomy of mammalian organ systems with emphasis being placed on the human organism. **Prerequisites:** BIOL 2403.

**BIOL 3404 - Comparative Vertebrate Morphology**

Two hours lecture. Four hours laboratory per week. Four credit hours. The comparative anatomy of selected vertebrate animals; homologous structures in various animal groups. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, or their equivalents.

**BIOL 3405 - Invertebrate Zoology**

Three hours lecture. Two hours laboratory per week. Four credit hours. Comparative anatomy, physiology, embryology, adaptive radiation, and evolutionary relationships of invertebrate groups. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, or their equivalents.

**BIOL 3408 - Vertebrate Histology**

Three hours lecture. Two hours laboratory per week. Four credit hours. A study of the cell and fundamental tissues; the microscopic structure of the organ systems of representative vertebrates, and emphasis on the relationship between microscopic structure and function. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, or BIOL 1411 and BIOL 1412, or their equivalents.

**BIOL 3409 - Vertebrate Zoology**

Two hours lecture. Four hours laboratory per week. Four credit hours. A general study of vertebrates, including adaptations, reproduction, behavior, distribution, ecology, and taxonomy. Emphasis on Arkansas species and field studies. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, or their equivalents.

**BIOL 3499 - Special Topics**

One to four hours lecture. One, two, three, or four credit hours. Each special topics course must first be approved by the biology department, which will also decide if biology credit will be granted. The topics will represent specialized areas of study in the biological sciences. Credit will vary and will depend on the amount of time necessary to cover the topic. **Prerequisites:** variable, depending on instructor and course content.

**BIOL 4100 - Independent Study**

One, two, or three credit hours. For students who wish to conduct library studies, curate museum collections, help faculty with a variety of special projects, or perform other activities. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and instructor. No more than six hours independent study, cooperative education, and/or undergraduate research may be counted for biology elective credit (See "Independent Research and Study"). **Prerequisites:** senior standing, at least 20 hours in biology, and consent of the instructor.

**BIOL 4189 - Undergraduate Research**

One, two, or three credit hours. Students will design and conduct an independent scientific investigation. A paper reporting on the project in journal format is required for completion of the course. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed upon in advance by the student and instructor. No more than six hours independent study, cooperative education, and/or undergraduate research may be counted for biology elective credit (See "Independent Research and Study"). **Prerequisites:** junior standing, at least 20 hours in biology, consent of the instructor.

**BIOL 4190 - Biology Seminar**

One credit hours. Preparation and presentation of papers including analysis and implications of investigations in the biological sciences. Required of all majors. One hour per week. **Prerequisites:** senior standing and completion of or concurrent enrollment in biology core courses.

**BIOL 4199 - Special Topics in Biology**

Four hours laboratory combined with one to four hours lecture. One, two, three, or four credit hours. Specialized study in the biological sciences. Credit varies and depends on the depth of the course content. Each topic is appropriate for both advanced undergraduate and graduate students. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** 20 hours in biology, consent of instructor; other prerequisites may be required depending on the topic.

**BIOL 4200 - Independent Study**

One, two, or three credit hours. For students who wish to conduct library studies, curate museum collections, help faculty with a variety of special projects, or perform other activities. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and instructor. No more than six hours independent study, cooperative education, and/or undergraduate research may be counted for biology elective credit (See "Independent Research and Study"). **Prerequisites:** senior standing, at least 20 hours in biology, and consent of the instructor.

**BIOL 4289 - Undergraduate Research**

One, two, or three credit hours. Students will design and conduct an independent scientific investigation. A paper reporting on the project in journal format is required for completion of the course. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed upon in advance by the student and instructor. No more than six hours independent study, cooperative education, and/or undergraduate research may be counted for biology elective credit (See "Independent Research and Study"). **Prerequisites:** junior standing, at least 20 hours in biology, consent of the instructor.

**BIOL 4300 - Independent Study**

One, two, or three credit hours. For students who wish to conduct library studies, curate museum collections, help faculty with a variety of special projects, or perform other activities. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and instructor. No more than six hours independent study, cooperative education, and/or undergraduate research may be counted for biology elective credit (See "Independent Research and Study"). **Prerequisites:** senior standing, at least 20 hours in biology, and consent of the instructor.

**BIOL 4305 - Animal Behavior**

Three hours lecture. Three credit hours. Description of the known behavior of various vertebrate and invertebrate phyla with emphasis on adaptive significance. Special attention to mating, defensive, nutritive, and social behavior. The ontogeny of behavioral patterns will be presented where known. Behavior will be related to the ecology of various animal populations. Dual listed in the Graduate Catalog as BIOL 5305. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403. Graduate standing required to enroll in 5305.

**BIOL 4309 - Wildlife Management Techniques**

One hours lecture. Six hours laboratory per week. Three credit hours. Techniques and equipment used to obtain biological information needed to manage wildlife on a scientific basis. Fundamental procedures of planning and conducting wildlife investigations. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403.

**BIOL 4310 - Evolution**

Three hours lecture. Three credit hours. Basic principles of evolutionary biology are covered, including: Darwinian Theory, principles of inheritance, microevolution and speciation processes. The evolution of humans is also discussed. Dual listed in the Graduate Catalog as BIOL 5310. **Prerequisites:** BIOL 1400 or BIOL 1401 and junior standing. Graduate standing required if student enrolled in 5310.

**BIOL 4311 - Neurobiology**

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

**BIOL 4312 - Population and Community Ecology**

Three hours lecture. Three credit hours. Basic principles of population ecology will be discussed, including niche concept, demography, population growth and regulation, life history patterns, sociality, competition, predation, mutualisms, and control of community structure. Dual listed in the Graduate Catalog as BIOL 5312.

**Prerequisites:** BIOL 3303 and at least junior standing. Graduate standing required if student enrolled in BIOL 5312.

**BIOL 4314 - Soil Biology**

Three hours lecture. Three credit hours. Concepts of soils are presented with emphasis on biological processes and soil/ecosystem relationships. Hands-on laboratory exercises and field exercises will supplement course lectures. Dual listed in the Graduate Catalog as BIOL 5314. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2401, and BIOL 2403; Successful completion of BIOL 3303 is strongly recommended. If taken for graduate credit, the prerequisites also include a BS in biology or permission of the instructor.

**BIOL 4315 - Toxicology**

Three hours lecture. Three credit hours. Principles of toxicology are presented with an emphasis on toxicokinetics and toxicity mechanisms. Laboratory testing, risk analysis, and study design requirements are applied to various settings. Lectures will be supplemented with case studies. Dual listed in the Graduate Catalog as BIOL 5315. **Prerequisites:** BIOL 1401, BIOL 2401, and BIOL 2403; Successful completion of BIOL 3402 or BIOL 4413 is strongly recommended. If taken for graduate credit, the prerequisites also include a BS in biology or permission of the instructor.

**BIOL 4389 - Undergraduate Research**

One, two, or three credit hours. Students will design and conduct an independent scientific investigation. A paper reporting on the project in journal format is required for completion of the course. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed upon in advance by the student and instructor. No more than six hours independent study, cooperative education, and/or undergraduate research may be counted for biology elective credit (See "Independent Research and Study"). **Prerequisites:** junior standing, at least 20 hours in biology, consent of the instructor.

**BIOL 4391 - Cooperative Education in Biology**

Three credit hours. Cooperative education seeks to integrate academic and professional work experience. Students will be placed in a work setting consistent with their biological career objectives. This course requires a minimum of 200 semester work hours. No more than six hours independent study, undergraduate research, and/or cooperative education may be counted for biology elective credit (See "Independent Research and Study").

**Prerequisites:** senior standing, acceptance as a biology major, minimum GPA of 2.50, completion of BIOL 3391, and consent of the department chairperson.

**BIOL 4401 - Cell Biology**

Three hours lecture. Three hours laboratory per week. Four credit hours. A study of the organization of cells as related to the structure and function of biological molecules. Emphasis is placed on eukaryotic cells. Dual listed in the Graduate Catalog as BIOL 5401.

**Prerequisites:** BIOL 1400 or BIOL 1401, 12 additional hours in biology, BIOL 1401 or CHEM 1403; microbiology is strongly encouraged.

**BIOL 4403 - Comparative Physiology**

Three hours lecture. Three hours laboratory per week. Four credit hours. Organ function in a wide range of organisms, including vertebrates and invertebrates. A comprehensive survey of functional relationships in more than one group of animals. Dual listed in the Graduate Catalog as BIOL 5403. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, CHEM 1403, or the equivalents.

**BIOL 4404 - Mammalogy**

Two hours lecture. Four hours laboratory per week. Four credit hours. Classification, distribution, ecology, and natural history of mammals. Emphasis on Arkansas species. Field studies, preparation of study specimens. Dual listed in the Graduate Catalog as BIOL 5404.

**Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, BIOL 3404 or BIOL 3409, or their equivalents, or consent of instructor.

**BIOL 4408 - Advanced Field Biology**

Ninety laboratory/field trip activity/ hours lecture. Four credit hours. An analysis of major ecological habitats. Comparison of these areas with respect to their physiographic floral and faunal components. Emphasis on vertebrates. Students will spend an extended time in the field. Enrollment is by application only, and a separate field fee is charged. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2402, BIOL 2403, BIOL 3303, BIOL 3409, or their equivalents.

**BIOL 4409 - Plant Taxonomy**

Two hours lecture. Four hours laboratory per week. Four credit hours. A study of the principles of plant identification, classification, systematics, and nomenclature. Major families of flowering plants with emphasis on the floristics of the immediate area. Dual listed in the Graduate Catalog as BIOL 5409.

**Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2402 or their equivalents.

**BIOL 4411 - Ornithology**

Three hours lecture. Weekend field trips and three hours laboratory per week. Four credit hours. This course is designed to introduce students to selected aspects of avian biology. Emphasis is placed on ecology, evolutionary biology, natural history, and classification of birds. Dual listed in the Graduate Catalog as BIOL 5411. **Prerequisites:** 16 hours in biology to include BIOL 2403.

**BIOL 4412 - Plant Ecology**

Three hours lecture. Two hours laboratory per week. Four credit hours. Study of plant species ecology (life history and reproductive biology) and vegetation ecology (abundance, structure, dispersion, patterns, and dynamics), with emphasis on quantitative methodology and management principles. Dual listed in the Graduate Catalog as BIOL 5412. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2402 or BIOL 2403, BIOL 3303, or their equivalents.

**BIOL 4413 - Immunology**

Three hours lecture. Two hours laboratory per week. Four credit hours. Immunobiology and immunochemistry of humoral and cellular mechanisms of immunity. Dual listed in the Graduate Catalog as BIOL 5413. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2401, CHEM 1402, CHEM 1403.

**BIOL 4415 - Biometry**

Two hours lecture. Four hours laboratory per week. Four credit hours. A computer based course in experimental design, data analysis, and interpretation. The objective of the course is to teach the application of statistical procedures relevant to the academic emphasis of students, not statistics per se. Designed to be especially beneficial to those students planning to seek an advanced degree upon completion of their baccalaureate or to go into quality control or research positions. Dual listed in the Graduate Catalog as BIOL 5415. **Prerequisites:** 12 hours of biology, environmental health science, or earth science (in combination or singularly); MATH 1302 or higher numbered mathematics course; three hours of statistics; or consent of instructor. Graduate standing required if student enrolled in 5415.

**BIOL 4417 - Molecular Biology**

Two hours lecture. Four hours laboratory per week. Four credit hours. A study of molecular biology theory and practice. Emphasis is on the study of model systems to understand the current approaches and laboratory techniques necessary to answer basic questions in current molecular biology. Dual listed in the Graduate Catalog as BIOL 5417. **Prerequisites:** 19 hours in biology including both BIOL 2401 and BIOL 3300; CHEM 1401 or CHEM 1403. Successful completion of either BIOL 3400 or BIOL 4401 is strongly encouraged. If taken for graduate credit, the prerequisites also include a BS in biology or permission of the instructor.

**BIOL 4418 - Biotechnology**

Two hours lecture. Four hours laboratory per week. Four credit hours. A study of the applied science of biotechnology designed to introduce students to the elements of a biotechnological career. Topics range from traditional biotechnology such as animal and plant tissue culture to contemporary molecular biotechnology and the use of recombinant DNA technology and genetic engineering in research and industry. Emphasis will be placed on current biomedical, pharmaceutical, and agri/industrial applications. Graduate students must complete and defend a term paper. Dual listed in the Graduate Catalog as BIOL 5418. **Prerequisites:** 19 hours of biology including BIOL 2401 and BIOL 3300; CHEM 1401 or CHEM 1403. BIOL 3400 and BIOL 4401 are strongly recommended. BIOL 4417 is also recommended or may be taken concurrently.

**BIOL 4419 - Plant Physiology**

Three hours lecture. Three hours laboratory per week. Four credit hours. Study of water relations, nutrition, and metabolism including photosynthesis, growth, and development. Dual listed in the Graduate Catalog as BIOL 5419. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2402, CHEM 2450, or their equivalents, or consent of instructor.

**BIOL 4420 - General Biochemistry**

See CHEM 4320.

**BIOL 4422 - Mammalian Physiology**

Three hours lecture. Two hours laboratory per week. Four credit hours. General physiological principles and a treatment of functions and interrelations of mammalian systems. Dual listed in the Graduate Catalog as BIOL 5422. **Prerequisites:** BIOL 1400 or BIOL 1401, BIOL 2403, CHEM 1403, and BIOL 2401 or their equivalents.



**BIOL 4426 - Plant and Human Nutrition**

Two hours lecture. Four case study and hours laboratory per week. Four credit hours. Plant nutrition refers to needs and uses of the basic chemical elements in the plants, which are essential for plant growth and development. Thus, plant nutrition is an area of fundamental importance for both basic sciences (Plant physiology, Plant cell and molecular biology, Plant development) and applied sciences (Agronomy, Crop physiology, Horticulture, Human nutrition and health). Human nutrition refers to the needs and uses of the basic chemical elements and compounds in the human body, which are essential for human development and healthy life. This course will focus on (1) Plant nutrients; (2) The uptake and transport of mineral nutrients in plants; (3) Functions of mineral nutrients in the growth and development of plants; (4) Nutrient deficiency and toxicity; (5) Uptake, transport and functions of mineral nutrients in human body; (6) Plant nutrients and their relationships to the human health; (7) Functional foods; and (8) Green Medicine. This course is designed for students who want to pursue a degree or update their knowledge in areas of plants sciences, agriculture, food science and human nutrition. Dual listed in the Graduate Catalog as BIOL 5426. **Prerequisites:** BIOL 1401, BIOL 2402 and BIOL 2403.

**BIOL 4427 - Tissue Engineering**

Two hours lecture. Two hours laboratory per week. Four credit hours. Tissue engineering (TE) is defined as the development and manipulation of laboratory-grown molecules, cells, tissues, or organs to replace and/or support the function of injured body parts. TE applies the principles and methods of biology, stem cell biology, immunology, life sciences, physical sciences, engineering, cell and drug delivery, nanobiotechnology, bioinformatics to understand physiological systems and to modify and create cells and tissues for therapeutic applications. TE is highly interdisciplinary. TE has resulted in both clinically used and experimental therapies for structure tissue repair (e.g. skin, bone, cartilage, tendon, muscle, and blood vessel), for enhancing metabolic function (e.g. liver) for improved drug delivery (localized delivery of a drug), and as a vehicle for cell-based gene therapy. **Prerequisites:** BIOL 2401 - Microbiology and one of the following: BIOL 4413 - Immunology, or BIOL 4401 - Cell Biology, or BIOL 4417 - Molecular Biology, or BIOL 4419 - Plant Physiology.

**BIOL 4499 - Special Topics in Biology**

Four hours laboratory combined with one to four hours lecture. One, two, three, or four credit hours. Specialized study in the biological sciences. Credit varies and depends on the depth of the course content. Each topic is appropriate for both advanced undergraduate and graduate students. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** 20 hours in biology, consent of instructor; other prerequisites may be required depending on the topic.

**BIOL 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/program. **Concurrent:** TCED 4330.

**BIOL 5427 - Tissue Engineering**

Two hours lecture. Two hours laboratory per week. Four credit hours. Tissue engineering (TE) is defined as the development and manipulation of laboratory-grown molecules, cells, tissues, or organs to replace and/or support the function of injured body parts. TE applies the principles and methods of biology, stem cell biology, immunology, life sciences, physical sciences, engineering, cell and drug delivery, nanobiotechnology, bioinformatics to understand physiological systems and to modify and create cells and tissues for therapeutic applications. TE is highly interdisciplinary. TE has resulted in both clinically used and experimental therapies for structure tissue repair (e.g. skin, bone, cartilage, tendon, muscle, and blood vessel), for enhancing metabolic function (e.g. liver) for improved drug delivery (localized delivery of a drug), and as a vehicle for cell-based gene therapy. **Prerequisites:** BIOL 2401 - Microbiology and one of the following: BIOL 4401 - Cell Biology, or BIOL 4413 - Immunology, or BIOL 4417 - Molecular Biology, or BIOL 4419 - Plant Physiology.

**BIOL 5428 - Techniques in Molecular Biology**

Two hours lecture. Four hours laboratory per week. Four credit hours. A course designed to give students technical skills and understanding of basic principles in molecular biology and biotechnology. It emphasizes experimental techniques necessary for studying biological systems at the molecular level. Techniques covered include recombinant DNA and protein techniques, forward and reverse genetics methods in studying gene functions, including virus-induced gene silencing (VIGS) and online database mining. Dual listed in the Graduate Catalog as BIOL 5428. **Prerequisites:** BIOL 3300 or its equivalent. BIOL 4417 or BIOL 4401 is strongly encouraged.

## Gulf Coast Research Laboratory

**BIOL 3450 - Introduction to Marine Zoology**

Four credit hours. A general introduction to the marine environment with emphasis on local fauna. Introduction to the marine environment and some of its physical, chemical, geological, and ecological characteristics that affect marine life. Emphasis on local fauna and estuarine species. **Prerequisites:** eight hours of biological science.

**BIOL 3550 - Oceanography II: Marine Biology**

Five credit hours. An overview of biological oceanography with emphasis on organisms, habitats, and fisheries of the Mississippi Sound and the Gulf of Mexico. **Prerequisites:** eight credit hours of biological science.

**BIOL 4151 - Special Problems in Marine Science**

One, two, or three credit hours. Special problems are research oriented, and grades are based on reports submitted by students. Students who want to take a special problems course must submit a brief proposal of planned study to the GCRL registrar. Special problems proposal forms are available from the GCRL registrar. This proposal must be approved by the student's advisor and the GCRL staff member directing the study.

**Prerequisites:** to be set by problem director.

**BIOL 4251 - Special Problems in Marine Science**

One, two, or three credit hours. Special problems are research oriented, and grades are based on reports submitted by students. Students who want to take a special problems course must submit a brief proposal of planned study to the GCRL registrar. Special problems proposal forms are available from the GCRL registrar. This proposal must be approved by the student's advisor and the GCRL staff member directing the study.

**Prerequisites:** to be set by problem director.

**BIOL 4351 - Special Problems in Marine Science**

One, two, or three credit hours. Special problems are research oriented, and grades are based on reports submitted by students. Students who want to take a special problems course must submit a brief proposal of planned study to the GCRL registrar. Special problems proposal forms are available from the GCRL registrar. This proposal must be approved by the student's advisor and the GCRL staff member directing the study.

**Prerequisites:** to be set by problem director.

**BIOL 4352 - Coastal Vegetation**

Three credit hours. A broad study of the general and specific aspects of coastal vegetation, with emphasis on local examples such as tidal marshes, swamps, savannahs, woodlands, strand and island (insular) vegetation, and certain unique and peculiar areas. Vegetation composition, variation, succession, climax, and distribution, including survey and descriptive methods. Aerial techniques, ground truth, plant identification, delineation of vegetation types, and mapping.

**Prerequisites:** 10 hours of biology including general botany.

**BIOL 4450 - Marine Botany**

Four credit hours. A survey, based on local examples, of the principal groups of marine algae and marine flowering plants, treating structure, reproduction, distribution, identification, and ecology. **Prerequisites:** 10 credit hours of biology, including botany.

**BIOL 4451 - Comparative Histology of Marine Organisms**

Four credit hours. A detailed study of the histological organization of representative marine organisms. Fixation, processing, and study of tissues using light microscopy, transmission electron microscopy, and scanning electron microscopy. The relationship between structural changes and physiological changes during life cycle of organism. Histopathology with respect to tissue responses to infection and damage by toxic agents. **Prerequisites:** general histology, consent of instructor.

**BIOL 4452 - Marine Fisheries Management**

Four credit hours. Practical marine fishery management problems. Trends in human population numbers, aggregations, and life styles with associated environmental impacts and resource allocation implications, which pose complex problems for fishery management scientists and administrators. International and local legal, political, social, and economic factors, as well as biological potential, must be considered in making rational decisions toward achieving optimum yield from marine fishery resources. The history of management scheme successes and failures, sources of information, and the current status of fishing technology, mariculture, management methods, legal problems, and educational needs will be explored. **Prerequisites:** 16 hours of biological science or consent of instructor.

**BIOL 4453 - Behavior and Neurobiology of Marine Animals**

Four credit hours. Survey of behavior, neuroanatomy, and neurophysiology of marine animals with emphasis on the neural mechanisms underlying the behavior of selected invertebrates, fishes, birds, and mammals. Introduction to the experimental study of the behavior of marine animals in the field and laboratory. When possible, students will carry out independent studies on local species. Neural mechanisms underlying behavior; the anatomy and physiology of the nervous systems of marine invertebrates and vertebrates. **Prerequisites:** 16 credit hours of zoology or consent of instructor.

**BIOL 4454 - Fauna and Faunistic Ecology of Tidal Marshes**

Four credit hours. Survey and discussion of the taxonomy, distribution, trophic relationships, reproductive strategies, and adaptation of tidal marsh animals with emphasis on those occurring in northern Gulf marshes. **Prerequisites:** 16 credit hours of biological science or consent of instructor.

**BIOL 4455 - Early Life History of Marine Fishes**

Four credit hours. Reproductive strategies and early developmental processes of marine fishes. Includes discussion of temporal and spatial distribution patterns, population dynamics, and ecological interactions of fish eggs and larvae; role of early stages of fishes in fisheries oceanography, marine ecology, and systematics; methods of sampling and identifying fish eggs and larvae; data quantification and analysis; rearing experiments; techniques for studying larval fish dynamics.

**Prerequisites:** ichthyology, fisheries, biology, ecology, or consent of instructor.

**BIOL 4456 - Salt Marsh Plant Ecology**

Four credit hours. Botanical aspects of local marshes. Plant identification, composition, structure, distribution, and development of coastal marshes. Biological and physical interrelationships. Primary productivity and relation of marshes to estuaries and associated fauna.

**Prerequisites:** general botany, plant taxonomy, plant physiology, general ecology, or consent of instructor.

**BIOL 4550 - Marine Microbiology**

Five credit hours. Introduction to marine microorganisms and pertinent literature sources. The role of microorganisms in the ecology of oceans and estuaries is stressed. Use of laboratory sampling equipment, methods of processing samples, and laboratory techniques useful in studying marine microorganisms. **Prerequisites:** general microbiology, consent of instructor.

**BIOL 4551 - Marine Ecology**

Five credit hours. A consideration of the relationship of marine organisms to their environment. The effects of temperature, salinity, light, nutrient concentration, currents, food, predation, and competition on the abundance and distribution of marine organisms are considered. **Prerequisites:** 16 credit hours of biological science including general zoology, general botany, and invertebrate zoology.

**BIOL 4650 - Marine Invertebrate Zoology**

Six credit hours. A concentrated study of the important free-living marine and estuarine invertebrates of the Mississippi Sound and adjacent continental shelf of the northeastern Gulf of Mexico, with emphasis on the structure, classification, phylogenetic relationships, larval development, and functional processes. **Prerequisites:** 16 credit hours of zoology, including an introductory course in invertebrate zoology.

**BIOL 4651 - Marine Vertebrate Zoology and Ichthyology**

Six credit hours. A general study of the marine chordata, with emphasis on fish including lower groups, mammals, and birds. Groups of vertebrates occurring in the area associated with marine environments, with taxonomic characteristics used in their classification and identification, and with functional adaptations of the organisms. Greatest emphasis is placed on local fishes. For obvious reasons, no conscious attempt is made to duplicate material which could be offered with ease to the student at his or her home institution. Every effort is made to take advantage of the unique teaching situation that the area provides. **Prerequisites:** 16 credit hours of zoology including comparative morphology or consent of instructor.

**BIOL 4652 - Parasites of Marine Animals**

Six credit hours. A study of the parasites of marine and estuarine animals with emphasis on morphology, taxonomy, life histories, and host-parasite relationships. **Prerequisites:** general parasitology or consent of instructor.

**BIOL 4653 - Aquaculture**

Six credit hours. A review of the technology, principles, and problems relating to the science of aquaculture, with emphasis on the culture of marine species. **Prerequisites:** 16 credit hours of biology, including invertebrate zoology, natural history of vertebrates, or ichthyology.

**UAMS Molecular Biotechnology****BIOM 3210 - Laboratory Principles and Techniques**

Two hours lecture. Introduction to principles and techniques used in clinical and research laboratories. Emphasis on laboratory mathematics, safe practices, and basic instrumentation. **Prerequisites:** admission to the professional program in medical technology or molecular biotechnology.

**BIOM 3211 - Introduction to Research**

Two hours lecture. How to design, conduct, and interpret life science research including planning biomedical research, the principles of statistical design, sample size estimation, and designs in life science research. Also includes the correspondence between objectives, design and analysis. **Prerequisites:** admission to the professional program in medical technology or molecular biotechnology.

**BIOM 4106 - Technology Transfer**

One hours lecture. Overview of the conversion from research to manufacturing, including regulatory environment in which the production occurs.

**Prerequisites:** admission to the professional program in molecular biotechnology and BIOL 4417 and BIOL 4418.

**BIOM 4305 - Cell Culture Principles and Techniques**

Two hours lecture. Three hours laboratory per week. Introduction to principles and techniques of cell culture. Explores protocols for the culture, cloning, and selection of cells. Includes basic cell biology, growth characteristics and requirements, cell passing, and quantitation.

**Prerequisites:** admission to the professional program in molecular biotechnology and BIOL 4417 and BIOL 4418.

**BIOM 4507 - Biotechnology Laboratory Internship**

Supervised experience in a biotechnology research laboratory. Emphasis on manual and automated techniques and development of professional behavior. Includes research principles and techniques, laboratory organization, and materials management. Twenty clinic hours per week. **Prerequisites:** admission to the professional program in molecular biotechnology and BIOL 4417 and BIOL 4418.

## Business Administration

**BSAD 1300 - Introduction to Business**

One hours lecture. One credit hours. NOTE: BSAD 1100 satisfies the university first-year experience requirement. The course provides an overview of business as a profession, including an introduction to frameworks for ethical decision making and critical thinking. Through in-class discussion and outside assignments, students are introduced to the essential ideas of markets and the economic environment of business, management in organizations, leadership, financial management, accounting, production, and marketing, as well as the global dimensions of business and their social responsibilities. The overarching goal of the course is to introduce the student to the various dimensions of business and to help them to identify areas of study that are of particular personal interest. **Prerequisites:** None.

**BSAD 2010 - Intro to Career Catalyst**

Zero credit hours. Introduction of the Career Catalyst program to students at the end of their sophomore years or beginning of their junior years. The Career Catalyst program helps students identify experiences that are important to be successful in today's business world. Explanation of the requirements of the program for business students and the reporting process. CR/NC grading.

**BSAD 3100 - Business Professionalism**

One credit hours. Principles and techniques of professionalism for the individual business person, and the management of professional image and conduct.

**BSAD 4010 - Career Catalyst Completion**

Zero credit hours. Involves an individual meeting with an adviser to confirm successful completion of the Career Catalyst program introduced in BSAD 2010. Satisfactory completion of BSAD 4010 is a graduation requirement for all business majors. CR/NC grading. **Prerequisites:** Completion of BSAD 2010.

## Chemistry

**CHEM 1100 - Special Topics in the Laboratory for Transfer Students**

Three hours laboratory per week. One credit hours. Intended for transient and transfer students who passed a lecture class without the accompanying laboratory.

**Prerequisites:** Grade of C or greater from another university in a class with lecture equivalent to CHEM 1400, CHEM 1401, CHEM 1402, or CHEM 1403.

**CHEM 1300 - Preparation for General Chemistry**

Three hours lecture. Three credit hours. The class prepares students to take the placement examination required to enroll in CHEM 1402. The class is for students who need to sharpen mathematical, problem-solving, and critical thinking skills while developing chemical knowledge. There will be frequent and comprehensive assessments of learning. The class cannot be combined with CHEM 1100 to satisfy four hours of the laboratory science requirement in the core curriculum.

**Prerequisites:** MATH 1302.

**CHEM 1305 - Science Skills**

Three credit hours. This course will help biology, chemistry, and earth science students reach their educational objectives. Interactive instructional methods promote the development of skills that lead to success in college and a successful career in science. Students 1) identify and use appropriate campus resources, 2) master common computer programs, 3) learn graphing and statistical methods, 4) develop better strategies to manage money, time, and stress wisely, and 5) explore the research conducted by UA Little Rock science faculty. Grading is based on projects, attendance, and participation. This course cannot be used for credit toward a biology, chemistry, or earth science major or minor.

**Prerequisites:** Permission of the instructor.

**CHEM 1400 - Fundamental Chemistry I**

Three hours lecture. Three hours laboratory per week. Four credit hours. The first in a two-course sequence designed to introduce students in the health related professions (nursing, dental hygiene, physical therapy, respiratory therapy...) to nomenclature, stoichiometry, measurement, periodicity, molecular structure, states of matter, energy, nuclear chemistry and redox and acid/base equilibria. Completing the two-course sequence qualifies students to enroll in CHEM 2450 but no other chemistry classes. This class meets ACTS criteria. (ACTS Course Number CHEM 1214) **Prerequisites:** MATH 1302 with a grade of C or greater.

**CHEM 1401 - Fundamental Chemistry II**

Three hours lecture. Three hours laboratory per week. Four credit hours. The class continues to build upon the knowledge foundation in chemistry and introduces organic nomenclature, functional group reactions, properties of carbohydrates, lipids, proteins, nucleic acids, and enzymes and principles of metabolism. Completing the course qualifies students to enroll in CHEM 2450 but no other chemistry classes. This class meets ACTS criteria. (ACTS Course Number CHEM 1224) **Prerequisites:** CHEM 1400 with a grade of C or greater.

**CHEM 1402 - General Chemistry I**

Three hours lecture. Three hours laboratory per week. Four credit hours. The class builds upon a knowledge foundation in chemistry and offers inquiry into topics of scientific measurement, chemical nomenclature, expressing qualitative and quantitative statements about chemical reactions, qualitative atomic theory, electronic and molecular structure models, chemical periodicity, thermochemistry, gases, kinetic molecular theory, and nuclear chemistry. It meets ACTS criteria. (ACTS Course Number CHEM 1414) **Prerequisites:** 1) Completion of a high school Chemistry course or its equivalent, and 2) Completion of MATH 1302 or higher level class with a minimum grade of C or a minimum ACT Math Score of 24, and 3) a minimum passing score on the Chemistry Placement Exam or a minimum ACT Science score of 24. Students who do not attain the minimum score may enroll in CHEM 1300. Finishing CHEM 1300 does not substitute for meeting the minimum score on the placement examination.

**CHEM 1403 - General Chemistry II**

Three hours lecture. Three hours laboratory per week. Four credit hours. The class continues to build upon the knowledge foundation in chemistry and offers inquiry into topics of chemical equilibrium including acids and bases and sparingly soluble salts, thermodynamics, kinetics, electrochemistry, and coordination compounds. It meets ACTS criteria. (ACTS Course Number CHEM 1424) **Prerequisites:** CHEM 1402 with a grade of C or greater.

**CHEM 1406 - General Chemistry for Engineers**

Three hours lecture. Three hours laboratory per week. Four credit hours. This course is designed for Engineering Students. This one semester chemistry course will give engineering students key concepts and principles in chemistry needed for their basic background knowledge. This course is presented using engineering relevant examples and stresses applications in engineering and technology. Note: Course Requirements. Consent of Instructor is required. Students completing 1406 and changing majors to chemistry may substitute CHEM 1406 for CHEM 1402. Students may not receive credit for both CHEM 1402 and CHEM 1403 by completing 1406. **Prerequisites:** This course has a prerequisite of 70 or higher score on a department placement test. Students who do not attain the minimum score may enroll in CHEM 1300. **Prerequisite/Concurrent:** MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences, or MATH 1342 - Applied Calculus I

for Business, Engineering Technology, and the Life Sciences, or MATH 1451 - Calculus I are prerequisite concurrent.

**CHEM 1409 - Chemistry and Society**

Three hours lecture. Three hours laboratory per week. Four credit hours. The class develops a base of chemical knowledge for students to consider the impact chemistry has on the world while meeting the goals of the University's core curriculum competencies in critical thinking, ethical and moral consciousness, historical consciousness, mathematics, and philosophy and methods of science. Material will address topics starting with the atomic and molecular foundations of chemistry to applying principles of scientific modeling to topics such as the environment, medicine and public policy. The class satisfies four hours of the University's laboratory science curriculum requirement and meets ACTS criteria. (ACTS Course Number CHEM 1004)

**CHEM 2310 - Analytical Chemistry I**

Two hours lecture. Three hours laboratory per week. Three credit hours. The class investigates aqueous equilibrium systems including acid/base, complex species, solubility, and oxidation/reduction, statistical analysis of chemical data, classic titrimetric and gravimetric analysis, and laboratory report writing. **Prerequisites:** CHEM 1403 with a grade of C or greater.

**CHEM 2311 - Analytical Chemistry II**

Two hours lecture. Three hours laboratory per week. Three credit hours. The class studies modern instrumental analysis and separation of chemical systems, to include electrochemical, spectroscopic and chromatographic methods. **Prerequisites:** CHEM 2310 with a grade of C or greater.

**CHEM 2450 - Organic Survey**

Three hours lecture. Three hours laboratory per week. Four credit hours. The class is appropriate for students needing a one-semester overview of organic chemistry. Topics include nomenclature, classification, synthetic pathways, and spectroscopy. **Prerequisites:** CHEM 1401 or CHEM 1403 with a grade of C or greater.

**CHEM 3150 - Organic Chemistry Laboratory I**

Three hours laboratory per week. One credit hours. Organic compounds will be prepared and identified. Techniques include determining melting and boiling points, simple fractional and steam distillation, recrystallization, and extraction. **Prerequisite or Corequisite:** CHEM 3350 with a grade of C or greater.

**CHEM 3151 - Organic Chemistry Laboratory II**

Three hours laboratory per week. One credit hours. This class continues to build the knowledge base of organic chemistry laboratory skills by introducing more advanced synthetic methodologies and characterization techniques including IR, NMR, MS and GC. BS chemistry majors should not enroll in this laboratory but in CHEM 3250. **Prerequisite or Corequisite:** CHEM 3351 and CHEM 3150 with grades of C or greater.

**CHEM 3170 - Physical Chemistry Laboratory I**

Three hours laboratory per week. One credit hours. An introduction to multivariate statistical methods and error analysis. Experiments include synthesis of compounds, measurement of physical and electrochemical properties, determination of heats of reaction and reaction rates, and superconductivity studies. **Prerequisite or Corequisite:** PHYS 2122, CHEM 3370 with a grade of C or greater.

**CHEM 3171 - Physical Chemistry Laboratory II**

Three hours laboratory per week. One credit hours. Synthesis of inorganic compounds together with measurement of quantum mechanical spectroscopic properties, magnetic susceptibility, and properties of macromolecules. **Prerequisites:** CHEM 2311, CHEM 3170, CHEM 3370 with a grade of C or greater.

**Prerequisite or Corequisite:** CHEM 3371.

**CHEM 3250 - Qualitative Organic Analysis Laboratory**

Two three hours laboratory per week. Two credit hours. The class continues to build the knowledge base of organic chemistry laboratory techniques by requiring complex analytical problem solving ability along with advanced laboratory skills. Students receive unknown organic compounds and identify them by preparing and characterizing derivatives using IR, NMR, MS, and CG. BS chemistry majors should take this laboratory instead of CHEM 3151. **Prerequisites:** CHEM 3350 and CHEM 3150 with grades of C or greater. **Prerequisite or Corequisite:** CHEM 3351 with a grade of C or greater.

**CHEM 3340 - Introduction to Inorganic Chemistry**

Three hours lecture. Three credit hours. A study of inorganic chemistry with emphasis on chemical bonding theories (both covalent and ionic molecules), periodic properties with isolation and synthesis associated with few main group elements, acid/base concepts, introduction to transition metals, coordination complexes (name, structures, isomers, chelate effects). Required for BA and BS majors. **Prerequisites:** CHEM 2450 or CHEM 3350 with a grade of C or greater.

**CHEM 3350 - General Organic Chemistry I**

Three hours lecture. Three credit hours. The first in a two-course sequence designed to introduce science students to organic compounds. Topics include nomenclature, alkanes, alkenes, alkynes, halides, alcohols, ethers, functional groups, stereochemistry, acid-base concepts, organometallics, multiple-step synthesis, and reaction mechanisms. **Prerequisites:** CHEM 1403 with a grade of C or greater.

**CHEM 3351 - General Organic Chemistry II**

Three hours lecture. Three credit hours. The class continues to build the knowledge base of organic chemistry by adding conjugated systems, aromatic compounds, carbonyl compounds, carboxylic acids and derivatives, amines, phenols, aryl halides, spectroscopy and data interpretation. **Prerequisites:** CHEM 3350 with a grade of C or greater.

**CHEM 3370 - Physical Chemistry: Thermodynamics and Kinetics**

Three hours lecture. Three credit hours. An introduction to theoretical chemistry to include the study of gases and condensed phases, phase changes, solutions, chemical reactions, and reaction rates. **Prerequisites:** CHEM 2311 with a grade of C or greater. **Prerequisite or Corequisite:** MATH 1452, PHYS 2322.

**CHEM 3371 - Physical Chemistry: Quantum and Statistical Mechanics**

Three hours lecture. Three credit hours. An introduction to theoretical chemistry to include the study of quantum and statistical mechanics of atomic and molecular systems. **Prerequisites:** CHEM 2311 with a grade of C or greater. **Prerequisite or Corequisite:** MATH 2453, PHYS 2322.

**CHEM 3572 - Physical Chemistry for the Life Sciences**

Recitation one hour. Three hours lecture. Three hours laboratory per week. Five credit hours. An introduction to theoretical chemistry, with emphasis on the application of physical laws to biochemical systems, such as purified proteins and nucleic acids. Topics include spectroscopic techniques, thermodynamics, and kinetics. **Prerequisites:** CHEM 2311, MATH 1451, PHYS 1322 and PHYS 1122 with a grade of C or greater.

**CHEM 4100 - Independent Study**

One, two, three, or four credit hours. Designed for students who want to carry out special investigations, which could include chemical education research or directed study of a specialized chemical topic of interest to the student. Topic and method of procedure must have approval of the supervising faculty member. Frequent conferences with the instructor and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** junior or senior standing, consent of the chairperson.

**CHEM 4120 - Biochemistry I Laboratory**

Three hours laboratory per week. One credit hours. Laboratory techniques will involve plasmid transformation, protein purification using chromatography, measurement of protein concentrations, enzyme kinetic studies and gel electrophoresis study of proteins. Dual listed in the Graduate Catalog as CHEM 5120. **Prerequisites:** CHEM 2310, CHEM 3351, either CHEM 3151 or CHEM 3250 with a grade of C or greater.

**CHEM 4190 - Chemistry Seminar**

One credit hours. Presentation of papers, discussion, analysis, and implications of experimental investigations in the natural sciences. The seminar serves as the capstone course for assessment. Required of senior chemistry majors in their final semester before graduation. One hour per week.

**CHEM 4200 - Independent Study**

One, two, three, or four credit hours. Designed for students who want to carry out special investigations, which could include chemical education research or directed study of a specialized chemical topic of interest to the student. Topic and method of procedure must have approval of the supervising faculty member. Frequent conferences with the instructor and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** junior or senior standing, consent of the chairperson.

**CHEM 4251 - Organic Preparation**

Two three hours laboratory per week. Two credit hours. Advanced experiments in organic chemistry employing special apparatus and techniques. Dual listed in the Graduate Catalog as CHEM 5251. **Prerequisites:** CHEM 3151 or CHEM 3250 with a grade of C or greater.

**CHEM 4289 - Undergraduate Research**

Two, three, or four credit hours. Trains the student to analyze, plan, and conduct experimental work on a chemical problem. Frequent conferences and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** consent of department chairperson, junior or senior standing, compliance with approved guidelines (available from chairperson) and comments in the printed schedule.

**CHEM 4300 - Independent Study**

One, two, three, or four credit hours. Designed for students who want to carry out special investigations, which could include chemical education research or directed study of a specialized chemical topic of interest to the student. Topic and method of procedure must have approval of the supervising faculty member. Frequent conferences with the instructor and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** junior or senior standing, consent of the chairperson.

**CHEM 4320 - Biochemistry I Lecture**

Three hours lecture. Three credit hours. A basic course covering the chemistry of metabolism of proteins, lipids, carbohydrates, and nucleic acids and the action of vitamins, hormones and enzymes. Dual listed in the Graduate Catalog as CHEM 5320. **Prerequisites:** CHEM 3151, CHEM 3351 with a grade of C or greater.

**CHEM 4321 - Biochemistry II**

Three hours lecture. Three credit hours. Continuation of Biochemistry I, covering energy generation, metabolism of lipids and amino acids, integration of metabolism, DNA replication and repair, transcription, translation, and control of gene expression. Students who have completed CHEM 432 may not enroll in CHEM 5321. Dual listed in the Graduate Catalog as CHEM 5321. **Prerequisites:** CHEM 4320 or 5320 with a grade of C or greater.

**CHEM 4330 - History of Chemistry**

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

**CHEM 4340 - Inorganic Chemistry**

Two hours lecture. Three hours laboratory per week. Three credit hours. A theoretical treatment of inorganic chemistry to include atomic structure, valence bond, molecular orbital and ligand field theories; the crystalline state; thermodynamic and kinetic aspects of transition metal chemistry. Laboratory will reinforce concepts developed in lecture. Required for the BS major. Dual listed in the Graduate Catalog as CHEM 5340. **Prerequisites:** CHEM 3340, CHEM 3371 with a grade of C or greater (the latter may be taken as a corequisite).

**CHEM 4342 - Environmental Chemistry**

Three hours lecture. Three credit hours. A survey of environmental chemistry. Topics covered will include: Composition of the atmosphere and behavior; energy and climate; principles of photochemistry and atmospheric chemistry; petroleum and coal chemistry and associated environmental problems; chemistries of soaps and surfactants; haloorganics and pesticides, water and air pollution (tropospheric and stratospheric) and connections to climate change; elemental and molecular environmental chemistry in geological media; water cycle and water treatment; principles of nuclear chemistry and radiochemistry; nuclear environmental chemistry; and evaluation of energy sources that are sustainable. Students who have completed CHEM 4342 may not enroll in CHEM 5342. Dual listed in the Graduate Catalog as CHEM 5342. **Prerequisites:** CHEM 3350 and CHEM 2310 with a grade of C or greater.

**CHEM 4350 - Intermediate Organic Chemistry**

Three hours lecture. Three credit hours. An elective course designed for students with special interests in organic chemistry who wish exposure to additional concepts beyond those covered in CHEM 3350, CHEM 3351. Dual listed in the Graduate Catalog as CHEM 5350. **Prerequisites:** CHEM 3351 with a grade of C or greater.

**CHEM 4360 - Medicinal Chemistry**

Three hours lecture. Three credit hours. This course will serve as an introduction to the chemistry and theory of drug action that includes general drug design, drug-receptor interactions, drug design through enzyme inhibition, pharmacokinetics, and drug metabolism. Additionally the mechanism of specific drug classes will be examined. This course cannot be used as a substitute for the biochemistry requirement of the ACS certified degree. Dual listed in the Graduate Catalog as CHEM 5360. **Prerequisites:** CHEM 3351; and CHEM 3150 and CHEM 3151, or CHEM 3250; all with grades of C or greater.

**CHEM 4380 - Introduction to Polymer Chemistry**

Two hours lecture. Three hours laboratory per week. Three credit hours. Theoretical and practical aspects of polymer chemistry will be coordinated. Topics include history, types of polymerizations, kinetics, molecular weight, physical properties including thermal and spectroscopic characterization, biopolymers and engineering resins. Dual listed in the Graduate Catalog as CHEM 5380. **Prerequisites:** CHEM 3351, CHEM 3151 or CHEM 3250 with a grade of C or greater. Other courses recommended but not required are CHEM 3370, CHEM 3371, CHEM 3170, CHEM 3171, and CHEM 3572.

**CHEM 4389 - Undergraduate Research**

Two, three, or four credit hours. Trains the student to analyze, plan, and conduct experimental work on a chemical problem. Frequent conferences and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** consent of department chairperson, junior or senior standing, compliance with approved guidelines (available from chairperson) and comments in the printed schedule.

**CHEM 4399 - Special Topics in Chemistry**

Three hours lecture. Three credit hours. A course for students interested in acquiring additional knowledge in selected topics in chemistry. Possible subjects include: chemical carcinogenesis, environmental chemistry, solid state chemistry, radiochemistry, macromolecules, surface chemistry, quantum chemistry, or others. Dual listed in the Graduate Catalog as CHEM 5399. **Prerequisites:** consent of instructor.

**CHEM 4400 - Independent Study**

One, two, three, or four credit hours. Designed for students who want to carry out special investigations, which could include chemical education research or directed study of a specialized chemical topic of interest to the student. Topic and method of procedure must have approval of the supervising faculty member. Frequent conferences with the instructor and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of

the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** junior or senior standing, consent of the chairperson.

**CHEM 4411 - Instrumental Analysis**

Three hours lecture. Four hours laboratory per week. Four credit hours. A study of the most common modern instrumental methods of analysis, to include topics in spectroscopy, electrochemistry, and chromatography. Dual listed in the Graduate Catalog as CHEM 5411. **Prerequisites:** CHEM 2311, CHEM 3350; PHYS 2322, PHYS 2122 or PHYS 1322, PHYS 1122 with consent of instructor with a grade of C or greater.

**CHEM 4489 - Undergraduate Research**

Two, three, or four credit hours. Trains the student to analyze, plan, and conduct experimental work on a chemical problem. Frequent conferences and a study of chemical literature with a final written report are required. The student is expected to spend four to six hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** consent of department chairperson, junior or senior standing, compliance with approved guidelines (available from chairperson) and comments in the printed schedule.

**CHEM 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/program. **Concurrent:** TCED 4330.

## Chinese

**CHIN 1311 - Elementary Mandarin Chinese I**

Three credit hours. A course for beginners with no knowledge of Mandarin Chinese. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic grammar and a limited reading ability. Chinese culture is also introduced.

**CHIN 1312 - Elementary Mandarin Chinese II**

Three credit hours. Continuation of CHIN 1311. **Prerequisites:** CHIN 1311 or equivalent.

**CHIN 2311 - Intermediate Mandarin Chinese**

Three credit hours. A continuation of CHIN 1312, the intermediate course leads to greater facility in the spoken language and to more advanced reading skills. **Prerequisites:** CHIN 1312 or equivalent.



## Classical Language

### **CLNG 1301 - Elementary Classical Language I**

Three credit hours. Offered in a designated classical language in response to student interest. Introduction to the grammar of a designated classical language. Elementary reading and translation in selected texts.

### **CLNG 1302 - Elementary Classical Language II**

Three credit hours. Continuation of CLNG 1301.  
**Prerequisites:** CLNG 1301 in specified classical language or equivalent.

### **CLNG 1311 - Elementary Biblical Hebrew**

Three credit hours. Introduction to the grammar of biblical Hebrew. Elementary reading in selected biblical texts.

### **CLNG 1312 - Biblical Hebrew Reading**

Three credit hours. Reading of selected biblical prose texts, leading toward development of rapid reading ability.  
**Prerequisites:** CLNG 1311 or consent of instructor.

### **CLNG 2301 - Intermediate Classical Language I**

Three credit hours. Readings from the works of classical authors providing an introduction to the literature of the ancient world. **Prerequisites:** CLNG 1302 or equivalent.

### **CLNG 2302 - Intermediate Classical Language II**

Three credit hours. Readings from the works of classical authors to prepare students for studies of prose and poetry written during the flowering of ancient civilizations.  
**Prerequisites:** CLNG 2301 or equivalent.

### **CLNG 3311 - Advanced Biblical Hebrew**

Three credit hours. Selected readings of poetic texts in the Hebrew Bible. Investigation of poetic syntax and meter. **Prerequisites:** CLNG 1312.

## Construction Management

In general, courses are offered only in the term that is indicated in the course description. However, courses may be offered in other terms if sufficient student demand exists and if qualified instructors are available.

### **CNMG 1085 - Architecture, Engineering, and Construction (AEC) Seminar**

Zero credit hours. This non-credit seminar is required for all undergraduate students majoring in construction management, architectural and construction engineering, civil and construction engineering, and environmental engineering. The seminar meets once per month, up to five times per semester, and provides students with opportunities for professional development and social interaction. Activities will include learning about student organizations and student competitions, hearing guest speakers from industry and government, learning about employment opportunities, attending senior design project final presentations, and social events. One hour per month. Fall and Spring..

### **CNMG 1101 - First-Year Colloquium in Construction**

Two hours laboratory per week. One credit hours. An introduction to construction engineering and construction management, along with goal setting, time management, and the on- and off-campus resources needed for success at UA Little Rock. Hands-on activities and group projects explore various concepts in construction. Satisfies the First Year Colloquium requirement. Fall only.

### **CNMG 1201 - The Construction Industry**

One hours lecture. Three hours laboratory per week. Two credit hours. Introduction to the construction industry and the career opportunities available within residential, building, heavy civil, and industrial construction. The different roles of the various participants are examined along with industry history and traditions. Proper dress and safety requirements for office and field site visits discussed. Includes guest speakers, field trips, and project site visits. Fall only.

### **CNMG 1305 - Drawings and Specifications**

Two hours lecture. Two hours laboratory per week. Three credit hours. Introduction to basic construction drawings and specification interpretation. Emphasis on construction drawings and blueprint reading, CSI specifications and master format, project manual, shop drawings, as-built drawings, and proper construction terminology. Fall and Spring.

### **CNMG 1385 - Infrastructure, Environment, and Society**

Two hours lecture. Two hours laboratory per week. Three credit hours. This course examines the relationships between the natural environment, the built environment, and society. By studying the civil infrastructure that provides shelter, clean air and water, and transportation systems for people and cargo, the disciplines and subdisciplines of architectural, environmental, civil, and construction engineering are introduced. Students deliver oral presentations and listen to and critique the presentations of others. Fall only.

### **CNMG 2199 - Special Topics in Construction**

One, two, or three credit hours. Designed to meet special needs of students or industry to cover application of construction management or construction engineering to specific problems. Meets equivalent of one hour per week for each credit hour value. May be taken more than once for credit. Offered on demand. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

### **CNMG 2299 - Special Topics in Construction**

One, two, or three credit hours. Designed to meet special needs of students or industry to cover application of construction management or construction engineering to specific problems. Meets equivalent of one hour per week for each credit hour value. May be taken more than once for credit. Offered on demand. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

**CNMG 2313 - Construction Materials and Methods**

Two hours lecture. Two hours laboratory per week. Three credit hours. Introduction to specifications, standards, codes, quality control, and quantity survey as they pertain to the execution of selected construction materials. Topics include site work, concrete, masonry, steel, rough and finish carpentry, thermal and moisture protection, doors and windows, finishes, and specialties. Fall and Spring. **Prerequisite/Concurrent:** CNMG 1305.

**CNMG 2314 - Mechanical, Electrical, and Plumbing (MEP) Systems**

Two hours lecture. Two hours laboratory per week. Three credit hours. Introduction to functions of service systems within a modern structure. Includes heating, ventilating, air-conditioning (HVAC), plumbing, fire protection, electrical, and conveying systems. Fall and Spring. **Prerequisite/Concurrent:** CNMG 1305.

**CNMG 2316 - Construction Surveying with Lab**

Two hours lecture. Two hours laboratory per week. Three credit hours. Introduction to the principles of construction surveying, project layout, and field performance and surveying equipment management. Topics will include use and care of surveying instruments, directions, angles, surveying calculations, errors, and computations of areas and volumes. Fall and Spring. **Prerequisites:** CNMG 1305, and MATH 1303 or MATH 1401.

**CNMG 2318 - Building Information Modeling**

Two hours lecture. Two hours laboratory per week. Three credit hours. The course will focus on utilizing basic functions of Building Information Modeling (BIM) for residential and commercial construction. During the course, students will examine geometry, spatial relationships, geographic information, quantities and properties of building components. Students will create virtual models of buildings that can be used for quantity take offs. Spring only. **Prerequisites:** CNMG 1305.

**CNMG 2330 - Introduction to Sustainability**

Three hours lecture. Three credit hours. This interdisciplinary course introduces students to the concept of sustainability and the greatest sustainability challenges of our time related to natural, social, built, and managed systems. Students will study each module in class, prepare a research presentation related to one topic module, and participate in a community engagement service learning project related to one module. The course will challenge students to take action toward increased personal sustainability and responsibility. Offered on demand. Cross listed as MGMT 2330 and POLS 2330.

**CNMG 2333 - Statics and Strength of Materials**

Two hours lecture. Two hours laboratory per week. Three credit hours. An analytical and practical approach to the principles and physical concepts of statics and strength of materials related to construction. Fall only. **Prerequisites:** MATH 1303 or MATH 1401.

**CNMG 2370 - Engineering Statics**

Two hours lecture. Two hours laboratory per week. Three credit hours. Static equilibrium of particles, equivalent systems of forces, equilibrium of rigid bodies, centroids and centers of gravity, analysis of structures, dry friction, and moments of inertia. Fall only. Cross listed as SYEN 2370. **Prerequisites:** Grade of C or higher in PHYS 2321. **Prerequisite/Concurrent:** MATH 2453.

**CNMG 2399 - Special Topics in Construction**

One, two, or three credit hours. Designed to meet special needs of students or industry to cover application of construction management or construction engineering to specific problems. Meets equivalent of one hour per week for each credit hour value. May be taken more than once for credit. Offered on demand. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

**CNMG 3195 - Community Service Projects**

Three hours laboratory per week. One credit hours. Students will complete at least 40 hours of on- or off-campus community service on an approved project. Fall only. **Prerequisites:** Sophomore standing and consent of instructor.

**CNMG 3302 - Engineering Economy**

Three hours lecture. Three credit hours. Introduction to engineering economic decisions for evaluating the worth of products, services, projects and systems; time value of money, economic equivalence concepts, comparison of investment alternatives, evaluating economic life and replacement analysis, inflation, depreciation and impact of taxes on engineering decisions, and economic risk analysis. Fall only. Cross listed as SYEN 3301. **Prerequisites:** Grade of C or higher in MATH 1342, MATH 1342 or MATH 1451.

**CNMG 3312 - Engineering Structural Analysis**

Two hours lecture. Two hours laboratory per week. Three credit hours. Structural analysis of trusses, beams, frames, cables, and arches, including determinate and indeterminate structures; deflections of beams and frames; introduction to stiffness methods and matrix analysis of structures. Fall only. **Prerequisites:** Grades of C or higher in MATH 2453 and CNMG 3376.

**CNMG 3313 - Civil Engineering Materials with Lab**

Two hours lecture. Two hours laboratory per week. Three credit hours. Properties of materials and materials science, including atomic structure and bonding, lattice structures and defects, grain structure, alloys, and phase diagrams. Construction engineering materials, including steel, aluminum, aggregates, Portland cement, concrete, masonry, asphalt, wood, and composites. Fall only. **Prerequisites:** Grades of C or higher in CHEM 1402 or CHEM 1406, and in CNMG 3376.

**CNMG 3321 - Steel Construction**

Two hours lecture. Two hours laboratory per week. Three credit hours. Structural steel materials, shapes and uses; structural steel specifications and construction practices; structural steel fabrication and erection techniques, practices, and estimation; bolting, welding, and cutting of structural steel; construction techniques for stairs, bar joists and girders, tilt-ups, and steel deck; steel drawings, including set-up, design, detail, and erection drawings; estimating structural steel quantities and pricing. Spring only. **Prerequisites:** CNMG 1305.

**CNMG 3322 - Concrete Construction**

Two hours lecture. Two hours laboratory per week. Three credit hours. Provides an in-depth examination of the principles and applications of concrete construction. Study of process of placing ready mix concrete from batching to curing along with the design, analysis, and economics of formwork. Reinforcing steel, the ACI field technician applications, and the ACI Flatwork Technician Certification are also covered. Fall only. **Prerequisites:** CNMG 2333.

**CNMG 3324 - Heavy Civil Construction**

Two hours lecture. Two hours laboratory per week. Three credit hours. This course introduces construction management concepts applicable to heavy civil projects, such as highways, bridges, and water treatment plants. Topics include estimating, bidding, planning, scheduling, contract administration, and construction safety. The course emphasizes differences between the management of heavy civil construction projects and commercial building construction projects. Offered on demand.

**CNMG 3327 - Field Engineering and Construction Equipment**

Two hours lecture. Two hours laboratory per week. Three credit hours. Principles of construction project field supervision and construction equipment. Leadership, motivation, communications, problem solving, decision making, production control, quality control, and computerized reporting. Earth moving fundamentals, equipment ownership and operating costs, and equipment selection and usage. Fall and Spring. **Prerequisites:** Junior standing or higher.

**CNMG 3339 - Estimating I**

Two hours lecture. Two hours laboratory per week. Three credit hours. Theory and practice of construction project bidding and estimating. Topics include proposal solicitation and preparation, bidding strategy, estimate types and content, quantity survey, ethics, and an introduction to computer use in estimating. Fall and Spring. **Prerequisites:** MATH 1303 or MATH 1401, and CNMG 2313 and CNMG 2314.

**CNMG 3347 - Engineering Soil Mechanics with Lab**

Two hours lecture. Two hours laboratory per week. Three credit hours. Introduction to soils and foundation engineering and construction soil mechanics technology. Students will study engineering properties of soils, soil field exploration procedures, soil test reports, soil compaction and stabilization construction methods, water movement in soils, moisture control and drainage procedures, in-situ stress distribution in shallow and deep soils, shear strength of clay, silt and sand soils and design of shallow building foundations. Students will perform ASTM soil testing to support the course content and generate laboratory technical reports for major laboratory tests performed during the course. Fall and Spring. **Prerequisites:** CNMG 2333 or CNMG 3376.

**CNMG 3357 - Introduction to Environmental Engineering with Lab**

Two hours lecture. Two hours laboratory per week. Three credit hours. The study of the fundamental principles of environmental processes, pollution, and pollution control. Topics include mass transfer, water chemistry and microbiology, water and air pollution, and solid- and hazardous-waste management. Spring only. **Prerequisites:** Grade of C or higher in CHEM 1402 or CHEM 1406. **Prerequisite/Concurrent:** MATH 3322.

**CNMG 3371 - Engineering Dynamics**

Two hours lecture. Two hours laboratory per week. Three credit hours. Kinematics and kinetics of particles, systems of particles, and rigid bodies; energy and momentum methods; mechanical vibrations and resonance; introduction to structural dynamics due to time-varying loads, such as wind and seismic loading. Offered on demand. **Prerequisites:** Grade of C or higher in CNMG 2370.

**CNMG 3374 - Hydraulic Engineering with Lab**

Two hours lecture. Two hours laboratory per week. Three credit hours. Properties of water; hydrostatics; water flow in pipes; pipelines and piping networks; water pumps; water flow in open channels; basic fluid mechanics measurement equipment and techniques. Fall only. **Prerequisites:** Grade of C or higher in CNMG 2370.

**CNMG 3376 - Engineering Structural Mechanics**

Two hours lecture. Two hours laboratory per week. Three credit hours. The study of deformation in structural materials: stresses and strains due to tension, compression, torsion, and bending; internal shear forces and bending moments; stress and strain transformations; design of beams and analysis of beam deflections; buckling of columns; introduction to the deformation of structures. Spring only. **Prerequisites:** Grade of C or higher in CNMG 2370.

**CNMG 3378 - Engineering Thermodynamics**

Three hours lecture. Three credit hours. Properties of pure substances, thermodynamic processes, heat and work, the first law of thermodynamics, closed systems, enthalpy, open systems, the second law of thermodynamics, entropy, exergy, and an introduction to power and refrigeration cycles. Spring only.

**Prerequisites:** Grades of C or higher in CHEM 1402, PHYS 2321, and MATH 1452.

**CNMG 4100 - Independent Study**

One, two, or three credit hours. Topic and method of procedure must have approval of the supervising faculty member. Four to six hours per week of work on the project for each hour of credit earned. The exact hourly commitment per week and credit hour value depends on the nature of the project and is agreed on in advance by the student and the instructor. Offered on demand.

**Prerequisites:** junior standing or higher.

**CNMG 4145 - Professional Constructor Certification**

Two hours laboratory per week. One credit hours. Description of American Institute of Construction (AIC) certification programs and preparation for Constructor Qualifying Examinations leading to certifications as Associate Constructor (AC) and Certified Professional Constructor (CPC). Students must pass the certification exam for AC or CPC to pass the course. With approval, may be repeated for up to six hours of credit. Spring only. **Prerequisites:** Restricted to students within 12 months of graduation.

**CNMG 4185 - Professional Engineering Seminar**

Two hours laboratory per week. One credit hours. Students learn about the importance of engineering licensure, gain an understanding of professional and ethical responsibility including principles of sustainability in design, enhance the ability to function on and lead a multidisciplinary team, and begin preliminary work on the senior design project, which continues in CNMG 4285. Students must pass the AC and FE exams to pass the course. Fall only. **Prerequisites:** Grades of C or higher in RHET 1312 or RHET 1320, in CNMG 1385, and In either CNMG 4362 or CNMG 4371. Restricted to students within 12 months of graduation.

**CNMG 4199 - Special Topics in Construction**

One, two, or three credit hours. Designed to meet special needs of students or industry to cover application of construction management or construction engineering to specific problems. Meets equivalent of one hour per week for each credit hour value. May be taken more than once for credit. Offered on demand. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

**CNMG 4200 - Independent Study**

One, two, or three credit hours. Topic and method of procedure must have approval of the supervising faculty member. Four to six hours per week of work on the project for each hour of credit earned. The exact hourly commitment per week and credit hour value depends on the nature of the project and is agreed on in advance by the student and the instructor. Offered on demand.

**Prerequisites:** junior standing or higher.

**CNMG 4245 - Construction Management Capstone**

One hours lecture. Two hours laboratory per week. Two credit hours. A capstone course. Students develop and organize construction companies. Project contracts are awarded and contract administration is required. Spring only. **Prerequisites:** Restricted to students in the final semester of the construction management program.

**CNMG 4285 - Engineering Design Project**

One hours lecture. Two hours laboratory per week. Two credit hours. Continuation of CNMG 4185. Prepare for engineering practice by designing a major architectural, environmental, or civil engineering project, based on knowledge and skills acquired in earlier course work and incorporating appropriate engineering codes and standards, and multiple realistic constraints (e.g., economic, ethical, safety). Spring only. **Prerequisites:** Grade of C or higher in CNMG 4185. Restricted to students in the final semester of one of the engineering programs.

**CNMG 4299 - Special Topics in Construction**

One, two, or three credit hours. Designed to meet special needs of students or industry to cover application of construction management or construction engineering to specific problems. Meets equivalent of one hour per week for each credit hour value. May be taken more than once for credit. Offered on demand. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

**CNMG 4300 - Independent Study**

One, two, or three credit hours. Topic and method of procedure must have approval of the supervising faculty member. Four to six hours per week of work on the project for each hour of credit earned. The exact hourly commitment per week and credit hour value depends on the nature of the project and is agreed on in advance by the student and the instructor. Offered on demand.

**Prerequisites:** junior standing or higher.

**CNMG 4310 - Construction Financial Management**

Two hours lecture. Two hours laboratory per week. Three credit hours. Concepts and principles of construction financial management: construction financial systems and transactions, financial statements, depreciation analysis, labor burden, overhead determination, bid profit margins, and profit center analysis. Spring only. **Prerequisites:** junior standing or higher.

**CNMG 4311 - Estimating II**

Two hours lecture. Two hours laboratory per week. Three credit hours. Advanced applications and concepts of construction project estimating. Topics include computer aided estimating, correcting estimating errors, labor and equipment productivity, risk adjustment to price, pricing by asset utilization, markup, and ethics. Students compete in mock bids on different types of construction projects. Spring only. **Prerequisites:** CNMG 3321, CNMG 3322, and CNMG 3339.

**CNMG 4313 - Construction Management Fundamentals**

Three credit hours. This course provides an overview of construction management fundamentals such as delivery systems, estimating, scheduling and administration. It also covers construction practices such as safety, construction materials and methods, quality, and productivity. Topics include site work, concrete, masonry, steel, rough and finish carpentry, thermal and moisture protection, doors and windows, finishes, electrical and mechanical systems. Offered on demand.

**CNMG 4315 - Construction Business Operations**

Two hours lecture. Two hours laboratory per week. Three credit hours. The course will identify and explore the tasks required for the successful operation of a construction company. Beginning with startup, the course will study and participate in the operation of a medium size construction through a fiscal year. Course work will include daily, weekly, monthly, quarterly, and annual tasks. The course will cover portions of the Arkansas Contractor's Licensing requirements. Offered on demand. **Prerequisites:** junior standing or higher.

**CNMG 4318 - Advanced BIM**

Two hours lecture. Two hours laboratory per week. Three credit hours. Building information modeling (BIM) functions will be used for complex commercial construction; topographic information of sites, project datum, quantities and properties of building components, building sustainability analysis, documenting projects, and detailing of MEP or structural designs; Rendering of exterior and interior views. Fall only. **Prerequisites:** CNMG 2318.

**CNMG 4321 - Reinforced Concrete Design**

Two hours lecture. Two hours laboratory per week. Three credit hours. Behavior and design of reinforced concrete elements, including beams, columns, slabs, footings, foundations, and retaining walls; introduction to prestressed concrete design. Fall only. **Prerequisites:** Grade of C or higher in CNMG 3312.

**CNMG 4322 - Building Structure Design**

Two hours lecture. Two problem hours laboratory per week. Three credit hours. Introduction to design and analysis of steel and concrete building structures. Student will study beams, columns, and tension components including fasteners and welds constructed from high strength structural steel following the AISC Manual, during the first half of the course. Reinforced concrete design and analysis procedures for rectangular beams and slabs for bending and shear loads and axially loaded round and square long columns will be studied during the second half of the course. The provisions of the ACI Code will be followed. Concrete prestressed beam technology will be included as well as steel rebar development. Offered on demand. **Prerequisites:** CNMG 3321 or CNMG 4371, and CNMG 3322 or CNMG 4321.

**CNMG 4323 - Construction Administration**

Two hours lecture. Two hours laboratory per week. Three credit hours. An introduction to construction project control and administration through computer applications. Topics include project team development, standard agreements, contract documents utilization, record keeping, submittals, subcontract management, purchasing, expediting, change orders, claims, progress payments, closeout, and internet-based project control. Fall and Spring. **Prerequisites:** CNMG 4334.

**CNMG 4325 - Project Quality Control (QC) and Submittals**

Three hours lecture. Three credit hours. Project scope identification, management, and control; scope breakdown and submittal management in the identification of quality control issues related to the estimate and scope procurement process. Offered on demand. **Prerequisites:** Restricted to students in the final semester of the construction management program.

**CNMG 4327 - Temporary Structures**

Two hours lecture. Two hours laboratory per week. Three credit hours. The study of engineering standards, designs, practices, and procedures for erecting temporary structures used to facilitate construction. Topics include earth-retaining structures, slurry walls, dewatering, underpinning, scaffolding, formwork, falsework and shoring, bracing and guying for stability. Offered on demand. **Prerequisites:** CNMG 3321 and CNMG 3322.

**CNMG 4329 - Construction Planning and Scheduling**

Two hours lecture. Two hours laboratory per week. Three credit hours. An in-depth study of the process of creating and monitoring a construction project schedule. Creation of project schedules on a variety of scheduling software. Fall and Spring. **Prerequisites:** CNMG 3339.

**CNMG 4334 - Construction Contracts and Law**

Two hours lecture. Two hours laboratory per week. Three credit hours. A study of construction contracts in relation to project delivery systems and the basic principles of construction law. Case studies are used to analyze selected areas that affect the construction process. Topics include standard agreements and conditions, negligence, risk, indemnities, modifications, mechanics lien, claims, dispute resolution, conflicts of interest, ethical consideration, and labor law. Fall and Spring.

**Prerequisites:** junior standing or higher.

**CNMG 4342 - Construction Safety**

Two hours lecture. Two hours laboratory per week. Three credit hours. A study of the principles of construction safety management and OSHA 29 CFR PART 1926. The OSHA Construction Industry Training Course 500 topics covered in depth. Students develop a company safety plan and hazardous communications program, perform safety analysis, conduct safety meetings, and write accident investigation reports. Students complete the topic requirements for the OSHA 10-hour and 30-hour Construction Safety and Health training card. Fall and Spring. **Prerequisites:** junior standing or higher.

**CNMG 4345 - Construction Management Capstone**

Two hours lecture. Two hours laboratory per week. Three credit hours. A capstone course. Students develop and organize a simulated construction project. Project contracts are awarded and contract administration is required. Preparation for the Constructor Qualifying Examination. **Prerequisites:** Restricted to students in the final semester of the construction management program, CNMG 4311, CNMG 4323, and CNMG 4329.

**CNMG 4351 - Foundation Design**

Two hours lecture. Two hours laboratory per week. Three credit hours. The major portion of the course is composed of selected geotechnical aspects of foundation design, including both shallow and deep foundations. Topics include: ultimate bearing capacity, allowable bearing capacity, consolidation settlement of shallow foundations, pile foundations for bearing and friction piles, lateral earth pressure and retaining wall design, foundation design on difficult soils, and specialty soil improvement and ground modification. Spring only. **Prerequisites:** Grade of C or higher in CNMG 3347 and CNMG 4321.

**CNMG 4354 - Highway Engineering**

Three hours lecture. Three credit hours. An introduction to highway engineering and traffic analysis. Topics include geometric design of highways, pavement design, traffic flow, highway capacity, level-of-service analysis, traffic control devices and safety, travel demand and traffic forecasting. Fall only. **Prerequisites:** Grade of C or higher in CNMG 2316.

**CNMG 4357 - Water and Wastewater Engineering**

Three hours lecture. Three credit hours. An introduction to drinking water treatment and distribution and wastewater collection and treatment. Topics include coagulation; flocculation; softening; ion exchange; membrane filtration; sedimentation; filtration; disinfection; wastewater microbiology; primary, secondary, and tertiary treatment of wastewater; and residuals management. Spring only.

**Prerequisites:** Grades of C or higher in CNMG 3357 and CNMG 3374.

**CNMG 4361 - Green Construction**

Two hours lecture. Two hours laboratory per week. Three credit hours. Overview of design and construction delivery systems for high performance green buildings; relevant criteria and established guidelines; green standards; high performance green buildings and sustainability; vocabulary associated with sustainability and green buildings; physical limitations of materials. Spring only.

**Prerequisites:** Junior standing or higher.

**CNMG 4362 - Water Resources Engineering**

Two hours lecture. Two hours laboratory per week. Three credit hours. Analysis and design of hydraulic facilities including water supply and distribution systems, stormwater and wastewater collection systems, pumps and turbines, open channels, culverts, and groundwater wells. Analysis of rainfall and river flow; surface and subsurface water storage. Spring only. **Prerequisites:** Grades of C or higher in CNMG 3374 and ERSC 4372.

**CNMG 4364 - Air Pollution Engineering**

Two hours lecture. Two hours laboratory per week. Three credit hours. The study of the fundamental principles of air pollution, sources, effects, and management mechanisms. Discussion of air quality standards, regulations and criteria; meteorological factors and dispersion modeling. Spring only. **Prerequisites:** Grades of C or higher in CNMG 3357 and CHEM 1403.

**CNMG 4366 - Solid and Hazardous Waste Management**

Two hours lecture. Two hours laboratory per week. Three credit hours. Overview of fundamental principles related to solid and hazardous waste management including collection, handling, costs and disposal. Discussion of rules, regulations and management systems for proper destruction, immobilization and control of solid and hazardous wastes. Evaluation of engineering systems to minimize costs and assessment of environmental impact of management system. Fall only. **Prerequisites:** Grade of C or higher in CNMG 3357.

**CNMG 4368 - Environmental Risk Assessment**

Two hours lecture. Two hours laboratory per week. Three credit hours. Fundamentals of risk assessment, including ecological and human risk and applications in environmental engineering. Topics include hazard identification, dose response assessment, exposure assessment and risk characterization. Fall only.

**Prerequisites:** Grades of C or higher in BIOL 2401 and CNMG 3357. **Prerequisite/Concurrent:** STAT 3352.

**CNMG 4369 - Soil and Groundwater Remediation**

Two hours lecture. Two hours laboratory per week. Three credit hours. Overview of fundamental principles related to groundwater and soil remediation. Discussion of physical, chemical, and biological remediation technologies for contaminated groundwater and soil by in-situ and ex-situ applications. Spring only. **Prerequisites:** Grade of C or higher in CNMG 3357.

**Prerequisite/Concurrent:** ERSC 4473.

**CNMG 4371 - Structural Steel Design**

Two hours lecture. Two hours laboratory per week. Three credit hours. Behavior and design of structural steel elements, including connectors, tension and compression members, columns, and braced and unbraced beams; members under combined forces; joints and connecting elements; connections. Spring only. **Prerequisites:** Grade of C or higher in CNMG 3312.

**CNMG 4379 - Heat Transfer**

Three hours lecture. Three credit hours. Steady and transient heat conduction; forced, natural, and multiphase convection; heat exchanger design and analysis; radiation heat transfer; mass transfer. Offered on demand.

**Prerequisites:** Grade of C or higher in CNMG 3374 or SYEN 4374. **Prerequisite/Concurrent:** MATH 3322.

**CNMG 4380 - Heating, Ventilating, Air-Conditioning, and Refrigeration (HVACR) Engineering Fundamentals**

Two hours lecture. Two hours laboratory per week. Three credit hours. Fundamentals of heating, ventilating, air-conditioning, and refrigeration (HVACR) engineering; refrigeration cycles; psychrometrics; indoor air quality and ventilation; heating and cooling loads. Spring only. Cross listed as SYEN 4380. **Prerequisites:** Grade of C or higher in CNMG 3378.

**CNMG 4381 - Thermal Powerplant Engineering**

Two hours lecture. Two hours laboratory per week. Three credit hours. Thermodynamics of combustion and power cycles; internal combustion engines; steam turbine powerplants; gas turbine powerplants; combined cycle powerplants; introduction to alternative energy systems. Offered on demand. Cross listed as SYEN 4381.

**Prerequisites:** Grade of C or higher in CNMG 3378.

**CNMG 4389 - Professional Engineering Licensure**

Two hours lecture. Two hours laboratory per week. Three credit hours. Legal, regulatory, and ethical issues related to the practice of engineering; preparation for engineering licensure examinations. Offered on demand. Cross listed as SYEN 4389/5389. **Prerequisite/Concurrent:** Senior standing or above and registration for the Fundamentals of Engineering exam.

**CNMG 4391 - Cooperative Education**

Three credit hours. Requires at least 200 contact hours on the job. Offered on demand. **Prerequisites:** junior standing or above, declared major in construction management or construction engineering, and cumulative GPA of at least 2.50; approval of assignment by department chairperson.

**CNMG 4395 - Professional Development**

Three credit hours. Partnerships between students and nonprofit community organizations will be established. Students use skills in construction management or construction engineering to assist with construction-related projects. Service hours will be established at the beginning of the course. Offered on demand. **Prerequisites:** senior standing or above and consent of instructor.

**CNMG 4399 - Special Topics in Construction**

One, two, or three credit hours. Designed to meet special needs of students or industry to cover application of construction management or construction engineering to specific problems. Meets equivalent of one hour per week for each credit hour value. May be taken more than once for credit. Offered on demand. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

## Computer Science

**CPSC 1105 - First Year Experience for CPSC/IFSC Majors**

Two hours laboratory per week. One credit hours. A survey of the Computer and Information Science majors with coverage of Interpersonal and Team Communication skills, Time Management & Goal Setting, Techniques for Discovering, Organizing & Presenting Information, Self-Initiated Learning, and Overview of Campus-based resources. Activities include service learning projects, field trips, guest speakers, demonstrations, faculty presentations, and social networks.

**CPSC 1175 - Introduction to Computer Science Laboratory**

Two hours laboratory per week. One credit hours. A laboratory course to accompany CPSC 1375. Introduction to creating, editing, compiling, and executing programs on various platforms and in various application programming environments. Emphasis is on teaching students how to use the local programming environment and their own personal computers to do computer programming. Successful completion of this course requires a grade of C or greater. **Prerequisites:** MATH 1302 or equivalent. **Corequisites:** CPSC 1375.

**CPSC 1310 - Internet Technologies**

See IFSC 1310 - Web Technologies.

**CPSC 1370 - Computer Literacy**

Three hours lecture. Three credit hours. The fundamental concepts of computing in a personal computer environment. Introduction to hardware and software and system configurations. The focus is on practical problem solving using popular PC application software for word processing, spreadsheets, and databases. This course may not be counted for credit toward a computer science major or minor. (ACTS Course Number CPSI 1003)

**CPSC 1372 - RPG Programming**

Three hours lecture. Three credit hours. Report Program Generator is a nonprocedural language for data processing. Input, output, arithmetic, comparison, control breaks, arrays, sequential files, direct-access files. This course may not be counted for credit toward a computer science major or minor. **Prerequisites:** CPSC 1375, MGMT 1310, or equivalent.

**CPSC 1375 - Programming I**

Three hours lecture. Three credit hours. Introduction to algorithm development and implementation using control structures, functions, arrays, pointers, and basic object-oriented concepts. Successful completion of this course requires a grade of C or greater. **Prerequisites:** MATH 1302 or equivalent. **Corequisites:** CPSC 1175.

**CPSC 2376 - Programming II**

Three hours lecture. Three credit hours. Advanced programming concepts including structures, abstract data types, details of object-oriented concepts including encapsulation and polymorphism in current object-oriented language. Successful completion of this course requires a grade of C or greater. **Prerequisites:** CPSC 1375.

**CPSC 2377 - Introduction to Game Programming**

Three hours lecture. Three credit hours. Advanced programming concepts including structures, abstract data types, recursive techniques, game based hands-on experiences for students to learn and understand details of advanced object-oriented concepts in a current object-oriented language. Successful completion of this course requires a grade of C or greater. **Prerequisites:** CPSC 1375, IFSC 2300 SYEN 1302.

**CPSC 2380 - Data Structures and Algorithms**

Three hours lecture. Three credit hours. A systematic study of the main data structures of computer science: arrays, stacks, queues, linked lists, trees, graphs, hash tables. Implementation and analysis of the algorithms and programming techniques for searching, sorting, inserting into, and deleting from these structures; efficiency considerations. Successful completion of this course requires a grade of C or greater. **Prerequisites:** CPSC 2376 or CPSC 2377.

**CPSC 2382 - Introduction to Computer Systems and Assembly Language**

Three hours lecture. Three credit hours. Introduction to machine architecture, detailed study of the PC instruction set and addressing modes. Assembling, linking, executing, and debugging of assembly language programs. Additional topics include keyboard and screen handling, string processing, interrupts, binary and decimal arithmetic. **Prerequisites:** CPSC 1375 or equivalent.

**CPSC 2391 - Cooperative Education**

Three credit hours. Designed to complement and extend the classroom learning experience through the application of theoretical concepts in a professional work environment. A minimum of 200 hours of work with a participating employer. The exact number of work hours, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** major in computer science, CPSC 2376 or CPSC 2377, and consent of department chairperson.

**CPSC 2399 - Special Topics**

Three hours lecture. Three credit hours. Introduction to a programming language to be selected from the following list: Visual BASIC, C, ADA, Perl, XML, scripting languages, Internet programming. This course may be repeated with a different language. This course is not accepted for credit in the computer science major or minor. **Prerequisites:** CPSC 1370, CPSC 1375, or equivalent or the consent of the instructor.

**CPSC 3370 - Net-centric Computing: Systems Concepts**

Three hours lecture. Three credit hours. Coverage of systems programming of netcentric computing systems. Hands-on experiences for students to learn how netcentric computing systems work and writing netcentric computing applications. **Prerequisites:** CPSC 2380 and CPSC 2382.

**CPSC 3371 - Net-centric Computing: Language Concepts**

Three hours lecture. Three credit hours. Coverage of language design issues for netcentric computing systems. Hands-on experiences for students to learn and understand tradeoffs between applicative needs compared to language design and implementation issues. **Prerequisites:** CPSC 2380 and CPSC 2382.

**CPSC 3372 - System Utilities**

Three hours lecture. Three credit hours. Job steps, file identification, program storage, data storage, cataloged procedures, libraries, utility programs. **Prerequisites:** CPSC 2376 or CPSC 2377.

**CPSC 3375 - Database Concepts I**

Three hours lecture. Three credit hours. In-depth study of data models including ER, EER, Relational, object relational, and other current models; Data language including relational algebra, relational calculus, SQL, and QBE; Database design including functional dependency and normalization; Database implementation using popular DBMSs; Application development using embedded SQL enhanced by web technology. **Prerequisites:** CPSC 2380, MATH 2310.



**CPSC 3380 - Operating Systems**

Three hours lecture. Three credit hours. Buffering, physical input/output, and data management. Loaders, linkage editors, and relocation. Multiprogramming, scheduling resource allocation, and virtual memory.

**Prerequisites:** CPSC 2380; CPSC 2382; MATH 1452 or equivalent.

**CPSC 3381 - Enterprise COBOL Application Development**

Three hours lecture. Three credit hours. Accelerated programming in COBOL. Includes organization of COBOL programs, input, output, data manipulations, and tables, file organization, and file access methods. Subprogram, introduction to CICS programming. **Prerequisites:** CPSC 2376, CPSC 2377, or consent of the instructor.

**CPSC 3383 - Language Structure**

Three hours lecture. Three credit hours. Concepts of syntax and semantics of grammars and languages. Study and comparison of the organization and major constructs of various programming language paradigms, with in-depth study of several specific languages. Implementation and compiler/interpreter-related issues. **Prerequisites:** CPSC 2380; MATH 2310.

**CPSC 3385 - File Structures and Multimedia**

Three hours lecture. Three credit hours. In-depth study of sequential, indexed, and direct file structure; buffering, indexing; file systems; markup file structures including XML. Modern file representation including image files and sound files; Multimedia technology including CDROM, DVDs, and tape storage. **Prerequisites:** CPSC 2380 and MATH 1452 or equivalent.

**CPSC 3386 - Information Storage and Retrieval**

Three hours lecture. Three credit hours. The analysis of information content by statistical, syntactic, and logical methods. Search and matching techniques. Automatic retrieval systems, question answering systems. Evaluation of retrieval effectiveness. **Prerequisites:** CPSC 2380, MATH 2310, MATH 1452 or equivalent.

**CPSC 3387 - Simulation Methods**

Three hours lecture. Three credit hours. Introduction to the design and analysis of discrete probabilistic systems using simulation. Basic concepts in modeling and analysis for both continuous and discrete systems are covered. Combined simulation methods, including integrated qualitative/quantitative system modeling. Emphasizes model construction and simulation language.

**Prerequisites:** CPSC 2380, STAT 3352 or equivalent, MATH 1452.

**CPSC 3391 - Cooperative Education**

Three credit hours. Further work experiences to complement and extend the classroom learning experience through the application of theoretical concepts in a professional work environment. A minimum of 200 hours work with a participating employer. The exact number of work hours, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** major in computer science, completion of the computer science freshman and sophomore core, and consent of department chairperson.

**CPSC 3482 - Computer Organization I**

Three hours lecture. Two hours laboratory per week. Four credit hours. Computer history and technology. Computer subsystems and components. Instruction Set Architecture. Computer arithmetic, and codes. Hardwired versus microprogrammed control. Memory design. Bus systems and I/O devices. Computer performance. Architecture examples. **Prerequisites:** CPSC 2382 and MATH 2310 or equivalents.

**CPSC 4100 - Independent Study**

One, two, three, four, or five credit hours. Designed for students who want to carry out special investigations. Topic and method of procedure must have approval of the supervising faculty member. Dual-listed in the Graduate Catalog at the 5000-level. Sixty hours work per credit hour. **Prerequisites:** senior standing, at least 20 hours in computer science, consent of instructor.

**CPSC 4200 - Independent Study**

One, two, three, four, or five credit hours. Designed for students who want to carry out special investigations. Topic and method of procedure must have approval of the supervising faculty member. Dual-listed in the Graduate Catalog at the 5000-level. Sixty hours work per credit hour. **Prerequisites:** senior standing, at least 20 hours in computer science, consent of instructor.

**CPSC 4300 - Independent Study**

One, two, three, four, or five credit hours. Designed for students who want to carry out special investigations. Topic and method of procedure must have approval of the supervising faculty member. Dual-listed in the Graduate Catalog at the 5000-level. Sixty hours work per credit hour. **Prerequisites:** senior standing, at least 20 hours in computer science, consent of instructor.

**CPSC 4360 - Computer Security**

Three hours lecture. Three credit hours. Increasing reliance on our computer-based infrastructure elements along with information-driven nature of today's business require a solid and in depth understanding of security issues pertinent to the systems. The topics include threats, assumptions, assurance, confidentiality, integrity, availability, access control matrix and policies, security models, requirements imposed by policies, protection models, covert channels, formal methods for security, designing and evaluating systems, intrusion detection, auditing and other contemporary issues. **Prerequisites:** CPSC 3380 or consent of instructor. Junior standing or above.

**CPSC 4366 - Interactive Computer Graphics and Animation**

Three hours lecture. Three credit hours. This course addresses topics such as introduction to computer graphics and all the details of design of modern graphics architectures. The topics covered include two and three dimensional modeling and transformation, lighting and shading, animation techniques, introduction to OpenGL. Dual listed in the Graduate Catalog as CPSC 5366.

**Prerequisites:** MATH 2310 and knowledge of C, C++, or Java programming.

**CPSC 4367 - Mobile Apps Development**

Three hours lecture. Three credit hours. Mobile devices are becoming ubiquitous and developers are rushing to build applications for them. In this course, we will be learning how to develop mobile applications for popular mobile platforms. Students will learn skills for creating and deploying real-world mobile applications. Solid skills of programming and application development and good knowledge of software engineering are necessary for successful completion of this course. Dual listed in the Graduate Catalog as CPSC 5367. **Prerequisites:** CPSC 2380 or equivalent, with grade of C or greater.

**CPSC 4370 - Theory of Computation**

Three hours lecture. Three credit hours. A study of the main areas of theoretical computer science and their hierarchical interconnections. Basic results relating to formal models of computation, with emphasis on grammars and languages, finite automata, Turing machines, and computational complexity. Dual listed in the Graduate Catalog as CPSC 5370. **Prerequisites:** CPSC 3383, MATH 2310.

**CPSC 4371 - Computer Documentation**

Three hours lecture. Three credit hours. The design and development of computer system documentation with emphasis on user documentation. Practical experience in writing a user manual using structured design methodology. Discussion of online documentation, hypertext, and emerging documentation technologies.

**Prerequisites:** Senior standing in computer science and consent of instructor.

**CPSC 4372 - Object-oriented Programming**

Three hours lecture. Three credit hours. Concepts of object-oriented analysis, design, and implementation. Object-oriented programming in C++, Smalltalk, Java, and/or another current object-oriented programming language. Dual listed in the Graduate Catalog as CPSC 5372. **Prerequisites:** working knowledge of a procedural programming language and UNIX operating system, or consent of the instructor.

**CPSC 4373 - Fundamentals of Software Engineering**

Three hours lecture. Three credit hours. Requirements definition, analysis and modeling including use cases and use case paths, domain models, state transition diagrams; techniques to increase robustness and avoid disastrous defects; object-oriented architecture and design patterns and specifications in UML; performance impact of design choices; analysis of designs regarding maintainability and testability; security engineering; practical system test and glass-box testing fundamentals; verification of test coverage via decision tables and state transition table. Dual listed in the Graduate Catalog as CPSC 5373.

**Prerequisites:** CPSC 3380, CPSC 3383 or equivalent, and MATH 1452.

**CPSC 4375 - Fundamentals of Database Management Systems**

Three hours lecture. Three credit hours. Advanced topics related to the design and efficient implementation of modern database management systems. Concurrency and transaction management, database security, query processing, query optimization, physical database storage, and indexing. Dual listed in the Graduate Catalog as CPSC 5375. **Prerequisites:** CPSC 3375 or equivalent.

**CPSC 4376 - Applied Cryptography**

Three hours lecture. Three credit hours. A survey and study of the major cryptographic techniques, algorithms, and implementations, with emphasis on applications to communications and network security. Intended as a practical introduction to the current state-of-the-art of cryptographic usage. Dual listed in the Graduate Catalog as CPSC 5376. **Prerequisites:** CPSC 2380, MATH 2310, and STAT 3352 or equivalents.

**CPSC 4377 - Advanced Game Programming**

Three hours lecture. Three credit hours. This course is the third semester of programming and problem solving using the C++ language to develop video games. The course will cover implementation of numerous advanced programming techniques: resource management, graphical interfaces, physics, collision detection and resolution, nonplayer characters, and media integration. The examples and programming assignments make extensive use of multiple external C++ libraries. The class will also cover select theoretical aspects of game programming and development. Dual listed in the Graduate Catalog as CPSC 5377. **Prerequisites:** CPSC 2380, Junior/Senior or entry graduate level standing.

**CPSC 4381 - Computer Architecture and Design**

Three hours lecture. Three credit hours. Formal description of computer architecture and design, instruction set architectures, processor design of modern computers, pipeline and instruction level parallelism, memory system design, and input and output system design. Dual listed in the Graduate Catalog as CPSC 5381. **Prerequisites:** CPSC 3482.

**CPSC 4382 - Compiler Construction and Theory**

Three hours lecture. Three credit hours. Fundamental principles of compiler design such as finite state machine and context-free grammar. Compilation techniques include compile and run-time symbol tables, lexical analysis, syntax analysis, semantic analysis, object code generation, error diagnostics, and optimization. Dual listed in the Graduate Catalog as CPSC 5382. **Prerequisites:** CPSC 3383.

**CPSC 4383 - Artificial Intelligence**

Three hours lecture. Three credit hours. Introduction to machine intelligence. Emphasis upon different paradigms for problem solving such as various state-space search strategies and other approaches. Exposure to one or more key areas such as robotics, logic programming, machine learning, expert systems, planning, neural networks, natural language processing, reasoning, under uncertainty, etc. **Prerequisites:** CPSC 2380; MATH 1452 and MATH 2310, Junior/Senior undergraduate or entry graduate level standing.

**CPSC 4384 - Computer Networks**

Three credit hours. Introduction to design and analysis of computer networks. Computer communications architecture and protocols, local and wide area networks, IP networks, bridging and routing, Ethernet, wireless LANs, sockets programming, and distributed applications. Dual listed in the Graduate Catalog as CPSC 5384. **Prerequisites:** CPSC 3380 and CPSC 3482.

**CPSC 4387 - Distributed Computing**

Three credit hours. Network-based client/server computing. Topics include TCP/IP, object-oriented technology, distributed objects and their interfaces, JDBC, remote method invocation, CORBA, and web-based software system architecture. **Prerequisites:** CPSC 3380.

**CPSC 4388 - Smart Software Systems**

Three hours lecture. Three credit hours. Study of the concept, design, and implementation of rule-based systems, agent-based systems, reasoning, reasoning under uncertainty; belief systems, explanation systems; knowledge representation, knowledge acquisition, and knowledge discovery; and application of knowledge engineering in web technology. Dual listed in the Graduate Catalog as CPSC 5388. **Prerequisites:** CPSC 3375, MATH 1452.

**CPSC 4389 - E-commerce: Analysis, Design, and Implementation**

Three credit hours. E-commerce site analysis and design. Web-based system architecture, client/server computing, network protocols, software engineering for web based systems, computer networks, web-based databases, script languages (Java, VB), XML, ASP, SQL, and DSN. **Prerequisites:** CPSC 3383, CPSC 3375.

**CPSC 4391 - Cooperative Education**

Three credit hours. Continuation of CPSC 3391. Work experiences to complement and extend the classroom learning experience through the application of theoretical concepts in a professional work environment. A minimum of 200 hours work with a participating employer. The exact number of work hours, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** major in computer science, CPSC 3391, and consent of department chairperson.

**CPSC 4392 - Capstone Project**

Three credit hours. Capstone course in which student individually design a software system, document and present their conclusions. Students also develop a detailed undergraduate portfolio for a comprehensive review of their undergraduate work. Project work involves the development of design alternatives, development of an appropriate software architecture, and design and test the implemented system. The software design focuses on addressing overall design goals while understanding constraints of cost, etc. Deliverables and schedule are determined by the instructor. **Prerequisites:** CPSC 4373.

**CPSC 4395 - Internship**

Three, four, or five credit hours. Professional experience related to student's discipline under supervision of advisor. Sixty hours work per credit hour. **Prerequisites:** senior standing in computer science, approval of assignment by advisor.

**CPSC 4399 - Special Topics**

Three hours lecture. Three credit hours. Advanced topics in areas of current interest in computer science. Refer to the semester schedule for specific topics offered. Dual listed in the Graduate Catalog as CPSC 5399. **Prerequisites:** consent of instructor.

**CPSC 4400 - Independent Study**

One, two, three, four, or five credit hours. Designed for students who want to carry out special investigations. Topic and method of procedure must have approval of the supervising faculty member. Dual-listed in the Graduate Catalog at the 5000-level. Sixty hours work per credit hour. **Prerequisites:** senior standing, at least 20 hours in computer science, consent of instructor.

**CPSC 4495 - Internship**

Three, four, or five credit hours. Professional experience related to student's discipline under supervision of advisor. Sixty hours work per credit hour. **Prerequisites:** senior standing in computer science, approval of assignment by advisor.

**CPSC 4500 - Independent Study**

One, two, three, four, or five credit hours. Designed for students who want to carry out special investigations. Topic and method of procedure must have approval of the supervising faculty member. Dual-listed in the Graduate Catalog at the 5000-level. Sixty hours work per credit hour. **Prerequisites:** senior standing, at least 20 hours in computer science, consent of instructor.

**CPSC 4595 - Internship**

Three, four, or five credit hours. Professional experience related to student's discipline under supervision of advisor. Sixty hours work per credit hour. **Prerequisites:** senior standing in computer science, approval of assignment by advisor.

## Criminal Justice

**CRJU 2300 - Introduction to Criminal Justice**

Three credit hours. Basic understanding of legal and ethical foundations of criminal justice and the major components of the criminal justice system. (ACTS Course Number CRJU 1023)

**CRJU 3105 - Seminar in Criminal Justice**

One, two, or three credit hours. A study of special problems, issues, or trends relating to the criminal justice system. May be repeated with a change of subject and with permission of the department chairperson. **Prerequisites:** CRJU 2300.

**CRJU 3205 - Seminar in Criminal Justice**

One, two, or three credit hours. A study of special problems, issues, or trends relating to the criminal justice system. May be repeated with a change of subject and with permission of the department chairperson. **Prerequisites:** CRJU 2300.

**CRJU 3301 - Criminal Evidence**

Three credit hours. An analysis of the legal problems associated with the investigation of crime; the acquisition, preservation, presentation of evidence; principles of proof in criminal proceedings. **Prerequisites:** CRJU 2300.

**CRJU 3302 - Legal Aspects of Law Enforcement**

Three credit hours. A study of the leading constitutional cases in the area of criminal justice with particular emphasis on cases dealing with search and seizure, the privilege against self-incrimination, assistance of counsel, and fair trial guarantees. **Prerequisites:** CRJU 2300.

**CRJU 3303 - Survey of Corrections**

Three credit hours. Explores the operation of the correctional system within the context of society and within the criminal justice system, the integration of criminology, the courts and corrections, the relationship the correctional system has to society, its interaction with the other components within the criminal justice system, and its historical foundations.

**CRJU 3304 - Police and Society**

Three credit hours. This course will examine the relationship between the police and the community from several different perspectives. We will start with an introduction to the history, practices and issues related to the law enforcement function in our society, followed by an overview of police functions and responsibilities at the local, state, and federal levels. Police operations will be examined relative to effectiveness in crime control, delivery of services, and maintenance of order. We will review contemporary policy issues, programs and strategies. Finally, we will examine existing programs, problems, and potential directions as well as successes and failures in policing. Primary emphasis will be placed on community policing and its impact on policing in the 21st century.

**CRJU 3305 - Seminar in Criminal Justice**

One, two, or three credit hours. A study of special problems, issues, or trends relating to the criminal justice system. May be repeated with a change of subject and with permission of the department chairperson. **Prerequisites:** CRJU 2300.

**CRJU 3306 - Police Administration and Management**

Three credit hours. Basic understanding of the part police play within society and within the criminal justice system. Explores the relationship the police have to society, their interaction with the other components within the criminal justice system, and their historical foundations. Discusses management strategies that have been employed over the past century in policing emphasizing the daily administration of a police agency.

**CRJU 3307 - Criminal Law**

Three credit hours. An analysis of criminal acts, elements of specific crimes, and defenses permitted in the United States legal system. **Prerequisites:** CRJU 2300.

**CRJU 3309 - Cybercrime**

Three credit hours. Designed to acquaint students with law enforcement's response to crimes committed using computers, networks, and the internet. **Prerequisites:** IFAS 2300 or consent of instructor.

**CRJU 3310 - Race/Ethnicity and Criminal Justice**

Three credit hours. An exploration of the differing experiences of racial/ethnic groups as they come into contact with crime and the criminal justice system. **Prerequisites:** CRJU 2300.

**CRJU 3311 - Gangs**

Three credit hours. An examination of the historical, cross-cultural, and current state of gang involvement.  
**Prerequisites:** CRJU 2300.

**CRJU 3312 - Victimology**

Three credit hours. A review of the distribution and causes of crime from the point of view of the victim, as well as detailing the interface between victims and the legal and social service communities. **Prerequisites:** CRJU 2300.

**CRJU 3313 - Crime and Science: An Introduction to Forensic Science**

Three credit hours. A general overview of the field of forensic science, the application of "science," and the scientific method to the law. Topics such as criminalistics, including firearms and toolmarks, trace evidence, fingerprints, toxicology, and biological evidence, such as serology and DNA. Forensic pathology, forensic odontology, forensic anthropology, and forensic psychology will be introduced. An experience oriented component will be provided by currently active forensic specialists.

**CRJU 3314 - Statistics in Criminal Justice**

Three credit hours. This course is an introduction to data analysis in criminology and criminal justice. The primary goal of the course is to introduce students to the statistics and the problems that are commonly encountered in crime research. Emphasis will be placed on the application of quantitative measures to the study of prevention, interdiction, and suppression of criminal behavior.

**CRJU 3315 - Sex Crimes**

Three credit hours. This course will take an in-depth look at sex offenders and sex crimes. Students will explore possible causes of sex crimes, treatment options for sex offenders, victimization issues and types of sex offenders. Current research involving special topics as they relate to sex offenses will also be addressed in this course.

**CRJU 3337 - Juvenile Delinquency**

Three credit hours. Juvenile delinquent behavior, problems, theory, cause, control and prevention. Cross listed as SOCI 3337.

**CRJU 3338 - Criminological Theory**

Three credit hours. This course will provide the student with a comprehensive examination of criminological theory. The course surveys the major schools of thought related to crime causation and particular theories about crime and delinquency, places these theories in historical context, and reviews the primary assumptions of these theories and conclusions reached in criminological research.

**CRJU 3348 - Internship I**

Three credit hours. Experience in law enforcement agencies, juvenile courts, probation and parole departments, other correctional institutions, delinquency control programs, and public or voluntary agencies.  
**Prerequisites:** consent of instructor.

**CRJU 3349 - Internship II**

Three credit hours. A continuation of CRJU 3348.

**CRJU 3390 - Neighborhood Studies**

Little Rock, like other cities, is made up of multiple neighborhoods, each with unique culture and history. This course emphasizes community engagement through active study of the University District/ Promise Neighborhood communities, using the disciplinary tools of art, criminal justice, and history. After studying neighborhoods through the lenses of these disciplines, students will engage in service learning with Promise Neighborhood Advisory Board members to address neighborhood issues.

**CRJU 3396 - Psychology and the Criminal Process**

Three credit hours. An exploration of the contributions of psychology to the practice of law, law enforcement, and other related areas, illustrated in terms of testimony and court procedures, psychopathology, correctional services, the development of laws, and social psychology.

**CRJU 4120 - Independent Study**

One, two, or three credit hours. Advanced study and research. **Prerequisites:** 15 hours of CRJU courses, senior standing with 3.00 GPA, consent of instructor.

**CRJU 4199 - Criminal Justice Workshop**

One or two credit hours. Subjects vary. Sixteen hours of workshop time will equal one credit hour.

**CRJU 4220 - Independent Study**

One, two, or three credit hours. Advanced study and research. **Prerequisites:** 15 hours of CRJU courses, senior standing with 3.00 GPA, consent of instructor.

**CRJU 4299 - Criminal Justice Workshop**

One or two credit hours. Subjects vary. Sixteen hours of workshop time will equal one credit hour.

**CRJU 4300 - Crime and Behavior**

Three credit hours. Enables students to identify and understand the major schools of thought in criminology and to integrate them into a comprehensive application to the real world.

**CRJU 4301 - Judicial System and Process**

Three credit hours. A survey of state, local, and federal judicial systems and their interrelationships. Examines judicial structures, functions, and decision-making procedures. Dual listed in the Graduate Catalog as CRJU 5301. **Prerequisites:** CRJU 2300.

**CRJU 4302 - Law and Society**

Three credit hours. An examination of the origins and history of law in society, including the evolving roles of judges, juries, defense attorneys, and prosecutors. Examines the evolution of civil and criminal law, the adversary system, and the concept of justice. Dual listed in the Graduate Catalog as CRJU 5302. **Prerequisites:** CRJU 2300.

**CRJU 4303 - Readings in Criminal Justice**

Three credit hours. A survey of the current literature on crime and law enforcement, with emphasis on special research reports and periodical and journal articles in criminal justice, law sociology, and related fields. **Prerequisites:** CRJU 2300.

**CRJU 4304 - Research Methods**

Three credit hours. Instruction in reading and comprehension of reports and research within the criminal justice field, identifying the application of various research techniques and statistical methods, and producing a draft research proposal.

**CRJU 4305 - Juvenile Law and Process**

Three credit hours. An exploration of the philosophical basis, process, legal rights of juveniles, and roles of the major participants in the juvenile justice system. **Prerequisites:** CRJU 2300.

**CRJU 4307 - Drug Abuse**

Three credit hours. A study of frequently abused drugs, with emphasis on the personal, social, and legal consequences of drug abuse and on the treatment of drug addiction.

**CRJU 4309 - Crime Prevention**

Three credit hours. This course provides an overview of the fundamental concept of crime prevention, beginning with a review of crime statistics and crime causation theories and their relevance in the prevention of crime. The course will review current crime prevention strategies as they relate to crime prevention efforts and explore physical environments that positively influence human behavior.

**CRJU 4310 - Terrorism**

Three credit hours. This course provides an overview of terrorism as a political weapon, definitions of terrorism, an examination of the causes of terrorism, precepts of domestic and international terrorism, and the religious foundations of terrorism. The course will review current active terrorist groups, their organizational structures, philosophies and networks.

**CRJU 4311 - Security Management**

Three credit hours. This course is an examination of the principles and issues of organizational security management. The course will examine the historical development of public and private security and its form and practice in modern society. Students will examine the fundamental challenges embodied in various aspects of security such as personnel, facility, and information security.

**CRJU 4312 - Homeland Security**

This course provides an introduction to the theory and practice of homeland security in both the public and private sector at the national, regional, state, and local level. Students will explore the practical, legal, policy, and theoretical aspects of counterterrorism and counterintelligence as they relate to defending the US against foreign and domestic attacks.

**CRJU 4313 - Information Security**

Three credit hours. This course is an examination of the administrative aspects of information security management and is designed to develop knowledge and skills for protection of information and information systems within organizations. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures.

**CRJU 4320 - Independent Study**

One, two, or three credit hours. Advanced study and research. **Prerequisites:** 15 hours of CRJU courses, senior standing with 3.00 GPA, consent of instructor.

**CRJU 4332 - Corrections Psychology**

Three credit hours. A review of theoretical and applied issues in the practice of correctional psychology. Focus on relevant empirical studies and their application in a correctional context. **Prerequisites:** CRJU 2300.

**CRJU 4333 - Cooperative Education**

Three credit hours. Experience in law enforcement agencies, juvenile courts, probation and parole departments, other correctional institutions, delinquency control programs, and public or voluntary agencies. **Prerequisites:** consent of instructor.

**CRJU 4351 - Constitutional Law II**

Three credit hours. Civil liberties, analysis of leading constitutional decisions focusing on human freedom and fundamental rights. Emphasis on religious liberty, freedom of expression, racial equality, privacy, criminal procedures and the dynamics of Supreme Court decision making. Cross listed as POLS 4351.

**CRJU 4380 - Comparative Criminal Justice Systems**

Three credit hours. An analysis of the law enforcement, judicial, and correctional systems of other nations, with emphasis on comparison with the United States system of criminal justice. Dual listed in the Graduate Catalog as CRJU 5380. **Prerequisites:** CRJU 2300.

## Dance

### **DANC 2201 - Modern Dance I**

Two credit hours. A course in the basic movement techniques of contemporary dance, with emphasis on breath, alignment, coordination, and endurance. This course is repeatable for credit.

### **DANC 2241 - Ballet I**

Two credit hours. The study of basic classical ballet technique and terminology. This study will place emphasis on barre and center work to gain alignment, strength, flexibility and coordination. This course is repeatable for credit.

### **DANC 2261 - Jazz Dance I**

Two credit hours. Basic style, technique, and rhythmic structures of jazz dance. This course is repeatable for credit.

### **DANC 2271 - Dance Improvisation**

Two credit hours. Guided exploration in the process of spontaneous movement discovery through solo and group movement experiences, leading to an expanded awareness of the individual's infinite movement resources for performance and choreography. Repeatable for credit.

### **DANC 2281 - Tap Dance I**

Two credit hours. Basic tap dance techniques, including basic listening, rhythmic and coordination skills. This course is repeatable for credit.

### **DANC 2291 - Introduction to Dance Technique**

Two credit hours. This course involves the study of basic dance techniques of major western dance forms: ballet, modern, and jazz. It is specifically designed for individuals with no prior dance training. Course may be repeated twice for credit.

### **DANC 3240 - Music for Dance**

Two credit hours. Development of musical skills for dance. Study of musical elements related to dance; dance accompaniment techniques; music discovery and selection; recording/mixing techniques; and hands-on experience with percussion and other instruments.

**Prerequisites:** Permission of instructor.

### **DANC 3261 - Jazz Dance II**

Two credit hours. Development of technical skills in jazz dance, including increased complexity of movement capabilities, with an emphasis on stylistic flexibility and performance qualities. This course is repeatable for credit.

**Prerequisites:** Permission of instructor.

### **DANC 3270 - Body Conditioning**

Two credit hours. A course in body conditioning, designed to give the dancer additional physical training that will complement regular dance technique courses. Specific method of body conditioning may vary by semester, and could include Pilates®, Yoga, Gyrotonic®, or other methods of body conditioning. Repeatable for credit.

**Prerequisites:** Permission of instructor required.

### **DANC 3271 - Choreography I**

Two credit hours. Introduction to the basic elements of dance composition. Introduction to various methods of creating and manipulating original movement. Emphasis will be on short solo and group studies that explore space, time, energy, rhythm, shape, and dynamics.

**Prerequisites:** DANC 2271 and permission of instructor.

**Corequisites:** must be enrolled in one of the following courses: DANC 2201, DANC 3301, DANC 4301, DANC 2241, DANC 3341, or DANC 4341.

### **DANC 3281 - Tap Dance II**

Two credit hours. Development of technical and performance skills in tap dance, including more advanced listening, rhythmic and coordination skills. Additional emphasis on audition strategies. Repeatable for credit.

**Prerequisites:** Permission of instructor.

### **DANC 3301 - Modern Dance II**

Three credit hours. Development of technical skills in contemporary dance, including rhythmic perception and spatial awareness, with increased emphasis on musicality and performance qualities. Repeatable for credit.

**Prerequisites:** Permission of instructor.

### **DANC 3311 - Dance History I**

Three credit hours. Study of the history of dance from primitive culture through the early 1900s. The primary focus is the development of dance as an art form in Western cultures, with specific emphasis on the origins and evolution of ballet.

### **DANC 3313 - Dance History II**

Three credit hours. Study of the history of dance in the 20th and 21st Centuries. The primary focus is the development of dance as an art form in Western cultures, with specific emphasis on contemporary dance and the evolution and emergence of new dance forms.

### **DANC 3320 - Labanotation**

Three credit hours. System for recording movement. An aid in clarifying understanding of movement both as performer and as choreographer.

### **DANC 3330 - Dance Science and Kinesiology**

Three credit hours. Study to analyze movement for increased efficiency and effectiveness in training and performance. This course also includes an introduction to somatics and conditioning principles; and an overview of basic diet, health care, and injury prevention for dancers.

**Prerequisites:** BIOL 1433 or BIOL 1401.

### **DANC 3341 - Ballet II**

Three credit hours. Intermediate ballet technique course. Development of technical skills in ballet, including safe and efficient alignment and expanded movement vocabulary, with increased emphasis on musicality and performance qualities. Repeatable for credit.

**Prerequisites:** Permission of instructor.

**DANC 4100 - Independent Study**

One, two or three credit hours. An opportunity for advanced students to conduct an in-depth study in a specific area of interest or a special problem.

**Prerequisites:** consent of dance faculty.

**DANC 4140 - Special Topics in Dance**

One two, or three credit hours. Special topics for the study of an area not offered in the regular dance curriculum. The content and course subtitle change each time offered. Refer to the semester class schedule for a descriptive title of the content. Repeatable for credit. Dual listed in the Graduate Catalog as the 5000-level.

**Prerequisites:** Permission of instructor.

**DANC 4191 - Dance Performance**

One credit hours. Study of selection of works, areas of appropriate staging, musical selections, technical aspects, audition, rehearsal, and all aspects of performance of dance. Repeatable for credit. **Prerequisites:** Permission of instructor.

**DANC 4197 - Internship**

One credit hours. The internship is designed to provide an immersive hands-on experience during which the student will focus on performance, choreography, production, educational outreach, or management with a professional dance or theatre company. The majority of the internship will be spent on site and according to the company's schedule. Assignments will be determined by the management in consultation with the department coordinator. **Prerequisites:** Junior or senior standing, permission of dance faculty.

**DANC 4198 - B.A. Senior Project**

One credit hours. Research project integrating dance with another area of study (minor, second major, or other approved discipline). **Prerequisites:** Senior standing and permission of dance faculty.

**DANC 4199 - Senior Dance Project**

One credit hours. Public presentation of choreography and performance, accompanied by written documentation of the project and a complete digital portfolio. The project is designed to demonstrate the student's mastery of the skills developed during their course of study in Dance at UA Little Rock. Specific requirements and expectations for the project will be determined by the dance faculty, based on the nature of the proposed project. Required of all B.F.A. dance majors. **Prerequisites:** Senior standing and permission of dance faculty.

**DANC 4200 - Independent Study**

One, two or three credit hours. An opportunity for advanced students to conduct an in-depth study in a specific area of interest or a special problem.

**Prerequisites:** consent of dance faculty.

**DANC 4240 - Special Topics in Dance**

One two, or three credit hours. Special topics for the study of an area not offered in the regular dance curriculum. The content and course subtitle change each time offered. Refer to the semester class schedule for a descriptive title of the content. Repeatable for credit. Dual listed in the Graduate Catalog as the 5000-level.

**Prerequisites:** Permission of instructor.

**DANC 4261 - Jazz Dance III**

Two credit hours. Further development of skill, style, and understanding of the jazz form of dance. Repeatable for credit. **Prerequisites:** Permission of instructor.

**DANC 4271 - Choreography II**

Two credit hours. Further exploration of methods to create and manipulate movement material. Solo and group studies of increased complexity, exploring spatial design, group forms, musical structures, and texture, with attention to overall compositional structure.

**Prerequisites:** DANC 3271. **Corequisites:** must be enrolled in one of the following courses: DANC 2201, DANC 3301, DANC 4301, DANC 4302, DANC 2241, DANC 3341, DANC 4341 or DANC 4342.

**DANC 4300 - Independent Study**

One, two or three credit hours. An opportunity for advanced students to conduct an in-depth study in a specific area of interest or a special problem.

**Prerequisites:** consent of dance faculty.

**DANC 4301 - Modern Dance III**

Three credit hours. Further development of kinesthetic, expressive, and aesthetic principles in contemporary dance at an advanced level. Increased complexity of movement capabilities, rhythmic structure, and spatial designs. Exploration of body/mind connection. Additional emphasis on aesthetic and expressive qualities for performance. Repeatable for credit. **Prerequisites:** Permission of instructor.

**DANC 4302 - Modern Dance IV**

Three credit hours. Refinement of contemporary dance technique and performance skills at the advanced/preprofessional level. Repeatable for credit.

**Prerequisites:** Permission of instructor.

**DANC 4330 - Dance Science and Kinesiology**

Three credit hours. Study of the science of human movement as it applies to dance technique and performance. Students will gain a working knowledge of skeletal and muscular anatomy, and the ability to analyze movement for increased efficiency and effectiveness in training and performance. This course also includes an introduction to somatics and conditioning principles; and an overview of basic diet, health care, and injury prevention for dancers. **Prerequisites:** ANTH 1415 or BIOL 1401. Permission of instructor required.



**DANC 4340 - Special Topics in Dance**

One two, or three credit hours. Special topics for the study of an area not offered in the regular dance curriculum. The content and course subtitle change each time offered. Refer to the semester class schedule for a descriptive title of the content. Repeatable for credit. Dual listed in the Graduate Catalog as the 5000-level.

**Prerequisites:** Permission of instructor.

**DANC 4341 - Ballet III**

Three credit hours. Further development of kinesthetic, expressive, and aesthetic principles of ballet at an advanced level. Exploration of body/mind connection. Additional emphasis on self-expression within the ballet aesthetic. Repeatable for credit. **Prerequisites:**

Permission of instructor.

**DANC 4342 - Ballet IV**

Three credit hours. Refinement of ballet technique and performance skills at an advanced/preprofessional level. Repeatable for credit. **Prerequisites:** Permission of instructor.

**DANC 4354 - Dance Criticism and Concepts**

Three credit hours. This course examines dance forms, personalities, trends, and criteria for critical and appreciative viewing of the dance.

**DANC 4360 - Dance Pedagogy**

Three credit hours. An overview of the general theories and practices of teaching dance; study of various methodologies used to teach dance techniques and creative movement. Opportunities to develop and implement lesson plans for students in workshop settings. Development of comprehensive syllabi for dance in private studios and public schools. **Prerequisites:** permission of instructor.

**DANC 4372 - Choreography III**

Three credit hours. Advanced course in dance composition, encompassing various methods of colliding, juxtaposing, and interweaving a wide range of original material to create cohesive, powerful works with solid compositional structure. Creation of complete works, culminating in a student-choreographed concert.

**Prerequisites:** DANC 4371. **Corequisites:** must be enrolled in one of the following courses: DANC 2201, DANC 3301, DANC 4301, DANC 4302, DANC 2241, DANC 3341, DANC 4341 or DANC 4342.

## Electronics & Computer Engineering Technology

**ECET 1302 - Freshman Year Experience in Technology & Computers**

Five integrated lab and hours lecture. Three credit hours. A Freshman Year Experience course for freshmen students to provide introductory experience in modern technology through hands-on laboratory activities, team work, cooperative learning, and problem solving. The course builds on a thematic learning platform to provide integrative learning and design experience, time management experience, and information-gathering skills.

**ECET 1404 - Circuit Analysis I**

Three hours lecture. Three hours laboratory per week. Four credit hours. A study of DC (direct current) circuit analysis techniques using resistors, inductors, and capacitors as circuit elements. Network theorems and introduction to AC analysis. **Prerequisites:** a grade of C or greater in ECET 1302 or consent of instructor, and MATH 1302.

**ECET 2100 - Methods of Engineering Computation**

One hours lecture. One hours laboratory per week. One credit hours. Use of microcomputers for technical data analysis, manipulation, and reports. Application of the computer to engineering problem solving. **Corequisites:** MATH 1303.

**ECET 2105 - Circuits and Simulation Laboratory**

Three hours laboratory per week. One credit hours. Laboratory experiments to supplement classroom instruction in ECET 2305. Introduction to electronics simulation software and its applications to laboratory exercises. **Corequisites:** ECET 2305.

**ECET 2150 - Microprocessor Fundamentals**

One hours lecture. One credit hours. Study includes number systems, basic types of instructions and addressing modes, and an overview of the functional organization inside a microprocessor. **Prerequisites:** a grade of C or greater in ECET 1404, sophomore standing.

**ECET 2152 - Introductory Digital Laboratory**

Three hours laboratory per week. One credit hours. Lab exercises to provide practical knowledge of logic devices and their applications. **Corequisites:** ECET 2352.

**ECET 2169 - Sophomore Design Project**

Three hours laboratory per week. One credit hours. Schematic layout through CAD; PCB design to include SMT components; complete fabrication with mechanical consideration, and casing. Both written report and oral presentation are required. **Prerequisite/Concurrent:** ECET 3405 or consent of instructor.

**ECET 2191 - Cooperative Education**

One credit hours. Industrial experience under supervision of faculty advisor to supplement course work. Students who take this course may not take ECET 2291. Requires at least 240 contact hours on the job. **Prerequisites:** sophomore standing in engineering technology and approval of department's chairperson; cumulative GPA of 2.50; minimum GPA of 2.30 for previous semester.

**ECET 2291 - Cooperative Education**

Two credit hours. Industrial experience under supervision of advisor to supplement course work. Students who take this course may not take ECET 2191. Requires at least 480 contact hours on the job. **Prerequisites:** sophomore standing and approval of department's chairperson; cumulative GPA of 2.50; minimum GPA of 2.30 for previous semester.

**ECET 2300 - Numerical Methods for Technologists**

Five combined laboratory and hours lecture. Three credit hours. An introductory course in symbolic language programming with application to engineering problems. Related material in numerical methods of solution is presented. **Prerequisites:** IFSC 1202 or equivalent. **Corequisites:** MATH 1342.

**ECET 2305 - Circuit Analysis II**

Three hours lecture. Three credit hours. A study of the steady-state response of AC electrical circuits. The applications of the concepts of inductive reactance, capacitive reactance, and complex impedance to the solutions of AC circuits, series and parallel resonance, and power. **Prerequisites:** grades of C or greater in ECET 1404, MATH 1303.

**ECET 2330 - Electronics and Controls**

Two hours lecture. Three hours laboratory per week. Three credit hours. Intended for majors other than electronics and computer engineering technology. Fundamental elements of power electronics needed to understand the operation and maintenance of electronic equipment. Introduction of power semiconductor devices including diodes and thyristors. The electronic control of motors, including variable frequency drives. Controlling the operation of equipment and processes with programmable logic controllers. **Prerequisites:** a grade of C or greater in ECET 2405.

**ECET 2352 - Introduction to Digital Systems**

Three hours lecture. Three credit hours. Introduction to digital circuits and systems. Number systems, Boolean algebra, and applications of basic logic gates; exercises in analysis and design of combinational and sequential logic circuits, including encoders, decoders, multiplexers, flipflops, registers, and counters. Microprocessor architecture software and programming. **Prerequisites:** a grade of C or greater in ECET 1404 or equivalent.

**ECET 2405 - Electrical Technology**

Three hours lecture. Three hours laboratory per week. Four credit hours. An introductory course in electrical technology for majors other than electronics and computer engineering technology. A review of basic quantities including current, voltage, power, and energy. An introduction to machines and transformers, including direct current motors, induction motors, stepper motors, synchronous generators, and transformers. **Prerequisites:** a grade of C or greater in MATH 1303. **Corequisites:** PHYS 1322 and PHYS 1122.

**ECET 3191 - Cooperative Education**

One credit hours. Industrial experience under supervision of advisor to supplement course work. Students who take this course may not take ECET 3291. Requires at least 240 contact hours on the job. **Prerequisites:** junior standing in engineering technology and approval of department's chairperson; cumulative GPA of 2.50, minimum GPA of 2.30 for previous semester.

**ECET 3291 - Cooperative Education**

Two credit hours. Work experience related to student objectives under supervision of advisor. Students who take this course may not take ECET 3191. Requires at least 480 contact hours on the job. **Prerequisites:** junior standing in engineering technology and approval of chairperson; cumulative GPA of 2.50; minimum GPA of 2.30 for previous semester.

**ECET 3300 - Independent Study**

Three credit hours. Study of assigned topics chosen to develop investigative, analytical, research, or professional skills related to engineering. The student is expected to spend 8 to 10 hours per week on the project. The exact hourly commitment depends on the complexity of the project and is agreed on in advance by the student and the instructor. **Prerequisites:** consent of instructor.

**ECET 3308 - Robotics and Programmable Logic Controllers (PLCs)**

Two hours lecture. Three hours laboratory per week. Three credit hours. A study of operation of PLC's, including ladder logic programming and interfacing to industrial-type equipment, such as motors. Programming topics include bit addressing, timers, counters, and switches. The application of PLC's for robotic control will be examined. **Prerequisites:** grade of C or greater in ECET 1404 or ECET 2405.

**ECET 3316 - Power Systems and Equipment**

Two hours lecture. Two recitation and hours laboratory per week. Three credit hours. Basic principles of AC power systems analysis, with emphasis on three-phase systems. Load and fault analysis and economic operation. Major equipment items, including motors, generators, transformers, and switching and control equipment. **Prerequisites:** grades of C or greater in ECET 2305, MATH 1342.

**ECET 3360 - Data Acquisition and Sensors**

Two hours lecture. Three hours laboratory per week. Three credit hours. A practice-oriented course emphasizes the use of sensors in instrumentation and control and provides an understanding of the techniques of acquisition and manipulation of experimental and sensory data using computer hardware and software to build a coordinated and optimal automated system. Principles of process control using personal computers to provide an inexpensive solution for isolated or small-scale industrial process control are also discussed.

**Prerequisites:** grades of C or greater in ECET 2352 and ECET 3406 and CPSC 1375; or consent of instructor.

**ECET 3405 - Electronic Devices I**

Three hours lecture. Three hours laboratory per week. Four credit hours. A study of the characteristics and applications of electronic elements including diodes, BJTs, and op-amps. Includes load lines, biasing techniques, single and multistage signal amplifiers, power amplifiers, and transistor switching characteristics. Laboratory exercise also includes computer simulation.

**Prerequisites:** grades of C or greater in ECET 2305 and ECET 2105.

**ECET 3406 - Electronic Devices II**

Three hours lecture. Three hours laboratory per week. Four credit hours. A detailed study of the operational amplifier, including gain considerations and frequency response. Selected applications of the op-amp to instrumentation, control, and active filters; computer-aided analysis is fully integrated into all topics. Other topics include oscillators and timing circuits. **Prerequisites:** a grade of C or greater in ECET 3405.

**ECET 3409 - Signal Analysis**

Three hours lecture. Three hours laboratory per week. Four credit hours. Laplace transform method applied to network analysis, filters, and feedback systems. Fourier series and Fourier transform techniques with application to communication signals. Introduction to Z transform for digital signal processing. The laboratory projects include computer simulation using Matlab. **Prerequisites:** grades of C or better in ECET 3406 and MATH 1343.

**ECET 3450 - Microcontroller Applications**

Three hours lecture. Three hours laboratory per week. Four credit hours. An introduction to programming microcontrollers using assembly and C languages. Hardware applications include keypads, LCDs, timers, ADCs, and PWM. **Prerequisites:** grades of C or greater in ECET 2352, ECET 2152, and CPSC 1375.

**ECET 4149 - Photovoltaics and Renewable Energy Lab**

Three hours laboratory per week. One credit hours. Laboratory experiments and projects to provide practical know-how and training in power electronics necessary to interface renewable energy generators to load and grid. Examine the effects of angle of tilt, shading, and irradiance on PV power production. The project will include the design of a low power mppt-controlled standalone PV system. Also includes simulation. **Corequisites:** ECET 4349.

**ECET 4199 - Special Technical Topics I**

One credit hours. Designed to meet special needs of students or industry to cover application of technology to specific industrial problems. Meets equivalent of one hour. **Prerequisites:** consent of instructor based on relevance of subject matter to student career goals.

**ECET 4304 - Industrial Controls**

Two hours lecture. Three hours laboratory per week. Three credit hours. A detailed study of industrial controls based around microcontrollers. Practical applications are emphasized. Topics include interface devices, such as opto-isolators and solid state relays. **Prerequisites:** a grade of C or greater in ECET 4407.

**ECET 4306 - Data and Computer Communications**

Three hours lecture. Three credit hours. Discusses principles and practices in data communications with emphasis on the hardware aspects of data communication. Topics include transmission, encoding, decoding, data interfacing, error detection and correction, link control, networking and protocols. Internetworking over the internet. **Prerequisites:** a grade of C or greater in ECET 3409.

**ECET 4309 - Applied Signal Processing**

Two hours lecture. Two hours laboratory per week. Three credit hours. A hands-on experience to digital signal processing through laboratory exercises in a computer environment. Sampling theorem, discrete-time signals and systems, DFT, FFT, and digital filters. **Prerequisites:** grade of C or greater in ECET 3409.

**ECET 4349 - Photovoltaics and Renewable Energy**

Three hours lecture. Three credit hours. Renewable energy system resources including thermal-solar, photovoltaic, wind, geothermal systems, biomass, and other current topics. Focuses on the theory of photovoltaics power generation, maximum power point tracking, power electronics and interfacing, microinverters, energy storage, practical applications and design of standalone and grid-connected systems. Also included topics in safety, the economics of alternative renewable energy systems compared to conventional systems, and emerging green energy technology. **Prerequisites:** Grade of C or better in ECET 3406 or SYEN 3352 or Consent of instructor.

**ECET 4351 - System Design**

Three hours lecture. Three credit hours. Methods of approaching design problems, software control of hardware, modeling of applications, hardware/software tradeoffs in the design process. Students work in teams to solve a substantive design problem. The course integrates at the system level the hardware/software knowledge of the electronics and computer engineering technology major. **Prerequisites:** grades of C or greater in ECET 3360 and ECET 4450, or consent of instructor.

**ECET 4353 - Optical Electronic Devices and Systems**

Two hours lecture. Two hours laboratory per week. Three credit hours. Applications of optoelectronic devices to communications, robotics, and automated manufacturing. **Prerequisites:** grades of C or greater in ECET 3406 and ECET 4407.

**ECET 4354 - Computer Hardware Architecture**

Three hours lecture. Three credit hours. Study of the various hardware designs and their relationship to architecture. Includes an overview of mainframe, supercomputers, and multicomputers. **Prerequisites:** grades of C or greater in ECET 3350, ECET 4407.

**ECET 4362 - Real-Time Systems**

Three hours lecture. Three credit hours. Real-time specification and design techniques, real-time kernels, intertask communication and synchronization, real-time memory management, system performance analysis and optimization. **Prerequisites:** grades of C or greater in ECET 3350 and CPSC 2376 or equivalents.

**ECET 4363 - Network Technology and Management**

Two hours lecture. Two hours laboratory per week. Three credit hours. A continuation of the studies of the principles and practices in data communication and includes topics such as switches and switching fabric, frame relay, ATM, and emerging technologies. Protocols and techniques for monitoring and managing computer networks, and computer security issues are discussed. **Prerequisites:** grade of C or greater in ECET 4306.

**ECET 4370 - Senior Design Project**

Five hours laboratory per week. Three credit hours. Students work independently with a faculty mentor on a design/research problem. The project could be developed through industry collaboration, faculty research, or at the student's own initiative through literature search. The project requires electronics and computer engineering technology faculty approval, formal oral and written presentation, and demonstration of the project. Students meet with the mentor weekly to discuss their designs. **Prerequisites:** grade of C or greater in ECET 4351.

**ECET 4399 - Special Technical Topics III**

Three credit hours. Designed to meet special needs of students or industry to cover application of technology to specific industrial problems. Meets equivalent of three hours. **Prerequisites:** consent of instructor based on relevance of subject to student career goals.

**ECET 4407 - Digital System Design**

Three hours lecture. Three hours laboratory per week. Four credit hours. Advanced concepts in digital system design to include programmable devices, and state machines using HDL. Laboratory projects include computer simulation. **Prerequisites:** grade of C or better in ECET 3450.

**ECET 4450 - Embedded Systems**

Three hours lecture. Three hours laboratory per week. Four credit hours. Advanced topics in ARM based (or other current) microcontroller applications and programming, using the C language. Topics include touchscreen based and WiFi control applications. **Prerequisites:** grade of C or greater in ECET 3450.

**ECET 4479 - Communication Systems**

Three hours lecture. Three hours laboratory per week. Four credit hours. Spectral analysis of signals; noise; linear modulation and demodulation; AM, SSB, angle modulation and demodulation; phase locked loops, and digital communication techniques. **Prerequisites:** grades of C or greater in ECET 3409.

**ECET 4480 - Digital Communication**

Three hours lecture. Three hours laboratory per week. Four credit hours. Advanced study of techniques and hardware employed in digital, microwave, satellite, and fiber optic communications. **Prerequisites:** a grade of C or greater in ECET 4479.

## Economics

**ECON 2301 - Survey of Economics**

Three credit hours. The wants of individuals and societies are unlimited, while the resources for satisfying these wants are limited. Consequently, choices have to be made. Economics is the science of choice. Survey of Economics introduces students to the ability to use theories or models to make sense out of the real world and devise policy solutions to economic problems. Both individual and firm choices (microeconomics) and society choices (macroeconomics) are examined. The role of markets in summarizing choices and allocating resources is introduced. ECON 2301 will not satisfy the University Core Curriculum requirements if ECON 2322 and ECON 2323 are taken for graduation credit.

**ECON 2310 - Business Statistics I**

Three credit hours. An introduction to statistical methods from an economic and business perspective, including descriptive statistics, index numbers, probability theory as applied to statistical analysis, and an introduction to hypothesis testing. (ACTS Course Number BUSI 2103) **Prerequisites:** MATH 1342 with grade of C or greater.

**ECON 2311 - Business Statistics II**

Three credit hours. An introduction to regression analysis with emphasis on underlying assumptions, violations of assumptions, and possible corrective measures. Students are required to develop and estimate a realistic regression model and interpret results. **Prerequisites:** ECON 2310.

**ECON 2312 - Quantitative Methods**

Three credit hours. An introduction to quantitative methods frequently used in business. Topics include regression analysis, decision analysis and expected values, Chi Square, sampling techniques, forecasting, linear programming, simulation, transportation problems, and queuing analysis. Students shall complete a term project. **Prerequisites:** MATH 1342 with grade of C or greater, and ECON 2310.

**ECON 2322 - Principles of Microeconomics**

Three credit hours. The theory of the individual firm in the economy, cost and price determination, income distribution, and welfare economics. (ACTS Course Number ECON 2203) **Prerequisites:** MATH 1302.

**ECON 2323 - Principles of Macroeconomics**

Three credit hours. The monetary system, macroeconomic analysis of income, employment, price level, business fluctuations, and elements of international trade. (ACTS Course Number ECON 2103) **Prerequisites:** MATH 1302 and ECON 2322.

**ECON 3301 - Survey of Economics**

Three credit hours. An overview of the science of economics. Basic economic laws and methods are presented followed by a survey of the two primary areas of economics: microeconomics and macroeconomics. Students will be introduced to the functioning of markets and the choice process individuals and societies are faced with while making economic decisions. Not for credit by business or economics majors.

**ECON 3310 - Money and Banking**

Three credit hours. The nature and functions of money and the development of the Federal Reserve System, the role and activities of the Federal Reserve in the development of monetary policy. **Prerequisites:** ECON 2323.

**ECON 3314 - Mathematical Economics**

Three credit hours. Analysis of economic problems and theory using mathematics. Mathematical methods are used to demonstrate economic principles. **Prerequisites:** ECON 2311 or ECON 2312, ECON 2322, ECON 2323.

**ECON 3315 - Intermediate Microeconomic Analysis**

Three credit hours. Price and production theory. Consumer demand, the supply function, market pricing, and various degrees of competition. **Prerequisites:** ECON 2310, ECON 2322, ECON 2323.

**ECON 3320 - Business Forecasting**

Three credit hours. Business fluctuations; seasonal, cyclical, trend, and secular components; measurement of fluctuations; and methods of predicting changes in business activity. **Prerequisites:** ECON 2312, ECON 2322, ECON 2323.

**ECON 3330 - Intermediate Macroeconomic Theory**

Three credit hours. National income analysis and its implications for public policy; its historical development and present status, including recent business cycle development. **Prerequisites:** ECON 2322, ECON 2323.

**ECON 3355 - Quantitative Business Analysis**

Three credit hours. Students will use common business software in applications covering multiple regression and correlation, goodness of fit, chi square and tests of independence, decision analysis and expected values, analysis of variance, sampling techniques, forecasting (including how to decompose a time series into its components), and nonparametric tests. **Prerequisites:** MGMT 1310, ECON 2310, 70% score on qualifying exam.

**ECON 4305 - Advanced Microeconomics**

Three credit hours. Theoretical microeconomics covering the theory of distribution, general equilibrium, welfare economics, and other advanced topics. **Prerequisites:** ECON 3315 or equivalent.

**ECON 4310 - History of Economic Thought**

Three credit hours. The development of contemporary economic theory. A study of the development of economic concepts, methods of analysis, and philosophies and their relation to contemporary theory. **Prerequisites:** ECON 2322, ECON 2323.

**ECON 4320 - International Economics**

Three credit hours. The theory and mechanics of international trade; balance of payments problems, commercial policy, and international investments. **Prerequisites:** ECON 2322, ECON 2323.

**ECON 4322 - Resource Economics**

Three credit hours. Applied microeconomics concentrating on natural resources as they are used to maximize society's total utility. Both the theoretical and actual aspects of natural resources as inputs to the production process are explored. **Prerequisites:** ECON 2322 and ECON 2323 or equivalents.

**ECON 4324 - Environmental Economics**

Three credit hours. Applied microeconomics covering various aspects of environmental economics. The problems of preventing future pollution and cleaning past pollution in an economically efficient manner are explored. Economic theory, actual practice, and legal aspects of pollution are explored in the context of the trade-offs that must be considered. **Prerequisites:** junior standing.

**ECON 4330 - Public Finance**

Three credit hours. The economic functions of government, public goods theory. Public sector decision making, financing, and consequences; public sector growth and institutions. **Prerequisites:** ECON 2322, ECON 2323.

**ECON 4340 - Labor Economics**

Three credit hours. Economics of labor as a factor in the production process; legislative aspects of labor-management relations; measurement of human capital; effects of union growth; role of organized labor in the economy. **Prerequisites:** ECON 2322, ECON 2323.

**ECON 4344 - Introduction to Financial Economics**

Three credit hours. Survey of capital markets and security market efficiency and introduction to portfolio theory, capital asset pricing, and agency theory. Implications for corporate financial policy decisions and financial market regulatory policy. **Prerequisites:** ECON 2323 or equivalent.

**ECON 4347 - Economics of Development**

Three credit hours. The study of how countries change their productive arrangements and change real per-capita income over time. Various development strategies are discussed. **Prerequisites:** ECON 2322 and ECON 2323 or equivalents.

**ECON 4350 - Applied Econometrics**

Three credit hours. This course will introduce students to the skills used in empirical research including, but not limited to, data collection, model specification, regression analysis, violations of regression assumptions and corrections, indicator variables, linear restrictions tests, and limited dependent variable models. The course will focus on the intuition and application of econometric methods and statistical software will be used extensively. Students will be required to complete an independent research project involving the application of regression analysis. Dual listed in the Graduate Catalog as ECON 5350. **Prerequisites:** ECON 2312.

**ECON 4360 - Independent Study**

Three credit hours. Research and independent investigation in areas of economic analysis, economic policy, history of economic thought, and economic development. **Prerequisites:** senior standing, consent of chairperson and instructor.

**ECON 4396 - Cooperative Education I**

Three credit hours. Designated to complement and extend the classroom learning experience through the application of theories and concepts in a professional work environment. A written project, designed in consultation with the faculty member, and a minimum of 200 hours with a participating employer during the semester are required. The exact number of weekly work hours, activities, and responsibilities are dependent upon the nature of the work experience and must be specified in written agreements between the student, faculty member, and the Office of Cooperative Education. This course is accepted as elective credit in the economics major. **Prerequisites:** senior standing, economics major, completion of at least 9 hours of upper-level economics courses with a grade of C or greater, cumulative GPA of 2.50, and consent of department chairperson prior to registration.

**ECON 4397 - Seminar in Economics**

Three credit hours. Advanced economic topics in modular format and usually team taught. Topics will come from both the microeconomic and macroeconomic areas and may vary according to need. **Prerequisites:** senior standing and consent of faculty teaching course.

**ECON 4398 - Teaching Internship**

Three credit hours. Working with individual instructors, upper-level majors assist students by holding study sessions twice a week for students enrolled in ECON 2310 or ECON 3355 and performing other tasks determined through consultation with the instructor. Unrestricted elective. **Prerequisites:** consent of department chair and the supervising faculty.

## Educational Foundations

**EDFN 1190 - Career Planning and Life Options**

One credit hours. A systematic approach to developing decision-making skills and an orientation to the world of work. The focal point of the course is the student and his or her goals. Emphasis is on clarifying and formulating realistic career goals and an appropriate career plan and strategy to achieve these goals. Credit/no credit.

**EDFN 2300 - American Education**

Three credit hours. The philosophical, sociological, psychological, and historical foundations of American education, especially in public schools. The course will provide opportunities for each student to develop an official certification/degree plan and to apply for admission to the teacher education program. **Prerequisites:** sophomore standing.

**EDFN 3304 - Assessment in the Middle School Curriculum**

Three credit hours. Study of available assessment methods and the integration of these methods in planning, modifying, and evaluating instruction, and in reporting outcomes to varied constituencies. After completing this course, students will meet basic assessment competencies as outlined in the Arkansas Principles for Licensure for Beginning Teachers and The Standards for Teacher Competence in the Educational Assessment of Students (1990).

**EDFN 3320 - Introduction to Educational Psychology**

Three credit hours. Applications of psychological principles to the learning and teaching processes; emphasis on learning, cognitive development, social development, discipline, intelligence, evaluation, and measurement. **Prerequisites:** PSYC 2300.

**EDFN 4100 - Independent Study in Educational Foundations**

One, two, three, four, or five credit hours. In-depth study of topics in educational foundations for pre-service elementary teachers, junior or senior high school teachers, or adult education teachers.

**EDFN 4158 - Educational Foundations Workshop**

One, two, three, or four credit hours. Designed to strengthen offerings in education and meet the needs of teachers for further training at the in-service level.

**EDFN 4200 - Independent Study in Educational Foundations**

One, two, three, four, or five credit hours. In-depth study of topics in educational foundations for pre- service elementary teachers, junior or senior high school teachers, or adult education teachers.

**EDFN 4205 - Diagnostic and Evaluative Procedures in Education**

Two credit hours. A study of fundamental statistical concepts and their use in understanding standardized test results. Emphasis on the exploration of qualitative methods and evaluating and reporting progress.

**EDFN 4258 - Educational Foundations Workshop**

One, two, three, or four credit hours. Designed to strengthen offerings in education and meet the needs of teachers for further training at the in-service level.

**EDFN 4300 - Independent Study in Educational Foundations**

One, two, three, four, or five credit hours. In-depth study of topics in educational foundations for pre- service elementary teachers, junior or senior high school teachers, or adult education teachers.

**EDFN 4315 - Applied Statistics for Practitioners**

Three credit hours. Introduction to descriptive and inferential statistics commonly used in research in education and the health professions for the purpose of data-driven decision making to improve evidence-based practice. Topics include commonly used descriptive statistics, inferential reasoning, hypothesis testing, and parametric and nonparametric procedures and their assumptions including ANOVA models and linear regression. Emphasis is on understanding the logical bases of statistical tests of significance and understanding analysis sections of empirical reports.

**EDFN 4358 - Educational Foundations Workshop**

One, two, three, or four credit hours. Designed to strengthen offerings in education and meet the needs of teachers for further training at the in-service level.

**EDFN 4400 - Independent Study in Educational Foundations**

One, two, three, four, or five credit hours. In-depth study of topics in educational foundations for pre- service elementary teachers, junior or senior high school teachers, or adult education teachers.

**EDFN 4458 - Educational Foundations Workshop**

One, two, three, or four credit hours. Designed to strengthen offerings in education and meet the needs of teachers for further training at the in-service level.

**EDFN 4500 - Independent Study in Educational Foundations**

One, two, three, four, or five credit hours. In-depth study of topics in educational foundations for pre- service elementary teachers, junior or senior high school teachers, or adult education teachers.

## Elementary Education

**ELEM 2200 - Field Experience I**

Two credit hours. This field experience will acquaint candidates with a variety of primary school experiences. Candidates will be oriented to the structure of the school district, school, and classroom setting. Students are placed with a cooperating teacher in a Kindergarten or first grade classroom for the full day each Wednesday for 14 weeks. Candidates are required to submit a "field reflection" each week to their University supervisor, and organize a "field notebook" with the required items.

**ELEM 2300 - Foundations of Elementary Ed.**

Three credit hours. The information provided in this course will equip candidates with basic psychological sophistication to prepare him/her for classroom teaching. Theories and examples of theories will be discussed to help candidates understand how to apply theories to classroom teaching. An emphasis is placed on the intelligent use of theory and research to improve instruction. Candidates will focus on theories in field settings. **Prerequisites:** admission to elementary education program.

**ELEM 2301 - Children's Literature**

Three credit hours. Candidates explore a broad range of children's literature genres, including literature from different cultures and informational texts for students in K-6th grades. Candidates learn criteria information for evaluating and selecting quality, developmentally appropriate reading materials in order to create a literate classroom environment for all students. The course will include a focus on using wide reading and genres to develop and implement activities aligned with Common Core State Standards' literacy goals in language arts, social studies, science and math. **Prerequisites:** Admission to the Elementary Education program. **Corequisites:** ELEM 2301 Field Experience I.

**ELEM 2302 - Child Growth and Development**

Three credit hours. This course is a study of environmental and hereditary effects on the cognitive, affective, and psychomotor development of typically and atypically developing children from birth to adolescence. Candidates consider both predictable developmental patterns and unique patterns due to sexual, socioeconomic, cultural, and normal variations in inherited characteristics. **Prerequisites:** Admission to the Elementary Education program. **Corequisites:** ELEM 2200 - Field Experience I.

**ELEM 2303 - Emergent Literacy**

Three credit hours. This course focuses on the foundations of early literacy in a natural learning environment for K through second grade. Emphasis will be given to learning to teach through the components of a balanced literacy program with special attention placed on designing and managing literate environments, appropriate book selection, language development activities, and using observational assessment strategies to guide instruction. **Prerequisites:** Admission to the Elementary Education program. **Corequisites:** ELEM 2200 - Field Experience I

**ELEM 2304 - Integrated Science K-3**

Three credit hours. This course teaches science content knowledge for K3. This course involves planning and facilitating of research-based science teaching strategies, the selection and use of materials, and implementation of assessment theory and techniques. Candidates will design and implement grade-level appropriate instructional activities by their understanding of what it means to know and learn science. Candidates will work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas. Additionally, this course explores ways in which curriculum and technology are used in classroom settings to build relationships among teachers and students. Candidates will learn how content and pedagogy combine to make effective teaching. **Prerequisites:** Admission to the Elementary Education program.

**ELEM 3200 - Field Experience II**

Two credit hours. This field experience will acquaint candidates with a variety of primary school experiences. Candidates will be oriented to the structure of the school district, school, and classroom setting. Students are placed with a cooperating teacher in a second or third grade classroom for the full day each Wednesday for 14 weeks. Candidates are required to submit a "field reflection" each week to their University supervisor, and organize a "field notebook" with the required items. **Prerequisites:** Admission to the Elementary Education program.

**ELEM 3300 - Building Learning Environments**

Three credit hours. Candidates will learn how to design, establish, and maintain effective learning environments including both the physical and psychosocial environments. Candidates will learn the theoretical base and applied strategies for guiding students from diverse backgrounds towards becoming cooperative, contributing, self-disciplined, and critical-minded participants in school. Candidates will practice applying strategies in a field/lab setting. **Prerequisites:** Admission to the Elementary Education program; ELEM 2200 - Field Experience I; ELEM 2302 - Child Growth and Development. **Corequisites:** ELEM 3200 - Field Experience II.

**ELEM 3301 - Integrated Lit. and Language I**

Three credit hours. The course continues the continuum of Emergent Literacy and addresses the needs of students at a higher literacy level. This course focuses on the foundations of the early and fluent stages of literacy for third and fourth grade students. Emphasis is given to learning to teach through the components of a comprehensive literacy program with special attention placed on independent reading, literature study and comprehension, integrating literacy in content, and the reading and writing connection. **Prerequisites:** Admission to the Elementary Education program; ELEM 2301 - Children's Literature; ELEM 2303 - Emergent Literacy. **Corequisites:** ELEM 3200 - Field Experience II.

**ELEM 3302 - Social Studies Methods**

Three credit hours. This course provides the opportunity for candidates to analyze and develop integrated curricula in social studies from a variety of historical and current perspectives within the context of professional, state and local standards. Candidates integrate knowledge from the six disciplines of social studies (history, anthropology, sociology, political science, geography, and economics) into the design of a constructivist, inquiry-based social studies curriculum. The course explores ways children come to learn about themselves and others. There is an emphasis on meeting the needs of all children, including attention to diverse linguistic and cultural backgrounds, and different learning abilities and styles. **Prerequisites:** Admission to the Elementary Education program. **Corequisites:** ELEM 3202 Field Experience II.

**ELEM 4200 - Field Experience III**

Two credit hours. This field experience will acquaint candidates with a variety of primary school experiences. Candidates will be oriented to the structure of the school district, school, and classroom setting. Students are placed with a cooperating teacher in a fourth, fifth, or sixth grade classroom for the full day each Wednesday for 14 weeks. Candidates are required to submit a "field reflection" each week to their University supervisor, and organize a "field notebook" with the required items. **Prerequisites:** Admission to the Elementary Education program.

**ELEM 4300 - Assessment Methods K-6**

Three credit hours. This course will be a study of fundamental observation, assessment, and evaluation concepts and tools. Emphasis will be placed on both qualitative and quantitative methods of reporting student progress. Principles of classroom test construction, alternative assessment techniques, and measurement strategies at various developmental levels K-6 will be addressed. Candidates will learn to accurately interpret standardized test results and be exposed to ethical and legal considerations surrounding use and reporting of assessment results. **Prerequisites:** Admission to the Elementary Education program. **Corequisites:** ELEM 4200 - Field Experience III.



**ELEM 4301 - Integrated Lit and Language II**

Three credit hours. This course focuses on effective literacy instruction in the upper elementary grades (56). Teacher candidates will learn how to plan and implement instruction for all learners that continue the development of reading and writing in a balanced literacy setting with emphasis on fluency, vocabulary development, and comprehension in expository and informational texts. Content includes, but is not limited to, major approaches for teaching literacy, effective strategies for differentiating literacy instruction, teaching students how to effectively read and comprehend complex texts, systematic assessment of reading and writing, and an introduction to critical literacy. **Prerequisites:** Admission to the Elementary Education program; ELEM 2301 - Children's Literature; ELEM 3301 - Integrated Lit. and Language I **Corequisites:** ELEM 4200 - Field Experience III.

**ELEM 4302 - Integrated Science 4-6**

Three credit hours. This course teaches science content knowledge for 46 students. This course involves planning and facilitating of research-based science teaching strategies, the selection and use of materials, and implementation of assessment theory and techniques. Candidates will design and implement grade-level appropriate instructional activities by their understanding of what it means to know and learn science. Candidates will work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas. Additionally, this course explores ways in which curriculum and technology are used in classroom settings to build relationships among teachers and students. Candidates will learn how content and pedagogy combine to make effective teaching. **Prerequisites:** Admission to the Elementary Education program.

**ELEM 4304 - Internship Seminar I**

Three credit hours. This seminar is designed to advance the knowledge, skills, and dispositions introduced and developed throughout the program. Topics address all four domains of the assessment criteria for internship, planning and preparation, the classroom learning environment, teaching, and professionalism. Particular attention is focused on the teacher as decision-maker and the link between assessment and pedagogical decision-making. All aspects of the class will require candidates to connect the course content to their daily experiences in their internship classroom. **Prerequisites:** Admission to the Elementary Education program. **Corequisites:** ELEM 4600 - Internship I.

**ELEM 4305 - Collaborations w/ Family and Professionals**

Three credit hours. This course focuses on understanding parental issues and concerns within diverse family systems; understanding the dimensions of parenting children from birth to adolescence; and knowledge of multicultural perspectives in parenting and in planning parenting education strategies. Candidates will research a variety of parenting education models and their effectiveness in increasing parental involvement in schools. **Prerequisites:** Admission to the Elementary Education program.

**ELEM 4306 - Internship Seminar II**

Six credit hours. Course is concurrent with the candidate's final field experience. It further advances the knowledge, skills, and dispositions introduced and developed throughout the program. Topics address all four domains of the assessment criteria for internship, planning and preparation, the classroom learning environment, teaching, and professionalism. Candidates' analyses of day to day teaching experiences are integrated into the discussion of these topics. Internship Seminar II includes preparation of a portfolio of materials for applying for jobs and for supporting them through their first year of teaching **Prerequisites:** Admission to Elementary Education Program. **Corequisites:** ELEM 4900 - Internship II.

**ELEM 4600 - Internship I**

Six credit hours. Course is one full semester (16.5 weeks). It is designed such that the candidate begins with observation and selected teaching activities and gradually assumes complete responsibility for teaching in the classroom. They will plan, teach, assess, and reflect on all aspects of the teaching process including communication with colleagues and families and collaboration with teaching partners. Candidates will prepare for children with special needs. They are expected to use all of the resources of the school and exhibit competence with technology. **Prerequisites:** Admission to Elementary Education program. **Corequisites:** ELEM 4304 - Internship Seminar I; ELEM 4305 - Collaborations w/ Family and Professionals.

**ELEM 4900 - Internship II**

Nine credit hours. Course is one full semester in a classroom (16.5 weeks). It is designed such that the candidate begins with observation and selected teaching activities and gradually assumes complete responsibility for teaching in the classroom. They will plan, teach, assess, and reflect on all aspects of the teaching process including communication with colleagues and families and collaboration with teaching partners. Students will prepare to work with students with special needs. They are expected to use all of the resources of the school and exhibit competence with technology. **Prerequisites:** Admission to Elementary Education Program. **Corequisites:** ELEM 4306 - Internship Seminar II.

## Literature

### **ENGL 2330 - Writing about Literature**

Students will be taught to write analytical, thesis-driven essays on fiction, poetry, and drama that rely on summary, evaluation, analysis, and research. They will also learn the importance of audience, voice, and purpose in writing. Though not a prerequisite for any other English course, students are encouraged to take this class early in their major.

### **ENGL 2335 - Introduction to Literature**

Three credit hours. For the beginning student of literature. Topics vary and include selections from poetry, fiction, and drama.

### **ENGL 2337 - World Literature**

Three credit hours. Study of selected texts reflecting a variety of cultural literary heritages and traditions. Assigned works represent several national literatures, in a variety of historical periods, and at least three literary genres. (ACTS Course Number ENGL 2113)

### **ENGL 2338 - World Literature Themes**

Three credit hours. This class addresses the same competencies as ENGL 2337, but through exploration of a specific topic. **Prerequisites:** completion of the first year writing requirement.

### **ENGL 2339 - Mythology**

Three credit hours. This course will examine myths from around the world, exploring how archetypal themes and motifs reflect shared moral, philosophic, and aesthetic concerns. An emphasis will be placed on how these myths are transmitted across literary periods and how they remain relevant to contemporary life.

### **ENGL 2341 - Topics in Fiction**

Three credit hours. Introductory level topics in the study of fiction.

### **ENGL 2342 - Topics in Poetry**

Three credit hours. Introductory level topics in the study of poetry.

### **ENGL 2343 - Topics in Drama**

Three credit hours. Introductory level topics in the study of poetry.

### **ENGL 3321 - American Literature I**

Three credit hours. Selected works from the earliest writings to American romanticism.

### **ENGL 3322 - American Literature II**

Three credit hours. Representative writings of American authors from 1920 to the present.

### **ENGL 3323 - American Literature III**

Three credit hours. Selected works from the period beginning with the Civil War and ending in 1912.

### **ENGL 3325 - Literature of the South**

Three credit hours. Presentation of representative southern writers. Emphasis on writers of the southern renaissance of the twentieth century.

### **ENGL 3326 - African-American Literature I**

Three credit hours. Representative writings of African American authors from the colonial period to the 1910s.

### **ENGL 3327 - African-American Literature II**

Three credit hours. Representative writings of African American authors from 1919 to the present.

### **ENGL 3330 - Approaches to Literature**

Three credit hours. An introduction to literary analysis and criticism, including a survey of critical approaches, genres, and literary terminology. Required for English Majors.

### **ENGL 3331 - British Literature 1**

Three credit hours. Representative writings of British authors from the beginning to 1603.

### **ENGL 3332 - British Literature 2**

Three credit hours. Representative writings of British authors from 1603 to 1789.

### **ENGL 3333 - British Literature 3**

Three credit hours. Representative writings of British authors from 1789 to the present.

### **ENGL 3340 - Women in Literature**

Three credit hours. The study of selected texts by women writers and/or the study of depictions of women in literature.

### **ENGL 3344 - Modern Drama**

Three credit hours. A close analysis of selected British, American, and European plays.

### **ENGL 3346 - The Form and Theory of Fiction**

Three credit hours. Survey of the forms, techniques, and theories of fiction, emphasizing the views of fiction writers.

### **ENGL 3348 - School Books**

School Books focuses on reading, understanding, and analyzing canonical British, American, and contemporary literature taught in secondary schools in the US. The course prepares students in the Education program to have the content knowledge required of the Praxis Content exam and of novice ELA teachers. The course engages this literature as would other literature seminars, and is open to all students.

**ENGL 3358 - Visual Literatures**

Visual Literatures focuses on the subversive and traditionally undervalued range of diverse literatures that integrate image and word. The course explores text types from comics to picture books, anime to illustrated novels, multimedia projects to narrative video games, video essays to interactive fictions, and more. Students in the course engage these texts through literary, hermeneutic, semiotic, phenomenological, historical, industry, and comparative analyses—all toward the purposeful reading, discussion, and appreciation of visual literatures.

**ENGL 3360 - Selected Topics in Literature**

Three credit hours. Special topics in literature, varying each semester. Topics cross geographic and temporal lines and usually deal with a specific genre or a theme.

**ENGL 3361 - The Film as Literature**

Three credit hours. An introduction to the capabilities of film as literature, using many genres as illustration.

**ENGL 3370 - Introduction to Folklore**

Three credit hours. The theory, form, and applications of folklore across cultural groups. Practical field experience may be included.

**ENGL 3372 - English Laboratory**

Three credit hours. The English Laboratory is designed as a place for experimentation in the teaching of literacy/English/Language. The English Laboratory takes up three essential questions. What skills and methods will English teachers need to know and understand in order to prepare students for essential literacy needs? 2). How does learning theory help English teachers prepare to help students for their future classrooms? 3). What will be the roles of English content: reading, literature, grammar, and writing in future English/literacy classrooms?

**Prerequisites:** Recommended a junior level course in ENGL.

**ENGL 3390 - Digital Humanities Approaches**

Three credit hours. This course explores the impact of digital tools and technology on the traditional modes of humanistic inquiry. Students will survey the new protocols of reading and creativity that constitute the digital humanities.

**ENGL 4100 - Independent Study**

For the student of superior ability who seeks special research in the field. For English majors and minors only. No more than 6 hours total of Independent Study courses may count toward the major or minor.

**ENGL 4103 - Teaching English Practicum**

One credit hours. In ENGL 4103 students put into practice what they learn in ENGL 4202/RHET 4202, while ENGL 4202/RHET 4202 informs what they do while planning lessons, collaborating with teachers, observing classrooms, and teaching in ENGL 4103. **Concurrent:** Student teaching experience recommended to be taken concurrently with the ENGL 4202/RHET 4202 methods course.

**ENGL 4150 - Honors Seminar**

One or two credit hours. **Prerequisites:** consent of program director. Focused study of topics in language and literature.

**ENGL 4160 - Honors Tutorial**

One or two credit hours. Independent study of topics in literature and language. **Prerequisites:** consent of program director.

**ENGL 4199 - Seminar in Career Perspectives**

One credit hours. Required for majors. A capstone course for English majors for purposes of developing and assessing their career, educational, and personal goals.

**ENGL 4200 - Independent Study**

For the student of superior ability who seeks special research in the field. For English majors and minors only. No more than 6 hours total of Independent Study courses may count toward the major or minor.

**ENGL 4202 - Teaching Literature in Secondary Schools**

Two credit hours. A methods course team-taught by faculty from the Departments of English and Rhetoric and Writing. Topics to be addressed include planning literature, reading, and composition instruction in (English/Language Arts) ELA; implementing pedagogy and curriculum goals; addressing and integrating research and policy into planning and instruction; managing the ELA classroom and understanding students lives relative to ELA literacy goals; evaluating and integrating textbooks and literature. To be taken in conjunction with RHET 4202. Dual listed in the Graduate Catalog as ENGL 5202.

**Concurrent:** Students in Secondary Education are recommended to take ENGL 4202 concurrently with ENGL 4103.

**ENGL 4250 - Honors Seminar**

One or two credit hours. Focused study of topics in language and literature. **Prerequisites:** consent of program director.

**ENGL 4260 - Honors Tutorial**

One or two credit hours. Independent study of topics in literature and language. **Prerequisites:** consent of program director.

**ENGL 4270 - Honors Project**

Two credit hours. Honor projects are typically scholarly or creative works. Program advisors and director must approve all projects. **Prerequisites:** consent of program director.

**ENGL 4300 - Independent Study**

For the student of superior ability who seeks special research in the field. For English majors and minors only. No more than 6 hours total of Independent Study courses may count toward the major or minor.

**ENGL 4303 - Teaching English**

A required English/Language Arts (ELA) methods course for students in the English Education program which focuses on planning literature, reading, and composition instruction; implementing pedagogy and curriculum goals; addressing and integrating research and policy into planning and instruction; managing the ELA classroom and understanding students lives relative to ELA literacy goals; and evaluating and integrating textbooks and literature. The course includes a minimum 15-hour placement in a 7-12 classroom under the supervision of a cooperating teacher, and successful teaching of at least two lessons guided by the mentor teacher and observed by a university supervisor. **Prerequisites:** Recommended that students have completed the Praxis Core Combined exam before taking this course. Recommended prerequisite of junior-level English course or instructor approval.

**ENGL 4311 - Medieval Literature**

Three credit hours. Students will discuss, analyze, and research works in English literature from A.D. 450 to 1500 as well as works in translation from medieval German, Latin, and romance literature. Students with credit for ENGL 4311 may take ENGL 5311 with instructor approval.

**ENGL 4312 - Chaucer**

Three credit hours. Selected works including Troilus and Criseyde and The Canterbury Tales.

**ENGL 4313 - Arthurian Literature**

Three credit hours. A study of Arthurian chronicle and romance from Celtic beginnings through Malory, with examination of nineteenth- and twentieth-century developments of the legend. Dual listed in the Graduate Catalog as ENGL 5313.

**ENGL 4314 - Topics in Medieval and Renaissance Literature**

Three credit hours. Students will discuss, analyze and research selected topics in medieval and Renaissance literature. Students with credit for ENGL 4314 may enroll in ENGL 5314 with instructor's approval.

**ENGL 4321 - English Renaissance Drama**

Three credit hours. Major playwrights, including Marlowe, Kyd, Jonson, Beaumont, Fletcher, and Webster; excluding Shakespeare.

**ENGL 4324 - Shakespeare**

Three credit hours. Selected works, including the major comedies and tragedies.

**ENGL 4325 - Topics in Shakespeare**

Three credit hours. Selected, specialized topics in Shakespeare studies. Dual listed in the Graduate Catalog as ENGL 5325.

**ENGL 4328 - Seventeenth-Century Literature**

Three credit hours. English poetry and prose from 1600 to 1660, with emphasis on Donne and Milton.

**ENGL 4331 - Restoration and Eighteenth-Century English Literature**

English drama, poetry, fiction, and nonfiction 1660-1780.

**ENGL 4341 - English Romanticism**

Three credit hours. English poetry, fiction, and nonfiction from the Romantic Century, 1750-1850.

**ENGL 4343 - Victorian Literature**

Three credit hours. Representative writers, including Tennyson, Browning, Arnold, and Hopkins.

**ENGL 4345 - Topics in Nineteenth-Century Literature**

Three credit hours. Students will discuss, analyze, and research selected writers and texts in American literature of the nineteenth century. **Prerequisites:** Recommended: a junior level course in American literature.

**ENGL 4350 - Honors Seminar**

Three credit hours. This course is a focused examination of a variety of special topics in language and literature.

**ENGL 4351 - British Novel I**

Three credit hours. Representative readings in the development of the British novel during a specific time period. **Prerequisites:** Recommended junior-level course in British literature.

**ENGL 4354 - Post Colonial Literature**

Three credit hours. Seminar on postcolonial literature from Africa, Asia, and/or the Americas, exploring the development of postcolonial consciousness and writing by focusing on major themes characteristic of postcolonial writing. Dual listed in the Graduate Catalog as ENGL 5354. **Prerequisites:** Completion of one junior-level English course.

**ENGL 4355 - Readings in European Literature**

Three credit hours. Selected readings in European literature from at least 2 national traditions. Dual listed in the Graduate Catalog as ENGL 5355.

**ENGL 4360 - Topics in Modern Literature**

Three credit hours. Selected topics in modern literature.

**ENGL 4366 - Contemporary Literature**

Three credit hours. Students will discuss, analyze, and research the major trends in fiction, poetry, and drama since 1945, with emphasis on British, American, and European writers. Students with credit for ENGL 4366 may enroll in ENGL 5366 with instructor approval.

**ENGL 4367 - Short Story Survey**

Three credit hours. Wide reading of American and foreign short fiction.

**ENGL 4368 - Literary Theory**

Three credit hours. Students will discuss, analyze, and research the major literary theories, with emphasis on recent issues.

**ENGL 4369 - The Form and Craft of Poetry**

Three credit hours. Survey of the forms, techniques, and theories of poetry, emphasizing the views of poets.

**ENGL 4370 - Seminar in Language or Literature**

Three credit hours. Selected topics in language or literature. May be repeated when topic differs.

**Prerequisites:** senior standing and consent of instructor.

**ENGL 4372 - Creative Writing Workshop**

Three credit hours. This course provides continued study and practice writing in a variety of contemporary genres. Focuses on students composing and editing in a workshop format. Special topics will be selected depending on the instructor. Dual listed in the Graduate Catalog as ENGL 5372. **Prerequisites:** ENGL 2336 with a grade of C or higher. Recommended a junior-level English course.

**ENGL 4375 - Young Adult Literature**

Three credit hours. In this course, students will read and discuss adolescent and young adult literature. Students with credit for ENGL 4375 may not take the dual-listed ENGL 5375 in the UA Little Rock Graduate School Catalog.

**ENGL 4376 - Essay**

Three credit hours. Essay focuses on reading, interpreting, analyzing, and teaching the essay, especially relative to literature. The literary study of the essay form relative to the studies of poetry, short story, novel, and hybrid forms provides students a framework for critically engaging essays and their diversity. **Prerequisites:** Recommended junior-level English course or instructor approval.

**ENGL 4378 - Drama in the Classroom**

Three credit hours. Drama in the Classroom will provide students opportunities to learn about and enact dramatic structures and creative dramatics as well as improvisational opportunities for teaching English Language Arts. Content will also include textual analysis of poetry, short stories and novels, as well as plays. Students will learn how to create drama scripts, enact story drama, and engage in various pedagogical theories and techniques.

**ENGL 4379 - The Theory and Craft of Fiction**

Three credit hours. Survey of the forms, techniques, and theories of fiction, emphasizing the views of fiction writers. **Prerequisites:** ENGL 3318 or instructor consent.

**ENGL 4380 - Studies in Major American Writers**

Three credit hours. The study of one or two major figures in American literature. Subject varies. Repeatable for credit if the topic changes. **Prerequisites:** Recommended one junior-level course in American or African-American literature.

**ENGL 4381 - American Fiction**

Three credit hours. Representative readings in the development of American fiction.

**ENGL 4384 - American Poetry**

Three credit hours. Representative readings in American poetry from the beginnings to 1912.

**ENGL 4390 - Internship**

Three credit hours. Provides practical experience in a professional setting. Students work in a business, school, state agency, or similar location that offers opportunities to apply their academic background and skills. Course may be repeated for credit. **Prerequisites:** junior standing, consent of instructor.

**ENGL 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/ program **Concurrent:** TCED 4330.

## Creative Writing

Creative writing courses (except ENGL 2336) may be repeated for credit one time.

**ENGL 2336 - Introduction to Creative Writing**

Three credit hours. Study and practice in the writing of fiction, poetry, and drama. Class discussion/workshop. **Prerequisites:** RHET 1311, RHET 1312, or consent of instructor.

**ENGL 3318 - The Essential Elements of Fiction**

Three credit hours. Study and practice in the writing of fiction. Class discussion/workshop and individual conferences. Course may be repeated as elective credit. **Prerequisites:** ENGL 2336 or consent of instructor.

**ENGL 3319 - The Essential Elements of Poetry**

Three credit hours. Study and practice in the writing of fiction. Class discussion/workshop and individual conferences. Course may be repeated as elective credit. **Prerequisites:** ENGL 2336 or consent of instructor.

**ENGL 3320 - Screenwriting**

Three credit hours. Individual work in dramatic writing for film and television. Class discussion and individual conferences. **Prerequisites:** ENGL 2336.

**ENGL 3346 - The Form and Theory of Fiction**

See literature course listing.

**ENGL 4116 - Seminar in Creative Writing**

One, two, or three credit hours. Continued study and practice in creative writing. Class discussion/studio workshop/field placement. May be repeated when the topic varies. Dual listed in the Graduate Catalog as ENGL 5116, 5216, 5316. **Prerequisites:** ENGL 4398, 4399, or consent of instructor.

**ENGL 4216 - Seminar in Creative Writing**

One, two, or three credit hours. Continued study and practice in creative writing. Class discussion/studio workshop/field placement. May be repeated when the topic varies. Dual listed in the Graduate Catalog as ENGL 5116, 5216, 5316. **Prerequisites:** ENGL 4398, 4399, or consent of instructor.

**ENGL 4301 - Advanced Creative Writing Project**

Three credit hours. Independent study in the writing of fiction, poetry, or drama. **Prerequisites:** three creative writing classes or consent of instructor.

**ENGL 4316 - Seminar in Creative Writing**

One, two, or three credit hours. Continued study and practice in creative writing. Class discussion/studio workshop/field placement. May be repeated when the topic varies. Dual listed in the Graduate Catalog as ENGL 5116, 5216, 5316. **Prerequisites:** ENGL 4398, 4399, or consent of instructor.

**ENGL 4369 - The Theory and Craft of Poetry**

Three credit hours. Study and practice in the writing of fiction. Class discussion/workshop and individual conferences. Course may be repeated as elective credit. **Prerequisites:** ENGL 2336 or consent of instructor.

## Language and Linguistics

**ENGL 2311 - Vocabulary Building**

Three credit hours. Study of Greek and Latin origins and word families.

**ENGL 3311 - History of the English Language**

Three credit hours. Development of the English language from the Old English period to the present.

**ENGL 3312 - Grammar, Morphology, & Syntax**

Three credit hours. Studies in the structure of modern English.

**ENGL 3313 - Introduction to the Study of Language**

Three credit hours. An introductory linguistics course. Includes phonology, syntax, and semantics.

**ENGL 3314 - Phonology and Dialect**

Three credit hours. A study of English dialects and the dynamics of dialectic variation and use.

**ENGL 4100 - Independent Study**

One or two credit hours. Open to English majors only. For the student of superior ability who seeks special research in the field. **Prerequisites:** senior standing, 18 hours of English.

**ENGL 4200 - Independent Study**

One or two credit hours. Open to English majors only. For the student of superior ability who seeks special research in the field. **Prerequisites:** senior standing, 18 hours of English.

**ENGL 4202 - Teaching Literature in Secondary Schools**

Two credit hours. A methods course team-taught by faculty from the Departments of English and Rhetoric and Writing. Topics to be addressed include making classroom presentations, managing small-group work, responding to student writing, evaluating and using secondary school literature and composition textbooks, approaches to teaching literature, and writing as a way to reading. Dual listed in the Graduate Catalog as ENGL 5202.

**Concurrent:** RHET 4202.

**ENGL 4300 - Independent Study**

One or two credit hours. Open to English majors only. For the student of superior ability who seeks special research in the field. **Prerequisites:** senior standing, 18 hours of English.

**ENGL 4315 - World Englishes**

Three credit hours. A study of national, regional, and social varieties of English with special attention to the political, cultural, and economic issues facing the use of English as a world language or lingua franca. Dual listed in the Graduate Catalog as ENGL 5315. **Prerequisites:** Recommended ENGL 3311 or ENGL 3313.

**ENGL 4317 - Literary Linguistics**

Three credit hours. An application of recent theories and methodologies of linguistics and language arts to the reading, analysis, and appreciation of literature. Dual listed in the Graduate Catalog as ENGL 5317. **Prerequisites:** Recommended ENGL 3311 or ENGL 3313.

**ENGL 4370 - Seminar in Language or Literature**

Three credit hours. Selected topics in language or literature. May be repeated when topic differs. Dual listed in the Graduate Catalog as ENGL 5370. **Prerequisites:** senior standing, consent of instructor.

## Environmental Health Sciences

**ENHS 2120 - Introduction to Environmental Health Sciences Laboratory**

Two hours laboratory per week. One credit hours. The introduction to environmental health sciences laboratory will emphasize experiments, field-based data collection and analysis methods, computer exercises, and laboratory methods. **Prerequisite or Corequisite:** Completion of ENHS 2320 with a grade of "C" or better or consent of the instructor **Concurrent:** ENHS 2320.

**ENHS 2320 - Introduction to Environmental Health Sciences**

Three hours lecture. Three credit hours. This course is designed to provide individuals with the basic elements of environmental health sciences. Lectures will be presented concerning environmental media assessment, water supplies, water quality, air pollution, environment and energy relationships, land use, and environmental impact analysis. **Prerequisites:** BIOL 1401 or BIOL 1400, MATH 1302, CPSC 1370.

**ENHS 3310 - Environmental Regulations**

Three hours lecture. Three credit hours. The basis for regulation of environmental pollutant sources and natural resources. The environmental litigation process is reviewed with reference to appropriate federal, state, and local regulations. Case studies will be used to supplement class lectures. **Prerequisites:** ENHS 2320 or equivalent.

**ENHS 3340 - Introduction to Water Resources Management**

Three hours lecture. Three credit hours. Concepts related to the management of surface and ground water resources; sources of environmental pollutants, sampling methods and pollution control alternatives; the application of computers to water resource management problems. **Prerequisites:** ENHS 2320, CHEM 1403, BIOL 2401, MATH 1302, or the equivalents.

**ENHS 3350 - Principles of Air Pollution**

Three hours lecture. Three credit hours. The principles of air quality monitoring, air pollution transport and control methods; effects of air pollutants on health and natural resources; dispersion modeling techniques. **Prerequisites:** ENHS 2320, CHEM 1403, MATH 1302, or the equivalents.

**ENHS 3391 - Cooperative Education in Environmental Health Sciences**

Three credit hours. Cooperative education seeks to integrate academic and professional work experiences. Students will be placed in a work setting consistent with their environmental education career objectives. This course requires a minimum of 200 semester work hours. **Prerequisites:** junior standing, acceptance as an environmental health sciences major, minimum GPA of 2.50, and consent of program director.

**ENHS 4189 - Research in Environmental Health Sciences**

One, two, or three credit hours. For students who want to carry out individual research. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** senior standing, consent of instructor.

**ENHS 4190 - Seminar in Environmental Health Sciences**

One credit hours. Discussions of current and emerging environmental health sciences problems. One hour of discussion per week. **Prerequisite or Corequisite:** ENHS 2320, ENHS 4415, senior standing, consent of instructor.

**ENHS 4199 - Special Topics in Environmental Health Sciences**

One, two, or three hours lecture. One, two, or three credit hours. Topics include specialized areas of environmental health sciences. Credit will vary and will be appropriate for both advanced undergraduate and graduate students. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** senior standing as environmental health sciences major or consent of instructor.

**ENHS 4289 - Research in Environmental Health Sciences**

One, two, or three credit hours. For students who want to carry out individual research. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** senior standing, consent of instructor.

**ENHS 4295 - Internship in Environmental Health Sciences**

Two, three, four, five, or six credit hours. Supervised internship with state, local, and federal agencies and industries concerned with environmental programs. Forty clock hours per hour of credit. **Prerequisites:** Senior standing, consent of instructor.

**ENHS 4320 - Introduction to Industrial Hygiene**

Three hours lecture. Three credit hours. Recognition, evaluation, and control methods for environmental hazards in the workplace; instrumentation techniques for personal and ambient sampling. Regulations appropriate to industrial hygiene are reviewed for various work settings. **Prerequisites:** ENHS 3310, CHEM 2450 or CHEM 3350 and CHEM 3150, MATH 1302, or the equivalents.

**ENHS 4389 - Research in Environmental Health Sciences**

One, two, or three credit hours. For students who want to carry out individual research. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** senior standing, consent of instructor.

**ENHS 4391 - Cooperative Education in Environmental Health Sciences**

Three credit hours. Cooperative education seeks to integrate academic and professional work experiences. Students will be placed in a work setting consistent with their environmental education career objectives. This course requires a minimum of 200 semester work hours. **Prerequisites:** junior standing, major in environmental health sciences, minimum GPA of 2.50, minimum of one semester of ENHS 3391, and consent of program director.

### **ENHS 4399 - Special Topics in Environmental Health Sciences**

One, two, or three hours lecture. One, two, or three credit hours. Topics include specialized areas of environmental health sciences. Credit will vary and will be appropriate for both advanced undergraduate and graduate students. Dual listed in the Graduate Catalog as the 5000-level.

**Prerequisites:** senior standing as environmental health sciences major or consent of instructor.

### **ENHS 4410 - Environmental Planning**

Three hours lecture. Two hours laboratory per week. Four credit hours. Environmental planning process and evaluation methods applicable to environmental programs; resource allocation and procurement; emphasis on environmental planning case studies including watershed planning, land use, solid and hazardous waste, air quality, wastewater treatment facilities planning, wetlands, and master planning. Group discussions and role-playing exercises will supplement class lectures. **Prerequisites:** ENHS 3310 or the equivalent.

### **ENHS 4415 - Environmental Impact Analysis**

Three hours lecture. Two hours laboratory per week. Four credit hours. Knowledge and skills necessary to prepare and review environmental impact assessments and statements. The content of the National Environmental Policy Act is presented and analyzed. Case studies and group discussions are used to supplement class lectures. Field studies are performed on a selected site for which an environmental impact assessment will be written.

**Prerequisites:** ENHS 3340 or ENHS 3350, RHET 3316, BIOL 3303 and BIOL 3103, STAT 2350, or consent of instructor.

### **ENHS 4430 - Environmental Epidemiology**

Three hours lecture. Two hours laboratory per week. Four credit hours. The principles of environmental epidemiology are introduced with emphasis on application to various environmental settings. A brief introduction to vital statistics is provided. Health effects of various environmental agents will be identified with appropriate indicators and epidemiological methods for environmental health sciences professionals to monitor environmental effects. Dual listed in the Graduate Catalog as ENHS 5430. **Prerequisites:** ENHS 3340 or ENHS 3350, BIOL 2401, STAT 2350, or consent of instructor.

### **ENHS 4695 - Internship in Environmental Health Sciences**

Two, three, four, five, or six credit hours. Supervised internship with state, local, and federal agencies and industries concerned with environmental programs. Forty clock hours per hour of credit. **Prerequisites:** Senior standing, consent of instructor.

## **Earth Science**

### **ERSC 1102 - Physical Geology Laboratory**

Two hours laboratory per week. One credit hours. A laboratory course designed to accompany ERSC 1302. Students observe, gather and manipulate data, interpret data, and make field measurements using minerals, rocks, graphs, and maps. (ACTS Course Number GEOL 1114 when taken with ERSC 1302) **Prerequisite or Corequisite:** ERSC 1302.

### **ERSC 1104 - Earth and the Environment Lab**

Two hours laboratory per week. One credit hours. A laboratory course designed to accompany ERSC 1304. Students make observations and interpretations from case studies, gather, manipulate, and interpret data, and make field measurements and problem solve using minerals, rocks, graphs, and the university campus. **Prerequisite or Corequisite:** ERSC 1304.

### **ERSC 1302 - Physical Geology**

Three hours lecture. Three credit hours. Earth, and how society and geology interact. Active learning applied to natural processes shaping the earth's surface, producing the solid and fluid earth, and historical development of geological paradigms. (ACTS Course Number GEOL 1114 when taken with ERSC 1102)

### **ERSC 1304 - Earth and the Environment**

This is an introductory environmental geology course that examines interactions between human beings and our changing planet, the affects of natural/geologic hazards on humans, and anthropogenic (human-caused) impacts on nature, geology, and society. Fundamental geologic concepts such as plate tectonics, geologic time, and surficial processes are used as a basis for understanding a variety of natural processes. The course topics include natural and anthropogenic geologic hazards (earthquakes, volcanoes, landslides, and land subsidence), climate change, environmental issues, as well as the impact of mineral extraction and water resource utilization.

### **ERSC 1305 - Science Skills**

Three credit hours. This course will help biology, chemistry, and earth science students reach their educational objectives. Interactive instructional methods promote the development of skills that lead to success in college and a successful career in science. Students 1) identify and use appropriate campus resources, 2) master common computer programs, 3) learn graphing and statistical methods, 4) develop better strategies to manage money, time, and stress wisely, and 5) explore the research conducted by UA Little Rock science faculty. Grading is based on projects, attendance, and participation. This course cannot be used for credit toward a biology, chemistry, or earth science major or minor. **Prerequisites:** Permission of the instructor.



**ERSC 2103 - Historical Geology Laboratory**

Two hours laboratory per week. One credit hours. A laboratory course designed to accompany ERSC 2303. Students are involved with geologic data gathering, manipulation, and interpretation along with field measurements and problem solving. (ACTS Course Number GEOL 1134 when taken with ERSC 2303)  
**Prerequisites:** ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104. **Prerequisite or Corequisite:** ERSC 2303.

**ERSC 2300 - Science and Technology in Society**

Introduction to how society is impacted by and responds to science-driven decision-making. Examines how society embraces and applies (including governmental institutions) scientific principles and technological advances to solving global societal problems such as sustainability of natural resources, development of new energy resources due to population and economic growth, changes in climate and weather, pollution, and human health issues. Case studies will examine societal response (particularly governmental) to both past and current global scientific and technological issues. **Prerequisites:** Recommended RHET 1311.

**ERSC 2303 - Historical Geology**

Three hours lecture. Three credit hours. An introduction to the science of geology, how geologists have learned about the Earth using geologic time as a theme. Active learning applied to various measurements of time, the documentation of evolutionary changes presented by the geologic record, and the development of geologic paradigms used in interpreting this record. (ACTS Course Number GEOL 1134 when taken with ERSC 2103)  
**Prerequisites:** ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104.

**ERSC 3320 - Field Geology I**

Two hours lecture. Three hours laboratory per week. Three credit hours. Introduction to geologic field methods. Topics include: outcrop description; map and aerial photo interpretation; navigation skills; stratigraphic section measurement; cross-section construction; GPS and GIS techniques; computer drafting techniques; and geologic mapping in the Ouachita Mountains. **Prerequisites:** ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104.

**ERSC 3380 - Oceanography**

Three hours lecture. Three credit hours. This course provides an introduction to the historical, physical, chemical, geological, and biological aspects of the oceans and their importance to the global system. **Prerequisites:** 4 hours of earth science, biology, chemistry, or physics.

**ERSC 3390 - Weather Studies**

Three hours lecture. Three credit hours. This course provides an overview of how the distribution of heat, atmospheric circulation, humidity, and air pressure forms local, regional and global weather conditions. The course will include analysis of recent meteorological events that demonstrate basic principles of how weather patterns evolve. May not be counted for BS in Geology.  
**Prerequisites:** 4 hours of earth science, biology, chemistry or physics.

**ERSC 3410 - Mineralogy**

Three hours lecture. Two hours laboratory per week. Four credit hours. Introduction to the concepts of crystal chemistry, petrography, and the geochemical analysis of important rock-forming minerals. Laboratory includes hand-specimen and microscopic identification of minerals and use of computer software to examine crystal structures. A term project and field trip are required.  
**Prerequisites:** ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104 and CHEM 1402 or consent of instructor.

**ERSC 3411 - Igneous and Metamorphic Petrology**

Three hours lecture. Two hours laboratory per week. Four credit hours. Composition, characteristics, classification, occurrence, and petrogenesis of the igneous and metamorphic rocks. Megascopic and microscopic methods of description. **Prerequisites:** C or better in ERSC 3410.

**ERSC 3430 - Structural Geology**

Three hours lecture. Two hours laboratory per week. Four credit hours. The description and analysis of geological structures in Earth's crust. Topics covered include the description of geological structures, stress, strain, rheology, the kinematics and dynamics of folding and faulting and microstructural analysis. **Prerequisites:** ERSC 3410 and MATH 1303 or equivalent.

**ERSC 3440 - Sedimentology and Stratigraphy**

Three hours lecture. Field trips required and two hours laboratory per week. Four credit hours. This course covers the properties, processes and depositional environments of sediments and sedimentary rocks. Lateral and vertical relationships between rock units and how these can be used to understand geologic resources and interpret Earth history are also covered. **Prerequisites:** ERSC 2303/ERSC 2103; **Corequisites:** ERSC 3410 or consent of instructor.

**ERSC 3460 - Paleobiology**

Three hours lecture. one 12 day field trip and two hours laboratory per week. Four credit hours. The evolution and ecological structure of the biosphere from the origin of life to the present emphasizing the evolution and paleobiology of animal life as shown by the fossil record. Lectures discuss the methods used to interpret the fossil record, and cover topics such as ontogeny, speciation, phylogeny and systematics, functional anatomy, biogeography, biostratigraphy, paleoecology, and macroevolution. Laboratories will focus on paleobiological principles that can be demonstrated by the major groups of invertebrates that are common in the geologic record. **Prerequisites:** ERSC 1303/1103, or BIOL 1400 or BIOL 1401, or consent of instructor; ERSC 3320 recommended.

**ERSC 4090 - Graduation Preparation**

Zero credit hours. Students will complete the requirements for graduation for the B.S. in Geology or B.S. in Geology with a concentration in Environmental Geology. These requirements include 1) taking the ASBOG Fundamentals of Geology exam, 2) an exit interview with the chair of the department, and 3) taking the Department of Earth Sciences Geology Skills Assessment Test within the ERSC Department. This course should be taken during the student's last semester in the program and will require 1-2 hours of study/exam/meeting time per week. If graduating in the summer, the student should take this course during the spring semester. The course grading scale is pass/fail and all three requirements must be completed to pass the course. **Prerequisites:** Senior standing (or equivalent) in the B.S. Geology program and consent of instructor.

**ERSC 4100 - Independent Problems**

One, two, or three credit hours. Field or laboratory problem in consultation with instructor. One, two, or three hours or equivalent per week. **Prerequisites:** consent of instructor, generally given only with senior standing and/or 20 hours of geology.

**ERSC 4190 - Senior Seminar**

One credit hours. Discussion of current topics in geology and career preparation. Semester project presentation is required. One hour per week. **Prerequisites:** Senior standing and geology major or minor.

**ERSC 4195 - Internship in Earth Science**

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

**ERSC 4199 - Special Topics**

One, two, three, or four credit hours. Advanced and specialized topics in the geological sciences, especially those of current interest. Refer to semester schedule for special topic offered. Credit will vary depending upon course topic. One, two, three, or four hours or equivalent per week. **Prerequisites:** consent of instructor.

**ERSC 4200 - Independent Problems**

One, two, or three credit hours. Field or laboratory problem in consultation with instructor. One, two, or three hours or equivalent per week. **Prerequisites:** consent of instructor, generally given only with senior standing and/or 20 hours of geology.

**ERSC 4295 - Internship in Earth Science**

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

**ERSC 4299 - Special Topics**

One, two, three, or four credit hours. Advanced and specialized topics in the geological sciences, especially those of current interest. Refer to semester schedule for special topic offered. Credit will vary depending upon course topic. One, two, three, or four hours or equivalent per week. **Prerequisites:** consent of instructor.

**ERSC 4300 - Independent Problems**

One, two, or three credit hours. Field or laboratory problem in consultation with instructor. One, two, or three hours or equivalent per week. **Prerequisites:** consent of instructor, generally given only with senior standing and/or 20 hours of geology.

**ERSC 4320 - Field Geology II**

Three credit hours. Advanced geologic mapping techniques. Three weeks of field work and instruction at various locations in the United States. Requires 8 hours in the field every day for three weeks. Additional fee for transportation, food and other field costs. **Prerequisites:** ERSC 3320, ERSC 3430 and ERSC 3440.

**ERSC 4322 - Environmental Geology**

Three hours lecture. Three credit hours. Humans as a geologic agents, geologic hazards in the environment, geology and land use studies, urban geology, and case histories. Dual listed in the Graduate Catalog as ERSC 5322. **Prerequisites:** ERSC 1302/ERSC 1102 and MATH 1302 or consent of instructor.

**ERSC 4323 - Geology of Arkansas**

Three hours field trips and hours lecture. Three credit hours. Regional geomorphology, structure, stratigraphy, and paleontology of Arkansas. Includes field trips to Ozark dome, Ouachita fold belt, Arkansas Valley, and Mississippi Embayment/Gulf Coastal Plain. Dual listed in the Graduate Catalog as ERSC 5323. **Prerequisites:** ERSC 1302/ERSC 1102 or 1303/1103 or consent of instructor.

**ERSC 4353 - Geology and Ecology of Bahamas**

Three credit hours. This course explores the geology and ecology of the shallow-water marine environment by examining the preeminent modern example, the Bahamas platform. The Bahamas provide an excellent model for understanding modern and ancient carbonate and reef deposits, and variety of terrestrial/aquatic habitats. Biological processes are ultimately responsible for many of the geological features of the Bahamas, so the course considers the biology/ecology of marine organisms in addition to geological topics. The field component is based at the Gerace Field Center for Geological, Biological, and Anthropological Research on San Salvador Island, Bahamas. Seventy-five hours of lecture/laboratory/field activity. Dual listed in the Graduate Catalog as ERSC 5353. **Prerequisites:** Eight hours of core science and consent of instructor.

**ERSC 4370 - Climate Studies**

This course is designed to provide students with a fundamental understanding of the Earth's Climate system. Topics covered in the course include climate variability and change, climate records, policy, and how solar energy, atmospheric circulation, heat storage and transfer, ocean interactions, volcanism, albedo, and green house gases can impact the climate. Dual listed in the Graduate Catalog as ERSC 5370. **Prerequisites:** 4 hours of earth science, biology, chemistry, or physics.

**ERSC 4371 - Engineering Geology**

Two hours lecture. Two hours laboratory per week. Three credit hours. The study of the interaction of rock, soil and geologic processes with the engineering activities of man by applying geological data, techniques and principles. The integration of geological, geotechnical and geophysical investigative methods will be emphasized. Lecture topics will include soil and rock mechanics and rock deformation, the assessment of the spatial-temporal variability of sub surface materials, slope stability analysis and slope failure mitigation, earthquake engineering, hydrologic system management, and the application of GIS and geology. Dual listed in the Graduate Catalog as ERSC 5371. **Prerequisites:** MATH 1303 or higher or the consent of instructor.

**ERSC 4372 - Surface Water Hydrology**

Three hours lecture. Three credit hours. Hydrologic cycle, basin analysis, runoff analysis, stream hydraulics, flooding, case histories, field methods in hydrology, hydrologic planning. Dual listed in the Graduate Catalog as ERSC 5372. **Prerequisites:** ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104; and MATH 1342 or MATH 1451.

**ERSC 4380 - Oceanography**

Three hours lecture. Three credit hours. This course provides an introduction to the historical, physical, chemical, geological, and biological aspects of the oceans and their importance to the global system. Dual listed in the Graduate Catalog as ERSC 5580. **Prerequisites:** 4 hours of earth science, biology, chemistry, or physics.

**ERSC 4389 - Undergraduate Research**

Three credit hours. Various topics for thorough research selected by students in consultation with an advisor. Field work and/or experimental or laboratory work resulting in a report to be critiqued by at least two faculty members (no oral defense). The student is expected to spend at least nine hours per week on the project. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** Consent of instructor.

**ERSC 4391 - Cooperative Education in Earth Science**

Three credit hours. Supervised professional experience related to students discipline with governmental agencies, industry and consulting firms. This course requires a minimum of 200 semester work hours. Dual listed in the Graduate Catalog as ERSC 5391. **Prerequisites:** Consent and approval of assignment by advisor.

**ERSC 4395 - Internship in Earth Science**

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

**ERSC 4399 - Special Topics**

One, two, three, or four credit hours. Advanced and specialized topics in the geological sciences, especially those of current interest. Refer to semester schedule for special topic offered. Credit will vary depending upon course topic. One, two, three, or four hours or equivalent per week. **Prerequisites:** consent of instructor.

**ERSC 4419 - Geomorphology**

Three hours lecture. Two field study per week or two hours laboratory per week. Four credit hours. The study of form and process at the Earth's surface. The interactions between erosional and depositional processes at the Earth's surface with tectonic processes operating within the Earth are examined with respect to landform evolution. Laboratory includes the analysis of maps, digital imagery, and field applications of GPS/GIS technology. Dual listed in the Graduate Catalog as ERSC 5419.

**Prerequisites:** ERSC 3320, or consent of instructor.

**ERSC 4421 - Introduction to Geographic Information Systems (GIS)**

Three hours lecture. Two hours laboratory per week. Four credit hours. This course introduces Geographic Information Systems (GIS) and the use of spatial data for problem-solving in science. The lecture portion of the course focuses on the data models used to represent spatial features and on the processes involved in creating, acquiring, analyzing, and displaying georeferenced information. The laboratory portion of the course employs a project-based methodology including applications from geology, biology, environmental science, and political science to foster basic GIS software proficiency. Dual listed in the Graduate Catalog as ERSC 5421.

**Prerequisites:** consent of instructor.

**ERSC 4422 - Applied GIS**

Three hours lecture. Two hours laboratory per week. Four credit hours. This course builds on the fundamental concepts of Geographic Information Systems (GIS) from ERSC 4421 Introduction to GIS. It focuses on advanced applications in GIS with an emphasis on problem-solving, advanced analysis techniques, and database management. Dual listed in the Graduate Catalog as ERSC 5422. **Prerequisites:** BIOL 4421 /ERSC 4421 or consent of instructor.

**ERSC 4426 - Introduction to Remote Sensing**

Three hours lecture. Two hours laboratory per week. Four credit hours. This course introduces the fundamentals of manipulating and interpreting the electromagnetic spectrum. The lecture portion of the class covers concepts of remote sensing, including how data is collected, processed, analyzed, and interpreted. The lab portion of the class is focused on building proficiency in several images processing software programs and the use of spatial data for problem-solving in science. Dual listed in the Graduate Catalog as ERSC 5426. **Prerequisites:** ERSC 4421/BIOL 4421 or consent of instructor.

**ERSC 4460 - Paleobiology**

Three hours lecture. one 12 day field trip or two hours laboratory per week. Four credit hours. The evolution and ecological structure of the biosphere from the origin of life to the present emphasizing the evolution and paleobiology of animal life as shown by the fossil record. Lectures discuss the methods used to interpret the fossil record, and cover topics such as ontogeny, speciation, phylogeny and systematics, functional anatomy, biogeography, biostratigraphy, paleoecology, and macroevolution. Laboratories will focus on paleobiological principles that can be demonstrated by the major groups of invertebrates that are common in the geologic record. **Prerequisites:** ERSC 2303/ERSC 2103, BIOL 1400 or BIOL 1401, or consent of instructor; ERSC 3320 recommended.

**ERSC 4473 - Hydrogeology**

Three hours lecture. Two hours laboratory per week. Four credit hours. Ground water occurrence, flow, porosity, permeability, aquifer analysis, geology of ground water, water well logging, water chemistry, water quality, well development, case histories, field methods, hydrogeologic planning. Dual listed in the Graduate Catalog as ERSC 5473. **Prerequisites:** ERSC 1302/ERSC 1102 or ERSC 1304/ERSC 1104 and MATH 1302 or higher.

**ERSC 4490 - Weather Studies**

This course looks at broad scale concepts of weather and climatology to help understand the physical impact of weather on geopolitical applications and human behavior. This class is taught as an interactive online class both as a regular classroom and online in eLearning format. Online NOAA and AMS resources will be used throughout the classes. The lab sessions will provide hands on amplification of the lectures and theory. Dual listed in the Graduate Catalog as ERSC 5490. **Prerequisites:** 4 hours of earth science, biology, chemistry, or physics.

**ERSC 4499 - Special Topics**

One, two, three, or four credit hours. Advanced and specialized topics in the geological sciences, especially those of current interest. Refer to semester schedule for special topic offered. Credit will vary depending upon course topic. One, two, three, or four hours or equivalent per week. **Prerequisites:** consent of instructor.

## Engineering Technology (Mechanical)

### ETME 1110 - FYE: Mechanical Engineering Technology

Three hours laboratory per week. 1 credit hours. Review of educational goals. Management of time. Balancing work and course load. Use of campus resources. Planning educational and experience goals, including cooperative education, licensing and certification. Role and practice of engineering technology including career paths in Mechanical Engineering Technology. Course is a graduation requirement but not a degree requirement.

### ETME 1300 - Computer Graphics

Two hours lecture. Three hours laboratory per week. Three credit hours. Study of graphics and the types of engineering drawings used in design. Sketching and computer aided design tools are used to create the various types of views needed for design and documentation.

### ETME 2117 - Manufacturing Processes Laboratory

Three hours laboratory per week. One credit hours. Introduction to machine shop equipment and processes; metal fabricating applications, including metal cutting, such as turning, drilling, milling; welding, and measurement and inspection, Course project and the application of Ethics and safety in design and manufacturing, **Corequisites:** ETME 2317.

### ETME 2191 - Cooperative Education

One credit hours. Industrial experience under supervision of faculty advisor to supplement course work. Students who take this course may not take ETME 2291. Requires at least 240 contact hours on the job. **Prerequisites:** sophomore standing in engineering technology and approval of department's chairperson; cumulative GPA of 2.50; minimum GPA of 2.30 for previous semester.

### ETME 2291 - Cooperative Education

Two credit hours. Industrial experience under supervision of advisor to supplement course work. Students who take this course may not take ETME 2191. Requires at least 480 contact hours on the job. **Prerequisites:** sophomore standing and approval of department's chairperson; cumulative GPA of 2.50; minimum GPA of 2.30 for previous semester.

### ETME 2302 - Properties of Materials

Two hours lecture. Two hours laboratory per week. Three credit hours. Physical structure of metals, properties, testing, phase diagrams, and applications. Ferrous metals, metal treatment, nonferrous metals, corrosion, plastics, other engineering materials and applications.

### ETME 2303 - Computer-Aided Design (CAD)

Two hours lecture. Three hours laboratory per week. Three credit hours. A study of 2D and 3D computer aided design software used in industry. Detailed and working drawings, and design documentation using CAD. Importing and exporting CAD data is covered as well as various methods of output. Introduction to 3D modeling. **Prerequisites:** a grade of C or greater in ETME 1300 and basic computer skills, or consent of instructor.

### ETME 2310 - Applied Statics

Two hours lecture. Two hours laboratory per week. Three credit hours. An analysis of force systems applied to rigid bodies at rest. Application of principles on computation of reactions, shears, moments, and forces for simple structures. Centroids and moments of inertia are included. **Corequisites:** MATH 1342.

### ETME 2317 - Manufacturing Processes

Three hours lecture. Three credit hours. Traditional manufacturing processes such as casting, forging, cold working; metal removal processes such as turning, milling, drilling, finishing processes, metal joining, and plastics. Manufacturing process laboratory course is available.

### ETME 2320 - Fluid Mechanics and Power

Two hours lecture. Two hours laboratory per week. Three credit hours. Hydraulics and pneumatics; the flow of water, air, and oil; calibration of metering devices; pipe friction; elementary hydraulic tests; friction and energy loss; and devices for making fluid measurements. **Prerequisites:** a grade of C or greater in MATH 1303.

### ETME 2333 - Advanced Computer-Aided Design

Two hours lecture. Three hours laboratory per week. Three credit hours. Graphic design process using an interactive computer-aided design system. Includes sophisticated functions beyond two-dimensional shape and size description and three-dimensional capabilities of CAD/CAM systems in advanced design situations. Calculation and analysis programs are used to improve the students' design. Students work on design problems related to their chosen field using the CAD system. **Prerequisites:** a grade of C or greater in ETME 2303, or consent of instructor.

### ETME 3191 - Cooperative Education

One credit hours. Industrial experience under supervision of advisor to supplement course work. Students who take this course may not take ETME 3291. Requires at least 240 contact hours on the job. **Prerequisites:** junior standing in engineering technology and approval of department's chairperson; cumulative GPA of 2.50, minimum GPA of 2.30 for previous semester.

**ETME 3291 - Cooperative Education**

Two credit hours. Work experience related to student objectives under supervision of advisor. Students who take this course may not take ETME 3191. Requires at least 480 contact hours on the job. **Prerequisites:** junior standing in engineering technology and approval of chairperson; cumulative GPA of 2.50; minimum GPA of 2.30 for previous semester.

**ETME 3300 - Independent Study**

Three credit hours. Study of assigned topics chosen to develop investigative, analytical, research, or professional skills related to engineering. The student spends 8 to 10 hours per week on the project. The exact hourly commitment depends on the complexity of the project and is agreed on in advance by the student and the instructor. **Prerequisites:** consent of instructor.

**ETME 3301 - Applied Mechanics of Materials**

Three hours lecture. Three credit hours. Topics include stress and strain, direct and shearing stresses, torsion, bending, deflection, columns, and riveted, bolted, and welded joints. **Prerequisites:** ETME 2302, a grade of C or greater in ETME 3417 or consent of the instructor.

**ETME 3303 - Applied Thermal Science**

Two hours lecture. Two hours laboratory per week. Three credit hours. Basic thermal properties and heat transfer modes. Theory, operation, and selection of thermal industrial equipment including engines, turbines, boilers, furnaces, and heat exchangers. **Prerequisites:** PHYS 1321 and ETME 2320.

**ETME 3305 - Industrial Energy Utilization**

One hours lecture. five hours laboratory per week. Three credit hours. Study of the efficient utilization of energy in manufacturing and industrial applications. Components of an energy conservation program, assessments of existing processes, analysis and application of energy conservation techniques. **Prerequisites:** ETME 2317, ETME 3303, and ECET 3308, or consent of instructor.

**ETME 3306 - Solar Energy Systems**

Two hours lecture. Two hours laboratory per week. Three credit hours. Analysis of solar energy systems and methods of determining the capacity and functional requirements of system elements in terms of applications. **Prerequisites:** a grade of C or greater in ETME 3303.

**ETME 3307 - Applied Dynamics**

Two hours lecture. Two hours laboratory per week. Three credit hours. Topics include scalar treatment of kinematics and kinetics of particles, rigid bodies in planar motion, Newton's laws, work and energy, impulse and momentum, impact, and vibration. **Prerequisites:** a grade of C or greater in ETME 2310.

**ETME 3311 - Mechanical Instrumentation**

Two hours lecture. Three hours laboratory per week. Three credit hours. Measurement of mechanical phenomena including stress, strain, deflection, temperature, pressure, and flow. Automatic data acquisition and handling. Applications to process monitoring and product testing. **Prerequisites:** ETME 3301 and IFSC 1202 or consent of instructor.

**ETME 3312 - Production Systems**

Three hours lecture. Three credit hours. Production systems and applications. System planning for products and services. Operational planning, Just-In-Time (JIT), Total Quality Management (TQM), process control, and system management. System analysis and computer simulation. Facility planning. **Prerequisites:** ETME 2317, ETME 1300, or consent of instructor.

**ETME 3313 - Tool Design**

Two hours lecture. Three hours laboratory per week. Three credit hours. Optimum uses of tool function, geometry, design applications, cutting tools, gages, jigs and fixtures, punch press tools, plastic tools, and special production tools for N/C machines. **Prerequisites:** grades of C or greater in ETME 2117, ETME 2317, MATH 1303.

**ETME 3314 - Metallurgy Applications**

Three hours lecture. Three credit hours. Study of the principles relating crystalline structure to chemical, physical, and electrical properties of metals and alloys. The testing, heat treating, and engineering applications of ferrous and nonferrous alloys are considered. **Prerequisites:** a grade of C or greater in ETME 2302.

**ETME 3315 - Thermal Systems Design**

Two hours lecture. Two hours laboratory per week. Three credit hours. Study of air conditioning, refrigeration, steam, fluid, thermal systems, and heat transfer processes for commercial and industrial applications. Emphasis is on systems design, operation, and component selection and specification. **Prerequisites:** ETME 3303.

**ETME 3318 - Industrial and Environmental Safety**

Three hours lecture. Three credit hours. Need and justification for safety in the work place. Legal aspects of safety and the OSHA Act. Environmental requirements and emission standards. Scope of human factors and safety management. Planning and implementation of safety measures to counteract various industrial hazards such as mechanical, electrical, fire, noise, and toxic substance. **Prerequisites:** grades of C or greater in ETME 2117, ETME 2317, or consent of instructor.

**ETME 3319 - Plant Layout**

Two hours lecture. Three hours laboratory per week. Three credit hours. Principles of facilities planning as applied to selection and location of equipment. Batch and continuous flow. **Prerequisites:** a grade of C or greater in ETME 2317.

**ETME 3322 - Project Management**

Three hours lecture. Three credit hours. Study of project planning and scheduling using the network methods as presented by PERT and CPM. Network planning, solution methods, and practical applications. Probabilistic time estimates, resource leveling, cost optimization, and cost control techniques. Includes application of computer solution methods. **Prerequisites:** MATH 1302.

**ETME 3323 - Materials Handling and Plant Layout**

Three hours lecture. Three credit hours. Production, distribution and service systems, material flow and the role of material handling. Material handling principles, analysis techniques, and equipment planning. Plant layout and design. The course includes the use of various case studies and the application of computer methods. **Prerequisites:** grade of C or greater in ETME 2317.

**ETME 3324 - Plastics and Composites**

Three hours lecture. Three credit hours. Introduction to plastics part design, materials, production methods, tooling, and equipment. Process cost analysis and optimization. **Prerequisites:** CHEM 1402 or consent of the instructor.

**ETME 3328 - Computer Aided Manufacturing (CAM)**

Two hours lecture. Three hours laboratory per week. Three credit hours. A study of the programming standards used in industry to control NC and CNC equipment. G and M codes, as well as specific control commands used in manual program. Computer aided design and manufacturing software to generate part geometry and tool path information. Preparation of final program used by the CNC controllers to machine the designed parts. **Prerequisites:** grades of C or greater in ETME 2303, ETME 2333, and ETME 2317.

**ETME 3329 - Process Planning**

Two hours lecture. Three hours laboratory per week. Three credit hours. Analytical models and techniques as applied to manufacturing processing, cost estimating, tooling, and materials selection. Problems involving manufacturing, planning, and control. **Prerequisites:** grades of C or greater in ETME 2117, ETME 2317.

**ETME 3330 - Quality Control**

Three hours lecture. Three credit hours. Statistical foundation for modern quality control. Process control techniques and applications. Product specifications and process capability. Planning and application of acceptance sampling including such plans as the Dodge-Romig, military standards 105 and 414. Computer application problems. **Prerequisites:** grades of C or greater in ETME 2117, ETME 2317; MATH 1302.

**ETME 3361 - Cost Analysis and Estimation**

Three hours lecture. Three credit hours. Cost estimation methods including labor, material, and overhead. Product, project, and system cost estimation. Estimate sensitivity and contract consideration. Cost-performance analysis and improvement techniques. Bench marking as means of gauging cost and quality performance. **Prerequisites:** ETME 3312.

**ETME 3417 - Statics and Dynamics**

Four hours lecture. Four credit hours. Engineering mechanics involving the study of both statics and dynamics. The equilibrium of bodies at rest or moving with constant velocity and bodies that have a change of motion. **Prerequisites:** PHYS 1321 or PHYS 2321. **Prerequisite or Corequisite:** MATH 1342, MATH 1451, or Equivalent.

**ETME 4185 - Robotics Laboratory**

Three hours laboratory per week. One credit hours. Robot setup and programming using control pendant, programmable controllers, ARMBASIC and AML2 languages. Robot capabilities including positioning accuracy, repeatability, and compliance. Robot manufacturing tasks including sorting, machine loading, and assembly. Vision system and applications. **Prerequisite or Corequisite:** a grade of C or greater in ETME 4385.

**ETME 4187 - Senior Project I**

One hours lecture. One hours laboratory per week. One credit hours. Product design/manufacturing cycle. The design process from market research through production and service, concurrent engineering, design evaluation, and ethics in design and manufacturing, Project selection and planning for the second phase of the senior project to be completed in ETME 4387, **Prerequisites:** ETME 3301. **Corequisites:** ETME 4317.

**ETME 4195 - Technology Internship**

One credit hours. Professional experience related to the student's discipline under the supervision of an advisor. Credit hours based on internship work experience hours. 80-hour work assignment.

**Prerequisites:** junior standing in Engineering Technology, cumulative GPA of 2.50, minimum GPA of 2.30 for the previous semester, approval of assignment by advisor.

**ETME 4199 - Special Technical Topics I**

One credit hours. Designed to meet special needs of students or industry to cover application of technology to specific industrial problems. Meets equivalent of one hour. **Prerequisites:** consent of instructor.

**ETME 4295 - Technology Internship**

Two credit hours. Professional experience related to the student's discipline under the supervision of an advisor. Credit hours based on internship work experience hours. 160-hour work assignment. **Prerequisites:** junior standing in Engineering Technology, cumulative GPA of 2.50, minimum GPA of 2.30 for the previous semester, approval of assignment by advisor.

**ETME 4309 - Production Control**

Three hours lecture. Three credit hours. Traditional operations research approach to production control and some of its limitations. Modern role of computer in material requirements planning (MRP). Master scheduling, capacity planning, dispatching, and shop floor control. Forecasting, order quantity planning and inventory management, Just-In-Time production. **Prerequisites:** senior standing.

**ETME 4317 - Machine Design**

Two hours lecture. Three hours laboratory per week. Three credit hours. Basic procedures of engineering machine design from concept to specifications. Material selection, tolerances, variable loads and stress concentrations, combined stresses, shaft design, couplings, bearings, gears, power transmitting elements, brakes, clutches, and welded joints. Emphasis on a logical procedure for the design of a complete machine, its components, their functions and layout. **Prerequisites:** ETME 3301.

**ETME 4319 - Plant Engineering**

Two hours lecture. Two hours laboratory per week. Three credit hours. A practicum on the design and operation of mechanical systems for commercial and industrial applications. Thermal processes, waste water, ducts, piping, and other mechanical systems. Plant operation and maintenance. **Prerequisites:** ETME 3315 or consent of instructor.

**ETME 4321 - Computer Aided Engineering (CAE)**

Two hours lecture. Two hours laboratory per week. Three credit hours. A grade of C or greater in ETME 3301. Advanced computer aided analysis, stress analysis, kinematics, computer simulation, advanced design software and applications, project documentation. **Prerequisites:** ETME 2333, and ETME 3301, or consent of instructor.

**ETME 4383 - Method-Time Analysis**

Two hours lecture. Two hours laboratory per week. Three credit hours. Design of work methods; time study, performance rating, work sampling and introduction to predetermined and computerized time-data systems. Applications to incentive plans and measured day work. Participative productivity improvement such as gainsharing and quality circles. **Prerequisites:** grades of C or greater in ETME 2117, ETME 2317; senior standing.

**ETME 4384 - Die Casting**

Two hours lecture. Two hours laboratory per week. Three credit hours. Topics include heat flow, dimensional repeatability, metallurgy, molten metal systems, process control, cost estimating, operating the die casting machine, and safety. **Prerequisites:** grades of C or greater in ETME 2317, ETME 2302.

**ETME 4385 - Robotics and Automation**

Two hours lecture. Two hours laboratory per week. Three credit hours. Industrial robots, types, and method of control and programming. Automation and application to various industrial processes. Human factors considerations. Robot system planning and justification. **Prerequisites:** ETME 3312; knowledge of computer programming or consent of instructor.

**ETME 4386 - Maintenance Management**

Three hours lecture. Three credit hours. Planning, organization, measurement, and control of maintenance activities. The planning, acquisition, and control of replacement parts and maintenance of management information systems. Case studies and project work included.

**ETME 4387 - Senior Project II**

Two hours lecture. Three hours laboratory per week. Three credit hours. Design problems obtained from industry, current applied research, or student's own initiative are researched in advance, and assigned as senior projects. Problems are defined, analyzed, design solved, and a final report presented. Final reports include design calculations, drawings, production plans, and may, depending on the scope of the project, be demonstrated and tested using a prototype. **Prerequisites:** ETME 3312, ETME 4317, and ETME 4187, or consent of instructor.

**ETME 4388 - Manufacturing Systems Design**

One hours lecture. Three hours laboratory per week. Three credit hours. Manufacturing problems obtained from actual industrial situations are assigned to senior students. Each problem is analyzed, designed, and presented orally and in a formal written report by the student. Student reports include drawings, manufacturing plans, cost, and schedule and may be demonstrated by a prototype whenever possible. **Prerequisites:** a grade of C or greater in ETME 4170, senior standing.

**ETME 4395 - Technology Internship**

Three credit hours. Professional experience related to the student's discipline under the supervision of an advisor. Credit hours based on internship work experience hours. 240-hour work assignment. **Prerequisites:** junior standing in Engineering Technology, cumulative GPA of 2.50, minimum GPA of 2.30 for the previous semester, approval of assignment by advisor.



**ETME 4399 - Special Technical Topics III**

Three credit hours. Designed to meet special needs of students or industry to cover application of technology to specific industrial problems. **Prerequisites:** consent of instructor based on relevance of subject to student career goals.

## Finance

**FINC 2300 - Personal Finance**

Three credit hours. Personal financial planning, including bank deposits, savings accounts, life insurance, property and casualty insurance, retirement accounts, investment in stocks and bonds, housing. May not be taken for credit by business majors.

**FINC 3310 - Business Finance**

Three credit hours. Business finance with emphasis on the modern corporation; methods of securing and managing assets; problems of bankruptcy, reorganizations; business combination. **Prerequisites:** ECON 2310, ECON 2322, ECON 2323, ACCT 2310, ACCT 2330. **Concurrent:** ECON 2323 and ACCT 2330.

**FINC 3330 - Principles of Insurance**

Three credit hours. The phenomena of risk and risk bearing, including insurance and other methods of handling risks; introduction to the areas of property, marine, liability, disability, life insurance, and fidelity and surety bonding.

**FINC 3340 - Financial Markets and Institutions**

Three credit hours. Examination and analysis of financial markets, such as savings institutions, banks, insurance companies, mutual funds, pension funds, and others. **Prerequisites:** FINC 3310 with a grade of C or greater

**FINC 3350 - Investment Analysis**

Three credit hours. Alternative investment opportunities, analysis of the economy, its industries, and particular businesses to determine the most desirable use of funds in terms of the objectives of individual and institutional investment programs. **Prerequisites:** FINC 3310 with a grade of C or greater.

**FINC 3370 - Real Estate**

Three credit hours. Introduction to the real estate business; relationship of real estate to the national and local economies; legal instruments, appraisals, property sales, and management.

**FINC 4177 - Independent Study in Real Estate**

One, two, or three credit hours. Supervised independent study in a real estate area of particular interest to the student. No more than six credit hours of Independent Study in Real Estate may apply toward a degree. Credit to be determined at the beginning of the semester. **Prerequisites:** consent of chairperson and instructor.

**FINC 4277 - Independent Study in Real Estate**

One, two, or three credit hours. Supervised independent study in a real estate area of particular interest to the student. No more than six credit hours of Independent Study in Real Estate may apply toward a degree. Credit to be determined at the beginning of the semester. **Prerequisites:** consent of chairperson and instructor.

**FINC 4320 - Bank Financial Management**

Three credit hours. Analysis and management of the asset and liability portfolio of depository financial institutions. **Prerequisites:** FINC 3310 with a grade of C or greater, FINC 3340.

**FINC 4330 - International Finance**

Three credit hours. Multinational corporate finance; practices and problems in international finance; balance of payments and exchange problems; recent developments and trends in international finance. **Prerequisites:** FINC 3310 with a grade of C or greater.

**FINC 4340 - Life Insurance**

Three credit hours. Development of the human life value concept and financial consequences of economic death; types of insurers; types of life insurance and annuity contracts and their uses; premium and reserve calculations; introduction to programming for individuals, families, and institutions.

**FINC 4341 - Commercial Property and Liability Insurance**

Three credit hours. Students will learn about commercial insurance coverage and how the business of insurance is conducted in practice. Topics covered include: underwriting, sales, marketing, claims adjustment, and pricing of insurance. **Prerequisites:** FINC 3310.

**FINC 4350 - Financial Behavior and Modeling**

This course is composed of two components. The first component develop the financial modeling skills required by many finance jobs, with hands-on financial model building using Excel. Applications will include fixed income problems. The second component introduces students to behavioral finance theories and applications. **Prerequisites:** FINC 3350 with grade of C or better.

**FINC 4355 - Predictive Data Analysis**

Three credit hours. Students will apply analytical techniques informed by economic theory and probability theory to solve real-life practical problems taken from a diverse set of applications such as anticipating behavioral outcomes and estimating worst-case scenarios. Dual listed in the Graduate Catalog as ECON 5355. **Prerequisites:** ECON 3355 or Econ 7200.

**FINC 4360 - Risk Management**

Three credit hours. Introduction to the fundamentals of risk management. Scope and fundamentals of property and liability insurance; analysis of contracts, rating, underwriting, insurers, and loss adjustments and procedures. **Prerequisites:** FINC 3310 with a grade of C or higher.

**FINC 4362 - Derivatives**

Three credit hours. The cash, futures, and options markets for commodities and financial instruments will be examined. An economic perspective will be used to analyze the development, functions, and mechanics of these markets. The goal is to integrate an understanding of these markets into specific economic situations in order to improve the decision-making process. **Prerequisites:** FINC 3310 and FINC 3350 with a grade of C or higher.

**FINC 4363 - Financing Entrepreneurial Ventures**

Three credit hours. Financing alternatives for new and growing ventures; debt financing from investment banks, commercial banks, and SBIC, as well as equity financing from angel investors, private placements, venture capitalists, and public equity markets. Students use firm valuation methods and calculate return to investors to create a capital plan for a growing enterprise. **Prerequisites:** FINC 3310 and MGMT 3300.

**FINC 4364 - Employee Benefits**

Three credit hours. Analysis of the nature of health and social insurance; causes, extent, and economic consequences of old-age dependency, unemployment, and disability; hospitalization and medical insurance, surgical benefits, major medical coverages, disability income contracts; review of Social Security and related social insurance programs.

**FINC 4365 - Estate Planning**

Three credit hours. Importance of and techniques for risk identification and analysis as a basis for recognition of insurance requirements; application of coverages to business and personal needs.

**FINC 4366 - Introduction to Actuarial Science**

Three credit hours. Introduction to the mathematics of insurance as the basis for rate making, reserve and cash value calculations, and underwriting; importance of correct actual practices to company solvency and liquidity. **Prerequisites:** FINC 4340.

**FINC 4368 - Professional Financial Planning**

Three credit hours. Professional financial planning is the capstone course for the financial planning track of the Insurance and Financial Services major. The course covers all the significant aspects of financial planning, including; gathering data and determining goals and constraints, analyzing current financial status, and developing and presenting a financial plan. The course will include case studies. **Prerequisites:** FINC 3310 with a grade of C or greater, and permission of instructor.

**FINC 4371 - Real Estate Finance and Investment**

Three credit hours. Elements of mortgage financing for housing and investment property; sources of funds; application and approval; real estate investment analysis; effects of financing and income taxation upon investment returns. A term project analyzing a proposed real estate investment is required. **Prerequisites:** FINC 3310, or FINC 3370, or consent of instructor.

**FINC 4372 - Real Estate Valuation and Appraisal**

Three credit hours. Principles of valuation and appraisal of housing and investment property; market, replacement, and income approaches. A term project appraising an existing income property is required. **Prerequisites:** FINC 3370.

**FINC 4373 - Real Estate Development and Management**

Three hours lecture. Three credit hours. The course analyzes an eight-stage model of real estate development using examples in the local community as well as national cases. Students will learn the roles of city planners, legislators, regulators, land planners, lawyers, lenders, property managers, and other constituencies within the development process. The course requires site and interactions with development professionals. Dual listed in the Graduate Catalog as FINC 5373. **Prerequisites:** FINC 3370 or FINC 3310 with C or better or equivalent; FINC 7100 or equivalent.

**FINC 4377 - Independent Study in Real Estate**

One, two, or three credit hours. Supervised independent study in a real estate area of particular interest to the student. No more than six credit hours of Independent Study in Real Estate may apply toward a degree. Credit to be determined at the beginning of the semester. **Prerequisites:** consent of chairperson and instructor.

**FINC 4378 - Real Estate Law**

Three credit hours. An introduction to the nature of real property; ownership rights and estates; descriptions; easements, fixtures, liens, sales, land contracts; mortgage law; deeds and property transfers; cooperatives and condominiums; wills and intestate succession; zoning; and recent developments. Three credit hours. **Prerequisites:** FINC 3370 and MKTG 2380.

**FINC 4380 - Portfolio Management**

Three credit hours. Investment risks, returns, and requirements; portfolio policies for the individual and institutional investor; functions of the stock exchange, investment bankers, and brokers. **Prerequisites:** FINC 3310 with a grade of C or greater, FINC 3350.

**FINC 4383 - Applied Equity Analysis**

Three credit hours. Using modern models of equity valuation, students analyze company and industry data, estimate fair value for equities, and then present their recommendations to a panel of industry experts. Once approved, the students' equity selections will then be implemented in the Ford Investment Trust. Students must apply to enroll in this course; check with the department for application forms and deadlines. Enrollment is limited to 15 students, no more than 5 of whom may be graduate students. Dual listed in the Graduate Catalog as FINC 5383. **Prerequisites:** FINC 3350 for undergraduate or FINC 7320 for graduate credit, and consent of instructor.

**FINC 4395 - Advanced Financial Management**

Three credit hours. Sophisticated techniques of financial management. Application of the body of financial theory to specific problems. **Prerequisites:** Senior finance major with a grade of C or greater in FINC 3310, consent of chairperson and instructor.

**FINC 4396 - Cooperative Education I**

Three credit hours. Designated to complement and extend the classroom learning experience through the application of theories and concepts in a professional work environment. A written project, designed in consultation with the faculty member, and a minimum of 200 hours with a participating employer during the semester are required. The exact number of weekly work hours, activities, and responsibilities depend upon the nature of the work experience and must be specified in written agreements between the student, faculty member, and the Office of Cooperative Education. This course is accepted as elective credit in the finance major. **Prerequisites:** senior standing, finance major, completion of at least 9 hours of upper level finance courses, cumulative GPA of 2.50, and consent of department chairperson prior to registration.

**FINC 4397 - Seminar in Finance**

Three credit hours. Advanced finance topics offered in a modular format and usually team taught. Topics come from both the corporate and investments areas and may vary according to need. **Prerequisites:** senior standing and consent of faculty teaching course.

**FINC 4398 - Teaching Internship**

Three credit hours. Working with individual faculty instructors, upper-level majors assist students by holding review sessions twice a week for students enrolled in FINC 3310 and performing other supplemental teaching tasks as determined through consultation with the instructor. Unrestricted elective. **Prerequisites:** consent of department chair and the supervising faculty.

**FINC 4399 - Independent Study**

Three credit hours. Research and independent investigation in specific areas of finance of interest to the student. **Prerequisites:** senior standing, consent of chairperson and instructor.

## French

**FREN 1311 - Elementary French I**

Three credit hours. A course for beginners with no knowledge of French. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic grammar and a limited reading ability. (ACTS Course Number FREN 1013)

**FREN 1312 - Elementary French II**

Three credit hours. Continuation of FREN 1311. (ACTS Course Number FREN 1023) **Prerequisites:** FREN 1311 or equivalent.

**FREN 1315 - Conversational French**

Three credit hours. A performance course with emphasis on elementary conversation and discussion. For students with a basic knowledge of French grammar. **Prerequisites:** FREN 1312 or consent of instructor.

**FREN 2301 - Reading French for Research**

Important grammatical concepts, reading strategies, and vocabulary necessary for understanding scholarly texts in French. No prior knowledge of French is necessary. Does not count toward major or minor in French.

**FREN 2311 - Intermediate French**

Three credit hours. The intermediate course leads to greater facility in the spoken language and to more advanced reading skills. (ACTS Course Number FREN 2013) **Prerequisites:** FREN 1312 or equivalent.

**FREN 2315 - Intermediate Conversational French**

Three credit hours. A performance course with emphasis on intermediate-level conversation and discussion. **Prerequisites:** FREN 2311.

**FREN 3115 - Advanced Conversation**

May be taken one, two, or three hours per semester to a maximum of six credit hours. Special topics for discussion at an advanced level. Leads to expanded vocabulary mastery and greater fluency in the spoken idiom.

**FREN 3116 - Advanced Conversation**

May be taken one, two, or three hours per semester to a maximum of six credit hours. Special topics for discussion at an advanced level. Leads to expanded vocabulary mastery and greater fluency in the spoken idiom.

**FREN 3117 - Advanced Conversation**

May be taken one, two, or three hours per semester to a maximum of six credit hours. Special topics for discussion at an advanced level. Leads to expanded vocabulary mastery and greater fluency in the spoken idiom.

**FREN 3310 - Integrated Skills I**

Three credit hours. An integrated approach to skill acquisition leading to intermediate-high proficiency. Within the rubric of communication, content focuses on the presentational mode. **Prerequisites:** FREN 2311 or equivalent proficiency.

**FREN 3311 - Integrated Skills II**

Three credit hours. An integrated approach to skill acquisition leading to intermediate-high proficiency. Within the rubric of communication, content focuses on the interpersonal mode. **Prerequisites:** FREN 2311 or equivalent proficiency.

**FREN 3312 - Integrated Skills III**

Three credit hours. An integrated approach to skill acquisition leading to intermediate-high proficiency. Within the rubric of communication, content focuses on the interpretive mode. **Prerequisites:** FREN 2311 or equivalent proficiency.

**FREN 3316 - French Pronunciation**

Three credit hours. The sounds and phonetic symbols of the French language with reference to phrasing, stress, rhythm, and intonation. **Prerequisites:** FREN 2311 or consent of instructor.

**FREN 3321 - French Short Stories**

Three credit hours. Reading and criticism of short stories by outstanding authors. **Prerequisites:** FREN 2311 or consent of instructor.

**FREN 3332 - Introduction to French Literature**

Three credit hours. History of the literature from the end of the seventeenth century to the present. **Prerequisites:** FREN 2311.

**FREN 3333 - Selected Readings in French Literature**

Three credit hours. Reading and discussion of selected works from French literature. **Prerequisites:** 3000-level French course or consent of instructor.

**FREN 3334 - French Culture and Civilization I**

Three credit hours. Historical, sociological, and cultural background of the French people. **Prerequisites:** FREN 2311 or equivalent (may be corequisite with consent of the instructor).

**FREN 3335 - French Culture and Civilization II**

Three credit hours. A continuation of FREN 3334. **Prerequisites:** FREN 2311 or equivalent.

**FREN 3336 - Francophone Cultures**

Three credit hours. History and culture of francophone communities outside of metropolitan France, including French overseas departments (Martinique, Guadeloupe), the Maghreb, West Africa, and North America (Québec, Louisiana). **Prerequisites:** FREN 2311 or equivalent proficiency.

**FREN 4101 - Independent Study**

One, two, or three credit hours. Reading from a selected bibliography of French authors. Credit is determined at the beginning of the course according to the problem and will not be altered. **Prerequisites:** two 3000-level French courses and consent of the instructor.

**FREN 4141 - French Practicum**

May be taken one hour per semester to a maximum of three credit hours. Special problems in French syntax and stylistics. Offers students an opportunity to enrich and reinforce knowledge of syntax and stylistics for greater mastery in written communication. **Prerequisites:** FREN 3312 and two 3000-level French courses.

**FREN 4142 - French Practicum**

May be taken one hour per semester to a maximum of three credit hours. Special problems in French syntax and stylistics. Offers students an opportunity to enrich and reinforce knowledge of syntax and stylistics for greater mastery in written communication. **Prerequisites:** FREN 3312 and two 3000-level French courses.

**FREN 4143 - French Practicum**

May be taken one hour per semester to a maximum of three credit hours. Special problems in French syntax and stylistics. Offers students an opportunity to enrich and reinforce knowledge of syntax and stylistics for greater mastery in written communication. **Prerequisites:** FREN 3312 and two 3000-level French courses.

**FREN 4201 - Independent Study**

One, two, or three credit hours. Reading from a selected bibliography of French authors. Credit is determined at the beginning of the course according to the problem and will not be altered. **Prerequisites:** two 3000-level French courses and consent of the instructor.

**FREN 4301 - Independent Study**

One, two, or three credit hours. Reading from a selected bibliography of French authors. Credit is determined at the beginning of the course according to the problem and will not be altered. **Prerequisites:** two 3000-level French courses and consent of the instructor.

**FREN 4316 - Advanced Listening and Pronunciation**

Three credit hours. Advanced listening and pronunciation skills with reference to varieties of French spoken in the Francophone world. **Prerequisites:** two 3000-level French courses.

**FREN 4331 - Writings: Historical Perspective**

Three credit hours. Reading and criticism of works of outstanding authors to the end of the 19th century. **Prerequisites:** two 3000-level French courses.

**FREN 4341 - Writings: Modern Perspective**

Three credit hours. Reading and criticism of outstanding authors from the early 20th century to the present time. **Prerequisites:** two 3000-level French courses.

**FREN 4350 - Senior Project**

Three credit hours. An independent project requiring research, oral presentation and written documentation under the guidance of French faculty. Topic must be approved prior to registration. **Prerequisites:** two 3000-level French courses.

**FREN 4351 - Cinema**

Three credit hours. Viewing and discussion of French films including how French films both shape and reflect aspects of French cultural identity. **Prerequisites:** two 3000-level French courses.

**FREN 4361 - Seminar in French Literature**

Three or two credit hours. Reading, discussion, and critical analysis of selected works from French literature. **Prerequisites:** two French literature courses or consent of instructor and two 3000-level French courses.

**FREN 4362 - Seminar in French Literature**

Three or two credit hours. Reading, discussion, and critical analysis of selected works from French literature. **Prerequisites:** two French literature courses or consent of instructor and two 3000-level French courses.

# Geography

## **GEOG 1311 - Introduction to Physical Geography**

Three credit hours. Study of earth/sun relationships that produce the elements of weather, including temperature, precipitation, atmospheric pressure, and air circulation. Patterns of climate and their interrelationship with soil and vegetation systems. Study of major landform processes, which shape the earth's surface, with specific reference to North America.

## **GEOG 2200 - History/Geography & the News**

Thematic examination of the historical and geographic context of current events in the United States and the World, and the way in which history and geography inform news accounts.

## **GEOG 2310 - World Regional Geography**

Three credit hours. World regional patterns of population, natural resources, and economic activities with reference to the nature of regions and their characteristics. Regional patterns of Europe, North America, Latin America, Africa, and East and South Asia. (ACTS Course Number GEOG 2103)

## **GEOG 2312 - Cultural Geography**

Three credit hours. The nature, distribution, and development of various cultural systems as they interact with each other and with their environment. A study is made of spatial patterns in the elements of culture, including population, religion, language, political ideology, economic activities, and settlement. Examination of the processes that have changed the natural landscape to a cultural landscape. (ACTS Course Number GEOG 2113)

## **GEOG 3301 - Geography of Europe**

Three credit hours. This course examines and analyzes the cultural and environmental geography of the European region. Topics include the geodemography of Europe with special attention placed on the challenges posed by low regional birth rates and high immigration, the opportunities and constraints associated with the uneven distribution of natural resources, and the paradox of ongoing regional integration and fragmentation in light of historical and contemporary geographic contexts.

## **GEOG 3305 - Environmental Conservation**

Three credit hours. Survey of the human environment with resources. Examination of major resources and their use with reference to North America and to Arkansas.

## **GEOG 3307 - Geography of Food**

This course will focus on the importance of place and geography in the production, distribution and consumption of food. The role of culture and environment are critical in understanding why, what, how much, and where we eat. In the United States, we are increasingly removed from the farm and reliant upon processed foods, so understanding and appreciating the place of food becomes increasingly critical. Geographic concepts like nature-society relationships, spatial interconnections and patterns, and site and situation, will be applied to help us understand why food is produced and consumed where it is, by whom, and the changing nature of these relationships.

## **GEOG 3315 - Geography of Arkansas**

Three credit hours. Study of Arkansas' natural and cultural environments with emphasis on how various groups, past and present, interact with the state's natural regions. Geologic, climate, soil, and vegetation patterns are examined. Settlement patterns; economic activities, including agriculture, forestry, mining, and industry; and population distributions are analyzed and placed together with the state's natural regions.

## **GEOG 3320 - Urban Geography**

Three credit hours. Study of the urban landscape and the specific land uses found in United States cities. Current geographic pattern of industrial, commercial, residential, public, and recreational activities in our cities with reference to Arkansas.

## **GEOG 3333 - Geospatial Technologies**

Three credit hours. Technologies This course is designed to introduce a range of spatially-oriented technologies. In this class you will learn about a variety of geotechnology and gain hands-on experience using it. Geotechnologies include the global positioning system (GPS), satellite imagery, and geographic information systems (GIS). Students will be exposed to practical applications of these technologies that span both physical and social science realms.

## **GEOG 4290 - Independent Study**

Two or three credit hours. Research and reading in various areas of geography. Projects reflect student interest and career objectives along with departmental emphasis. **Prerequisites:** 15 hours of geography including GEOG 1311, GEOG 2312, and consent of instructor.

### **GEOG 4300 - Special Topics**

Three credit hours. Topics will be chosen on the basis of contemporary interest and demand and will be focused to provide an in-depth understanding of the issue. Dual listed in the Graduate Catalog as GEOG 5300. **Prerequisites:** consent of instructor, nine hours of geography or an associated discipline that complements the seminar topic.

### **GEOG 4311 - History and Philosophy of Geography**

Three credit hours. Investigates the ways in which the subject of geography has been recognized, perceived, and evaluated, from its early acknowledgment in ancient Greece to its disciplined form in today's world of shared ideas and mass communication. Includes an assessment of current geographic research.

### **GEOG 4321 - Geomorphology**

Three credit hours. See ERSC 4321. Dual listed in the Graduate Catalog as GEOG 5321.

### **GEOG 4390 - Independent Study**

Two or three credit hours. Research and reading in various areas of geography. Projects reflect student interest and career objectives along with departmental emphasis. **Prerequisites:** 15 hours of geography including GEOG 1311, GEOG 2312, and consent of instructor.

### **GEOG 4397 - Social Studies Teaching Applications**

Three credit hours. Social studies content linked with practical applications for classroom instruction. Content from history, geography, political science, sociology/anthropology, and psychology. Content modeled for prospective secondary education teachers to illustrate how content can be applied in the classroom. Critical components of each of the disciplines integrated into the content presentations and the demonstrated applications. Team taught.

## **Gerontology**

### **GERO 2300 - Introduction to Aging and Older Adults**

Three credit hours. An overview of the aged as they relate to their social environment, with emphasis on the biological, psychological, and sociological aspects of aging. **Prerequisites:** RHET 1311 and RHET 1312 or equivalents. SOCI 2300 or PSYC 2300 recommended.

### **GERO 4190 - Directed Study**

One, two, or three credit hours. Study directed by a faculty member in a content area or competency relevant to research on aging or practical matters in connection with the elderly. May include field placement at an agency working with or for the elderly. Forty-five clock hours of study or of work onsite (in field placements) per credit hour is presumed. **Prerequisites:** junior or senior standing; GERO 2300 or consent of instructor.

### **GERO 4290 - Directed Study**

One, two, or three credit hours. Study directed by a faculty member in a content area or competency relevant to research on aging or practical matters in connection with the elderly. May include field placement at an agency working with or for the elderly. Forty-five clock hours of study or of work onsite (in field placements) per credit hour is presumed. **Prerequisites:** junior or senior standing; GERO 2300 or consent of instructor.

### **GERO 4310 - Social Gerontology**

Three credit hours. This course explores the social aspects of aging – how do older adults affect society and how does society affect older adults? The interaction of older adults with society is examined along with many of our social institutions such as family, healthcare, government, and the economy. Also examined are the issues associated with our aging population and how those issues affect people of all ages. A number of current controversies associated with our changing population structure will be discussed in class.

### **GERO 4315 - Interdisciplinary Health Care of the Elderly**

Three credit hours. Designed to increase clinical knowledge, skills, and attitudes of students in the health professions and other fields related to health promotion and maintenance for the elderly. In-depth exploration of the multiple factors associated with the physiological process of aging, psychosocial developmental tasks, and typical environments of aged persons. Dual listed in the Graduate Catalog as GERO 5315.

### **GERO 4336 - The Social Aspects of Death and Dying**

Three credit hours. Gerontology and social work seek to apply knowledge from the social sciences, medicine, and the humanities with the skills and values of the helping professions. The multidisciplinary study of death (thanatology) itself comes out of studying these different disciplines. There are many social, psychological, philosophical, and religious theories concerning the passage of death—for both ourselves and those around us. We will study many diverse contributions in the social aspects of death and dying.

### **GERO 4337 - Adult Development and Aging**

Three credit hours. This course emphasizes the life course perspective as it looks at adult development and aging within the context of the social environment. Aspects of "successful aging" that will be examined cover growth and development from emerging adulthood to old age, and the impact that culture, gender, ethnicity, and individual differences have on these processes. Human development and aging is examined during early adulthood, middle adulthood, and late adulthood. We will study aspects of development that are common to persons at all ages across the life course, individual differences in development, and differences that characterize the separate age cohorts.

**GERO 4346 - Family in Late Life**

Three credit hours. Family life of the elderly, including late-life marital relationships; widowhood and living alone; relations with children, grandchildren, siblings, and other kin; alternative and innovative lifestyles; family neglect and abuse of the elderly; and demographic and structural changes in the family and society that affect these matters. Exploration of dynamic and therapeutic models of family problems and process to provide a foundation of concepts for later training in counseling families with elderly members. The family as a natural support system for the elderly, along with the potential and limitations of such a system in a context of community support networks, will be core concepts. Dual listed in the Graduate Catalog as GERO 5346. **Prerequisites:** GERO 2300.

**GERO 4385 - Topics Seminar**

Three credit hours. Special topics of critical and current interest to those interested and involved in the aging field. Topics range from Social Security, legislation affecting the elderly, and targeted programs to clinical and research developments in aging and lifespan developmental issues. May be taken more than once under different topics. Dual listed in the Graduate Catalog as GERO 5385.

**Prerequisites:** consent of instructor.

**GERO 4390 - Directed Study**

One, two, or three credit hours. Study directed by a faculty member in a content area or competency relevant to research on aging or practical matters in connection with the elderly. May include field placement at an agency working with or for the elderly. Forty-five clock hours of study or of work onsite (in field placements) per credit hour is presumed. **Prerequisites:** junior or senior standing; GERO 2300 or consent of instructor.

## Gender Studies

**GNST 2300 - Introduction to Gender Studies**

Three credit hours. A cross-cultural, interdisciplinary analysis of gender. Includes examination of gender identity, social roles, and cultural symbolism in politics, economics, family, health, socialization, religion, and language. **Prerequisites:** Recommended RHET 1311.

**GNST 4190 - Independent Study**

Selective reading and formal written project on a topic must be submitted by the student and approved by the coordinator before registration. Credit is determined at the beginning of the semester. **Prerequisites:** 15 hours of gender studies courses including GNST 2300 or consent of instructor.

**GNST 4195 - Internship**

Students are assigned an internship in the community. The objective is for students to apply theoretical perspectives to real world situations. Credit is determined at the beginning of the semester. Each hour of credit requires at least 30 hours of supervised work during the semester. **Prerequisites:** 15 hours of gender studies courses including GNST 2300 or consent of director.

**GNST 4290 - Independent Study**

Selective reading and formal written project on a topic must be submitted by the student and approved by the coordinator before registration. Credit is determined at the beginning of the semester. **Prerequisites:** 15 hours of gender studies courses including GNST 2300 or consent of instructor.

**GNST 4295 - Internship**

Students are assigned an internship in the community. The objective is for students to apply theoretical perspectives to real world situations. Credit is determined at the beginning of the semester. Each hour of credit requires at least 30 hours of supervised work during the semester. **Prerequisites:** 15 hours of gender studies courses including GNST 2300 or consent of director.

**GNST 4300 - Gender Studies Senior Seminar**

Taught on a rotating basis by gender studies faculty members in their area of specialization. **Prerequisites:** GNST 2300.

**GNST 4372 - Perspectives on Women in American History**

[See course description for HIST 4372 Perspectives on Women in American History]

**GNST 4390 - Independent Study**

Selective reading and formal written project on a topic must be submitted by the student and approved by the coordinator before registration. Credit is determined at the beginning of the semester. **Prerequisites:** 15 hours of gender studies courses including GNST 2300 or consent of instructor.

**GNST 4395 - Internship**

Students are assigned an internship in the community. The objective is for students to apply theoretical perspectives to real world situations. Credit is determined at the beginning of the semester. Each hour of credit requires at least 30 hours of supervised work during the semester. **Prerequisites:** 15 hours of gender studies courses including GNST 2300 or consent of director.

## Health, Human Performance and Sport Management

### HHPS 1101 - Dieting and Weight Control

One credit hours. A practical short course designed to teach the proper methods of dieting and controlling body weight. Students will be taught how to determine, achieve, and maintain their correct body mass by using the scientific principles of proper nutrition and exercise. The futility of using drugs and fad diets to control weight will be explained.

### HHPS 1102 - Substance Abuse and Addiction

One discussion and hours lecture. One credit hours. A practical short course designed to provide basic knowledge of drug abuse and addiction. Students will evaluate the role of drugs and other addictive behaviors in their life, and identify their risk factors for abuse or dependence. Students will be given information on available resources and options for behavior change and coping skills.

### HHPS 1103 - Smoking Cessation

One discussion and hours lecture. One credit hours. A practical short course designed to explore nicotine dependency/addiction and smoking cessation options. Based on assessment of individual tobacco use and knowledge of the advantages and disadvantages of smoking cessation options, students will plan and implement, if appropriate, a strategy for long term smoking cessation.

### HHPS 1104 - Stress Management

One discussion and hours lecture. One credit hours. A practical short course designed to assist the individual in identifying sources and situations that trigger reactions, both positive and negative, that display the physiological stress response. The individual will be taught how to identify stressors in their lives and explore possible ways of changing responses in order to develop satisfactory reactions to these stressors. The approach to this course is both personal and practical.

### HHPS 1170 - Cardiopulmonary Respiration

Two hours laboratory per week. One credit hours. Current lifesaving techniques used on individuals with heart or breathing emergencies. Appropriate first aid techniques also included.

### HHPS 1370 - Personal Health

Three hours lecture. Three credit hours. Designed to develop the understanding, attitudes, and practices which contribute to optimum physical, mental, and social wellbeing. Emphasis on major health problems and causes of death in various age groups. (ACTS Course Number HEAL 1003)

### HHPS 2303 - The Theory and Practice of Health Education

Three hours lecture. Three credit hours. An introduction to the scientific basis for developing health education interventions from program assessment through program evaluation. History, theory, concepts, and applications will be discussed. Issues related to the design of relevant, practical and effective health education programs will be considered.

### HHPS 2330 - Introduction to Sport Management

Three hours lecture. Three credit hours. This course will provide an overview of all facets of sports including management, career opportunities, marketing and promotion, public relations, fund raising, economics and finance, legal and ethical issues, and event and facilities management.

### HHPS 2372 - Care and Prevention of Injuries

Three laboratory and hours lecture. Three credit hours. Care, prevention, and treatment of injuries to various parts of the body; taping and wrapping; laboratory practicum activities; exercise therapy techniques and basic understanding necessary to sound exercise programs.

### HHPS 3195 - Practicum in Health Education

One credit hours. Directed observation and supervised field work in a health education professional setting. Emphasis on planning, conducting, and evaluating activities in the program. One credit hour for 30 clock hours. **Prerequisites:** junior standing, consent of program coordinator.

### HHPS 3196 - Practicum in Exercise Science

One credit hours. Practicum students will administer physical fitness tests to those enrolled in HHPS 2302 at both the beginning and end of the semester. They will help prescribe exercise and be responsible for helping HHPS 2302 class members achieve their stated fitness goals. This aid will consist of advice and motivation, leadership of exercise groups, nutrition planning, and modification of exercise prescriptions where required. One credit hour for 30 clock hours. **Prerequisites:** HHPS 2302, consent of program coordinator and instructor of HHPS 2302.

### HHPS 3210 - Teaching Individual Sports

Two hours lecture. Two credit hours. The course is an examination of the theory and practice of teaching and coaching: tennis and golf.

### HHPS 3211 - Health and Safety in Early Childhood

Two hours lecture. Two credit hours. A practical short course designed to provide an introductory experience to the basic concepts of health and safety in early childhood environments. Specific attention is given to recognition of common illnesses in young children, infection control practices, injury prevention, and basic emergency treatment procedures. Some of the regulations that guide health and safety practices in early educational environments will be examined.



**HHPS 3212 - Teaching Individual Sports II**

Two hours lecture. Two credit hours. This course is an examination of the theory and practice of teaching/coaching Tumbling and Track.

**HHPS 3220 - Teaching Team Sports**

Two hours lecture. Two credit hours. The course is an examination of the theory and practice of teaching and coaching: basketball, volleyball, and baseball.

**HHPS 3222 - Teaching Team Sports II**

Two hours lecture. Two hour credit hours. This course is an examination of the theory and practice of teaching/coaching baseball/fastpitch softball, soccer, and football.

**HHPS 3302 - Exercise Physiology**

Two hours lecture. Two hours laboratory per week. Three credit hours. The relationship between regular, moderate exercise and the resultant increase in the efficiency of the heart, lungs, and muscles. Students learn to assess fitness by the use of various laboratory instruments and techniques and to improve fitness by the judicious use of specific training programs.

**HHPS 3310 - Coaching Theory and Methodology**

Three hours lecture. Three credit hours. Course is designed to improve the knowledge and understanding of methods and coaching theories. Students learn how to manage young athletes in conditioning, skill development, competition, motivation, and strategies.

**HHPS 3320 - History of Physical Education**

Three hours lecture. Three credit hours. A study of the historical development of organized physical activity designed to improve the understanding and appreciation of the purpose, value, nature, scope, and significance of physical education throughout history.

**HHPS 3330 - Teaching PK-6 Physical Education**

Three hours lecture. Three credit hours. This course is designed to help students understand the need for an effective pre kindergarten–6 physical education program. It will provide the prospective PK-6 school classroom teacher, as well as the PK-6 physical education specialist, with a knowledge base in the principles of physical fitness, elementary physical education curriculum planning and appropriate selection of physical activities for children. The students will be working with hands-on projects integrating the discipline of physical education and other curriculum subjects found in grades PK-6th. Proper nutrition for the elementary student will also be discussed.

**HHPS 3331 - Legal/Ethical Issues in Sport**

Three hours lecture. Three credit hours. This course is designed to provide standard information on legal and ethical issues in the sport industry and the risk managers are responsible for. This course will focus on the three major areas of the law that have a direct impact on the management of sport: tort liability and risk management; contract law; and constitutional law. Identifying management strategies and education for proactive rather than reactive responses will be a major emphasis. Additionally, time will be spent investigating moral issues in sport, and judgments about right and wrong behavior among athletes, coaches, spectators, and others.

**Prerequisites:** HHPS 2330.

**HHPS 3332 - Sport Facility and Management**

Three hours lecture. Three credit hours. Sport and entertainment (amateur and professional) activities are held in facilities that create unique opportunities for the sport and entertainment business manager. This course offers a comprehensive look at the discipline of facility management and event planning/operations.

**Prerequisites:** HHPS 2330.

**HHPS 3333 - Governance & Management of Sport**

Three hours lecture. Three credit hours. This course is designed to familiarize students with the concepts of governance, policy, decision-making, organizational behavior, and human resource management in the sport context. Through various individual and group assignments, students will gain knowledge and develop skills relevant to becoming an effective sport administrator. Emphasis will be placed on learning the structure of common sport organizations at various levels (scholastic, recreational, amateur, professional and others) as well as organizational behavior theory and common human resource issues (staffing, performance appraisal and leadership). **Prerequisites:** HHPS 2330.

**HHPS 3334 - Sports Marketing Management**

Three hours lecture. Three credit hours. This course investigates principles and processes in sport marketing and sales. Focuses on research and development, sport promotion, sport sponsorship, advertising, merchandising, and distribution of sporting goods. **Prerequisites:** HHPS 2330.

**HHPS 3335 - Sport Finance and Economics**

Three hours lecture. Three credit hours. In this course, students will be introduced to current economic and financial issues confronting managers in the sport industry. **Prerequisites:** HHPS 2330.

**HHPS 3372 - Advanced First Aid**

Three hours lecture. Three credit hours. Training individuals to realize ethical and legal obligations in rendering competent first aid in case of accident or injury until a physician can be found. American Heart Association advanced first aid certification on successful completion of the course.

**HHPS 3374 - Community Health Agencies**

Three hours lecture. Three credit hours. Principles and practices of public health and voluntary health programs and agencies. Students make guided observation in laboratory situations and engage in seminars.

**HHPS 3377 - Drug Ed. K-12**

Three hours lecture. Three credit hours. An in-depth study of drug education designed to help teachers, administrators, and other special interest groups present drug education programs.

**HHPS 3391 - Cooperative Education in Health Education**

Three credit hours. Cooperative education seeks to integrate academic and professional work experiences. Students will be placed in a work setting consistent with their Health, Human Performance & Sport Management career objectives. This course requires a minimum of 200 semester work hours. **Prerequisites:** junior standing, acceptance as a Health, Human Performance & Sport Management major, minimum GPA of 2.50, and consent of program coordinator.

**HHPS 3401 - Nutrition**

Four demonstration and hours lecture. Four credit hours. Fundamental principles of human nutrition, nutritional value of foods, nutritional requirements of individuals at all ages, application of principles of nutrition under various physiological and economic conditions.

**HHPS 3402 - Structural Kinesiology**

Four hours (4 hour lecture-demonstration per week) hours lecture. Four credit hours. This course is a study of muscles, bones, and joints as they are involved in the science of movement. Several physiological and mechanical principles are included to increase the understanding of the structures discussed in the course content.

**HHPS 3410 - Biomechanics of Human Movement**

Three hours lecture. one hours laboratory per week. Four credit hours. This course is intended to serve as an introduction to the biomechanics of human movement, including terminology and mechanical concepts using both quantitative and qualitative problems and applications. **Prerequisites:** HHPS 3402 and MATH 1302 or department approval.

**HHPS 3412 - Applied Human Science**

Three hours lecture. one hours laboratory per week. Four credit hours. This course is designed to develop within the prospective health, physical education and wellness professional an understanding and applicable knowledge of the human organism. Those systems appropriate for understanding humans within the activity setting are emphasized such as the skeletal, muscular, nervous, circulatory, endocrine, and respiratory.

**HHPS 3422 - Exercise, Wellness & Lifestyle**

Three hours lecture. one hours laboratory per week. Four credit hours. This course is designed to give the student an initial fitness assessment and exercise prescription experience. Basic concepts of assessment and principles of physical training will be covered. Students will implement an individual training program and demonstrate proficiency in assessment techniques of various skill and health-related fitness components. This course also requires students to actively participate in field work consisting of advice and motivation, leadership of exercise groups, nutrition planning, and modification of exercise prescriptions.

**HHPS 4100 - Independent Study in Health Education**

One, two, three, four, five, or six credit hours. Provides an opportunity for advanced students to conduct an in-depth study in a specific area of interest or a special problem. May be taken for one to six credit hours. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and instructor. **Prerequisites:** consent of department chairperson.

**HHPS 4194 - Workshop in Health Education**

One, two, or three credit hours. Provides opportunities for students, in-service teachers, and interested individuals to work and study with health education professionals. The student can expect to spend two to four hours per week (15 week semester) on the workshop for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the workshop and will be specified in advance by the instructor.

**HHPS 4294 - Workshop in Health Education**

One, two, or three credit hours. Provides opportunities for students, in-service teachers, and interested individuals to work and study with health education professionals. The student can expect to spend two to four hours per week (15 week semester) on the workshop for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the workshop and will be specified in advance by the instructor.

**HHPS 4340 - Adapted Physical E. K-12**

Three hours lecture. Three credit hours. Course presents the philosophy and methods pertaining to the adaptation of physical education for handicapped and exceptional students. A basic knowledge of handicapped conditions and their complications for participating in physical education along with classroom, laboratory, and practical experience will be provided to increase the awareness of the handicapped and to facilitate the application of knowledge to real life situations. Dual listed in the Graduate Catalog as HHPS 5340.

**HHPS 4350 - Methods and Techniques of Teaching Physical Education 6-12**

Three hours lecture. Three credits credit hours. This course provides a detailed review of the analysis and application of the major responsibilities and competencies required for teaching physical education 6-12. Emphasis is on learning the State Standards for Physical Education, Wellness, & Leisure (SSPEWL) K-12 licensure requirements and preparation for the ETS PRAXIS Series exams. This is the designated capstone course for the BS in Health Human Performance and Sport Management: emphasis in Health and Exercise Science, Minor in Secondary Education. Dual listed in the Graduate Catalog as HSCI 5350. **Prerequisites:** HHPS 3320, HHPS 3210, and HHPS 3310, or department approval.

**HHPS 4371 - Health Education Concepts and Applications**

Three hours lecture. Three credit hours. Examination of the concepts, philosophy, and applications of health education in public, private, professional, and commercial organizations that exist to improve and maintain health. Dual listed in the Graduate Catalog as HHPS 5371.

**HHPS 4372 - First Aid Instructor Training**

Three hours lecture. Three credit hours. Students under supervision develop a lesson plan, observe teachers, develop tests, and participate in the American Red Cross first aid program. Instructor training course for candidates to become certified by the American Red Cross to teach standard first aid and personal safety. **Prerequisites:** HHPS 3372, current American Red Cross first aid certification.

**HHPS 4373 - Controversial Issues in Health Education**

Three hours lecture. Three credit hours. Designed to expand the health educators knowledge of health issues as they are influenced by laws, public opinion, and scientific knowledge; an in-depth study of current controversial issues in health education. Dual listed in the Graduate Catalog as HHPS 5373.

**HHPS 4374 - Family Life and Sex Education**

Three hours lecture. Three credit hours. A study of dating, engagements, marriage, children, divorce, and sexual behavior patterns.

**HHPS 4376 - Mental Health Education**

Three hours lecture. Three credit hours. Examination of methods to be used by teachers to develop the mental health of individual students. Emphasis on the health educator's role in reducing mental and emotional problems.

**HHPS 4378 - Organization and Administration of Health Education Programs**

Three hours lecture. Three credits credit hours. This course is designed to provide a foundation in the organization and management of community-based health education programs. The purpose of this course is to provide an introduction to the fundamental concepts of management, administration and leadership; as well as, demonstrate their application in a variety of health education, health promotion and wellness programs. Dual listed in the Graduate Catalog as HHPS 5378.

**HHPS 4379 - Methods and Techniques of Teaching Health Education**

Three hours lecture. Three hour credit hours. This course will focus on basic philosophic structure of an efficient, meaningful, and effective application of health education, teaching methods, learning models, and theories. Students will gain experience in the organization and planning of programs intended to motivate, sustain individual behavior, and change community attitudes and policies.

**HHPS 4380 - Health Education Program Evaluation**

Three hours lecture. Three credit hours. This course is designed to provide students with an opportunity to learn about program evaluation and measurement concepts in health education and their application. Content includes: evaluation terminology, how to write measurable objectives, how to identify evidence based models, how to design and collect data using quantitative and qualitative methods, how to interpret data. **Prerequisites:** HHPS 4371 or department approval.

**HHPS 4381 - Health, Human Performance & Sport Management Seminar**

Three hours lecture. Three credit hours. The course will emphasize the National Commission for Health Education Credentialing seven areas of responsibility. It is the designated capstone course for the emphasis area of Health Education and Promotion in the Department of Health Human Performance and Sport Management Bachelor of Science degree, and prepares students for the Certified Health Education Specialist exam. The course evaluation will incorporate a portfolio component that will consist of artifacts from the prerequisite courses.

**Prerequisites:** HHPS 2303, HHPS 4371, HHPS 4373 or department approval.

**HHPS 4382 - Cultural Competence in Health Education**

This course is designed to increase knowledge and understanding of the importance of cultural competence in health education and community health promotion. Focus will be on culturally appropriate communication, health literacy minority health disparities, and effective strategies in planning, implementing, and evaluating culturally appropriate health education programs. Responsibilities of a certified health education specialist will be addressed.

**HHPS 4384 - Motor Development**

Three hours lecture. Three credit hours. This course analyzes the basic concepts relating to human motor development. Basic research and relevant theories of general human development are discussed in relation to motor development and the learning of motor skills. The course provides an understanding of the motor development from early childhood through adulthood.

**HHPS 4391 - Cooperative Education in Health Education**

Three credit hours. Cooperative education seeks to integrate academic and professional work experiences. Students will be placed in a work setting consistent with their Health, Human Performance & Sport Management career objectives. This course requires a minimum of 200 semester work hours. **Prerequisites:** junior standing, acceptance as a Health, Human Performance & Sport Management major, minimum GPA of 2.50, minimum of one semester of HHPS 3391, and consent of program coordinator.

**HHPS 4394 - Workshop in Health Education**

One, two, or three credit hours. Provides opportunities for students, in-service teachers, and interested individuals to work and study with health education professionals. The student can expect to spend two to four hours per week (15 week semester) on the workshop for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the workshop and will be specified in advance by the instructor.

**HHPS 4399 - HHPS Special Topics**

3 hours lecture. Selected topics of current relevance reflecting interest in specialized areas of health education, human performance, and sport management. Course topics will be announced in advance. **Prerequisites:** HHPS 2330.

**HHPS 4402 - Fitness Management**

Two program/facility fieldwork and hours lecture. Four credit hours. This course is designed to train students in the theory and skills required for the administration of fitness programs in industry, YMCAs, rehabilitation clinics, and similar facilities. Emphasis will be on standards and guidelines for facility staffing, programming, and equipment. Overview and discussion of organizational structure, client screening, emergency/safety procedures, and legal issues. **Prerequisites:** BIOL 1411, BIOL 1412, HHPS 3302 or the equivalents.

**HHPS 4600 - Independent Study in Health Education**

One, two, three, four, five, or six credit hours. Provides an opportunity for advanced students to conduct an in-depth study in a specific area of interest or a special problem. May be taken for one to six credit hours. The student is expected to spend two to four hours per week on the project for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and instructor. **Prerequisites:** consent of department chairperson.

**HHPS 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/program. **Concurrent:** TCED 4330.

**HHPS 4695 - Internship in Health Education**

Six credit hours. Directed observation and supervised field work in a health education professional setting. Emphasis on administration, supervision, and program leadership in public, private, or voluntary health agencies, institutions, or business. Six hours credit for 200 clock hours. **Prerequisites:** senior standing, HHPS 3195, HHPS 3196, consent of program coordinator.

## History

**HIST 1311 - History of Civilization I**

Three credit hours. The history of the world's significant civilizations from their beginnings to approximately AD 1600: the development of integrated political, social, economic, religious, intellectual, and artistic traditions and institutions within each of those cultures; significant intercultural exchanges. (ACTS Course Number HIST 1113) **Prerequisites:** Recommended RHET 1311.

**HIST 1312 - History of Civilization II**

Three credit hours. The history of the world's significant civilizations since approximately AD 1600: examination of the persistence of traditional civilizations and the changes in the world order due to the development of modern industrial society, modern science, and the nation state. (ACTS Course Number HIST 1123) **Prerequisites:** Recommended RHET 1311.

**HIST 1314 - First-Year Colloquium in History**

Three credit hours. This course introduces students to the discipline of history through examining of a single topic chosen by the professor. Students will also learn basic research skills, gain experience in time management, and carry out a long-term group project. Furthermore, students will use the insights gained in the classroom to engage with the community around them through a service-learning project.

**HIST 2200 - History/Geography & the News**

Thematic examination of the historical and geographic context of current events in the United States and the World, and the way in which history and geography inform news accounts.

**HIST 2311 - U.S. History to 1877**

Three credit hours. Description, analysis, and explanation of the major political, social, economic and diplomatic events through "Reconstruction." Special attention is devoted to the cross-cultural development of three civilizations, Native American, European, and African, within the geographical context of the North American continent. Major topics for study include European colonial empires; the American Revolution; the Constitution of 1787; evolution of a national government, federal in system and republican in form; social and economic theories and practices; relationship with foreign governments; and the American Civil War. (ACTS Course Number HIST 2113)

**HIST 2312 - U.S. History since 1877**

Three credit hours. Description, analysis, and explanation of the political, social, economic and diplomatic events to the present time. Special attention is devoted to the forces of Modernity and the impact of cultural pluralism on traditional institutions. Major topics for study include industrialization; agrarianism; labor; immigration; reform movements; total and limited war; economic theory and practice; and the U.S.'s role in world affairs. (ACTS Course Number HIST 2123)

**HIST 3301 - Ancient History and Thought**

Three credit hours. Social, intellectual, and cultural history of ancient Mesopotamian, Egyptian, Greek, and Roman peoples.

**HIST 3302 - History of Ancient Greece**

Three credit hours. A political, constitutional, and social history of Greece from the Homeric Age to the fall of the Athenian Empire in 404 BC.

**HIST 3303 - The Hellenistic Age**

Three credit hours. The study of Greek civilization from the fall of the Athenian Empire (404 BC) through the reign of Alexander the Great to the collapse of his successors' kingdoms before the advance of Rome (c. 146 BC).

**HIST 3304 - History of the Roman Republic**

Three credit hours. The history of the expansion of the city of Rome from a small village on the banks of the Tiber to a world empire.

**HIST 3305 - The History of the Roman Empire**

Three credit hours. A history of the Roman Empire from the reign of Augustus and the rise of Christianity to the end of antiquity.

**HIST 3312 - History of Medieval Civilization**

Three credit hours. A study of the interaction of the social class structure and Christianity in forming the institutions of medieval civilization (c. AD 400-1400).

**HIST 3313 - The Renaissance, 1300-1550**

Three credit hours. A study of urban and court life at the time of the Renaissance. Examines such themes as humanism, the arts, discovery, and gender issues in Italy and northern Europe.

**HIST 3315 - Early Modern Europe, 1600-1815**

Three credit hours. Survey of major developments from the Thirty Years' War through the French Revolution. Examines the role of international conflict, national state building, commercialization, the scientific revolution, and the enlightenment in the formation and disintegration of the Old Regime.

**HIST 3316 - Europe in the Age of Revolution, 1789-1914**

Three credit hours. Survey of European history from the French Revolution to the outbreak of the First World War. Emphasis on revolutionary movements, nationalism, industrialization, class society, and imperialism.

**HIST 3317 - Twentieth-Century Europe**

Three credit hours. World War I and its consequences; depression; totalitarianism; World War II; the reconstruction of Europe; the Cold War.

**HIST 3318 - History and Globalization of the Drug Trade**

Three credit hours. A comprehensive understanding of the global drug trade. Specifically, this course utilizes economic models of trade, historical and cultural perspectives on the global drug trade, and criminal justice theories to provide students with a multidimensional understanding of the global drug trade. Further, this course, with a focus on infusing historical perspectives, economic models, and criminal correlates, explores how globalization of the drug trade affects metropolitan cities across the United States.

**HIST 3321 - History of Britain to 1688**

Three credit hours. The period from the earliest times to the Glorious Revolution.

**HIST 3322 - History of Britain since 1688**

Three credit hours. The period from the Glorious Revolution to the present.

**HIST 3323 - British Empire**

Three credit hours. The political, social, and economic development of the British Empire, the foundations of the Commonwealth, and the emergence of the dominions and the dependent empire as autonomous units with the Commonwealth.

**HIST 3325 - History of Russia to 1917**

Three credit hours. History of Russia from prehistoric origins through Kievan, Muscovite, and Tsarist periods with consideration of political, intellectual, economic, and religious factors. Emphasis on Tsarist policies.

**HIST 3326 - The Soviet Union and Russia since 1917**

Three credit hours. Survey of major social, political, and cultural developments including the Russian Revolution, Stalinism, the Cold War, everyday life, the collapse of the Soviet Union, and the post-Soviet era.

**HIST 3328 - Modern France**

Three credit hours. The French political community from the Old Regime to the Fifth Republic, with emphasis on the interrelationship of politics, class, and culture.

**HIST 3330 - Early Modern Germany 1495-1806**

Three credit hours. Survey of the major social, political, and cultural developments in Germany from the Reformation to the French Revolution. Topics include political fragmentation and intra-German conflict, religious conflict, absolutism, the Enlightenment, the collapse of the Holy Roman Empire as well as everyday life, art, and literature.

**HIST 3331 - Modern Germany since 1806**

Three credit hours. German history from the French Revolution to Re-Unification. Topics include nationalism and unification, revolutionary movements, industrialization and class society, Nazism and the Holocaust, postwar division, democratization and Europeanization, reunification, and the shifting nature of German identity.

**HIST 3336 - Islam and the Modern Middle East**

Three credit hours. An examination of the role of Islam as the primary cohesive element in the social, political, and cultural development of the modern Middle East. Comparison and contrast of Western and Middle Eastern perspectives on relevant current issues.

**HIST 3341 - East Asia Foundations: Culture & History to 1600**

Three credit hours. Development of the political, economic, social, and intellectual patterns within the East Asian cultural sphere from prehistory to the sixteenth century, with an emphasis on China and Japan.

**HIST 3342 - Modern China**

Three credit hours. Early modern Chinese development, reaction to contacts with Western Civilization, continuity, modernity, and revolution from the sixteenth century to the present. Cross listed as RELS 3336.

**HIST 3345 - People's Republic of China**

Three credit hours. The history of the origins of the Chinese Communist Party and of the development of China under Communist rule.

**HIST 3347 - History of Japan**

Three credit hours. Development of the political, social, economic, and intellectual patterns of Japanese life from prehistory to the present.

**HIST 3351 - Colonial America, 1607-17631**

Three credit hours. English settlements in the New World, the development of colonial society, American colonies, the British Empire.

**HIST 3352 - American Revolution, 1763-1787**

Three credit hours. Colonial society in 1763, British imperial policy and the American response, the war for independence, effects of the Revolution on American ideas and institutions.

**HIST 3353 - The New Republic: The US, 1787-1848**

Three credit hours. The formation of the Constitution, the emergence of American political institutions, economic and social development, and nationalism.

**HIST 3355 - American Civil War and Reconstruction, 1848-1876**

Three credit hours. The origins of the American Civil War, its course, and subsequent efforts at reconciling North and South. Emphasis on the social, economic, and cultural background to the war and its impact on American society.

**HIST 3356 - The Gilded Age: The US, 1876-1900**

Three credit hours. United States history from the end of Reconstruction through the presidential administration of William McKinley. The course emphasizes the changing character of America in this era, including the farmers' revolt, industrialization, foreign affairs, and major social trends.

**HIST 3357 - The Age of Reform: The US, 1900-1939**

Three credit hours. The political, economic, social, and diplomatic development of the United States between 1900 and 1939.

**HIST 3358 - Recent America: The US, 1939-present**

Three credit hours. A history of the American people in recent times, including economic, social, and cultural developments as well as political, diplomatic, and military events.

**HIST 3371 - History of Latin America: Colonial Period**

Three credit hours. Indian culture. Colonial European discovery, conquest, and colonial development; the Spanish colonial regime in the New World from 1492 to 1820; and wars of independence.

**HIST 3372 - History of Latin America: Republican Period**

Three credit hours. Formation of the Latin American countries stressing political, economic, social, and cultural factors as well as the role of Latin America in world affairs.

**HIST 3375 - Modern Mexican History**

Three credit hours. A study of political, social, and economic developments in Mexico since 1870. Industrialization, nationalism, foreign intervention, and multinational corporations as they relate to Mexican development and the 1910 Mexican Revolution.

**HIST 3380 - The Indian in American History**

Three credit hours. A survey of red-white relations from first contacts through the creation of a reservation system in the 1800s and the removal of the Indians.

**HIST 3390 - Neighborhood Studies**

Little Rock, like other cities, is made up of multiple neighborhoods, each with unique culture and history. This course emphasizes community engagement through active study of the University District/ Promise Neighborhood communities, using the disciplinary tools of art, criminal justice, and history. After studying neighborhoods through the lenses of these disciplines, students will engage in service learning with Promise Neighborhood Advisory Board members to address neighborhood issues.

**HIST 4197 - Social Studies Teaching Practicum**

Field experience practicum in grades 7-12 social studies education. **Concurrent:** HIST 4397.

**HIST 4199 - Independent Study**

One, two, or three credit hours. **Prerequisites:** senior standing, 15 credit hours of history. Open to history majors only. For students of superior ability who seek special research in the field.

**HIST 4299 - Independent Study**

One, two, or three credit hours. **Prerequisites:** senior standing, 15 credit hours of history. Open to history majors only. For students of superior ability who seek special research in the field.

**HIST 4301 - History of Technology**

Three credit hours. A survey of the role of technology from the Stone Age to the nuclear age.

**HIST 4302 - Magic, Science, and the Occult from Antiquity to Newton**

Three credit hours. A survey of humans' attempts to explain and control the cosmos from antiquity to the emergence of modern science around 1700, including the contributions of pseudoscientific, occult, and magical worldviews; internal developments in the history of science; and the relationship between scientific thought and the historical context. Dual listed in the Graduate Catalog as HIST 5302.

**HIST 4303 - The Roman Revolution**

Three credit hours. This seminar will examine the fall of the Roman Republic and the rise of the Roman Empire. Students in this seminar are expected to acquire a reasonable mastery of major events and developments of this transitional period and to demonstrate at least adequate skill in written analysis of this material. Dual listed in the Graduate Catalog as HIST 5303.

**HIST 4304 - Alexander the Great**

Three credit hours. This undergraduate/graduate seminar will examine the career of one of the most interesting and important figures in world history. Alexander expanded the domain of Greek civilization from the Mediterranean and Aegean Seas to the lands of Afghanistan and India. Dual listed in the Graduate Catalog as HIST 5304.

**HIST 4305 - Environmental History**

Three credit hours. Study of humanity's interrelationship with the natural environment throughout history, with emphasis on historical factors relating to current environmental problems.

**HIST 4306 - History with Objects**

Three credit hours. The role of objects in U.S. History including how different academic disciplines study artifacts; how to identify, authenticate, and evaluate artifacts (using decorative arts to learn visual literacy); and the impact of objects (especially their manufacturing and marketing) on American life. Dual listed in the Graduate Catalog as HIST 5306. **Prerequisites:** HIST 2311, HIST 2312 or consent of instructor based on individual student need and ability.

**HIST 4309 - The Historian's Craft**

Three credit hours. This course offers an introduction both to historical methods (how historians go about doing history) and to historiography (the study of the many ways in which historians have written about the past), through a focus on a single historical topic.

**HIST 4313 - Apocalypse Now and Then: A History of Apocalyptic Thought and Movements**

Three credit hours. This course offers a history of beliefs about the end of the world in the western Judeo-Christian tradition. Through lectures and readings, we will examine such topics as the birth of apocalyptic thought, the medieval development of various aspects of traditions about the End (such as the figure of Antichrist and millenarian traditions), millennial influences on the discovery and colonization of the New World, millennial

movements of the last two centuries (such as the Millerites and the Mormons), and contemporary apocalyptic scenarios. A major theme of the course will be the flexibility of apocalyptic language, its ability to interpret various historical situations, and its power to move people to acceptance or action. Dual listed in the Graduate Catalog as HIST 5313.

#### **HIST 4314 - A History of the Future: Millennial Visions in Film and Literature**

Three credit hours. Examines past moments in which people take stock of the present by gazing into the future. Through literature and film, studies predictions of the future in their historical contexts. Looks at positive and negative views of the future, secular and religious predictions for humans' fate. Dual listed in the Graduate Catalog as HIST 5314.

#### **HIST 4315 - Religious History of the United States**

Three credit hours. Development of Protestantism including evangelicalism, new denominations, and fundamentalism; incorporation of Catholicism and Judaism into main stream; relationship between religion and social and political issues including church and state; minority religious beliefs and organizations; varying role of men and women in religious organizations. Dual listed in the Graduate Catalog as HIST 5315.

#### **HIST 4316 - Ideology and Revolution in Eighteenth-Century Europe**

Three credit hours. The late eighteenth-century age of revolution and its background. The crisis of the Old Regime; the contributions of Jansenism, the Enlightenment, constitutionalism, and the politics of gender to the formation of a revolutionary ideology; the course of revolution during the last decade of the eighteenth century. Emphasis on France, but some attention to Britain, Germany, Italy, and America.

#### **HIST 4318 - Modern Revolutions: From France to China**

Three credit hours. A comparative examination of five modern revolutions: the French Revolution (1789-1815), The Meiji "Restoration" in Japan (1853-1890), the Mexican Revolution (1910-1920), the Russian Revolution (1917-1932), and the Chinese Revolution (1919-1949). We will consider such issues as the extent of real turnover in the state apparatus, the prevalence of state-driven "revolutions from above" as opposed to classic "revolutions from below" in modern history, the balance of internal and external causation, and the nature of revolutionary violence. Dual listed in the Graduate Catalog as HIST 5318.

#### **HIST 4319 - Military History of the Western World**

Three credit hours. A survey of military developments from the time of the Greeks until the end of World War II. The course investigates how internal institutions, international goals, organizational skills, leadership, and the application of technology by nations have affected the evolution of warfare in the West. These factors are examined to help students understand the nature of Western military systems and how they have been used as instruments of national policy.

#### **HIST 4322 - Honors Thesis**

Three credit hours. In this course students will write a thesis, under the guidance of a thesis committee, based on research in primary sources. Prior to enrolling in the class a student must discuss possible topics with the faculty member(s) with whom s/he plans to work, and draft a thesis proposal. On acceptance of the thesis proposal, students will be cleared to enroll in the thesis class.

#### **HIST 4324 - The City**

This interdisciplinary course focuses on "The City," looking at the city through the lenses of anthropology, history, urban planning, geography, and the history of architecture. We will focus on the city in the imagination (the idea of the city), the city in space (urban designs and plans), and the city in time (the development of cities over the years). While readings and examples will range throughout history and across the globe, each of the three parts of the course will include an assignment looking specifically at our own urban laboratory: Little Rock.

#### **HIST 4326 - History of the Atlantic World**

Three credit hours. This course examines the processes which brought together the history of Europe, Africa, North America and South America across the Atlantic Ocean. Major themes include the Atlantic Ocean as frontier and zone of interaction as well as political, economic and social changes resulting from inter-Atlantic connections. Dual listed in the Graduate Catalog as HIST 5326.

#### **HIST 4327 - Africa in World History**

Three credit hours. In this class we will examine Africa's development from ancient times to the present. In particular we will explore Africa's relationships with other areas of the world and discuss the points where the African experience converges and diverges from the experience of other regions. We will also focus on three forces driving Africa's development: geographical contexts, economic systems, and cultural relationships. Dual listed in the Graduate Catalog as HIST 5327.



**HIST 4328 - South Africa in World History**

Three credit hours. In this class we will examine South Africa's development from the seventeenth century to the present. In particular we will explore how the geography of southern Africa shaped the emergence of a group of distinct cultures, and how the expansion of racial divisions influenced South African society. We will also focus on the forces of tradition and modernity in the new South Africa. Dual listed in the Graduate Catalog as HIST 5328.

**HIST 4329 - Empires and Cultures, 1850-1914**

Three credit hours. In this class we will explore the intersection of empires and cultures in world history between the mid nineteenth century and the start of the first world war. We will read texts that describe the cultural encounter between imperial regimes and colonial cultures. These readings by both indigenous and European authors will let us ask questions and find answers to the issues surrounding the clash between empires and cultures in the late nineteenth century. Dual listed in the Graduate Catalog as HIST 5329.

**HIST 4333 - European Social and Cultural History**

Three credit hours. Interdisciplinary survey of major European social and cultural developments from the Enlightenment to the present. Explores the interrelationship between a changing society and its beliefs; examines the political impact of modern ideologies, the sciences, and the arts.

**HIST 4335 - History at the Movies**

Three credit hours. This course is designed to introduce students of the past to the potentials and pitfalls of film as a medium of historical exposition. Over the course of the twentieth century, the movies became a primary medium of artistic and commercial expression. The advent of commercial filmmaking in America also marked the first appearance of a particular "genre" of cinematic form—a "historical drama" was one of the first full-length feature films made in the United States, in 1915. Entitled *Birth of a Nation*, the movie purported to be a historical "facsimile" that chronicled the aftermath of the Civil War in the United States. Its commercial success guaranteed that movies with historical themes would continue to be made. Ever since, the makers of motion pictures have found the past to be a creative playground and a lucrative idiom. How do these movies relate to History? Dual listed in the Graduate Catalog as HIST 5335.

**HIST 4338 - Holocaust**

The Holocaust as both a German and international event, with special emphasis on the role of the United States. Major topics include: the tradition of anti-Semitism and the rise of biological racism in the Western world; the Nazi seizure of power; the politics of immigration, especially in the United States; the planning and execution of the Final Solution; the complicity of non-Germans; Jewish and non-Jewish resistance; the mixed role of the Allied powers, especially the United States; the settling of accounts at Nuremberg; and the impact of the Holocaust on survivors and anti-Semitism in the United States.

**HIST 4345 - Chinese Film and History**

Three credit hours. This course looks at the traumatic twentieth century through the lenses of Chinese filmmakers, particularly focusing on how a century of revolution affected urban and rural areas, the roles of women, and the daily lives of people in general. Dual listed in the Graduate Catalog as HIST 5345.

**HIST 4345 - Chinese Film and History**

Three credit hours. This course looks at the traumatic twentieth century through the lenses of Chinese filmmakers, particularly focusing on how a century of revolution affected urban and rural areas, the roles of women, and the daily lives of people in general. Dual listed in the Graduate Catalog as HIST 5345.

**HIST 4346 - Violence in Medieval Europe**

Three credit hours. This course examines various forms of violence in medieval European societies, the role of violence in maintaining or disrupting social order, and medieval efforts to regulate violent behaviors. Dual listed in the Graduate Catalog as HIST 5346.

**HIST 4347 - Age of Charlemagne**

Three credit hours. This course explores the history of Western Europe in the eighth and ninth centuries CE. The Carolingian dynasty of Charlemagne is best known for its political and military domination and for the cultural and intellectual achievements it fostered the ("Carolingian Renaissance"). We will examine both of these topics in detail, but we will also aim for a fuller picture of the Carolingian world, including its institutions and social structures, its economy, its cultural assumptions, and the patterns of life for the men and women who lived far from the imperial court. Dual listed in the Graduate Catalog as HIST 5347.

**HIST 4349 - Justice in Pre-Modern World**

Three credit hours. This course examines "law in action" in various world societies between circa 2000 BCE and 1600 CE. It explores the workings of premodern judicial systems, modes of argument and decision-making, and ideas about justice. It also considers what the legal sources can tell us about these societies more broadly. Dual listed in the Graduate Catalog as HIST 5349.

**HIST 4352 - The American West: Trans-Mississippi**

Three credit hours. A study of the westward expansion of the United States; United States penetration into the Trans-Mississippi River West after the Lewis and Clark expedition; social, political, and economic development; culture of the indigenous Indians of the northern and southern plains.

**HIST 4353 - The Old South**

Three credit hours. The development of southern institutions and ideas from the colonial period through the Civil War.

**HIST 4354 - The New South**

Three credit hours. Continuity and change within the southern states from Reconstruction to the present.

**HIST 4355 - History of Arkansas**

Three credit hours. Focuses on selected topics central to Arkansas history, covering its political, social, cultural, geographic, and economic development from settlement to present. Dual listed in the Graduate Catalog as HIST 5355.

**HIST 4356 - History of Race and Ethnicity in America**

Three credit hours. A survey of the history of race and ethnicity in the United States from prehistory to present with a special focus on selected topics in the experience of African Americans, Asian Americans, European Americans, Latino Americans, and Native Americans. Dual listed in the Graduate Catalog as HIST/RACE 5356.

**HIST 4358 - Civil Rights since 1954**

Three credit hours. An examination of race relations in the United States from the landmark 1954 Brown v. Board of Education U.S. Supreme Court school desegregation decision to present, looking at among other topics the impact of the Civil Rights Movement, the Black Power Movement, Busing, and Affirmative Action. Dual listed in the Graduate Catalog as HIST 5358.

**HIST 4359 - American Urban History**

Three credit hours. Beginnings and growth of urbanization in America from colonial times to the present. Emphasis on the economic base of urban expansion; development of urban policies, services, and municipal administration; the image of the city in popular thought; the impact of industrialization, transportation, population, and the frontier on urbanization.

**HIST 4363 - Law in American History**

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

**HIST 4364 - History of American Enterprise**

Three credit hours. The development of business enterprise in America from its roots in English colonialism through the advent of industrialism; the growth of commerce, the geopolitical foundations of a national marketplace, and the dawn of the corporate age; the relationship between property and the state, social values and the profit motive, innovation and economic advance.

**HIST 4365 - Modern U.S. Culture**

Three credit hours. An examination of the historical development of mass culture in modern America. Concentration on the historical dimensions of culture and the ways in which Americans have redefined their values in response to technological and social change. It will explore the impact of various mechanisms through which a mass culture emerged, including movies, magazines, radio, television. Considers the relationship between culture and national character as currently debated by leading historians.

**HIST 4367 - American Labor History**

Three credit hours. A study of American labor history from colonial times to the present; indentured servitude, slavery, seagoing and free labor, the impact of immigration and the introduction of the factory system, patterns of organization, mass production industries, automation, and the emergence of subsequent problems of the modern labor movement.

**HIST 4368 - African American History to 1865**

Three credit hours. An overview of the African American experience from Slavery to Civil War and Emancipation, examining political, cultural, social, legal, constitutional, and economic developments. Dual listed in the Graduate Catalog as HIST 5368.

**HIST 4369 - African American History Since 1865**

Three credit hours. An overview of the African American experience from Civil War and Emancipation through Reconstruction, the Age of Segregation, the Civil Rights Movement, and the Black Power Movement to present, examining political, cultural, social, legal, constitutional, and economic developments. Dual listed in the Graduate Catalog as HIST 5369.

**HIST 4371 - Women in World History**

Three credit hours. An examination of the conditions of women in history with emphasis on problems in European history; attitudes toward women as reflected in religious, legal, and philosophical literature; and the role expectations of women in various societies.

**HIST 4372 - Perspectives on Women in American History**

Three credit hours. Consideration of conditions and problems of women in American history from colonial to modern times with reference to European background and parallels when appropriate.

**HIST 4373 - History of Family and Childhood in Modern Europe**

Three credit hours. The course introduces students to the history of childhood and family life in nineteenth and twentieth century Europe.

**HIST 4378 - The History of U.S.-Latin American Relations**

Three credit hours. Survey of U.S.-Latin American relations from the pre-Columbian period to the present with emphasis on the nineteenth and early twentieth centuries. Focus on the diplomatic and economic relationships, including dollar diplomacy, intervention, dictatorship, and revolution. Dual listed in the Graduate Catalog as HIST 5378.

**HIST 4385 - U.S. Diplomatic History**

Three credit hours. The origins, character, and consequences of United States foreign policy and its transformations through the nineteenth century, World War I, World War II, the Cold War, and the modern world.

**HIST 4390 - Special Topics in History**

Three credit hours. Specialized study of selected topics in history. Course content changes each semester; refer to the semester class directory. Dual listed in the Graduate Catalog as HIST 5390.

**HIST 4391 - Seminar in United States History**

Three credit hours. Advanced study of a topic in United States history chosen by instructor; includes a major research and writing project incorporating the department's goals of identifying a problem; establishing a thesis; gathering, evaluating, and analyzing evidence; and writing in an appropriate scholarly format. Dual listed in the Graduate Catalog as HIST 5391. **Prerequisites:** HIST 2311, HIST 2312, six hours of upper-level United States history.

**HIST 4393 - Seminar in World History**

Three credit hours. Advanced study of a topic in non-US history chosen by instructor; includes a major research and writing project incorporating the department's goals of identifying a problem; establishing a thesis; gathering, evaluating, and analyzing evidence; and writing in an appropriate scholarly format. Dual listed in the Graduate Catalog as HIST 5393. **Prerequisites:** HIST 1311, HIST 1312, three hours of upper-level non-US history.

**HIST 4395 - History Internship**

Three credit hours. This course involves field experience with a history-related business or public agency. The student will work under the supervision of an individual at the internship agency and a member of the history faculty. The student must secure permission from both supervisors before registration. **Prerequisites:** junior or senior standing, 15 credit hours of history.

**HIST 4396 - Seminar in Arkansas History**

Three credit hours. Discussion, directed readings, research, and writing on selected issues. Topics will vary. May be repeated as topics vary for up to six credit hours. A major research and writing project incorporating the department's goals of identifying a problem; establishing a thesis; gathering, evaluating, and analyzing evidence; and writing in an appropriate scholarly format, is required. Dual listed in the Graduate Catalog as HIST 5396.

**Prerequisites:** consent of instructor.

**HIST 4397 - Teaching Applications**

Three credit hours. The course links social studies content with practical applications for classroom instruction. The content information comes from history, geography, political science, sociology/anthropology, and psychology. This content is modeled for prospective secondary education teachers to illustrate how content can be applied in the classroom. The critical components of each of the disciplines will be integrated into the content presentations and the demonstrated applications. This course will be team taught. Same as GEOG 4397 and POLS 4397.

**HIST 4399 - Independent Study**

One, two, or three credit hours. **Prerequisites:** senior standing, 15 credit hours of history. Open to history majors only. For students of superior ability who seek special research in the field.

**HIST 4600 - Internship**

Six credit hours. An educational internship in Social Studies Education with a field component of a minimum of 12 weeks (480 hours) of internship in a social studies classroom setting under the supervision of a qualified cooperating teacher. Total field experience hours must reflect experience at grades (79) and (1012) as governed by ADE licensure rules. **Prerequisites:** TCED 4383, TCED 4321, HIST 4397/POLS 4397, HIST 4197, 2.75 GPA. Concurrent with TCED 4330.

## International Business

**IBUS 4314 - International Business Strategy**

Three credit hours. An integrated course that explores the key tasks facing international business managers including financial, managerial and marketing objectives and strategies. Heavy emphasis placed on decision-making and developing skills necessary for conduction international business. Course work will be project based and case analysis. **Prerequisites:** ECON 4320, FINC 4330, MGMT 4377, and MKTG 4320 or consent of the instructor.

**IBUS 4316 - Field Study in International Business**

Three credit hours. This course includes an international trip which provides students an opportunity to explore firsthand the international dimensions of business, to identify and pursue strategic issues in businesses, and to gain an awareness of how cultural, economic, political, and legal environments influence business practices. Prior to travel, students study and prepare reports on the country to be visited and upon return, prepare reports of their experiences, comparing pre- and post-visit perceptions. This course has a fee to cover travel costs and host institution charges. If course is repeated, travel must be to a different country. **Prerequisites:** Junior standing; repeatable subject to consent of International Business Program Coordinator.

**IBUS 4390 - Cooperative Education**

Designed to complement and extend the classroom learning experiences through the application of theories and concepts in a professional work environment. A deliverable project, designed in consultation with a faculty member, and a minimum of 200 hours with a participating employer during the semester are required.

**Prerequisites:** 6 hours from ECON 4320, FINC 4330, IBUS 4316, MKTG 4320, MGMT 4377 and consent of the IBUS coordinator.

## Interdisciplinary Studies

- The content of each of these courses changes with each offering. Interested students should consult the list of current course offerings for the title, description, and teachers of each course. More information can be obtained from one of the instructors listed.
- In general, interdisciplinary courses address a theme or a problem from the viewpoints of several academic disciplines or a subject that does not fall within one of those disciplines.
- These courses are often supervised by more than one teacher. Courses include: IDST 1100, 1200, 1300 IDST 2100, 2200, 2300 IDST 3100, 3200, 3300 IDST 4100, 4200, 4300
- Each interdisciplinary studies course carries a number and title indicating that course's level, credit hours, and subject, such as IDST 3312 The Humanities and Technology. All such courses apply as credit hours toward the total needed for graduation and as elective hours. Their applicability toward a major or minor is determined by the department, college, or school of the student's major or minor field.

### **IDST 3350 - Reasoning Across the Disciplines**

Three credit hours. Students will study interdisciplinary processes and concerns that apply to the liberal arts, including reading and thinking critically, making effective arguments, exploring research techniques, and writing effectively.

### **IDST 4350 - Interdisciplinary Studies Colloquium**

Three credit hours. A capstone course. Students will employ interdisciplinary methodology and critical thinking skills to examine and evaluate an interdisciplinary topic. The development and presentation of an interdisciplinary thesis/project will also be required.

## Information Assurance

### **IFAS 2300 - Introduction to Information Assurance**

Three hours lecture. Three credit hours. Study of information security for roles as security professionals and business decisionmakers. This course addresses knowledge areas of the Certified Information Systems Security Professional (CISSP) certification, including need for security, legal and ethical issues, risk management, security technologies and tools, and personnel security maintenance. **Prerequisites:** RHET 1312.

### **IFAS 3300 - Computer Forensics**

Three hours lecture. Three credit hours. Study of the preservation, identification extraction, documentation, and interpretation of computer data following clear, well-defined methodologies and procedures. This course can be repeated for credit with a different theme.

**Prerequisites:** IFAS 2300 and knowledge of Unix or Linux, as well as Windows operating systems.

## Information Science

### **IFSC 1105 - First Year Experience for IFSC/CPSC Majors**

Two hours laboratory per week. One credit hours. A survey of the Computer and Information Science majors with coverage of Interpersonal and Team Communication skills, Time Management & Goal Setting, Techniques for Discovering, Organizing & Presenting Information, Self-Initiated Learning, and Overview of Campus-based resources. Activities include service learning projects, field trips, guest speakers, demonstrations, faculty presentations, and social networks.

### **IFSC 1110 - Introduction to Ethics**

One hours lecture. One credit hours. See PHIL 1110.

### **IFSC 1202 - Introduction to Object-oriented Technology**

Two hours laboratory per week. Two credit hours. An introduction to application development using an integrated development environment with an emphasis on understanding object-oriented programming. Topics covered include programming fundamentals (sequence, decision, and repetition), working with forms and controls, and manipulating user input and elementary files. This is a laboratory computer-based course with hands-on exercises.

### **IFSC 1310 - Web Technologies**

Three hours lecture. Three credit hours. This course is an introduction to client-side technologies and standards-based web development. The course will cover the critical components of any website. Core components include Structure, Content, Presentation, and Behavior with particular attention paid to the design of a website.

### **IFSC 2200 - Ethics in the Profession**

Two hours lecture. Two credit hours. This course is a survey of ethics and its applications to Engineering, Computing and Information Technology Professions. It has the twin objectives of (i) Studying professional code of ethics and the responsibilities that they place on technology professionals (ii) Investigating the background and implications of ethical concerns in the real-world professional environment.

### **IFSC 2300 - Object-oriented Technology**

Two hours lecture. Two hours laboratory per week. Three credit hours. Computer programming in Java. Language used to implement applications that employ objects and demonstrate software development by refinement and inheritance. Topics include data types, control structures, repetitive structures; data structures including arrays, lists, queues, stacks, and trees; recursion and File I/O.

**Prerequisites:** IFSC 1202 or equivalent or consent of the instructor.

**IFSC 2305 - Computer Systems**

Three hours lecture. Three credit hours. In-depth introduction to the components of a personal computer; topics include number systems, identification and organization of CPU, memory, and peripherals; cache technology; bus technology; upgrading, troubleshooting, and maintaining a personal computer. Incorporates hands-on laboratory experiences. **Prerequisites:** IFSC 1202 or equivalent or consent of the instructor.

**IFSC 2315 - Information Systems Software**

Three hours lecture. Three credit hours. Computer operating system concepts including processor and memory management, multiprocessing and multiprogramming, inter-process communication, scheduling, virtual memory, device management, input/output, secondary storage and file management, and protection. **Prerequisites:** IFSC 2300 and IFSC 2305.

**IFSC 2340 - Human Computer Interface**

Three hours lecture. Three credit hours. In-depth study of building user interfaces; user requirements, design, aesthetics, and programming. **Prerequisites:** IFSC 1310 and IFSC 2300, or consent of instructor.

**IFSC 3300 - Web Client Applications**

Three hours lecture. Three credit hours. A hands-on course focusing on the technologies and concepts for creating dynamic and interactive web sites with a special emphasis on client-side technologies. Topics will cover techniques such as how to build efficient and dynamic interactive user interfaces, how to interface with data using standardized, portable formats, how to store/validate data and how to make data more accessible to other applications. **Prerequisites:** Prerequisite: IFSC 1310, MCOM 3310, ARST 4348, ITEC 3610 or equivalent Web Design course, along with a course that covers programming fundamentals like IFSC 1202, CPSC 1375, BINS 4312, ITEC 3650 or equivalent, or consent of instructor.

**IFSC 3315 - Applied Networking**

Three hours lecture. Three credit hours. This course provides a comprehensive understanding of networks, internet applications, and their underlying hardware architecture and software theories. Topics include network protocols, data communication concepts, packet switching technologies, internet protocols, and network issues such as performance, security, and management. Lab exercises are used to demonstrate how network concepts are implemented in practice. **Prerequisites:** IFSC 2300 or equivalent or consent of instructor.

**IFSC 3320 - Database Concepts**

Three hours lecture. Three credit hours. Offers an introduction to the fundamentals and use of relational databases and focuses on four major topics: ER-diagram, relational algebra, SQL language and Oracle.

**Prerequisites:** junior standing or consent of the instructor.

**IFSC 3330 - Current Trends in Database Technology**

Three hours lecture. Three credit hours. Current trends in database design and management emphasizing typical applications in business, medicine, and science. Survey of modern database technologies including object-related database technology, query processing and optimization, transaction processing concepts, concurrency control techniques, database security and authorization, data mining, data warehousing, and web search engine technology. Discussion of database management and distributed database management issues. **Prerequisites:** IFSC 3320 or equivalent or consent of the instructor.

**IFSC 3342 - Mobile Web Development**

2 hours lecture. 1 hours laboratory per week. Total 3 credit hours. This course will take an in-depth look at modern web technologies used in the creation of standards-based websites for use on desktop and mobile devices. We will evaluate and test many approaches in an effort to establish maintainable workflows and create highly usable sites using a "Mobile First" design philosophy. In addition, this course will explore various tools for testing, versioning and distributing project assets. **Prerequisites:** IFSC 1310 or Instructor Approval.

**IFSC 3360 - System Analysis and Design**

Three hours lecture. Three credit hours. Fundamental concepts of object-oriented software analysis and design including requirements specification, analysis, and design of software; issues in software reuse, software packaging, and software management. **Prerequisites:** IFSC 2300 or equivalent or consent of the instructor.

**IFSC 3391 - Junior Cooperative Education I**

Three credit hours. This course may be substituted for a major elective with the consent of the chairperson. Work experience to complement and extend the classroom experience through the application of a student's academic experiences in a professional information technology environment. A minimum of 200 hours of work with the participating employer is required. The exact number of hours per week, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** Junior standing in information science or completion of the Information Technology Minor.

**IFSC 3392 - Junior Cooperative Education II**

Three credit hours. This course is designed as a continuing cooperative learning experience beyond IFSC 3391 and may be substituted for a major elective with the consent of the chairperson. Work experience to complement and extend the classroom experience through the application of a student's academic experiences in a professional information technology environment. A minimum of 200 hours of work with the participating employer is required. The exact number of hours per week, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** Junior standing in information science or completion of the Information Technology Minor.

**IFSC 4100 - Independent Study**

One, two, three, four, five, or six credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interest and availability. Two to four hours per week per credit hour. The exact time and nature of the experience depends on the subject matter and is agreed upon at the beginning of the term by the student and the instructor. Agreement must be in writing and filed with the chairperson. Maximum of six credit hours can be applied toward IFSC major requirements. May be repeated. **Prerequisites:** consent of chairperson.

**IFSC 4199 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in information science. May be repeated up to a maximum of 12 credit hours counting toward the major. Dual listed in the Graduate Catalog as IFCI 5199, 5299, 5399, 5499. **Prerequisites:** junior standing or consent of instructor.

**IFSC 4200 - Independent Study**

One, two, three, four, five, or six credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interest and availability. Two to four hours per week per credit hour. The exact time and nature of the experience depends on the subject matter and is agreed upon at the beginning of the term by the student and the instructor. Agreement must be in writing and filed with the chairperson. Maximum of six credit hours can be applied toward IFSC major requirements. May be repeated. **Prerequisites:** consent of chairperson.

**IFSC 4299 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in information science. May be repeated up to a maximum of 12 credit hours counting toward the major. Dual listed in the Graduate Catalog as IFCI 5199, 5299, 5399, 5499. **Prerequisites:** junior standing or consent of instructor.

**IFSC 4300 - Independent Study**

One, two, three, four, five, or six credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interest and availability. Two to four hours per week per credit hour. The exact time and nature of the experience depends on the subject matter and is agreed upon at the beginning of the term by the student and the instructor. Agreement must be in writing and filed with the chairperson. Maximum of six credit hours can be applied toward IFSC major requirements. May be repeated. **Prerequisites:** consent of chairperson.

**IFSC 4301 - Information, Computing, and the Future**

Three hours lecture. Three credit hours. Topics on information and computing and their interactions with society. Emphasizes the history and present status of information and computing technologies and their implications for possible future changes in the profession, the field, and society. Includes discussion of change as a factor in personal career preparation, goals, and activities. Topics may vary based on student interest and current events. Cross listed as TINV 4302.

**IFSC 4325 - Data Mining Concepts and Techniques**

Three hours lecture. Three credit hours. In-depth, practical coverage of essential data mining topics, including knowledge discovery and the data mining process, data pre-processing, classification and prediction, as well as cluster analysis. The course will focus on popular and advanced data mining algorithms and models including decision trees, support vector machines, neural networks, Bayesian networks, K-means and density-based spatial clustering (DBSCAN). Advanced topics include information retrieval, text mining, social network analysis, and applications in several fields. Moreover, the course will use popular data mining software to give students hands-on experience in mining data. **Prerequisites:** IFSC 3320 or equivalent or consent of the instructor.

**IFSC 4330 - Database Security**

Three hours lecture. Three credit hours. Focus on security issues in databases systems and introduction of how current and future commercial systems may be designed to ensure secrecy and confidentiality. Topics include security models, basic security mechanisms and software, statistical database security, intrusion detection, security models for next generation databases, tested techniques and proven strategies for securing an Oracle environment — from the operating system to the database to the network, and how to implement security using Oracle's built-in tools. **Prerequisites:** IFSC 3330 or equivalent or consent of the instructor.

**IFSC 4339 - Network Security**

Three hours lecture. Three credit hours. This course provides students with a concise and in-depth overview of security issues in current computer networks. It first gives a brief introduction of cryptographic algorithms and protocols underlying network security applications, including encryption, hash function, public key algorithm, digital signatures, and key exchanges. Then, it focuses on the security issues in current computer networks as well as network security tools and applications. The course will cover network intrusion/detection techniques and systems. **Prerequisites:** IFSC 3315 or CPSC 4384 or SYEN 3332 or MGMT 4310, or consent of instructor.

**IFSC 4345 - Information Visualization**

Three hours lecture. Three credit hours. The design and presentation of information. Use of graphics, animation, sound, visualization software, and hypermedia in helping users understand information. Methods of presenting complex information to enhance comprehension and analysis. Incorporation of visualization techniques into human-computer interfaces. **Prerequisites:** MATH 1451 and IFSC 2300, or consent of the instructor.

**IFSC 4350 - Electronic Commerce**

Three hours lecture. Three credit hours. Seminar style course designed for student to be able to describe and apply different electronic commerce business models. Understand technologies in electronic commerce, including the Internet and WWW, security systems, electronic payment systems, and intelligent agents. **Prerequisites:** IFSC 1310 or ITEC 3610 or equivalent and junior standing or consent of instructor.

**IFSC 4360 - Social Computing**

Three hours lecture. Three credit hours. A hands-on course focusing on concepts of the social and information networks, Web as graph, models (such as Power law distribution, scale-free models, preferential attachment models, etc.) that simulate behavioral characteristics of these graphs, basic graph theoretical concepts, characteristics of social media and Web 2.0 or the Social Web (such as blogs, microblogging, social friendship networks, social bookmarking, social news, social media sharing, wikis, etc.), understanding and developing API and mashups, issues and challenges in data crawling and web analytics, network data visualization, exposure to information extraction and retrieval concepts aiming at the highly dynamic and noisy nature of social media, harnessing the collective and web intelligence, and basic concepts of cloud computing. **Prerequisites:** IFSC 1310 and IFSC 2300, or equivalent, or consent of instructor.

**IFSC 4365 - Web Server Applications**

Three hours lecture. Three credit hours. A programming course focusing on the technologies and concepts for creating dynamic and interactive web sites with an emphasis on server-side technologies using a modern web server language. Topics will include web languages, form interaction, form validation, querying a database, web security, and standardized data formats such as XML and JSON. **Prerequisites:** IFSC 3300 or Instructor Consent.

**IFSC 4376 - Applied Cryptography**

Three credit hours. See CPSC 4376 Applied Cryptography

**IFSC 4391 - Senior Cooperative Education I**

Three credit hours. Work experience to complement and extend the classroom experience through the application of a student's academic experiences in information science in a professional information technology environment. A minimum of 200 hours of work with the participating employer is required. The exact number of hours per week, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** Senior standing in information science and consent of chairperson if substituted for a major elective.

**IFSC 4392 - Senior Cooperative Education II**

Three credit hours. This course is designed as a continuing cooperative learning experience beyond IFSC 4391. Work experience to complement and extend the classroom experience through the application of a student's academic experiences in information science in a professional information technology environment. A minimum of 200 hours of work with the participating employer is required. The exact number of hours per week, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements coordinated with the Office of Cooperative Education. **Prerequisites:** Senior standing in information science and consent of chairperson if substituted for a major elective.

**IFSC 4395 - Internship**

Three or six credit hours. **Prerequisites:** junior or senior standing in information science and consent of the chairperson if substituted for a major elective. Professional experience related to the student's major emphasis under supervision of an advisor. A minimum of four hours work on site per week for each credit hour. Advisor files a grade contract with the chairperson.

**IFSC 4396 - Capstone Project I**

Three credit hours. Capstone course in which student teams do an analysis of a live information system, document and present their conclusions. Projects are chosen at the end of IFSC 3330. Teams coordinate their efforts on a sponsor's site and make regular report to the instructor. Classroom meetings are held as necessary to conduct orientations and hear presentations.

**Prerequisites:** IFSC 3330 and IFSC 3360.

**IFSC 4398 - Capstone Project II**

Three credit hours. Continued capstone course in which student teams pursue the design and implementation of system improvements identified in IFSC 4396.

Deliverables and schedule are determined by the instructor. Classroom meetings are held as necessary to conduct orientations and hear presentations.

**Prerequisites:** IFSC 4396.

**IFSC 4399 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in information science. May be repeated up to a maximum of 12 credit hours counting toward the major.

Dual listed in the Graduate Catalog as IFCI 5199, 5299, 5399, 5499. **Prerequisites:** junior standing or consent of instructor.

**IFSC 4400 - Independent Study**

One, two, three, four, five, or six credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interest and availability. Two to four hours per week per credit hour. the exact time and nature of the experience depends on the subject matter and is agreed upon at the beginning of the term by the student and the instructor. Agreement must be in writing and filed with the chairperson. Maximum of six credit hours can be applied toward IFSC major requirements. May be repeated. **Prerequisites:** consent of chairperson.

**IFSC 4499 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in information science. May be repeated up to a maximum of 12 credit hours counting toward the major.

Dual listed in the Graduate Catalog as IFCI 5199, 5299, 5399, 5499. **Prerequisites:** junior standing or consent of instructor.

**IFSC 4500 - Independent Study**

One, two, three, four, five, or six credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interest and availability. Two to four hours per week per credit hour. the exact time and nature of the experience depends on the subject matter and is agreed upon at the beginning of the term by the student and the instructor. Agreement must be in writing and filed with the chairperson. Maximum of six credit hours can be applied toward IFSC major requirements. May be repeated. **Prerequisites:** consent of chairperson.

**IFSC 4600 - Independent Study**

One, two, three, four, five, or six credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interest and availability. Two to four hours per week per credit hour. the exact time and nature of the experience depends on the subject matter and is agreed upon at the beginning of the term by the student and the instructor. Agreement must be in writing and filed with the chairperson. Maximum of six credit hours can be applied toward IFSC major requirements. May be repeated. **Prerequisites:** consent of chairperson.

**IFSC 4695 - Internship**

Three or six credit hours. **Prerequisites:** junior or senior standing in information science and consent of the chairperson if substituted for a major elective. Professional experience related to the student's major emphasis under supervision of an advisor. A minimum of four hours work on site per week for each credit hour. Advisor files a grade contract with the chairperson.

## Integrated Grad Science

**IGSC 1101 - FE: Step 1-Inquiry Approaches to Teaching**

An introduction to the theory and practice necessary to design and deliver quality inquiry-based science and mathematics instruction that provides the scaffold for the early field experience. In this one hour credit course, the instructor or master teacher and the elementary school mentor teacher emphasize both inquiry and classroom management techniques. This course satisfies the first year colloquium requirement. Step 1 invites candidates to explore teaching as a career. With the guidance of the instructor, in Step 1, candidates teach science or math lessons in upper elementary classrooms to obtain firsthand experience with planning and implementing inquiry-based curriculum. Master teachers teach Step 1, so candidates have direct access to accomplished teachers holding certificates who love teaching and who believe that teaching is a rewarding career choice. Local public school elementary classrooms provide the future teachers with a first taste of teaching in a supportive, diverse environment. Candidates shall be required to submit to a criminal background check.

**IGSC 1101 - Step 1: Inquiry Teaching (FYC)**

One credit hours. Prepare, implement and reflect on lessons designed to teach elementary students to obtain and analyze data. (qualifies as a Freshman Experience Course)



**IGSC 1102 - Inquiry-Based Lesson Design (Step 2)**

This course (Step 2) continues the exploration of teaching careers in a middle school environment that began in SCED/IGSC 1101 (Step 1). In this one hour credit course, students observe a lesson taught by a middle school mentor teacher, and then plan and teach three inquiry-based middle school lessons with a partner. Students build on and practice lesson design skills developed in the Step 1 course while also becoming familiar with science or mathematics curricula for the middle school setting. Students demonstrate their own content knowledge in developing the lesson plans. As a result of their classroom experiences, students reflect on the observation and their teaching. At the end of the Step 2 experience, students are generally ready to make a decision about whether they want to pursue a pathway to teacher certification.

**Prerequisites:** SCED/IGSC 1101.

**IGSC 1102 - Step 2: Inquiry Lesson Design**

One credit hours. Prepare, implement and reflect on lessons aligned with district math and/or science curriculum at the middle/junior high school level.

**IGSC 4101 - Integrated Science Pedagogy Practicum**

The course is one hour credit hours. The purpose of the course is to apply the principles learned in the science pedagogy lecture into a 712 classroom. The course will consist of a total of 30 hours of observation in a K-12 classroom setting under the supervision of a cooperating teacher, teaching at least 2 lessons with observation by a TESS trained university supervisor. The cooperating teacher will also evaluate the candidate based on a provided rubric. The candidate is to be responsible for creating a portfolio documenting his/her teaching improvement process. **Prerequisite/Concurrent:** IGSC 4301/5301 (Integrated Science Pedagogy).

**IGSC 4301 - Integrated Science Pedagogy**

Integrated Science Pedagogy prepares prospective teachers to teach science content with the best-practice pedagogical methods. Prospective teachers will develop and deliver STEM-integrated, student centered lessons, develop lab investigations and assessments employing safety measures, problem-solving, and inquiry-based learning. The course will be team-taught. The course is 3 credit hours. **Prerequisite/Concurrent:** IGSC 4101/5101 (one credit hour) is required.

**IGSC 4386 - STEM Methodologies**

Three credit hours. Design and carry out independent inquiries employing the tools used by scientists and mathematicians.

**IGSC 4388 - Functions and Modeling**

Three credit hours. Engage in explorations and lab activities designed to strengthen and expand your knowledge of secondary mathematics topics. \*\* For Math Majors Only

## Interpreting For The Deaf

**INTR 1320 - American Sign Language I**

Three credit hours. A web enhanced elementary course in American Sign Language (ASL) using a natural language approach to introduce culturally appropriate signed concepts related to the immediate environment. Common communicative events and interactions are utilized to acquire a basic working vocabulary and grammar. Includes development of appropriate linguistic/cultural behaviors and awareness of/and respect for Deaf Culture. Receptive and expressive skills are fostered through interactive ASL lessons without voice.

**INTR 1321 - American Sign Language II**

Three credit hours. An intermediate ASL course progressing from common, concrete communicative events and interactions to language usage expressing abstract ideas. Emphasis is on the comprehension and production of increasingly complex linguistic structure focusing on dialogues and conversational expressions. More complex receptive and expressive skills are fostered through interactive ASL lessons without voice.

**Prerequisites:** INTR 1320 with a grade of C or greater.

**INTR 1340 - Deaf Culture**

Three credit hours. An interdisciplinary study of American Deaf culture and the factors that contribute to defining the Deaf Community as a cultural minority, focusing on an awareness and understanding of cultural diversity and preservation of language. Covers the cultural identity, group norms, rules of social interaction, values, and traditions held by members who are deaf. Societal attitudes regarding deafness and issues such as cultural oppression and language power by the majority culture will be discussed, as well as the contributions of folklore, literature, plays and works of art made by persons who are deaf to the larger American culture and to their own community organizations. The impact of modern technology, emerging issues, trends, and advocacy with the Deaf Community are presented.

**INTR 2240 - Specialized Terminology**

Two credit hours. Students will acquire skills and vocabulary for interpreting in specialized settings such as medical, mental health, legal, rehabilitation, counseling, technical and religious fields. Emphasis is on acquisition of specific terminology, concepts and protocol in each area.

**Prerequisites:** Interpretation INTR 2320, or permission of program coordinator.

**INTR 2280 - Fingerspelling**

Two credit hours. A course designed to develop expressive and receptive fingerspelling skills. Emphasis will be on whole-word and phrase recognition, as well as on reading fingerspelling embedded in signed sentences. Expressive skills will focus on attainment of normal speed, clarity, and fluency. Extensive interaction and drills with the instructor-student(s) will enhance receptive and expressive speed and skill. Videotaped fingerspelling lessons of varying speeds embedded in sentences will be utilized for practice of receptive comprehension.

**Prerequisites:** INTR 1320.

**INTR 2320 - American Sign Language III**

Three credit hours. This course is a continuation of the Signing Naturally curriculum. Emphasis is on the development of fluent conversational skills utilizing grammatical nonmanual signals and markers. Students will learn how to narrate, describe, compare, and comment. Videotaped narratives of native language users are utilized to build students' comprehension skills and to review language features taught in class. Interactive ASL lessons without voice lead to expanded vocabulary mastery and fluency. **Prerequisites:** INTR 1321 with a grade of C or greater.

**INTR 2321 - American Sign Language IV**

Three credit hours. An advanced ASL performance course integrating cultural and linguistic competencies ranging from informal to formal communication events. Emphasis is on greater fluency in idiomatic language usage and mastery of vocabulary and syntax. Linguistic competence is enhanced through interactive discourse with native language users. **Prerequisites:** INTR 2320 with a grade of C or greater.

**INTR 2330 - Manually Coded English in Educational Settings**

Three credit hours. Designed to expose students to a variety of signed English systems. Students learn the rules governing the selection of signs and the rationale for sign language systems in the educational setting. Focus is on learning Signing Exact English (SEE II) as adopted by educational systems and state schools for the deaf.

**Prerequisites:** INTR 1321.

**INTR 2344 - Comparative Linguistics: ASL and English**

Three credit hours. This course introduces students to the basic concepts of linguistics: phonology, morphology, syntax, and language use. Students will compare and contrast the fundamental linguistic structures of American Sign Language and English and learn to think critically about languages and language use. **Prerequisites:** INTR 2320, INTR 2330.

**INTR 3320 - American Sign Language V**

This is an advanced ASL performance course integrating cultural and linguistic competencies ranging from informal to formal communication. Emphasis is on fluency in idiomatic language usage and mastery of vocabulary and syntax. Linguistic competence is enhanced through interactive discourse with native language users.

**Prerequisites:** The completion of an Associate of Science in American Sign Language Studies, and an Intermediate level on the Signed Communication Proficiency Interview (SCPI). **Corequisites:** INTR 3344.

**INTR 3344 - Interpretation Theory and Process**

Three credit hours. This course uses a process-oriented approach to applying the essential cognitive strategies to interpretation. These strategies include organizing and manipulating visual images, analyzing message for meaning, and self-monitoring for message accuracy. The course serves as a transition from language learning to beginning interpretation from American Sign Language to English. **Prerequisites:** INTR 2342. **Corequisites:** INTR 2321.

**INTR 3347 - Introduction to Interpreting**

Three credit hours. Designed to provide students with a working knowledge of the profession of interpreting, including the Code of Professional Conduct, certification criteria, the roles and responsibilities of an interpreter, and compensation. Discussions of the role of the interpreter in a variety of professional settings including educational, medical, legal, rehabilitation and mental health.

**Prerequisites:** The completion of an Associate of Science in American Sign Language Studies.

**INTR 3350 - Artistic Interpreting in Educational Settings**

Three credit hours. Designed to teach students the skills needed to interpret music, prose, poetry, and drama in a visually artistic manner. Emphasizes appropriate use of conceptually accurate signs, facial expression, movement, and rhythm. **Prerequisites:** INTR 1321.

**INTR 3364 - Sign to Voice Interpreting/Transliterating**

Three credit hours. Designed to develop skills in sign to voice interpreting for persons who are deaf. Students will learn to voice simultaneously and consecutively when viewing videotapes of native signers who use a variety of signing modalities to communicate. Audiotapes provide students with immediate feedback. **Prerequisites:** Interpretation INTR 3320, INTR 3344, 3346.

**INTR 3366 - Voice to Sign Interpreting/Transliterating**

Three credit hours. Designed to develop interpreting and transliterating skills through the use of interactive videotapes and audiotapes. Students also will learn to select and assess appropriate modality and language levels. Emphasis will be on the process of interpreting and developing fluency, speed, and accuracy. **Prerequisites:** INTR 3320, INTR 3344 and INTR 3346.

**INTR 3372 - Interpreting for Persons who are Hard of Hearing**

Three credit hours. A study of the mechanics of and skills needed for interpreting for persons who are deaf and hard of hearing and use assistive listening technology, oral transliterating, Cued Speech, or speech to text services. Students will develop and practice appropriate techniques necessary for interpreting for persons who are deaf and hard of hearing, who do not know sign language and who use the above methods for communication.

**Prerequisites:** INTR 3346.

**INTR 3380 - Introduction to Interpreting Research**

Three credit hours. This course is designed to introduce students to the process of conducting research, quantitative and qualitative methods of data collection and analysis, and the process of reporting research results. Students will learn ethical practices in the conduct of research. Students will critically evaluate research in the fields of sign language linguistics and spoken and sign language interpreting research. **Prerequisites:** INTR 2350, INTR 2344, or permission of the program coordinator.

**INTR 4102 - Workshop**

One, two, or three credit hours. Special topics.

**INTR 4108 - Independent Study**

One, two, or three credit hours. Special topics.

**Prerequisites:** consent of coordinator.

**INTR 4202 - Workshop**

One, two, or three credit hours. Special topics.

**INTR 4208 - Independent Study**

One, two, or three credit hours. Special topics.

**Prerequisites:** consent of coordinator.

**INTR 4302 - Workshop**

One, two, or three credit hours. Special topics.

**INTR 4308 - Independent Study**

One, two, or three credit hours. Special topics.

**Prerequisites:** consent of coordinator.

**INTR 4330 - Interpreting I**

Three credit hours. This course is an intermediate level interpreting skills course designed to enhance both linguistic competencies and interpreting skills. This course is divided into four 3week blocks with each block focusing on a specific topic/setting. Business practices regarding self-employment and record keeping will be infused into each learning block. Students will practice specialized vocabulary, participate in simulated interpreting experiences, apply ethical decision making, tour environments and interact with professionals from targeted settings: medical, video relay/employment, social services, religious and business. **Prerequisites:** The completion of INTR 3364, INTR 3366, QAST Level I/I or equivalent interpreting credential.

**INTR 4332 - Interpreting II**

This course is an advanced level interpreting skills course designed to enhance both linguistic competencies and interpreting skills. This course is divided into four 3-week blocks with each block focusing on a specific topic/setting. Business practices regarding self-employment and record keeping will be in fused into each learning block. Students will practice specialized vocabulary, participate in simulated interpreting experiences, apply ethical decision making, tour environments and interact with professionals from targeted settings: video relay and video remote interpreting, government agencies, mental health and legal. **Prerequisites:** INTR 4330, INTR 4370.

**INTR 4346 - Principles of Educational Interpreting**

Three credit hours. Issues related to interpreting in classrooms at the elementary, secondary, and postsecondary levels. Students will analyze the major transitions from childhood to adolescence to adulthood and the changes required in professional roles, responsibilities, and ethical decision-making. Topics will include: working with children and adolescents, their parents, and educators; sign systems used in educational settings; educational goals and language policies; certification issues; working conditions; analyzing classroom interpreting tasks; and knowledge, skills, and attitudes needed for educational interpreting.

**Prerequisites:** INTR 3380, QAST Level I/I or equivalent, or permission of program coordinator.

**INTR 4358 - Interpreting for Persons who are Deaf-Blind**

Three credit hours. Students will study the major causes of deaf-blindness and the impact of deaf-blindness on communication, mobility and life styles. Emphasis is on learning and practicing the various modes of communication used by persons who are deafblind for interpreters and intervenors. Students will become familiar with human guide techniques and the aids and devices available to persons who are deafblind. Tactile forms of communication will be emphasized during role play situations. A service-learning component will provide the opportunity to apply classroom knowledge and skills in real life situations, while meeting community need. Reflective discussion and writing is emphasized throughout the course. **Prerequisites:** INTR 3364, INTR 3366, QAST I/I or equivalent.

**INTR 4370 - Ethical Standards for Interpreters**

Three credit hours. A course designed to teach and practice a model for ethical decision making within the field of interpretation. Students will study codes from international interpreting organizations, the NADRID Code of Professional Conduct, the QAST Code of Ethics, and the Arkansas Code for interpreters in the judiciary. The RID Ethical Practices System will be reviewed. Various interpreting scenarios presenting ethical dilemmas will be discussed and/or roleplayed applying the Humphrey/Alcorn Decision-Making Model to the NADRID Code of Professional Conduct. **Prerequisites:** INTR 3364, INTR 3366 and QAST Level I/1, or permission of program coordinator.

**INTR 4380 - Advanced Transliteration: English – English**

Three credit hours. Continuation of sign to voice and voice to sign transliterating skills development. Course includes practice in appropriate sign/spoken vocabulary selection, the matching or register in the formal setting, and quality voice production. Students will focus on transliterating signed/spoken English in highly technical situations and develop specialized vocabulary in areas typically utilizing transliterators. **Prerequisites:** INTR 4330, INTR 4370, QAST Level I/I or equivalent, or permission of program coordinator. **Corequisites:** INTR 4382. Restricted to students who have been admitted to the Interpretation program.

**INTR 4382 - Advanced Interpretation: ASL – English**

Three credit hours. Continuation of the interpretation process between ASL and English including application of process skills, contrastive ASLEnglish linguistics, contrastive cultural analysis, and teaming skills for the consecutive and simultaneous interpretation process. Designed to include practice of requisite skills and process tasks of increased complexity with unplanned and planned language samples, such as dialogues, monologues, interviews, and lectures from a variety of interpreting settings. **Prerequisites:** INTR 4330, INTR 4370, QAST Level I/I or equivalent, or permission of program coordinator. **Corequisites:** INTR 4380. Restricted to students who have been admitted to the Interpretation program.

**INTR 4384 - Interpreting Academic Subjects**

Three credit hours. Acquisition of interpreting/transliterating skills across a variety of academic subjects commonly taught in elementary through postsecondary settings. Emphasis on incorporating and pairing conceptually accurate sign usage within a variety of English-bound sign systems, as well as acquisition of specialized sign vocabulary for academic content areas. **Prerequisites:** INTR 4330, INTR 4370, INTR 4346, QAST Level I/I or equivalent, or permission of program coordinator. Restricted to students who have been admitted to the Interpretation program.

**INTR 4770 - Internship**

Seven credit hours. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents, and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-residence portion of the program. The site, supervision, and plan of activity will be agreed upon mutually by student and instructor before the semester begins. **Prerequisites:** Completion of all B.A. requirements.

**International Studies****INTS 2301 - World Cultures**

Three credit hours. A study of traditional culture of major world areas emphasizing values and systems that lead to cultural unity and cultural diversity, followed by a study of the modernization of each culture and the extent to which the cultures have interacted and changed as a result of intercultural contact during the 19th and 20th centuries.

**INTS 2302 - Global Issues**

Three credit hours. A study of issues of concern throughout the modern world, the reaction of cultural entities to those issues, global dynamics, and the ways in which international assessments are made.

**INTS 2303 - Introduction to Globalization**

Three credit hours. This course provides an interdisciplinary introduction to the many different facets of globalization. The course will introduce students to a range of major issues related to globalization, such as transnational trade and financial flows, cultural change and Americanization, climate change and the environment, international law and organizations, transnational crime and disease, and inequality. We will examine important debates about globalization and consider how different social science disciplines attempt to understand the richness and evolving nature of global political, economic, and cultural patterns. Students will learn to distinguish among different theoretical explanations for understanding globalization, think critically about their strengths and weaknesses, and apply them to a range of historical and contemporary issues.

**INTS 3321 - Topics in Modern International Studies**

Three credit hours. This course addresses a set of important contemporary and/or historical global or regional issues. The specific focus of the course will vary from time to time. It may be repeated for credit if the content is different.

**INTS 3350 - Cooperative Education Work Experience I**

Three credit hours. Designed to complement and extend the classroom learning experience through application of theoretical concepts in a professional work environment with an international dimension. The exact number of work hours, activities, and responsibilities is dependent on the nature of the work experience and must be specified in a written agreement between employer and student in coordination with the Office of Cooperative Education. **Prerequisites:** major in international studies, INTS 2301, INTS 2302, ECON 2321, FREN, GERM, or SPAN 2312, at least six upper-level required international studies hours, basic computer literacy, and consent of the international studies coordinator.

**INTS 3351 - Cooperative Education Work Experience II**

Three credit hours. Designed to complement and extend the classroom learning experience through application of theoretical concepts in a professional work environment with an international dimension. The exact number of work hours, activities, and responsibilities is dependent on the nature of the work experience and must be specified in a written agreement between employer and student in coordination with the Office of Cooperative Education.

**Prerequisites:** major in international studies, INTS 2301, INTS 2302, ECON 2321, FREN, GERM, or SPAN 2312, at least six upper-level required international studies hours, basic computer literacy, and consent of the international studies coordinator.

**INTS 4101 - Senior Research Project**

One credit hours. Proposal. Required for international studies majors. An independent research project that is completed over two semesters under the guidance of a faculty supervisor whose field is related to the proposed area of investigation. The project has three components, consisting of a proposal (4101), a formal paper (INTS 4102), and an oral presentation (INTS 4103), each providing one hour of academic credit. A student may enroll in INTS 4102, INTS 4103 only after completing an acceptable proposal (INTS 4101) in the previous semester.

**INTS 4102 - Senior Research Project**

Three credit hours. Formal Paper. Required for international studies majors. An independent research project that is completed over two semesters under the guidance of a faculty supervisor whose field is related to the proposed area of investigation. The project has three components, consisting of a proposal (INTS 4101), a formal paper (4102), and an oral presentation (INTS 4103), each providing one hour of academic credit. A student may enroll in INTS 4102, INTS 4103 only after completing an acceptable proposal (INTS 4101) in the previous semester.

**INTS 4103 - Senior Research Project**

One credit hours. Oral Presentation. Required for international studies majors. An independent research project that is completed over two semesters under the guidance of a faculty supervisor whose field is related to the proposed area of investigation. The project has three components, consisting of a proposal (INTS 4101), a formal paper (INTS 4102), and an oral presentation (4103), each providing one hour of academic credit. A student may enroll in INTS 4102, 4103 only after completing an acceptable proposal (INTS 4101) in the previous semester.

**INTS 4300 - Seminar**

Three credit hours. For international studies majors. An integrative, in-depth study of a specified regional problem or global issue, related to the area of concentration, requiring analysis of traditional values and current issues and problems.

**INTS 4350 - Internship**

Three credit hours. For international studies majors or minors. Field experience with businesses, industries, and agencies involved in the international arena. Supervised by the company or agency and a faculty member.

Students are expected to apply theoretical concepts to active world situations and develop appropriate working skills and experience. Credit, no credit grading available on request.

**INTS 4360 - International Studies Capstone**

Three credit hours. Capstone experience designed to review and apply interdisciplinary theories and concepts to global issues through completion of a major project.

Topics will vary by semester. **Prerequisites:** Senior Standing.

## Information Technology

**ITEC 3610 - Introduction to Information Technology and Applications**

Six credit hours. The first semester of the Information Technology program contains instruction covering technical, business and soft skills. Upon successful completion students will demonstrate mastery in the following topics: Information Literacy / Discovery skills, Advanced techniques for leveraging search engine functionality, Working with cloud-based apps (Google Docs / Virtual Machines / Using VPNs), Web-based publishing using WordPress and Wiki's , Advanced topics in Desktop publishing (Word/Powerpoint power user tips and tricks), Advanced MS Excel / Google Spreadsheets, Introduction to programming fundamentals (Visual Basic 38; JavaScript), Introduction to core web technologies (HTML5 / CSS / Javascript), Search Engine Optimization (SEO), Social Media Management, Entrepreneurship, and Interpersonal Communication skills.

**ITEC 3650 - Guided Applications in Information Technology and Industry Processes**

Six credit hours. The second semester of the program will continue to build on concepts and skills acquired in the previous semester with a focus on advanced problem solving techniques and team project work. The course will cover advanced topics in web design and development including HTML5 API's (geolocation, audio, video, data-schema), CSS3 media queries and animation, google analytics, usability testing, designing for mobile devices and an introduction to server-side technologies. Additional topics include relational database concepts using MS Access and MySql, project management, proposal writing, interviewing clients, collaborative problem solving, team-based communication skills, and conflict resolution. The semester culminates with an applied project with real-world clients. **Prerequisites:** ITEC 3610.

### **ITEC 4610 - Project Development and Portfolio Defense**

Six credit hours. The three components are intertwined this semester. Under the direction of an IT Minor Capstone Coordinator, student teams will work with a private sector client to develop a quality IT solution to address organizational needs. These projects typically have both a web and database component requiring students to apply skills acquired in previous semesters. This is accomplished in two phases. The first is Project Planning and Portfolio Development, and includes problem identification, needs assessment, and project planning. The second phase, Project Completion and Portfolio Development, includes design, testing, verification, and customer satisfaction. In addition to the capstone project, students will create a web-based portfolio showcasing skills acquired during the project. **Prerequisites:** ITEC 3650.

## **Learning Systems Technology Education**

### **LSTE 3205 - Introduction to Instructional Tech**

Two credit hours. Course provides an introduction to instructional technologies that can be integrated into teaching educational content in a digital format. Students will learn how digital technologies impact education and explore innovative ways to integrate these technologies for education. Students will examine the dynamic interactions between content, pedagogy, and technology to develop their skills in building learning materials to be integrated for online and hybrid delivery.

## **General Foreign Language**

### **LANG 1111 - Elementary Language Laboratory I**

One credit hours. Offered in a designated foreign language. Supervised laboratory practice in listening, speaking, and aural comprehension. **Corequisites:** LANG 1311.

### **LANG 1112 - Elementary Language Laboratory II**

One credit hours. Continuation of LANG 1111. **Corequisites:** LANG 1312.

### **LANG 1210 - Language for Travel and Business**

Two credit hours. Conversational skills in a designated foreign language for individuals interested in language primarily for travel and business. Will not substitute for any LANG 1311, LANG 1312, or 1315 language course.

### **LANG 1212 - Language for Travel and Business II**

Two credit hours. Continuation of LANG 1210. Will not substitute for any LANG 1311, LANG 1312, or 1315 language course.

### **LANG 1311 - Elementary Language I**

Three credit hours. Offered in a designated foreign language in response to student interest. A course for beginners with no knowledge of the specified language. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic grammar and a limited reading ability.

### **LANG 1312 - Elementary Language II**

Three credit hours. Continuation of LANG 1311.

**Prerequisites:** LANG 1311 in specified language or equivalent.

### **LANG 1321 - English as a Foreign Language**

A novice-level course for nonnative speakers of English. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic reading, writing, and grammar.

### **LANG 1321 - English as a Foreign Language**

Three credit hours. An elementary course for nonnative speakers of English. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic grammar and a limited reading ability.

### **LANG 1322 - English as a Foreign Language**

A novice-level course for nonnative speakers of English. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic reading, writing, and grammar.

### **LANG 1322 - English as a Foreign Language**

Three credit hours. An elementary course for nonnative speakers of English. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic grammar and a limited reading ability.

### **LANG 1323 - English as a Foreign Language**

A novice-level course for nonnative speakers of English. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic reading, writing, and grammar.

### **LANG 1323 - English as a Foreign Language**

Three credit hours. Continuation of LANG 1321, LANG 1322. **Prerequisites:** LANG 1321, LANG 1322, or equivalent proficiency.

### **LANG 1324 - English as a Foreign Language**

A novice-level course for nonnative speakers of English. Instruction in correct pronunciation, aural comprehension, and simple speaking ability leading to active mastery of basic reading, writing, and grammar.

### **LANG 1324 - English as a Foreign Language**

Three credit hours. Continuation of LANG 1321, LANG 1322. **Prerequisites:** LANG 1321, LANG 1322, or equivalent proficiency.

**LANG 1325 - English as a Foreign Language**

Three credit hours. Continuation of LANG 1323, LANG 1324. **Prerequisites:** LANG 1323, LANG 1324, or equivalent proficiency.

**LANG 1326 - English as a Foreign Language**

Three credit hours. Continuation of LANG 1323, LANG 1324. **Prerequisites:** LANG 1323, LANG 1324, or equivalent proficiency.

**LANG 1327 - English as a Foreign Language**

Three credit hours. Continuation of LANG 1325, LANG 1326. **Prerequisites:** LANG 1325, LANG 1326, or equivalent proficiency.

**LANG 1328 - English as a Foreign Language**

Three credit hours. Continuation of LANG 1325, LANG 1326. **Prerequisites:** LANG 1325, LANG 1326, or equivalent proficiency.

**LANG 1390 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 1391 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 2302 - Foreign Language for Music Students**

Three credit hours. Study and practice of pronunciation of Italian, French, and German for music students; selections from opera, folk music, and standard vocal repertoire. Cannot be used to fulfill requirements in the department.

**LANG 2311 - Intermediate Language I**

Three credit hours. A continuation of LANG 1312, the intermediate course leads to greater facility in the spoken language and to more advanced reading skills.

**Prerequisites:** LANG 1312 in specified language or equivalent.

**LANG 2312 - Intermediate Language II**

Three credit hours. Continuation of LANG 2311.

**Prerequisites:** LANG 2311 in specified language or equivalent.

**LANG 2350 - Foreign Language Study Trip**

Three credit hours. In addition to practical experience in language usage, students will undertake various projects requiring language use. This course does not satisfy the second language proficiency requirement. **Prerequisites:** appropriate LANG 1312 or consent of department chairperson. Offered with study abroad programs only.

**LANG 2390 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 2391 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 3321 - Independent Study**

Three credit hours. Advanced language instruction in a lesser-taught language or literary and cultural content studied in target language.

**LANG 3390 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 3391 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 3690 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 3691 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 3692 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 3693 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.

**LANG 4303 - Exploring US Latino Cultures**

Three credit hours. This course is designed to teach students in the service professions (e.g., nursing, social work, nonprofit and public service, business, criminal justice, construction management, education, public health, etc.) about issues relating to language and culture impacting U.S. Latino communities in Arkansas in order to help them provide better services to these communities. Because this course is taught in English, it does not meet many programs' language proficiency requirements. Dual listed in the Graduate Catalog as LANG 5303.

**LANG 4322 - Teaching Second Languages**

Three credit hours. An overview of methods and materials used to teach skill development in modern second languages, techniques considered most effective, and appropriate assessment strategies. Required for foreign language teacher certification and the ESL endorsement in the state of Arkansas. 15 hours of observation/teaching required. Dual listed in the Graduate Catalog as LANG 5322.

**LANG 4323 - Second Language Acquisition**

Three credit hours. How second language is acquired by children and adults. A course for those preparing to teach students with limited English proficiency. Required for ESL endorsement in the state of Arkansas. Dual listed in the Graduate Catalog as LANG 5323. **Prerequisites:** junior standing.

**LANG 4324 - Teaching People of Other Cultures**

Three credit hours. Cultural issues for teaching students with limited English proficiency. A required course for ESL endorsement in the state of Arkansas. Dual listed in the Graduate Catalog as LANG 5324. **Prerequisites:** junior standing.

**LANG 4325 - Second Language Assessment**

Three credit hours. Examines goals, principles, instruments, and techniques of assessment and testing of second language learners, K-12 and adult. A required course for ESL endorsement in the state of Arkansas. Dual listed in the Graduate Catalog as LANG 5325. **Prerequisites:** junior standing.

**LANG 4350 - Advanced Foreign Language Study Trip**

Three credit hours. In addition to gaining practical experience in language usage, students will choose and undertake a research project of their choice, requiring fluency. This course does not satisfy the second language proficiency requirement. **Prerequisites:** appropriate language at the junior level or consent of department chairperson (given for equivalent knowledge). Offered with study abroad programs only.

**LANG 4390 - Language Study Abroad**

A language skills acquisition course often including a study of the culture and civilization of the region visited. Level of credit determined by student's placement abroad in a University-sanctioned program. Hours of credit determined prior to departure and based upon program content and duration. These courses do not satisfy the second language proficiency requirement. **Prerequisites:** study of language of region visited. Offered for study abroad only.



### **LANG 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/ program. **Concurrent:** TCED 4330.

## **Mathematics**

### **MATH 0102 - College Algebra Lab**

One hours laboratory per week. One credit hours. Foundations of College Algebra, or an ACT MATH score of 18 or greater, or an SAT Mathematics score of 450 or greater. This course provides additional support and instruction to a certain group of students enrolled in MATH 1302 who do not meet the placement requirement for a regular class of MATH 1302. **Prerequisites:** A grade of C or greater in MATH 0332

### **MATH 0121 - Quantitative and Math Reasoning Lab**

One hours laboratory per week. One credit hours. This course provides additional support and instruction to a certain group of students enrolled in MATH 1321 who do not meet the placement requirement for a regular class of MATH 1321. **Prerequisites:** A grade of C or greater in MATH 0330 Foundations of Quantitative and Mathematical Reasoning, or an ACT MATH score of 16 or greater, or an SAT Mathematics score of 430 or greater.

### **MATH 0330 - Foundations of Quantitative and Math Reasoning**

Three hours lecture. Three credit hours. This is a course that is designed to prepare students with the necessary skills to be successful in Quantitative and Mathematical Reasoning. Topics include arithmetic, fractions, order of operations, points and lines, reading graphs, and evaluating expressions.

### **MATH 0332 - Foundations of College Algebra**

Three hours lecture. Three credit hours. This is a course that is designed to prepare students with the necessary skills to be successful in College Algebra. Topics include operations with real numbers, algebraic expressions, linear inequalities, linear and quadratic equations, polynomials, factoring, rational expressions, and exponents.

### **MATH 1223 - Introduction to Mathematics Software**

Four hours laboratory per week. Two credit hours. Symbolic and numerical manipulations in a Computer Algebra System (CAS); graphing; simple programming; spreadsheet fundamentals and mathematical typesetting. **Prerequisites:** grades of C or greater in MATH 1302 and MATH 1303, equivalent transfer courses.

### **MATH 1302 - College Algebra**

Three hours lecture. Three credit hours. Study of functions, including but not limited to, absolute value, quadratic, polynomial, rational, logarithmic, and exponential; systems of equations; and matrices. (ACTS Course Number MATH 1103) **Prerequisites:** A grade of C or greater in Intermediate Algebra or an equivalent transfer course, or an ACT Mathematics score of 21, or SAT Mathematics score greater than or equal to 500.

### **MATH 1303 - Trigonometry**

Three hours lecture. Three credit hours. Circular functions and their graphs, identities, angles and their measure, functions of angles, right triangles, Law of Sines, Law of Cosines, inverses of circular functions, solutions of trigonometric equations, complex numbers, and DeMoivre's Theorem. (ACTS Course Number MATH 1203) **Prerequisites:** a grade of C or greater in MATH 1302, an equivalent transfer course, or a suitable score on a mathematics placement test Corequisite with consent of instructor: MATH 1302.

### **MATH 1321 - Quantitative and Mathematical Reasoning**

Three hours lecture. Three credit hours. The overarching goal of Quantitative and Mathematical Reasoning is to provide students with mathematical understandings and skills to be productive workers, discerning consumers, and informed citizens. Students will solve problems using mathematical reasoning involving logic, proportions, algebra, and relations. In keeping with the tenets of student performance in a general education course, this course is designed to deliver instruction that focuses on process, conceptual understanding, communication and problem solving found in the following strands: (a) Personal, state and national finance (b) Statistics and probability (c) Mathematical modeling (d) Quantities and measurement. Students seeking a degree in a NonSTEM major are advised to take this course. Note: This course satisfies the state mandated requirement for the baccalaureate degree. (ACTS Course Number MATH 1003) **Prerequisites:** A grade of C or greater in Intermediate Algebra or an equivalent transfer course or a MATH ACT score of 19 or greater, or an SAT Mathematics score of 480 or greater.

**MATH 1342 - Applied Calculus I for Business, Engineering Technology, and the Life Sciences**  
Three hours lecture. Three credit hours. Differential and integral calculus of algebraic, exponential, and logarithmic functions with applications to economics, management sciences, engineering technology, and the life sciences. **Prerequisites:** a grade of C or greater in MATH 1302 or MATH 1401, an equivalent transfer course, or an ACT Mathematics score of 24.

**MATH 1343 - Applied Calculus II for Business, Engineering Technology, and the Life Sciences**  
Three hours lecture. Three credit hours. Differential and integral calculus of algebraic functions, transcendental functions, and vector-defined functions; integration techniques; parametric equations; and differential equations. **Prerequisites:** grades of C or better in MATH 1303 and either MATH 1311, MATH 1342, or MATH 1451, or equivalent transfer courses.

**MATH 1401 - Pre-Calculus**  
Four credit hours. The course includes concepts in algebra and trigonometry that are directly applicable to success in calculus such as functions, equations, trigonometric identities, systems of equations and conic sections. MATH 1401 may serve in place of MATH 1302 and MATH 1303 as a prerequisite for MATH 1451 or MATH 1311 or MATH 1342. Only one of MATH 1302 or Math 1401 may be counted for degree credit. **Prerequisites:** ACT Math score of 24 or other suitable score on our mathematics placement test.

**MATH 1451 - Calculus I**  
Three hours lecture. Two hours laboratory per week. Four credit hours. Limits and limit theorems, continuity, derivatives and the chain rule, implicit differentiation, applications, the definite integral, the Fundamental Theorems of Calculus, and applications of integration. (ACTS Course Number MATH 2405) **Prerequisites:** grades of C or greater in MATH 1302 and MATH 1303, grade C or better in MATH 1401, equivalent transfer courses, or a suitable score on a mathematics placement test.

**MATH 1452 - Calculus II**  
Three hours lecture. Two hours laboratory per week. Four credit hours. Integration, the definite and indefinite integrals, L'Hopital's rule, improper integrals, Taylor polynomials, infinite series, power series, polar coordinates, and conic sections. (ACTS Course Number MATH 2505) **Prerequisites:** a grade of C or greater in MATH 1451 or an equivalent transfer course.

**MATH 2310 - Discrete Mathematics**  
Three hours lecture. Three credit hours. Emphasizes applications of mathematics in computer science and other areas of modern technology. The topics include mathematical reasoning, set theory, proofs by induction, number systems, relations, directed graphs, trees, and related topics of study. **Prerequisites:** a grade of C or greater in MATH 1302.

**MATH 2453 - Calculus III**  
Three hours lecture. Two hours laboratory per week. Four credit hours. Three-dimensional analytic geometry, vectors, lines, planes, partial derivatives, multiple integrals, line integrals, and gradient fields. (ACTS Course Number MATH 2603) **Prerequisites:** a grade of C or greater in MATH 1452 or equivalent transfer course.

**MATH 3302 - Intro to Mathematical Proof**  
Three hours lecture. Three credit hours. An introduction to formal mathematical proof writing in the context of axiomatic systems. The proofs will relate to functions and relations, cardinality, algebraic structures, and analysis. Emphasis will be placed on the context for proof writing experience. **Prerequisites:** grade of C or greater in MATH 1451 and MATH 2310

**MATH 3310 - Algebraic Structures**  
Three hours lecture. Three credit hours. An introduction to modern algebraic structures. Topics include equivalence relations, groups, isomorphisms, direct products, rings, fields, and integral domains. **Prerequisites:** a grade of C or greater in MATH 2350.

**MATH 3311 - Number Theory**  
Three hours lecture. Three credit hours. Basic representation, the fundamental theorem of arithmetic, combinatorial and computational number theory, fundamentals of congruences, solving congruences, arithmetic functions, primitive roots, prime numbers, quadratic congruences, additivity. **Prerequisites:** a grade of C or greater in MATH 1302.

**MATH 3312 - Linear Algebra**  
Three hours lecture. Three credit hours. Vector spaces, bases, polynomials, Cayley-Hamilton Theorem, invariant subspaces, linear transformations, eigenvalues and eigenvectors, selected applications, Jordan canonical form. **Prerequisites:** grades of C or greater in MATH 1312 or MATH 1452.

**MATH 3322 - Introduction to Differential Equations**  
Three hours lecture. Three credit hours. Methods of forming and solving some important types of ordinary differential equations and their application to selected physical and biological models. **Prerequisites:** a grade of C or greater in MATH 1452 (may be corequisite with consent of instructor).

**MATH 3324 - Mathematical Models**  
Three hours lecture. Three credit hours. A study of selected topics from the physical and biological sciences demonstrating the interaction between model building and mathematical systems. **Prerequisites:** grades of C or greater in MATH 2453, MATH 3312, STAT 3350.

**MATH 3325 - Mathematics of Optimization**  
Three hours lecture. Three credit hours. Linear programming. Simplex and revised simplex algorithms. Transportation problems, networks and flows, games and decisions. **Prerequisites:** grades of C or greater in MATH 2453, MATH 3312, STAT 3350.

**MATH 3330 - College Geometry I**

Three hours lecture. Three credit hours. A survey of secondary school geometry, the axiomatic method; Euclidean geometry; an introduction to nonEuclidean geometry. **Prerequisites:** a grade of C or greater in MATH 1451.

**MATH 4100 - Independent Study**

Three hours lecture. One, two, or three credit hours. Studies of assigned topics chosen to develop investigative, analytical, research, or professional skills related to mathematics, culminating in a written paper. **Prerequisites:** consent of department chairperson and supervising faculty member.

**MATH 4199 - Selected Topics**

One hours lecture. One, two, or three credit hours. The content of this course changes on demand. For descriptive title of the content refer to the semester schedule. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** consent of instructor.

**MATH 4200 - Independent Study**

Three hours lecture. One, two, or three credit hours. Studies of assigned topics chosen to develop investigative, analytical, research, or professional skills related to mathematics, culminating in a written paper. **Prerequisites:** consent of department chairperson and supervising faculty member.

**MATH 4300 - Independent Study**

Three hours lecture. One, two, or three credit hours. Studies of assigned topics chosen to develop investigative, analytical, research, or professional skills related to mathematics, culminating in a written paper. **Prerequisites:** consent of department chairperson and supervising faculty member.

**MATH 4302 - Complex Analysis**

Three hours lecture. Three credit hours. Algebra of complex numbers, analytic functions, integration, power series, Laurent series, and elementary conformal mappings. Dual listed in the Graduate Catalog as MATH 5302. **Prerequisites:** a grade of C or greater in MATH 4303 or consent of instructor.

**MATH 4303 - Advanced Calculus I**

Three hours lecture. Three credit hours. Derivatives, mean value theorem, L'Hospital's rule, integration, sequences, and a series of functions. Dual listed in the Graduate Catalog as MATH 5303. **Prerequisites:** a grade of "C" or greater in MATH 2453 and 2350.

**MATH 4304 - Advanced Calculus II**

Three hours lecture. Three credit hours. Functions of several variables, implicit function theorem, geometry of curves and surfaces, differential forms, Stoke's theorem and Green's theorem. Dual listed in the Graduate Catalog as MATH 5304. **Prerequisites:** a grade of C or greater in MATH 4303.

**MATH 4305 - Financial Mathematics**

Three hours lecture. Three credit hours. This course will cover some key procedures of the financial mathematics: determining equivalent measures of interest; discounting; accumulating; determining yield rates; estimating the rate of return on a fund; amortization. **Prerequisites:** MATH 1451 or equivalent.

**MATH 4306 - Topology**

Three credit hours. ration axioms, metric spaces, sequences, completeness, Urysohn's metrization theorem. Additional topics selected from the Tychonoff theorem, compactifications, homotopy, the fundamental group, retractions and fixed points, the fundamental group of surfaces. Dual listed in the Graduate Catalog as MATH 5306. **Prerequisites:** a grade of C or greater in MATH 2350 and MATH 2453.

**MATH 4308 - Integral Transform Theory**

Three credit hours. Review of linear differential equations. The Laplace transform, functions of a complex variable, integration by the method of residues, the Laplace transform inversion integral. The Z-transform, the Z-transform inversion integral, difference equations, Fourier series, and the Fourier transform. Dual listed in the Graduate Catalog as MATH 5308. **Prerequisites:** a grade of C or greater in MATH 3322.

**MATH 4310 - Algebraic Structures II**

Three credit hours. Continues the topics of Algebraic Structures I into more advanced topics of modern algebra including factor groups, polynomial rings, quotient rings, and extension fields. **Prerequisites:** a grade of C or greater in MATH 3310.

**MATH 4323 - Numerical Analysis**

Three hours lecture. Three credit hours. Error analysis, fixed points and roots, interpolation, approximations, numerical differentiation and integration, linear systems, differential equations. Dual listed in the Graduate Catalog as MATH 5323. **Prerequisites:** grades of C or greater in MATH 2453, MATH 3312, or equivalent courses; knowledge of a scientific programming language.

**MATH 4361 - History of Mathematics I**

Three credit hours. This course will provide an overview of aspects of the history of mathematics from the Early Beginnings (before the sixth century B.C.), Classical Period (sixth century B.C. to fifth century), and Medieval and Renaissance Periods (sixth century to sixteenth century). This survey course discusses a broad range of the history of mathematics including a variety of topics over many consecutive time periods, and is organized so that there is more discussion than lecture. The course will consider both the growth of mathematical ideas and the context in which these ideas developed, in various civilizations around the world. Attention will be paid to how the history of mathematics or mathematical ideas is important in the teaching of these ideas in both secondary school and college. **Prerequisites:** grade of C or greater in MATH 1452.

### **MATH 4362 - History of Mathematics II**

Three credit hours. This course will provide an overview of aspects of the history of mathematics from the Early Modern Period (seventeenth and eighteenth centuries) and the Modern Period (nineteenth and twentieth centuries). This survey course discusses a broad range of the history of mathematics including a variety of topics over many consecutive time periods, and is organized so that there is more discussion than lecture. The course will consider both the growth of mathematical ideas and the context in which these ideas developed in various civilizations around the world. Attention will be paid to how the history of mathematics or mathematical ideas is important to the teaching of these ideas in both secondary school and college. **Prerequisites:** grade of C or greater in MATH 1452.

### **MATH 4390 - Senior Seminar**

Three credit hours. This course is offered in the spring semester only and is to be taken by mathematics majors planning to graduate in the fall or the following spring. **Prerequisites:** senior standing and major status in the Department of Mathematics and Statistics. Students in the course prepare and present senior projects and portfolios, prepare and take Major Fields Assessment Test in mathematics, pick, solve, and submit the solution of a problem from the problem sections of professional journals.

### **MATH 4399 - Selected Topics**

One hours lecture. One, two, or three credit hours. The content of this course changes on demand. For descriptive title of the content refer to the semester schedule. Dual listed in the Graduate Catalog as the 5000-level.

**Prerequisites:** consent of instructor.

### **MATH 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (420 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/ program. **Concurrent:** TCED 4330.

## **Mathematics Education**

### **MATH 3380 - Math I for Elementary Education**

Two hours lecture. Two hours laboratory per week. Three credit hours. First mathematics education course for elementary education majors, K-6. Problem solving, sets, system of whole numbers, system of integers, system of rational numbers, number theory, graphing, proportional reasoning, technology, and historical developments in mathematics. Includes mathematics content, teaching techniques, mathematics manipulatives, and technology. Emphasis on problem solving, reasoning, communication, connections, and CCSS. **Prerequisites:** admission to the elementary education program and a grade of C or greater in MATH 1302 or 1315 or MATH 1321.

### **MATH 3382 - Mathematics II for Elementary Education**

Two hours lecture. Two hours laboratory per week. Three credit hours. Second mathematics education course for elementary education majors, K-6. Problem-solving, estimation, number sense, development of computational algorithms, mental computation techniques, measurement of two- and three-dimensional objects, geometry, probability, data collection and analysis, technology, proportional reasoning, and historical developments in mathematics. Emphasis on problem solving, reasoning, communication, connections, and CCSS. **Prerequisites:** admission to the elementary education program and successful completion (C or greater) of MATH 3380.

### **MATH 3383 - Mathematics for Middle School**

Two hours lecture. Two hours laboratory per week. Three credit hours. First mathematics course specifically for middle childhood education (mathematics/science specialty) majors. Problem solving; sets; number systems including whole numbers, integers, rational numbers, and real numbers; number theory; algebra; graphing; matrices; proportional reasoning; technology; and historical developments in mathematics. The course includes mathematics content, teaching techniques, mathematics manipulatives, and technology. Emphasis on problem solving, reasoning, communication, and connections. **Prerequisites:** admission to the middle childhood education program (mathematics/science specialty) and a grade of C or greater in MATH 1302.

### **MATH 3384 - Concepts in Geometry**

Two hours lecture. Two hours laboratory per week. Three credit hours. Problem solving, logic and sets, proofs, geometry as an axiomatic system, geometric figures in two and three dimensions, systems of measurement, congruence and similarity, geometry using coordinates, geometry using transformations, proportional reasoning, modeling real-world situations using geometry, networks, technology, and historical developments in geometry. Includes mathematics content, teaching techniques, mathematics manipulatives, and technology. Emphasis on problem solving, reasoning, communication, and connections. **Prerequisites:** admission to the middle childhood education program and a grade of C or greater in MATH 3383 or MATH 3380.

**MATH 4380 - Concepts in Probability and Statistics**

Two hours lecture. Two hours laboratory per week. Three credit hours. Problem solving, organizing data, averages and variation, regression and correlation, probability theory, normal distributions, sampling distributions, estimation, hypothesis testing involving one population, inferences about differences, proportional reasoning, technology, and historical developments in probability and statistics. Includes mathematics content, teaching techniques, mathematics manipulatives, and technology. Emphasis throughout the course is on problem solving, reasoning, communication, and connections.

**Prerequisites:** admission to the middle childhood education program and a grade of C or greater in MATH 3380 or MATH 3383.

**MATH 4383 - Technology in Math Education**

Two hours lecture. Two hours laboratory per week. Three credit hours. Applications of technology in the secondary mathematics classroom. An overview of mathematics software appropriate for the secondary mathematics classroom. Emphasis throughout on problem solving, reasoning, communication, and connections. Required for secondary mathematics teacher licensure. Fall semester offering. **Prerequisites:** admission to the secondary education minor program, MATH 2453 and at least 12 upper-level hours in mathematics, or consent of instructor.

**MATH 4388 - Functions and Modeling**

Three credit hours. The purpose of this course is for candidates to deepen and broaden their mathematics content knowledge, with an emphasis on concepts needed to teach secondary mathematics at various levels. The course consists of 3 instructional units: (1) regressions in modeling; (2) functions, rates, and patterns; and (3) functions in other systems. **Prerequisites:** SCED 1102/IGSC 1102 and admission to the secondary education minor for science and mathematics.

**MATH 4481 - Teaching Mathematics in Secondary School**

Four Three hours at UA Little Rock and one field experience in a secondary school setting credit hours. An overview of methods and materials used to teach secondary mathematics, techniques considered most effective, and appropriate assessment strategies. A link between mathematics content/skills and practical applications for classroom instruction. Includes mathematics content, teaching techniques, mathematics manipulatives, and technology. Connections to the Arkansas Mathematics Standards will be investigated. Emphasis throughout on problem solving, reasoning, communication, and connections. Required for secondary mathematics teacher licensure. This course requires 15 hours of field experience in a secondary school setting. Spring semester offering. **Prerequisites:** admission to education minor program or consent of the instructor.

## Middle Childhood Education

**MCED 3105 - Field Experience I**

One credit hours. This field experience will acquaint students with a variety of middle school experiences, and provide a 40 hour experience in a middle school classroom. Students will be oriented to the structure of a school district, the school, and the classroom setting. All concurrent courses in the Introduction to the Profession block will include assignments or specific tasks to be completed by students during the 40 hour classroom placement in this field experience.

**MCED 3240 - Field Experience II**

Two credit hours. This field experience will acquaint students with a variety of middle school experiences, and provide a 60 hour experience in a middle school classroom. Students will be oriented to the structure of a school district, the school, and the classroom setting. All concurrent courses in the Introduction to the Profession block will include assignments or specific tasks to be completed by students during the 60 hour classroom placement in this field experience.

**MCED 3303 - Middle Childhood Curriculum and Planning**

Three credit hours. Students will be oriented to the scope of the middle grades curriculum, varying patterns of curriculum organization, activities, and transition based teaching and general problem solving for instructional planning assessment and management. Introduction of the materials and various technology media used in teaching at the middle level. Field based experience required.

**MCED 3430 - Integrated Mid-level Curriculum**

Four credit hours. The student should use the content to develop thematic concepts, which are implemented through the methodologies of inquiry based, hands-on learning with the use of manipulatives. Students utilize the Internet and technology as an integrative tool to develop pedagogical techniques and materials in relation to whole course design with cross-disciplinary focus and active student involvement. **Prerequisites:** admission to the middle childhood education program and completion of eight hours of science and nine hours of mathematics.

**MCED 4120 - Licensure Seminar**

One credit hours. A review of educational psychology, assessment, motivation, and student expectations. Classroom scenarios requiring application of teacher decision-making skills and classroom management strategies will be presented. In addition, students will analyze case studies. Prepares students for the Praxis II examination; in order to pass this seminar, students must attain the standard set by the Arkansas State Board of Education.

**MCED 4303 - Professional Seminar**

Three credit hours. Part of final semester, Professional Practicum II. Presentations by Education faculty and practitioners in the field concerning such topics as legal issues affecting educational practice; family constellations; adolescent misbehavior; behavior analysis; discipline involving logical and natural consequences in place of rewards and punishments; and encouragement. Students create a professional portfolio, and submit a senior exit project utilizing interactive technology. Students learn how to prepare for job interviews; what to expect the first teaching year; how to maintain a professional portfolio to demonstrate growth; how to reflect on personal development; and what is involved in meeting the Arkansas Teacher Licensure Standards. **Corequisites:** MCED 4502.

**MCED 4310 - Middle Level Content Literacy**

Three credit hours. Emphasis on the development of reading in the content areas for middle school students. Focus on the concepts of developing meaningful literacy experiences for adolescents of all ability levels, with a continued focus on language and literature as an integral part of the curriculum. Involves a study of major theories and current teaching strategies in literacy for adolescents. Evaluation and assessment strategies explored.

**MCED 4330 - Classroom Management**

Three credit hours. Emphasizes creation of and fostering of classroom management techniques and strategies for the design of environments that are conducive to a safe place for teaching and learning. Includes connecting the school-home-community connections. Incorporates technology for learning and teaching. Candidates will have taken or passed Praxis CORE prior to course. Students enrolled in TCED 4600 must be concurrently enrolled in TCED 4600. Dual listed in the Graduate Catalog as TCED 5330, may not be repeated for credit.

**MCED 4601 - Internship I**

Six credit hours. Classroom observation and participation in classroom routines with gradual assumption of complete classroom teaching responsibilities. Students plan, teach, and reflect on the total experience. Students make accommodations for children with special needs. All of the school resources are used, and competence in using technology is required. **Prerequisites:** admission to middle childhood education program and completion of the Introduction to the Profession and Curriculum Applications semesters. **Corequisites:** MCED 4310 and MCED 4330.

**MCED 4602 - Internship II**

Six credit hours. The final field placement course. Students plan, teach, and reflect on the experience. Students responsible for all aspects of the classroom environment including making accommodations for children with special needs. All of the school resources will be used, and competence in using technology is required. **Prerequisites:** admission to the middle childhood education program and the successful completion of Internship I. **Corequisites:** concurrent enrollment in TCED 4320.

## Mass Communication

**MCOM 1300 - Careers in Mass Media FYC**

Orientation to mass communication major, mass media profession and UA Little Rock. Helps students reach their educational objectives. Interactive instructional methods promote the development of critical thinking skills and positive educational values. Students 1) learn to identify and use appropriate resources both on campus and within the community; 2) acquire skills needed to promote study, personal wellness, goal setting and achievement; 3) develop strategies to manage time, stress and conflict resolution.

**MCOM 2300 - Introduction to Media Production**

Three credit hours. Required in Media Design and Production sequence. Fundamentals of audio control-room procedures, audio recording and editing, single camera field production, and video editing. Emphasis on proper use and handling of equipment. Minimal exposure to video study practices.

**MCOM 2306 - Introduction to Motion Pictures**

Three credit hours. Basic elements of movies, the process of movie making, and the approaches to movie aesthetics and criticism. Assignments may include viewing motion pictures at local theatres.

**MCOM 2308 - Introduction to Scriptwriting**

Three credit hours. Study and practice in basic writing and scripting skills needed for the production of electronic media messages and programs. Use of the SMC computer labs. **Prerequisites:** MCOM 2300 and MCOM 2320. Required in Media Design and Production sequence.

**MCOM 2320 - Issues in Mass Media Writing**

Three credit hours. This course will introduce students to the general literature and issues in the convergent mass communication field, emphasizing public relations, journalism, the web, entertainment media, technology related to mass media, and the advertising that supports mass media. It will also focus on writing issues related to media. **Prerequisites:** RHET 1311.

**MCOM 2330 - Mass Media and Society**

Three credit hours. Required in all School of Mass Communication majors and some minors. Survey of relationships involving mass media, culture, and various other interconnected systems, both nationally and globally. Includes discussion of functions, freedoms, and responsibilities of mass media and effects on individuals and groups. Topics will include newspapers, magazines, radio, television, Internet, and developing media.

**MCOM 2350 - Beginning Reporting**

Three credit hours. Introduction to basic news and feature writing skills. Style and story structure for print and electronic media. Laboratory instruction and practice in writing for publication. **Prerequisite or Corequisite:** MCOM 2320.

**MCOM 3310 - Introduction to Web Principles and Design**

Three credit hours. This course will introduce students to web design and development from the mass-communication perspective. It will serve as an introduction to the World Wide Web, and basic web design techniques. The course concentrates on history, social implications, navigation, authoring, and basic validation and submission of information across the Internet. In addition to theoretical and analytical foundations, the primary technologies employed are HTML 4.x; SHTML; Cascading Style Sheets; File Transfer Protocol; and Document Object Modeling. **Prerequisites:** MCOM 2320, and MCOM 2350 or MCOM 2308.

**MCOM 3315 - Mass Media Research**

Three credit hours. This course will introduce students to a survey of research methods and their application in the study of mass communication. Students will also receive practice in determining the appropriate choice of research method for a mass communication problem of their choosing. **Prerequisites:** Grade of C or greater in MCOM 2320 and MCOM 2330.

**MCOM 3320 - Advanced Reporting**

Three credit hours. Application of principles of news writing to journalism practice; development of skills in evaluating the news, interviewing, and gathering information. Laboratory instruction and practice in objective reporting. Materials submitted as assignments are subject to dissemination through print and broadcast media and on the World Wide Web. **Prerequisites:** MCOM 2320 and MCOM 2350.

**MCOM 3330 - Photojournalism**

Three credit hours. Fundamentals of news and feature photography for newspaper, magazine, and the Web. Materials submitted as assignments are subject to publication. Use of the SMC computer labs.

**MCOM 3345 - Studio Production**

Three credit hours. A practical study and application of video production with an emphasis on studio and multicamera productions. **Prerequisites:** MCOM 2300.

**MCOM 3350 - Introduction to News Editing**

Three credit hours. Introduction to news editing. Instruction and practice in print audio and video editing in terms of content and style. Use of computers to edit copy and images; fundamentals of design for print and online media. **Prerequisites:** MCOM 2320 and MCOM 2350.

**MCOM 3355 - History of the American Movies**

Three credit hours. History and development of the American entertainment motion picture industry from the technological to the aesthetic and social to the economic perspectives. Includes the evolution of the movie industry as it relates to audience uses and gratifications.

**MCOM 3356 - Movie Criticism**

Three credit hours. Criticism of contemporary movies, concentrating on the creative elements used in the service of aesthetics and the application of scholarly and popular critical standards. Certain historical references are included. Assignments include the viewing of motion pictures at local theatres.

**MCOM 3360 - Law, Policy, Ethics**

Three credit hours. This course will examine current legal, policy, and ethical issues affecting the broadcast, cable, print, and interactive media. **Prerequisites:** MCOM 2320, and MCOM 2330 (may be taken concurrently).

**MCOM 3365 - Radio-Television Journalism**

Three credit hours. The course provides study and practice in the basic methods of writing and producing for radio and television news. The course will also evaluate audio and video streaming of material on news-related websites, and may include having student work presented online. **Prerequisites:** MCOM 2300, MCOM 2320. MCOM 2350 may be taken as prerequisite or corequisite. MCOM 2300 is recommended but not required as a prerequisite.

**MCOM 3366 - Electronic News Gathering**

Three credit hours. Production of programs for the electronic media. Students function individually and on news teams to develop high quality on-the-air news programs, with video streaming of appropriate student work and some use of the Web for research. **Prerequisites:** MCOM 2300, MCOM 2320, MCOM 2350, MCOM 3365, MCOM 3367, and MCOM 3370. MCOM 3315 is strongly recommended as a prerequisite, but is not required.

**MCOM 3367 - News Producing and Anchoring**

Three credit hours. This purpose of the course is to teach students the rudiments of radio and television newscast producing and anchoring, emphasizing TV. Students will be encouraged to develop critical thinking skills about selecting and organizing news material and graphics, writing and delivering stories, and managing, timing and promoting newscasts. **Prerequisites:** MCOM 2300, MCOM 2320, MCOM 2350, and MCOM 3365, or consent of instructor based upon documented media experience.

**MCOM 3370 - Announcing and Performance**

Three credit hours. Development of performance skills necessary for effective communication via the electronic media. Emphasis on announcing and visual presentation techniques, script reading, and adapting to the demands of electronic media technologies. **Prerequisites:** MCOM 2320 or consent of instructor based upon prior media experience.

**MCOM 3375 - Multimedia News Reporting**

Introduction to multimedia news reporting in the discipline of journalism. Use of various tools to write and produce journalistic content for online media and mobile platforms. Produce multimedia stories consisting of text, images, audio, video, data, and social media content. Application of principles of news writing and producing to journalism practice; development of skills in evaluating the news, interviewing and gathering information. Materials submitted as assignments are subject to dissemination through print and broadcast media and on the World Wide Web.

**MCOM 3380 - Mass Communication Practicum**

Three credit hours. Work experiences in on-campus media under the direction of a School of Mass Communication professor. Periodic written and oral reports to the professor coordinating the study. **Prerequisites:** junior standing.

**MCOM 3390 - Non-linear Video Editing I**

Three credit hours. The basics of non-linear editing and use of Adobe Premier software. **Prerequisites:** MCOM 2300.

**MCOM 4189 - Independent Study**

One, two, or three credit hours. Individual in-depth study, research, or designated on-campus practicum related to broadcast journalism, news-editorial, public relations options, or professional and technical writing. Up to three hours may be counted toward the major. **Prerequisites:** junior standing, consent of instructor, approval of independent study proposal before registration.

**MCOM 4289 - Independent Study**

One, two, or three credit hours. Individual in-depth study, research, or designated on-campus practicum related to broadcast journalism, news-editorial, public relations options, or professional and technical writing. Up to three hours may be counted toward the major. **Prerequisites:** junior standing, consent of instructor, approval of independent study proposal before registration.

**MCOM 4308 - Screenwriting**

Three credit hours. Learn the process, structure and skills used in writing minor picture screenplays. **Prerequisites:** Mass Communication majors must have completed MCOM 2320 and MCOM 2330 with a C or greater. No prerequisites for Film minors.

**MCOM 4310 - Media Sales**

Three credit hours. Examination of the elements, skills and strategies associated with selling broadcasts, cable, print, and interactive advertising. **Prerequisites:** MCOM 2320 and MCOM 2330.

**MCOM 4312 - Management Strategies**

Three credit hours. Roles and responsibilities of media managers in broadcast, cable, print, and interactive organizations. Emphasis on coordinating work units and personnel, legal obligations, resource generation and management, public relations, and the new technologies. Dual listed in the Graduate Catalog as MCOM 5312. **Prerequisites:** MCOM 2310 and MCOM 2330.

**MCOM 4320 - Non-linear Video Editing II**

Three credit hours. A practical study of non-linear editing in the field of video production. **Prerequisites:** MCOM 2300, and MCOM 3390.

**MCOM 4330 - Lighting**

Three credit hours. This course will provide students with a practical study and application of lighting techniques for video production. Students will learn studio and location lighting. **Prerequisites:** Grade of C or greater in MCOM 2300.

**MCOM 4332 - Digital Audio Production**

Three credit hours. Study and practice in advanced audio preproduction, production, and postproduction elements used in radio, television, the Internet and other electronic media. **Prerequisites:** MCOM 2320, MCOM 2300 and MCOM 2330 with a C or greater.

**MCOM 4340 - Introduction to Digital Graphics and Animation**

Three credit hours. This course is designed to encompass a basic understanding of design elements of Adobe Photoshop and After Effects. Students will be exposed to a variety of photographic challenges geared toward creative problem solving and real-life experience in video production presentation. **Prerequisites:** MCOM 2300, and MCOM 3390.

**MCOM 4342 - Cinema Techniques**

Three credit hours. A practical study and application of video production with an emphasis on movie making techniques. The class will start out making a movie together then, with skills learned, will proceed to make their own movies in groups. **Prerequisites:** MCOM 2300 and MCOM 3390.

**MCOM 4350 - Design and Production**

Three credit hours. Decision-making in the editing process. Principles of typography, publication design, and printing processes. Experience in the use of computers to design camera-ready materials for publication. Dual listed in the Graduate Catalog as MCOM 5350. **Prerequisites:** junior standing and MCOM 2320 or consent of instructor.



**MCOM 4352 - News Media and the First Amendment**

Three credit hours. The restrictions, obligations, and responsibilities of the news media; the law and its effect on publishing and broadcasting; relations between the law and freedoms protected by the U.S. Constitution. Dual listed in the Graduate Catalog as MCOM 5352.

**Prerequisites:** junior standing, MCOM 3360 is recommended.

**MCOM 4353 - History of the Mass Media in America**

Three credit hours. Development of the mass media from their beginnings. Emphasis on the interaction between the media and the political, economic, technological, and social factors surrounding the media. **Prerequisites:** junior standing.

**MCOM 4354 - Documentary Techniques**

Three credit hours. A practical study and application of video production with an emphasis on documentaries. The class will start out making features together. Then, with newly learned skills, will proceed to make their own documentaries in groups. **Prerequisites:** MCOM 2300 and MCOM 3390.

**MCOM 4357 - Seminar in Radio-Television Journalism**

Three credit hours. Broadcast news policies; history; governmental and other forms of regulation; social implications; influence of various publics on radio-television news coverage. Dual listed in the Graduate Catalog as MCOM 5357. **Prerequisites:** junior standing.

**MCOM 4359 - Feature and Magazine Journalism**

Three credit hours. Planning, researching and writing the feature article for newspapers, magazines and online publications. Emphasis on humanistic reporting and providing a context for the news through thorough research and application of this research to the article. Materials submitted as assignments are subject to publication. Dual listed in the Graduate Catalog as MCOM 5359. **Prerequisites:** MCOM 3320 and MCOM 2350.

**MCOM 4368 - News Practices**

Three credit hours. Production of programs for the electronic media. Students function individually and on news teams to develop high quality on-the-air news programs with video streaming of appropriate student work and some use of the Web for research, as well as Webcasting, when appropriate. **Prerequisites:** MGMT 2300, MCOM 2320, MCOM 2350, MCOM 3365, MCOM 3366, MCOM 3367, MCOM 3315 is strongly recommended as a prerequisite, but it is not required.

**MCOM 4375 - Journalistic Freedom and Responsibility**

Three credit hours. Journalistic ethics and practices; professional conduct and responsibilities of the journalist in a free society. Dual listed in the Graduate Catalog as MCOM 5375. **Prerequisites:** Junior standing.

**MCOM 4380 - Public Relations Writing**

Three credit hours. The journalistic function in public relations, includes the writing and processing of news and feature releases for print and electronic media and editing internal and external publications. Dual listed in the Graduate Catalog as MCOM 5380. **Prerequisites:** MCOM 2350.

**MCOM 4381 - Public Relations Cases**

Three credit hours. Study of recent public relations cases involving business, industry, institutions and government. Students will also be introduced to public relations theories as they are applied in case studies and will analyze cases in terms of the component parts. **Prerequisites:** ADVT 3340, MCOM 2330, MCOM 2320, MCOM 2350; **Corequisites:** MCOM 3315.

**MCOM 4382 - Public Relations Campaigns**

Three credit hours. Capstone course for the Strategic Communication sequence. A study of the planning and implementation of the public relations campaign with special emphasis on the application of public relations principles introduced in ADVT 4310. Includes student service learning project. **Prerequisites:** ADVT 3340, MCOM 2320, MCOM 2350, MCOM 3315, MCOM 4380, MCOM 4381, or consent of instructor.

**MCOM 4384 - Topics in Mass Communication**

Three credit hours. Advanced and specialized topics in mass communication, especially those of current interest and relevance to mass communication professionals. Possible subjects include the following: journalism, entertainment, production and design, Web and media, strategic communication, mass media etc. Classes will provide an in-depth understanding of topics chosen. Refer to the semester schedule for specific topics offered. Dual listed in the Graduate Catalog as MCOM 5384. **Prerequisites:** Junior standing and/or consent of instructor.

**MCOM 4385 - Advanced Web Design**

Three credit hours. This course will serve as part two in a sequence of courses dealing with mass communication and the World Wide Web. A specific concentration in server communication and publishing corporate web pages, as well as using basic programming logic combined with HTML. **Prerequisites:** MCOM 2320, MCOM 2350, or MCOM 2308.

**MCOM 4388 - Reporting of Public Affairs**

Three credit hours. Practice in gathering materials and writing in-depth stories on public affairs; emphasis on courts, police, government, education, ecology, the economy, and social issues. Materials submitted as assignments are subject to online postings. Dual listed in the Graduate Catalog as MCOM 5388. **Prerequisites:** MCOM 2320, MCOM 2350, and MCOM 3320. MCOM 3315 and MCOM 3360 may be taken as prerequisites or corequisites. Class may also be taken with consent of instructor based upon demonstrable advanced media experience.

**MCOM 4389 - Independent Study**

One, two, or three credit hours. Individual in-depth study, research, or designated on-campus practicum related to broadcast journalism, news-editorial, public relations options, or professional and technical writing. Up to three hours may be counted toward the major. **Prerequisites:** junior standing, consent of instructor, approval of independent study proposal before registration.

**MCOM 4390 - Mass Communication Internship**

Three credit hours. Work experiences either in the commercial media or in other designated media under the direction of a mass communication professional. Periodic written and oral reports to the professor coordinating the study. **Prerequisites:** senior standing, consent of school director.

**MCOM 4391 - Mass Communication Cooperative Education**

Three credit hours. Work experiences either in the commercial media under direction of professional journalists or in positions under supervision of public relations specialists. Periodic written and oral reports to the professor coordinating the study. Credit awarded for employment involving at least 20 hours per week and successful completion of specific instructional objectives that provide new learning on the job and in the major. Students who take this course may not take MCOM 4390. **Prerequisites:** junior standing, consent of school director and director of cooperative education.

**MCOM 4394 - Multimedia Journalism Capstone**

This is a capstone class focused on news writing for digital media. Students will write and publish news stories and create multimedia projects for a variety of on-campus and off-campus news outlets. Students will report and gather information by using records, documents, and interviewing sources. Students will edit and post articles online and use social media to provide updates, live coverage, and promote their work.

**MCOM 4395 - Producing and Directing**

Three credit hours. This course is intended as the capstone course for the Media Production and Design sequence. Emphasis on accepting TV directing methodology, and on the producer's role in developing television programming. Program development from initial concept through the completed program. The students will be expected to produce and direct television projects at near professional levels. **Prerequisites:** MCOM 2300, MCOM 2308, MCOM 3345 or MCOM 4342, or MCOM 3390 and senior standing.

## Management

**MGMT 1300 - Introduction to Business**

Three credit hours. A survey of business organization and operation, the various fields of business, basic business problems and procedures, the vocabulary of business, and the opportunities open to college graduates in business. Not open to junior and senior majors within the college. (ACTS Course Number BUS 1013)

**MGMT 2300 - Supervisory Management**

Three credit hours. The supervisor and his or her relations with subordinates, superiors, colleagues, unions, and society. Emphasis on managerial aspects common to all supervisory positions, regardless of the technical specialty involved or the nature of the organization.

**MGMT 3300 - Principles of Management**

Three credit hours. Introduction to organizational operations, internal and external forces, planning, decision and control processes. Introduction to the various organizational functions required to operate a successful business or nonprofit organization. **Prerequisites:** Junior Standing.

**MGMT 3304 - Operations Management**

Three credit hours. The course covers a breadth of concepts, tools, and methods that managers use to solve operating problems in manufacturing and service environments. The course takes a customer centric approach of internal business processes and highlights the linkages between these processes. Topics are selected from project management, operations strategy, quality management, inventory management, capacity planning, theory of constraints, transportation/ assignment problems, and an introduction to supply chain management. **Prerequisites:** BINS 3380 (or MGMT 3380) and ECON 3355 (may be taken concurrently).

**MGMT 3306 - Quality Assurance and Improvement**

Three credit hours. Quality control techniques, standards, and policies for production and operations environments; role of purchasing agent and engineer in specifying and insuring standards for purchased components; design and development of quality control and quality assurance systems throughout the organization. **Prerequisites:** ECON 2312 or ECON 3355 and Junior standing.

**MGMT 3320 - Human Resources Management**

Three credit hours. The principles of planning, directing, and controlling the personnel function. Emphasis on the effective implementation of a comprehensive personnel program, including the recruitment, development, evaluation, and motivation of employees. **Prerequisites:** Junior standing.

**MGMT 3340 - Managing People in Organizations**

Three credit hours. A study and integration of basic managerial concepts and behavioral sciences as they affect people in organizations. Emphasis on environmental and interorganizational forces that influence membership behavior. **Prerequisites:** MGMT 3300 or equivalent.

**MGMT 3362 - Venture Management and Decision Making**

Three credit hours. The operation of a successful small business including feasibility studies for expansion/growth, business plans, strategic management, marketing, financing, and human resource considerations. **Corequisites:** MGMT 3300 or consent of instructor.

**MGMT 3364 - Family Business Management**

Three credit hours. Management of family firm issues such as the interaction of family members, business objectives versus family objectives, succession planning, management development, motivation, and estate planning. Emphasis on the transition from personal management practices to professional management practices. **Prerequisites:** MGMT 3300.

**MGMT 3392 - Cooperative Education I**

Three credit hours. Provides experience in an organizational setting designed to integrate theory and practice. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance.

**Prerequisites:** consent of faculty sponsor and department chair prior to enrolling in the course.

**MGMT 4100 - Independent Study**

One or three credit hours. Individual study in the application of sound management principles to the solution of business problems. **Prerequisites:** senior standing, management major with a minimum GPA of 3.00, consent of instructor.

**MGMT 4300 - Independent Study**

One or three credit hours. Individual study in the application of sound management principles to the solution of business problems. **Prerequisites:** senior standing, management major with a minimum GPA of 3.00, consent of instructor.

**MGMT 4304 - Supply Chain Management**

Three credit hours. Students are introduced to different concepts and issues that firms face in managing supply chains. The course will address different frameworks and quantitative methods for designing, managing, and analyzing the supply chain operations needed to support a firm's business strategy. Students will study the structure of supply chain operations, and analyze the relationship between supply chain structure and performance, developing analytical models. **Prerequisites:** MGMT 3304.

**MGMT 4309 - Seminar: Special Topics in CIS/MIS**

Three credit hours. Topics especially relevant to Management Information Systems professionals will be offered on an elective basis. Such topics include, but are not limited to data communication, ecommerce technologies, and IS security.

**MGMT 4341 - Labor and Industrial Relations**

Three credit hours. The industrial relations system and environment, including legal and economic constraints on participants in the bargaining process. Emphasis on collective bargaining as a power relationship in a conflict situation. **Prerequisites:** Junior standing.

**MGMT 4342 - Negotiation and Administration of Collective Bargaining Agreements**

Three credit hours. Lecture and extensive use of case studies to develop the strategy and tactics of contract negotiation, application, and interpretation. Emphasis on the grievance process and arbitration. **Prerequisites:** MGMT 4341.

**MGMT 4360 - Compensation Management**

Three credit hours. Administration of the total compensation program as a tool of management, including the use of job descriptions, job analysis and evaluation, and other necessary considerations in initiating and executing wage and salary administration.

**Prerequisites:** MGMT 3320.

**MGMT 4361 - Business Planning and Product Introduction**

Three credit hours. The role of the entrepreneur in new venture development. Identifying, assessing, and developing entrepreneurial opportunities. Dual listed in the Graduate Catalog as MGMT 5361. **Prerequisites:** MGMT 3362 or consent of instructor.

**MGMT 4363 - Financing Entrepreneurial Ventures**

Three credit hours. Financing alternatives for new and growing ventures; debt financing from investment banks, commercial banks, and SBIC, as well as equity financing from angel investors, private placements, venture capitalists, and public equity markets. Students use firm valuation methods and calculate return to investors to create a capital plan for a growing enterprise.

**Prerequisites:** FINC 3310 and MGMT 3300.

**MGMT 4365 - Business Consulting**

Three credit hours. Teams of students consult with local small businesses recommended by the Arkansas Small Business and Technology Development Center or other business resources. Students work on problems in accounting, production, marketing, personnel, finance, insurance, law, and information systems. Student teams write reports outlining the problems and recommended solutions. Dual listed in the Graduate Catalog as MGMT 5365. **Prerequisites:** MGMT 3362 or consent of instructor.

**MGMT 4372 - Construction Business Management**

Three credit hours. Surveys organizational and management topics from the perspectives of the construction industry. Missions, goals and objectives, strategies, and organizational structures are reviewed. Business plans are developed along with practice in using decision models. Total quality management is reviewed along with training plans. Also covered are external relations to regulation, unions, communities, suppliers, and customers.

**MGMT 4375 - Sustainable Business**

Three credit hours. A cross-disciplinary course to introduce students to the emerging field of sustainability and its triple-bottom line focus on the social, environmental, and economic impacts of business. Dual listed in the Graduate Catalog as MGMT 5375.

**MGMT 4377 - International Business Management**

Three credit hours. Key objectives are to define and evaluate the field of international business, to analyze the international operating context with an emphasis on the basics of cultural differences, and to discuss the management of key functional activities in firms operating in global markets. Major topics include the nature of international business; economic theory and international business operations; international systems and institutions and the analysis of key dimensions of the overseas operating environment. The management of the primary functional activities in international firms emphasized, with the focus on strategies, tactics, and structures for dealing with the special problems and challenges arising in global markets. **Prerequisites:** MGMT 3300 or consent of the instructor.

**MGMT 4378 - Global Operations Management**

Three credit hours. Focuses on managing manufacturing and service operations across national boundaries to provide an organization with a competitive advantage. Emphasis on strategic benefits of globalization through coordinated operations located in different countries and mastering both technological and social/cultural obstacles. Students analyze a series of cases that address the unique issues of global operations management. **Prerequisites:** MGMT 3304 or senior standing and consent of the instructor.

**MGMT 4380 - Business Strategy**

Three credit hours. Integration of business concepts and techniques and their application to the development of corporate strategy and strategic planning by senior corporate executives. Includes setting objectives, developing business purposes, determining opportunities and threats, and implementing decision and control systems across functional areas. **Prerequisites:** MGMT 3300, BINS 3352, BINS 3380 (or MGMT 3380), MGMT 3304, ECON 3355 (or ECON 2312), FINC 3310, MKTG 3350 and be an officially accepted College of Business major.

**MGMT 4383 - Entrepreneurial Perspectives**

Three credit hours. A significant exposure to the entrepreneurial process. Interaction with real-world entrepreneurs will enhance the entrepreneurial decision-making abilities of the students. **Prerequisites:** junior standing.

**MGMT 4385 - Special Topics in Management**

Three credit hours. Topics of current relevance to management professionals. **Prerequisites:** junior standing.

**MGMT 4391 - Employment Law**

Three credit hours. An examination of legal problems involving employment discrimination based on race, color, religion, sex, national origin, or age. Examines the impact of developing principles of employment law on pre-employment inquiries and testing, seniority and promotions, and other personnel policies, practices, and procedures; affirmative action requirements; state and federal law used to resolve employment discrimination claims; the procedural framework for raising and adjudicating such claims before administrative agencies and the courts; requirements of the Fair Labor Standards Act, Equal Pay Act, ERISA, Worker's Compensation, and OSHA; and current issues such as sexual harassment and employee dismissal. **Prerequisites:** junior standing.

**MGMT 4393 - Cooperative Education II**

Three credit hours. Provides experience in an organizational setting designed to integrate theory and practice. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance. **Prerequisites:** MGMT 3392 and consent of instructor and department chair prior to enrolling in the course.

**MGMT 4394 - Internship**

Three credit hours. Practical experience in an organizational setting designed to integrate management theory and applications. A written report is required. Course is offered on a credit/no credit basis only, with credit being equivalent to C or greater performance. **Prerequisites:** at least 90 semester hours earned with a minimum overall grade point average of 3.0 or department approval; a minimum of 12 semester hours of upper-level management courses completed; consent of instructor and department chair.

**MGMT 4395 - Applications in HR Management**

Three credit hours. This course is completely applied-oriented in which students get and opportunity to extensively practice Human Resource Management knowledge and skills. It is designed to help students become better equipped in the identification and utilization of successful Human Resource Management concepts and practices at their current or future workplaces. This course will help students become better managers and leaders in their organizations. **Prerequisites:** MGMT 3320 or MGMT 4391.

## Marketing

**MKTG 2330 - Introduction to Sustainability**

This interdisciplinary course introduces students to the concept of sustainability and the greatest sustainability challenges of our time related to natural, social, built, and managed systems. Students will study each module in class, prepare a research presentation related to one topic module, and participate in a community engagement service learning project related to one module. The course will challenge students to take action toward increased personal sustainability and responsibility. Cross listed as POLS 2330 and CNMG 2330.

**MKTG 2380 - Legal Environment of Business**

Three credit hours. Introduction to the American legal system. Provides a background of the legal environment as it pertains to profit and nonprofit organizations, along with ethical considerations and social and political influences as they affect such organizations.

**MKTG 3300 - Business Professionalism**

Three credit hours. Principles and techniques of professionalism for the individual sales and marketing executive, and the management of professional image and conduct.

**MKTG 3350 - Principles of Marketing**

Three credit hours. Introduction to the structure and functions of the marketing system of the economy and to marketing practices of organizations. Includes examination of the environments of marketing decision making, marketing institutions and agencies, and marketing practices of organizations. **Prerequisites:** junior standing.

**MKTG 3352 - Seminar in Current Topics**

Three credit hours. Topics of current interest and importance in marketing and advertising/public relations. **Prerequisites:** 54 or more credit hours.

**MKTG 3353 - Professional Selling**

Three credit hours. An examination of the requirements and responsibilities of professional sales representatives, including knowledge and skill requirements, market development, preparation, effective sales communications, and customer relations. **Prerequisites:** MKTG 3350

**MKTG 3361 - Physical Distribution**

Three credit hours. Examines the marketing and cost-saving opportunities in the physical movement of goods between supplier, manufacturer, and consumer. Specific functions such as transportation, warehousing, packaging, material handling, order processing, and others will be studied and integrated into various distribution strategies. **Prerequisites:** MKTG 3350.

**MKTG 3370 - Principles of Retailing**

Three credit hours. Principles of retail store management, including competition, trade area and location analysis, merchandising and inventory control, store layout, promotion, managing employees, and customer service. **Prerequisites:** MKTG 3350.

**MKTG 3381 - Advanced Business Law**

Three credit hours. A comprehensive overview of business law including the law of contracts, commercial paper, bankruptcy, agency, organizations, sales, property, securities, and other topics of interest to business students and particularly to those majoring in accounting who intend to take the CPA exam. This course does not apply toward the marketing elective requirement. **Prerequisites:** MKTG 2380.

**MKTG 3385 - Consumer Analysis and Behavior**

Three credit hours. An analysis of the personal, environmental, and interpersonal forces affecting consumer decisions and/or their implications for marketing strategy development. **Prerequisites:** PSYC 2300 or SOCI 2300, MKTG 3350.

**MKTG 4199 - Honors Seminar in Marketing**

One credit hours. Accelerated seminar on the latest developments in marketing strategy and marketing management, team taught by the departmental faculty. Students will prepare and present an honors paper. **Prerequisites:** senior standing, consent of department chairperson.

**MKTG 4310 - Marketing Research**

Three credit hours. A study of the development and use of information for marketing decision making; research methods applied to problems of market segmentation, pricing, distribution, promotional strategy, and development of marketing strategies. **Prerequisites:** MKTG 3350 or consent of instructor.

**MKTG 4320 - International Marketing**

Three credit hours. Introduction to the major dimensions of the international marketing environment. Study of planning for and managing international marketing operations. The focus is on strategies, procedures and structures for dealing with the particular problems and challenges arising in the international marketing process. **Prerequisites:** MKTG 3350.

**MKTG 4341 - Brand and Market Consulting**

Three credit hours. Examines the key tasks facing brand managers, including analyzing the marketing environment and developing objectives and strategies for the product or service. Involves the day-to-day responsibilities for managing either a single product or service or a closely-related product line. Heavy emphasis on marketing mix decisions concerning pricing, product, service, promotion, and distribution strategies. Students work in brand management teams to develop a marketing plan for a product or service. **Prerequisites:** MKTG 3350.

**MKTG 4351 - Sales Management**

Three credit hours. Administration of the professional sales force. Includes recruitment, selection, training, organization, motivation, compensation, routing and scheduling, and control of sales staff. **Prerequisites:** MKTG 3350 and MKTG 3353.

**MKTG 4355 - Advanced Professional Selling**

Three credit hours. Advanced techniques of salesmanship, field application of selling techniques, improving communications skills. Key focus is key account selling and relationship management. Problem solving as the basis of consultative selling. Business-to-business emphasis. **Prerequisites:** MKTG 3350, MKTG 3353.

**MKTG 4360 - Purchasing**

Three credit hours. Management of materials acquisition and control as it relates to the engineering, production, marketing, and finance functions of the organization.

**Prerequisites:** MKTG 3350.

**MKTG 4370 - Business-to-Business Marketing**

Three credit hours. Cases and concepts of marketing products from one business to another. This course includes specific strategies and techniques for the development of product policy, pricing, promotion, and distribution of business products. **Prerequisites:** MKTG 3350.

**MKTG 4385 - Marketing Management**

Three credit hours. The application of marketing concepts and techniques to the solution of marketing problems, includes product positioning, product and product line, price, channels of distribution, advertising, and personal selling. The case study method is emphasized.

**Prerequisites:** senior standing, MKTG 3350, MKTG 3385, MKTG 4310, ADVT 3300, MKTG 3353.

**MKTG 4390 - Independent Study**

Three credit hours. **Prerequisites:** consent of instructor and department chair, minimum 3.00 GPA. Research and independent investigation in specific areas of marketing of interest to the student.

**MKTG 4395 - Cooperative Education I**

Three credit hours. Designed to complement and extend the classroom learning experience through the application of marketing theories and concepts in a professional work environment. A written project, designed in consultation with the faculty member, and a minimum of 200 hours with a participating employer during the semester are required. The exact number of weekly work hours, activities, and responsibilities are dependent upon the nature of the work experience and must be specified in written agreements between the student, faculty member, and the Office of Cooperative Education. This course is accepted as elective credit in the marketing or advertising/public relations major. Course is offered on a credit/no credit basis only. **Prerequisites:** senior standing, major in marketing or advertising, completion of at least nine hours of upper-level marketing or advertising courses with a grade of C or greater, cumulative GPA of 2.50, and consent of a sponsoring faculty member prior to registration.

**MKTG 4396 - Cooperative Education II**

Three credit hours. Designed as the continuation of MKTG 4395. A written project, designed in consultation with the faculty member, and a minimum of 200 hours with a participating employer during the semester are required. The exact number of weekly work hours, activities, and responsibilities are dependent upon the nature of the work experience and must be specified in written agreements between the student, faculty member, and the Office of Cooperative Education. This course is not accepted as elective credit in the marketing or advertising/public relations major. Course is offered on a credit/no credit basis only. **Prerequisites:** credit for the completion of MKTG 4395 and consent of a sponsoring faculty member prior to registration.

**Applied Music****Group and Private Lesson****Group Lessons (MUAP)**

The following performance classes are recommended for students with little or no formal musical training, who need to learn fundamentals of performance technique and reading music notation:

- MUAP 1203 - Pop Guitar Class
- MUAP 1204 - Voice Class I
- MUAP 1114 - Piano Class I

**Courses in Private Lessons (MUPR)**

Credits earned on the basis of lesson duration. An upper-level course number implies advanced proficiency in performance technique and repertoire.

**MUPR 1xxx** -Minor or elective study, may be repeated for credit

**MUPR 2xxx** -First-year principal performance area for music major, 2 semesters. By audition only.

**MUPR 3xxx** -Second-year major study, 2 semesters. By passing jury for MUPR 2xxx only.

**MUPR 4xxx** -Optional third-year major study, 2 semesters. By passing jury for MUPR 3xxx only (may be repeated for credit).

A one-credit lesson means a 30-minute lesson weekly, and requires a minimum of one hour of daily practice. A two-credit lesson means a 55-minute lesson weekly, and requires a minimum of two hours of daily practice. BA music majors are expected to perform at least once per year in a public recital such as Student Recital Hour. An applied music fee is charged for all individual instruction. See "Tuition and Fees." Audition repertoire guidelines are available from the instructor in each performance area, and on the department website.

**MUAP 1000 - Recital Attendance**

Attendance at concerts, recitals, student convocations, etc., as required by departmental policies.

**MUAP 1100 - Third-Age Piano Class**

One credit hours. designed for individuals who are interested in pursuing piano study in a less-formal group setting. Various technical, reading, and harmonization topics explored for performance of solo and ensemble works. May be repeated for credit. **Prerequisites:** Consent of the instructor.

**MUAP 1104 - Vocal Study**

Group vocal studies designed for beginning music majors. Group application of proper breathing, phrasing and general attributes of correct vocal production. Introduction to study of the International Phonetic Alphabet. For music majors only.

**MUAP 1111 - First Year Experience**

This course is designed to provide first time music majors with experiences that will help them succeed at the university and as musicians in the field. Together, we will work to establish habits that will help students succeed and we will explore tools and information that will be useful to students when they leave the university.

**MUAP 1114 - Piano Class I**

One Music majors only credit hours. For beginning piano students with little or no keyboard experience. Basic skills required to play the piano will be addressed in a group setting. Topics explored include piano technique, music reading, basic harmonization, transposition and theory and keyboard fundamentals. **Prerequisites:** Consent of instructor.

**MUAP 1150 - Piano for Non-Majors**

This course is specifically for non-music majors. Students will learn foundational skills of piano playing in a group setting. Topics addressed include basic piano technique, music reading, and elemental repertoire.

**MUAP 1161 - Piano Proficiency I**

One credit hours. For music majors. Basic skills required to play the piano will be addressed in a group setting. Topics explored include piano technique, music reading, basic harmonization, transposition and theory and keyboard fundamentals. Music majors only. **Corequisites:** MUTH 1361 & MUTH 1161.

**MUAP 1162 - Piano Proficiency II**

One credit hours. Continuation of MUAP 1161. continue development of keyboard facility through technique, sight reading, harmonization, and a variety of solo and ensemble piano repertoire. Music majors only. **Prerequisites:** MUAP 1161, MUTH 1361, MUTH 1161. **Corequisites:** MUTH 1362 & MUTH 1162.

**MUAP 1201 - Guitar Reading I**

Two credit hours. Instrumental laboratory for guitarists, emphasizing reading studies in a variety of music styles. **Prerequisites:** MUAP 1203 with B or greater or consent of instructor based on audition to demonstrate familiarity with guitar and music fundamentals.

**MUAP 1202 - Guitar Reading II**

Two credit hours. A continuation of Guitar Reading I with emphasis on chord chart reading. Comping in various styles will be discussed and more advanced materials will be used to improve simple line reading. **Prerequisites:** MUAP 1201 or consent of instructor.

**MUAP 1203 - Pop Guitar Class**

Two credit hours. Designed as an alternative to conventional class guitar, this course teaches theory, technique, and control through the performance of songs in the pop-rock idiom. Class time is divided between the introduction of a concept or technique and its application in the songs provided. The course is open to anyone.

**MUAP 1204 - Voice Class I**

Two credit hours. For beginning voice students. Application of vocal principles to develop singing facility. Group application of proper breathing, phrasing, and general attributes of correct vocal production.

**MUAP 1244 - Voice Class II**

Two credit hours. Group vocal instruction with emphasis on the development of vocal technique and individual performance of art songs. **Prerequisites:** MUAP 1204 or consent of instructor.

**MUAP 2154 - Special Topics**

One, two, or three credit hours. Class vocal or piano instruction in various forms of musical repertoire and style, such as musical theatre, jazz and pop, or religious solos. **Prerequisites:** MUAP 1204, MUAP 1244; 1214, 1264; or consent of instructor.

**MUAP 2161 - Piano Proficiency III**

One credit hours. Continuation of MUAP 1162. Designed to hone the skills introduced in Piano Class II, with an emphasis on sight reading, playing from lead sheets, and playing a variety of intermediate solo and ensemble repertoire from various stylistic periods. Music majors only. **Prerequisites:** MUTH 1362, MUTH 1162, MUAP 1162. **Corequisites:** MUTH 2361 & MUTH 2161.

**MUAP 2162 - Piano Proficiency IV**

One credit hours. Continuation of MUAP 2161. Beginning with an intensive review of basic functional piano skills, more advanced sight reading at the keyboard, harmonization skills, improvisation techniques, simple accompaniments, and solo piano repertoire will be explored. Music majors only. **Prerequisites:** MUTH 2361, MUTH 2161, MUAP 2161. **Corequisites:** MUTH 2362 & MUTH 2162.

**MUAP 2184 - Piano Class III**

One Music majors only credit hours. Designed to hone the skills introduced in Piano Class II, with an emphasis on sight reading, playing from lead sheets, and on playing a variety of intermediate solo and ensemble repertoire from various stylistic periods. **Prerequisites:** MUAP 1164 with grade of C or greater.

**MUAP 2218 - Voice for Musical Theatre**

Two credit hours. A vocal performance class studying the techniques for singing in musical theatre. Staging of individual numbers and audition preparation.

**Prerequisites:** MUAP 1204 or consent of instructor.

**MUAP 2254 - Special Topics**

One, two, or three credit hours. Class vocal or piano instruction in various forms of musical repertoire and style, such as musical theatre, jazz and pop, or religious solos.

**Prerequisites:** MUAP 1204, MUAP 1244; 1214, 1264; or consent of instructor.

**MUAP 2350 - Songwriting**

Three credit hours. Organizational factors needed to identify the components of song form and integrate formal design and enlarged key areas into music. Designed for non-music and music majors.

**MUAP 2354 - Special Topics**

One, two, or three credit hours. Class vocal or piano instruction in various forms of musical repertoire and style, such as musical theatre, jazz and pop, or religious solos.

**Prerequisites:** MUAP 1204, MUAP 1244; 1214, 1264; or consent of instructor.

**MUAP 3111 - English Diction**

This course will broaden students' understandings of English-language sounds as they are applied to both speech and classical singing and impart an understanding of the American Standard, Mid-Atlantic and British Received Pronunciation dialects. Students will be introduced to the International Phonetic Alphabet and learn its application to English-language Opera and Art Song. Frequent performances in the classroom setting will allow students to directly apply this knowledge to their performance craft. **Prerequisites:** Consent of instructor.

**MUAP 3112 - Italian Diction**

This course will broaden students' understanding of Italian-language sounds as they are applied to both speech and classical singing. Students will learn to transcribe Italian with the International Phonetic Alphabet and learn its application to Italian-language Opera and Art Song. Frequent performances in the classroom setting will allow students to directly apply this knowledge to their performance craft. **Prerequisites:** MUAP 3111 with grade of C or greater, Consent of instructor.

**MUAP 3113 - French Diction**

This course will broaden students' understandings of French-language sounds as they are applied to classical singing and distinguished from the spoken language. Students will learn to transcribe French with the International Phonetic Alphabet and learn its application to French-language Opera and Art Song. Frequent performances in the classroom setting will allow students to directly apply this knowledge to their performance craft.

**Prerequisites:** MUAP 3111 with grade of C or greater, Consent of instructor.

**MUAP 3113 - German Diction**

This course will broaden students' understandings of German-language sounds as they are applied to both speech and classical singing. Students will learn to transcribe German with the International Phonetic Alphabet and learn its application to German-language Opera and Art Song. Frequent performances in the classroom setting will allow students to directly apply this knowledge to their performance craft. **Prerequisites:** MUAP 3111 with grade of C or greater; Consent of instructor.

**MUAP 3124 - Conducting I**

One Music majors only credit hours. Fundamentals of conducting, applicable to both instrumental and choral ensembles; patterns and basic conducting techniques, conducting of musical examples in both genres.

**Prerequisites:** MUTH 2362 with a grade of C or greater or consent of instructor.

**MUAP 3165 - Piano Class IV**

One Music majors only credit hours. Beginning with an intensive review of basic functional piano skills, more advanced sight reading at the keyboard, harmonization skills, improvisation techniques, simple accompaniments, and solo piano repertoire will be explored. **Prerequisites:** MUAP 2184 with a grade of B or higher, and MUTH 3191 with grade of C or greater or consent of instructor.

**MUAP 3325 - Conducting II**

Three credit hours. Conducting techniques relative to both choral and instrumental ensembles, including blend, balance, phrasing, diction, instrumental transposition, expressive devices and basic styles of choral/instrumental music literature; conducting of music examples in both genres. **Prerequisites:** MUTH 3224 or consent of instructor.

**MUAP 4320 - Strategies for Innovation**

Three credit hours. Cross listed as TINY 4301/5301 and IFSC 4302/5302. MUAP 5320 is not open to students who already have credit for MUAP 4320. **Prerequisites:** Junior level standing in a major. In this course, students learn skill sets for creative thinking in an interdisciplinary environment, studying examples from multiple fields such as music, art, business, science, and entrepreneurship. Course activities include readings, lecture, discussion, writing, and small group projects.



## Music Education

### **MUED 2101 - Woodwind Techniques**

This course is designed for students pursuing a degree in music education. Students will explore teaching techniques appropriate for public school students learning to play woodwind instruments. Students will learn the basic principles of playing by performing on each of the woodwind instruments. Topics will include ranges, fingerings, transpositions, basic instrument maintenance, method books and teaching techniques. For music majors only.

### **MUED 2102 - Brass Techniques**

This course is designed for students pursuing a degree in music education. Students will explore teaching techniques appropriate for public school students learning to play brass instruments. Students will learn the basic principles of playing by performing on each of the brass instruments and they will learn to diagnose problems typical of young players. Topics will include range of the brass instruments, fingerings, transpositions, basic instrument maintenance, method books and teaching techniques. For music majors only.

### **MUED 2103 - Percussion Techniques**

This course is designed for music education majors pursuing teaching careers in instrumental music education. Course objectives include study of rhythm, technique, sound production, repertoire, and pedagogy on snare drum, marching percussion, drumset, hand drums, timpani, and other percussion instruments. For music majors only.

### **MUED 2104 - String Techniques**

This course is designed for students pursuing a degree in music education. Students will explore teaching techniques appropriate for public school students learning to play string instruments. Students will learn the basic principles of playing by performing on each of the string instruments and they will learn to diagnose problems typical of young players. Topics will include ranges of the string instruments, fingerings, basic instrument maintenance, method books and teaching techniques. For music majors only.

### **MUED 2200 - Foundations of Music Education**

Students will explore the historical, philosophical, and social foundations of music education. Additionally, students will examine resources for music teaching and will investigate twentieth century developments in music education. For music majors only.

### **MUED 3122 - Composing & Arranging for School Ensembles**

This course is designed for students pursuing a degree in music education. Students will explore ways to compose and arrange music for PreK-12 school ensembles.

Students will learn the basics of composing, scoring, and arranging. Topics will include harmonizing a melody, planning the arrangement, writing accompaniments, composing an original score, and adapting scores for special ensembles.

### **MUED 3123 - Global Styles and Practices in Music Education**

This course will focus on the issues, teaching materials, and techniques involved in incorporating music cultures of United States and related world music repertoires in K-12 classroom instruction. For music majors only.

### **MUED 3214 - Vocal Pedagogy**

Designed as an introduction to the art and science of vocal teaching. Information on the special physiological and acoustical conditions found in child and adolescent voices will be explored. Students will gain knowledge and understanding of the vocal instrument and will learn to apply this knowledge to their singing and teaching. For music majors only.

### **MUED 3232 - Early Classroom Music**

The emphasis is on activities, creative projects, and developing vocal and instrumental skills useful to the early childhood teacher for both musical and nonmusical integrated classroom activities. Students will develop skills in making lesson plans for musical activities and integrating music with the other arts, other subjects, and other peoples, places, and cultures. Not open to music majors for credit.

### **MUED 3302 - Piano Pedagogy**

Three credit hours. Study of methods and pedagogical material for piano teachers. **Prerequisites:** completion of MUPR 2226 jury, and MUHL 2200, or consent of instructor.

### **MUED 3314 - Vocal Pedagogy**

Three credit hours. Study of methods and pedagogical literature for voice teachers.

### **MUED 4192 - Special Studies and Workshops**

One, two, or three credit hours. Individual and group participation in special studies and workshops in music education. **Prerequisites:** consent of music chairperson.

**MUED 4252 - Perspectives on Careers in Music**

Two credit hours. Course objective is to broaden the student's understanding of the range of careers in the world of professional music. The course will explore music as both a creative endeavor and as a product. Students will learn how music progresses from artistic creation to consumable product, and how the participants in the music business make a living utilizing skills in marketing, performance, teaching, recording, technology, venue management, etc. Dual listed in the Graduate Catalog as MUED 5252. MUED 5252 is not open to students who already have credit for 4252. **Prerequisites:** must have passed the upper-level qualifying jury in MUPR, as well as MUTH 2361 and MUTH 2292, or consent of instructor.

**MUED 4292 - Special Studies and Workshops**

One, two, or three credit hours. Individual and group participation in special studies and workshops in music education. **Prerequisites:** consent of music chairperson.

**MUED 4315 - Teaching Music in Performance Ensembles**

Three credit hours. Students will explore methods and materials appropriate for effective music teaching in school ensembles. Topics will include: working with diverse students, selecting appropriate literature, teaching musicianship in an ensemble setting, assessment in the arts, and program development in bands, choirs, and orchestras. For music majors only.

**MUED 4322 - Teaching General Music**

Three credit hours. Characteristics of child growth and their implications in music, establishing music objectives, translating objectives into a developmental sequence of experiences, understanding skills, and knowledge. A practical course for music teachers, emphasizing selection of music and methods of teaching of classroom music to children in elementary school.

**MUED 4352 - Piano Practicum**

Three credit hours. Practice teaching and observation of class instruction in piano at beginning levels for children and adults, and of individual instruction in piano from elementary through intermediate levels. Lesson plans and procedures for teaching specific concepts in piano performance. **Prerequisites:** MUED 3302 and completion of MUPR 3226 jury.

**MUED 4392 - Special Studies and Workshops**

One, two, or three credit hours. Individual and group participation in special studies and workshops in music education. **Prerequisites:** consent of music chairperson.

**MUED 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA. **Concurrent:** TCED 4330.

## Music Ensemble

**MUEN 1104 - Techniques of Accompanying**

One credit hours. A course designed to equip the keyboard major to function as an accompanist. This course offers both theoretical and practical experience. **Prerequisites:** audition.

**MUEN 1113 - University Concert Choir**

One credit hours. For experienced choral singers; open to students of any major. The concert choir is a large, select soprano, alto, tenor, bass (SATB) choral ensemble that performs with repertoire of selections representative of the Renaissance through the contemporary periods. **Prerequisites:** audition scheduled with instructor.

**MUEN 1117 - Chamber Singers**

One credit hours. A small, select soprano, alto, tenor, bass (SATB) choral ensemble that performs repertoire from various stylistic periods especially written for performance by a small ensemble. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 1137 - Women's Choir**

One credit hours. Small group of soprano, mezzo and alto voices performing a variety of music arranged or composed for women's voices. Includes instrumental accompaniment. **Prerequisites:** Consent of instructor.

**MUEN 1140 - Community Choir**

One credit hours. Open to community members, UA Little Rock students, faculty, and staff of all experience levels. Prepares and performs major choral literature. May be repeated for credit. **Prerequisites:** audition and consent of instructor.

**MUEN 1150 - Opera Performance**

Once credit hours. Study, through exercises and performances of acting techniques, that aids the singing-actor in the dramatic presentation of operatic repertoire. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 1153 - Jazz Ensemble**

One credit hours. An ensemble studying and performing music in the jazz and jazz-rock styles, with emphasis on instrumental repertoire. **Prerequisites:** consent of instructor.

**MUEN 1160 - Jazz Combo**

One credit hours. A small ensemble studying and performing music in jazz styles. **Prerequisites:** consent of instructor.

**MUEN 1167 - University Gospel Chorale**

One credit hours. A performance class that develops the execution of traditional, standard, contemporary, and original compositions of African-American gospel music. Vocal and instrumental techniques, as well as ensemble and improvisational skills, will be developed and improved.

**MUEN 1173 - Percussion Ensemble**

One credit hours. A small ensemble featuring repertoire written for a number of percussion instruments. **Prerequisites:** consent of instructor.

**MUEN 1183 - Piano Ensemble**

One credit hours. Ensemble performance involving piano duos from various musical periods. **Prerequisites:** consent of instructor.

**MUEN 1188 - Guitar Ensemble**

One credit hours. A performance class for guitarists and bass guitarists. Standard and original works arranged in jazz, pop, and rock styles; will develop reading ability, as well as ensemble and improvisational skills.

**MUEN 1196 - Chamber Ensembles**

One credit hours. Small chamber ensembles, such as trios, quartets, quintets, of woodwinds, brass, and stringed instruments for chamber music experiences. **Prerequisites:** consent of instructor.

**MUEN 2104 - Techniques of Accompanying**

One credit hours. A course designed to equip the keyboard major to function as an accompanist. This course offers both theoretical and practical experience. **Prerequisites:** audition.

**MUEN 2113 - University Concert Choir**

One credit hours. For experienced choral singers; open to students of any major. The concert choir is a large, select soprano, alto, tenor, bass (SATB) choral ensemble that performs with repertoire of selections representative of the Renaissance through the contemporary periods. **Prerequisites:** audition scheduled with instructor.

**MUEN 2117 - Chamber Singers**

One credit hours. A small, select soprano, alto, tenor, bass (SATB) choral ensemble that performs repertoire from various stylistic periods especially written for performance by a small ensemble. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 2137 - Women's Choir**

One credit hours. Small group of soprano, mezzo and alto voices performing a variety of music arranged or composed for women's voices. Includes instrumental accompaniment. **Prerequisites:** Consent of instructor.

**MUEN 2140 - Community Choir**

One credit hours. Open to community members, UA Little Rock students, faculty, and staff of all experience levels. Prepares and performs major choral literature. May be repeated for credit. **Prerequisites:** audition and consent of instructor.

**MUEN 2150 - Opera Performance**

Once credit hours. Study, through exercises and performances of acting techniques, that aids the singing-actor in the dramatic presentation of operatic repertoire. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 2153 - Jazz Ensemble**

One credit hours. An ensemble studying and performing music in the jazz and jazz-rock styles, with emphasis on instrumental repertoire. **Prerequisites:** consent of instructor.

**MUEN 2160 - Jazz Combo**

One credit hours. A small ensemble studying and performing music in jazz styles. **Prerequisites:** consent of instructor.

**MUEN 2167 - University Gospel Chorale**

One credit hours. A performance class that develops the execution of traditional, standard, contemporary, and original compositions of African-American gospel music. Vocal and instrumental techniques, as well as ensemble and improvisational skills, will be developed and improved.

**MUEN 2173 - Percussion Ensemble**

One credit hours. A small ensemble featuring repertoire written for a number of percussion instruments. **Prerequisites:** consent of instructor.

**MUEN 2183 - Piano Ensemble**

One credit hours. Ensemble performance involving piano duos from various musical periods. **Prerequisites:** consent of instructor.

**MUEN 2188 - Guitar Ensemble**

One credit hours. A performance class for guitarists and bass guitarists. Standard and original works arranged in jazz, pop, and rock styles; will develop reading ability, as well as ensemble and improvisational skills.

**MUEN 2196 - Chamber Ensembles**

One credit hours. Small chamber ensembles, such as trios, quartets, quintets, of woodwinds, brass, and stringed instruments for chamber music experiences. **Prerequisites:** consent of instructor.

**MUEN 3104 - Techniques of Accompanying**

One credit hours. A course designed to equip the keyboard major to function as an accompanist. This course offers both theoretical and practical experience.

**Prerequisites:** audition.

**MUEN 3113 - University Concert Choir**

One credit hours. For experienced choral singers; open to students of any major. The concert choir is a large, select soprano, alto, tenor, bass (SATB) choral ensemble that performs with repertoire of selections representative of the Renaissance through the contemporary periods.

**Prerequisites:** audition scheduled with instructor.

**MUEN 3117 - Chamber Singers**

One credit hours. A small, select soprano, alto, tenor, bass (SATB) choral ensemble that performs repertoire from various stylistic periods especially written for performance by a small ensemble. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 3135 - Wind Ensemble**

One credit hours. Audition-based ensemble that focuses on performance of masterworks for winds/percussion from all musical styles.

**MUEN 3137 - Women's Choir**

One credit hours. Small group of soprano, mezzo and alto voices performing a variety of music arranged or composed for women's voices. Includes instrumental accompaniment. **Prerequisites:** Consent of instructor.

**MUEN 3140 - Community Choir**

One credit hours. Open to community members, UA Little Rock students, faculty, and staff of all experience levels. Prepares and performs major choral literature. May be repeated for credit. **Prerequisites:** audition and consent of instructor.

**MUEN 3150 - Opera Performance**

Once credit hours. Study, through exercises and performances of acting techniques, that aids the singing-actor in the dramatic presentation of operatic repertoire. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 3153 - Jazz Ensemble**

One credit hours. An ensemble studying and performing music in the jazz and jazz-rock styles, with emphasis on instrumental repertoire. **Prerequisites:** consent of instructor.

**MUEN 3160 - Jazz Combo**

One credit hours. A small ensemble studying and performing music in jazz styles. **Prerequisites:** consent of instructor.

**MUEN 3167 - University Gospel Chorale**

One credit hours. A performance class that develops the execution of traditional, standard, contemporary, and original compositions of African-American gospel music. Vocal and instrumental techniques, as well as ensemble and improvisational skills, will be developed and improved.

**MUEN 3173 - Percussion Ensemble**

One credit hours. A small ensemble featuring repertoire written for a number of percussion instruments.

**Prerequisites:** consent of instructor.

**MUEN 3183 - Piano Ensemble**

One credit hours. Ensemble performance involving piano duos from various musical periods. **Prerequisites:** two semesters of MUPR 2226 (applied piano), consent of instructor.

**MUEN 3188 - Guitar Ensemble**

One credit hours. A performance class for guitarists and bass guitarists. Standard and original works arranged in jazz, pop, and rock styles; will develop reading ability, as well as ensemble and improvisational skills.

**MUEN 3196 - Chamber Ensembles**

One credit hours. Small chamber ensembles, such as trios, quartets, quintets, of woodwinds, brass, and stringed instruments for chamber music experiences.

**Prerequisites:** consent of instructor.

**MUEN 4101 - Community Orchestra**

One credit hours. Open to community members, UA Little Rock students, faculty, and staff of all experience levels. Prepares and performs music in all styles in the full orchestra medium. May be repeated for credit.

**Prerequisites:** consent of instructor; no audition required.

**MUEN 4104 - Techniques of Accompanying**

One credit hours. A course designed to equip the keyboard major to function as an accompanist. This course offers both theoretical and practical experience.

**Prerequisites:** audition.

**MUEN 4113 - University Concert Choir**

One credit hours. For experienced choral singers; open to students of any major. The concert choir is a large, select soprano, alto, tenor, bass (SATB) choral ensemble that performs with repertoire of selections representative of the Renaissance through the contemporary periods.

**Prerequisites:** audition scheduled with instructor.

**MUEN 4117 - Chamber Singers**

One credit hours. A small, select soprano, alto, tenor, bass (SATB) choral ensemble that performs repertoire from various stylistic periods especially written for performance by a small ensemble. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 4137 - Women's Choir**

One credit hours. Small group of soprano, mezzo and alto voices performing a variety of music arranged or composed for women's voices. Includes instrumental accompaniment. **Prerequisites:** Consent of instructor.

**MUEN 4140 - Community Choir**

One credit hours. Open to community members, UA Little Rock students, faculty, and staff of all experience levels. Prepares and performs major choral literature. May be repeated for credit. **Prerequisites:** audition and consent of instructor.

**MUEN 4150 - Opera Performance**

Once credit hours. Study, through exercises and performances of acting techniques, that aids the singing-actor in the dramatic presentation of operatic repertoire. **Prerequisites:** consent of instructor; open to students of any major.

**MUEN 4153 - Jazz Ensemble**

One credit hours. An ensemble studying and performing music in the jazz and jazz-rock styles, with emphasis on instrumental repertoire. **Prerequisites:** consent of instructor.

**MUEN 4160 - Jazz Combo**

One credit hours. A small ensemble studying and performing music in jazz styles. **Prerequisites:** consent of instructor.

**MUEN 4167 - University Gospel Chorale**

One credit hours. A performance class that develops the execution of traditional, standard, contemporary, and original compositions of African-American gospel music. Vocal and instrumental techniques, as well as ensemble and improvisational skills, will be developed and improved.

**MUEN 4173 - Percussion Ensemble**

One credit hours. A small ensemble featuring repertoire written for a number of percussion instruments. **Prerequisites:** consent of instructor.

**MUEN 4183 - Piano Ensemble**

One credit hours. Ensemble performance involving piano duos from various musical periods. **Prerequisites:** consent of instructor.

**MUEN 4188 - Guitar Ensemble**

One credit hours. A performance class for guitarists and bass guitarists. Standard and original works arranged in jazz, pop, and rock styles; will develop reading ability, as well as ensemble and improvisational skills.

**MUEN 4196 - Chamber Ensembles**

One credit hours. Small chamber ensembles, such as trios, quartets, quintets, of woodwinds, brass, and stringed instruments for chamber music experiences. **Prerequisites:** consent of instructor.

**MUEN 4197 - Indian Percussion Ensemble**

Group and individual instruction in Indian percussion instruments, primarily chenda (South Indian drum), wood block (upon which chenda patterns are learned prior to instruction on the chenda), and to a lesser extent, ilattalam (cymbals) and tabla (North Indian drums). Offered every semester. **Prerequisites:** None.

## Music History and Literature

**MUHL 2305 - Introduction to Music**

Three credit hours. Introduction to the creative process and history of music, vocabulary and descriptive terms used in the musical arts, and how to write about them. Attendance at arts events is required. Students will learn through writing, reading, discussing, listening, and participating in critical thinking and problem-solving activities. Fulfills core requirement in aesthetics along with ARHA 2305 or THEA 2305. (ACTS Course Number MUSC 1003) **Prerequisites:** Recommended RHET 1311.

**MUHL 3322 - Survey of Western Art Music**

Three credit hours. A survey of the development of Western art music from antiquity to the present, and an introduction to selected non-Western traditions, with emphasis on the study of music literature through recordings. Required for all BA music major emphases. Lecture. **Prerequisites:** MUHL 2305.

**MUHL 3331 - Music History I**

Three credit hours. A continuation of Music History I. A survey of the development of music in western civilization from 1750 to the present, as well as in selected nonwestern cultures during that time period with emphasis on the study of music through scores and recordings. Required for all music majors. **Prerequisites:** MUHL 3331 and a reading knowledge of music.

**MUHL 3341 - Music History II**

Three credit hours. A continuation of Music History I. A survey of music in Western civilization from 1750 to the present. **Prerequisites:** MUHL 3331, MUTH 2361.

**MUHL 3351 - The History of Rock**

Three credit hours. A study of the evolution of rock music from its prerock origins to the present.

**MUHL 3361 - Jazz History and Styles**

Three credit hours. A study of the development and styles of jazz and its principal exponents.

**MUHL 3370 - History of the Blues**

Three credit hours. A comprehensive study of the origins and development, as well as the evolution, of blues forms from their origins to their present state.

### **MUHL 3371 - Non-Western Music**

Three credit hours. A study of selected areas of world music outside Europe and North America through a variety of approaches: playing the music, clapping or singing, listening, studying it in its cultural context. Satisfies music literature requirement for music majors and minors.

**Prerequisites:** MUHL 2305 or consent of instructor.

### **MUHL 3381 - American Music**

Three credit hours. A study of American musical traditions of the last four centuries, including classical, ragtime, jazz, blues, slave music, spirituals, gospel, musical theatre, white Protestant, popular, rock, American Indian, and country. Satisfies music literature requirement for music majors and minors. **Prerequisites:** MUHL 2305 or consent of instructor.

### **MUHL 3391 - Opera**

Three credit hours. A survey of the development of opera, with emphasis on the study of opera through scores and videos. Especially recommended for voice majors and minors with an interest in opera. **Prerequisites:** MUHL 2305 or consent of instructor.

### **MUHL 3392 - Orchestral Music**

Three credit hours. A survey of the development of orchestral music through scores and recordings. Especially recommended for strings, winds, and percussion majors and minors. **Prerequisites:** MUHL 2305 or consent of instructor, and a reading knowledge of music.

### **MUHL 3393 - Choral Music History**

Three credit hours. A survey of the development of choral music through scores and recordings. Especially recommended for voice majors and minors with an interest in choral music. **Prerequisites:** MUHL 2305 or consent of instructor, and a reading knowledge of music.

### **MUHL 4191 - Special Studies**

One, two, or three credit hours. Special individual or group research in music history. **Prerequisites:** consent of music chairperson.

## **Private Music**

Credits earned on the basis of lesson duration. An upper-level course number implies advanced proficiency in performance technique and repertoire. MUPR 1xxx-Minor or elective study, may be repeated for credit MUPR 2xxx-First-year principal performance area for music major, 2 semesters. By audition only.

MUPR 3xxx-Second-year major study, 2 semesters. By passing jury for MUPR 2xxx only.

MUPR 4xxx-Optional third-year major study, 2 semesters. By passing jury for MUPR 3xxx only (may be repeated for credit).

A one-credit lesson means a 30-minute lesson weekly, and requires a minimum of one hour of daily practice. A two credit lesson means a 55-minute lesson weekly, and requires a minimum of two hours of daily practice. BA

music majors are expected to perform at least once per year in a public recital such as Student Recital Hour. An applied music fee is charged for all individual instruction. See "Tuition and Fees." Audition repertoire guidelines are available from the instructor in each performance area, and on the department website.

### **MUPR 3000 - Junior Recital**

Performance of a 30-minute recital by students completing the third year of their music study. **Prerequisites:** Consent of instructor.

### **MUPR 4000 - Junior Recital**

Performance of a 60-minute recital by students completing the fourth year of their music study. **Prerequisites:** Consent of instructor.

### **MUPR 4101 - Music History Capstone I**

Initial stages of an individualized research project in music history (topic selected with instructor approval).

### **MUPR 4103 - Music Theory Capstone I**

Initial stages of an individualized research project in music theory (topic selected with instructor approval).

### **MUPR 4201 - Music History Capstone II**

Completion of an individualized research project in music history (topic selected with instructor approval).

### **MUPR 4203 - Music Theory Capstone II**

Completion of an individualized research project in music theory (topic selected with instructor approval).

### **MUPR 4208 - Collaborative Piano**

Private study in collaborative piano. **Prerequisites:** Consent of instructor.

### **MUPR 4218 - Vocal Coaching**

Private study in vocal coaching. **Prerequisites:** Consent of instructor.

## **Music Theory**

### **MUTH 1161 - Aural Skills I**

Lab course to be paired with MUTH 1361 Music Theory I. Students will learn fundamental principles of aural training, including singing alone and with others, basic intervals, diatonic scales, tonal patterns, and rhythms. Movable-do solfege will also be introduced. **Corequisites:** MUTH 1361 and MUAP 1161.

### **MUTH 1162 - Aural Skills II**

1 credit hours. Lab course paired with MUTH 1362. A continuation of MUTH 1161. Diatonic music will be the focus of sight singing and dictation exercises in simple and compound meters. Rhythmic reading with conducting patterns. Listening techniques will include error detection, interval, scale and chord identification, triad factor identification, melodic, rhythmic dictation. **Prerequisites:** MUTH 1361, MUTH 1161, MUAP 1161 with a grade of C or greater. **Corequisites:** MUTH 1362 and MUAP 1162.

**MUTH 1310 - Music Fundamentals**

Three credit hours. This course is designed to serve both as a preparatory music theory course for the music major and as a music fundamentals course for the nonmajor or music minor. This course will fulfill the MUTH requirement for the minor. Students will learn about the fundamental rhythmic, melodic, and harmonic practices in Western music and the notational terms and symbols commonly used to communicate these aspects of a musical language. In addition to the study of written materials, students participating in this web-enhanced class will gain basic keyboard knowledge, basic aural skills and fundamental theory concepts through the use of computer-based theory tutorial software and various web-based theory tutorials. Lecture, laboratory, and online components. Upon completion of this course, students wishing to continue with music theory courses will be required to pass a theory fundamentals assessment with a grade of 80% or greater.

**MUTH 1361 - Music Theory I**

Three credit hours. Lecture course paired with MUTH 1161. Foundational course in music theory for the music major. Topics include fundamental rhythmic, melodic, and harmonic practices in Western music and the notational terms and symbols commonly used to communicate these aspects of a musical language. **Corequisites:** MUTH 1161 & MUAP 1161.

**MUTH 1362 - Music Theory II**

Three credit hours. Lecture course paired with MUTH 1162. Continuation of MUTH 1361. Students will learn about cadences, non harmonic tones, voice leading in four voices, harmonic progression and harmonic rhythm, dominant seventh chords, leading-tone seventh chords, and non-dominant seventh chords. **Prerequisites:** MUTH 1361, MUTH 1161 & MUAP 1161. **Corequisites:** MUTH 1162 & MUAP 1162.

**MUTH 1381 - Introduction to Theory**

Three credit hours. Foundation course in music theory for the music major. Topics include fundamental rhythmic, melodic, and harmonic practices in Western music and the notational terms and symbols commonly used to communicate these aspects of a musical language. In addition to the study of written materials, students participating in this class will gain basic keyboard knowledge and basic aural skills practices.

**MUTH 2161 - Aural Skills III**

1 credit hours. Lab course paired with MUTH 2361. A continuation of MUTH 1162. Simple chromatic usage will be featured in melodic and harmonic dictation exercises and sight singing. Rhythms in simple and compound meters with varying subdivisions. **Prerequisites:** MUTH 1362, MUTH 1162, MUAP 1162 with a grade of C or greater. **Corequisites:** MUTH 2361 and MUAP 2161.

**MUTH 2162 - Aural Skills IV**

1 credit hours. Lab course paired with MUTH 2362. A continuation of MUTH 2161, including more advanced ear training and sight singing. **Prerequisites:** MUTH 2361, MUTH 2161, MUAP 2161 with a grade of C or greater. **Corequisites:** MUTH 2362 and MUAP 2162.

**MUTH 2361 - Music Theory III**

Lecture course paired with MUTH 2161. Continuation of MUTH 1362. **Prerequisites:** MUTH 1362, MUTH 1162 & MUAP 1162. Students will develop advanced knowledge of rhythm, melody, and harmony through mastery of the structural elements of Common Practice Period music. **Corequisites:** MUTH 2161 & MUAP 2161.

**MUTH 2362 - Music Theory IV**

Three credit hours. Lecture course paired with MUTH 2162. Continuation of MUTH 2361. Students will continue developing advanced skills in music theory, including written traditional Roman numeral score analysis of modalities, harmonies, and structural components of late Common Practice Period and early 20th century music. **Prerequisites:** MUTH 2361, MUTH 2161 & MUAP 2161. **Corequisites:** MUTH 2162 & MUAP 2162.

**MUTH 3120 - Special Topics**

One, two, or three credit hours. Harmonic or formal practices and styles such as fugue, sonata form, serial composition, or form and analysis. **Prerequisites:** four semesters of theory or consent of instructor based on placement examination.

**MUTH 3220 - Special Topics**

One, two, or three credit hours. Harmonic or formal practices and styles such as fugue, sonata form, serial composition, or form and analysis. **Prerequisites:** four semesters of theory or consent of instructor based on placement examination.

**MUTH 3231 - Form and Analysis**

Two credit hours. A survey of forms, shapes and genres in music of the common practice period (1600-1900) emphasizing the designations and categories of form. Principles of variety and unity and the language of musical analysis in standard tonal structure will be the topic of study. **Prerequisites:** MUTH 2292, 2391, grades of C or greater for declared music majors or consent of instructor or department advisor.

**MUTH 3320 - Special Topics**

One, two, or three credit hours. Harmonic or formal practices and styles such as fugue, sonata form, serial composition, or form and analysis. **Prerequisites:** four semesters of theory or consent of instructor based on placement examination.

**MUTH 4190 - Special Studies**

One, two, or three credit hours. Special individual or group research in music theory. **Prerequisites:** consent of music chairperson.

**MUTH 4230 - Advanced Composition**

Individual study of methods and styles of musical composition. **Prerequisites:** MUTH 2361, MUTH 4320, consent of instructor and approval of chair.

**MUTH 4290 - Special Studies**

One, two, or three credit hours. Special individual or group research in music theory. **Prerequisites:** consent of music chairperson.

**MUTH 4310 - Arranging**

Three credit hours. A study of the characteristics and styles of arranging for band, orchestral instruments, and chorus. A historical survey of choral and instrumental writing in the Renaissance, Baroque, Classical, Romantic and Twentieth Century, with arranging exercises for each period. **Prerequisites:** MUTH 2361.

**MUTH 4320 - Basic Composition**

Three credit hours. A study of methods and styles of musical compositions written by students. Various methods of beginning an original composition are discussed and demonstrated in addition to lectures and demonstrations on the small forms of composition. Students have the opportunity to apply prior theory knowledge and receive individual attention.

**Prerequisites:** MUTH 2361 or consent of instructor.

**MUTH 4390 - Special Studies**

One, two, or three credit hours. Special individual or group research in music theory. **Prerequisites:** consent of music chairperson.

## Nonprofit Leadership Studies

**NPLS 1100 - Introduction to Nonprofit Professional Studies**

One credit hours. The course provides an introduction to the nonprofit or third sector in the US with an emphasis on the historical and philosophical foundations of youth and human service organizations. Topics covered include the roles of nonprofit organizations in meeting human service needs, philanthropic structure of nonprofit organizations, importance of a mission orientation for nonprofit organizations, and possible careers in nonprofit organizations.

**NPLS 3300 - Management of Nonprofit Agencies**

Three credit hours. This course is an overview of nonprofit management. Topics include board and committee development, fundraising principles and practices, human resource development and supervision, general nonprofit management, nonprofit accounting and financial management, nonprofit marketing, program planning, and risk management. It also includes at least one group project and is required for Nonprofit Leadership Studies minors. **Prerequisites:** NPLS 1100, attendance at approved NPLS workshop, or permission of the instructor.

**NPLS 4110 - Leadership and Service Practicum**

One credit hours. Students gain practical leadership and service experience in association with the Nonprofit Leadership Student Association. **Prerequisites:** consent of instructor.

**NPLS 4180 - Independent Study**

Three credit hours. Advanced assignments in selected areas. **Prerequisites:** consent of NPLS director.

**NPLS 4280 - Independent Study**

Three credit hours. Advanced assignments in selected areas. **Prerequisites:** consent of NPLS director.

**NPLS 4301 - Internship**

Three credit hours. The internship requires 150 hours of supervised field experience in a nonprofit organization (50 hours for each hour of credit). It is designed to allow students to further develop their selected certification competencies and may be repeated for up to six hours of credit. **Prerequisites:** NPLS minor, senior standing, 2.0 grade point average, and permission of the instructor.

**NPLS 4302 - Internship**

Three credit hours. The internship requires 150 hours of supervised field experience in a nonprofit organization (50 hours for each hour of credit). It is designed to allow students to further develop their selected certification competencies and may be repeated for up to six hours of credit. **Prerequisites:** NPLS minor, senior standing, 2.0 grade point average, and permission of the instructor.

**NPLS 4310 - Strategic Fund Development**

Three credit hours. This course prepares students for managing volunteers in nonprofit organizations in the 21st century. It covers reasons for volunteering; strategies for fostering volunteer/staff relationships; the components of a volunteer program; processes for planning, developing, and implementing a volunteer program; and techniques for the recruitment, orientation, training, motivation, supervision, evaluation, recognition, and retention of volunteers.



**NPLS 4320 - Volunteer Management**

Three credit hours. This course is an introduction to the organizational components, concepts, and methods of effective strategic fund development for 501(c)(3) nonprofit organizations. This includes developing the ability to evaluate elements of fundraising communications (such as internal and external cases for support), annual giving efforts, special event viability, stewardship, and an organization's overall fundraising plan.

**NPLS 4380 - Independent Study**

Three credit hours. Advanced assignments in selected areas. **Prerequisites:** consent of NPLS director.

**NPLS 4390 - Special Topics**

Three credit hours. Selected topics in nonprofit professional studies.

## Nursing Lower-Level

**NURS 1200 - Introduction to Nursing: Concepts I**

Two (1.5 theory; 0.5 lab) credit hours. This is the first of two fundamental nursing courses for beginning nursing students to establish the foundational knowledge, skills, and attitudes needed to successfully move forward through the nursing program. This course will provide students with an introduction to Evidence-Based/Patient-Centered Healthcare Concepts, Concepts of the Professional Role and the Global Concepts of Nursing Process, Technical Skills, Critical Thinking/Clinical Judgment and Safety. Classroom theory will be applied in the Skills Lab.

**NURS 1201 - Medication Calculations for Nursing**

Two credit hours. An elective web-based course designed to provide nursing students with an understanding of medication calculations; Provides framework for understanding calculation of medication dosages by presenting terms, symbols, forms and methods commonly practiced by healthcare providers.

**NURS 1202 - Nursing: Concepts II**

Two (1.5 theory; 0.5 lab) credit hours. This is the second of two fundamental nursing courses for beginning nursing students to establish the foundational knowledge, skills and attitudes needed to successfully move forward through the nursing program. This course will provide students with an introduction to Evidence-Based/Patient-Centered Healthcare Concepts, Concepts of the Professional Role and the Global Concepts of Nursing Process, Technical Skills, Critical Thinking/Clinical Judgment and Safety. Classroom theory will be applied in the Skills Lab, then will culminate in the SimCare setting. **Prerequisite/Concurrent:** NURS 1200.

**NURS 1205 - Health Promotion Across the Lifespan**

Two credit hours. The course introduces the knowledge, skills, and attitudes as they relate to the concept of Health across the lifespan. Emphasis is on nurses' role in health risk reduction; learning needs assessment; accessing current evidence of practices to improve quality of life; collaborating with peers to develop patient centered risk assessments; and teaching plans to promote health in all life stages for individuals and families. **Prerequisites:** NURS 1300. **Prerequisite/Concurrent:** NURS 1505 and BIOL 1412 or BIOL 1433.

**NURS 1300 - Essential Nursing Skills**

Three (2 theory; 1 lab) credit hours. An introduction for nursing students to essential psychomotor skills and professional behaviors required for the safe practice of nursing. Emphasis is on skill mastery.

**NURS 1301 - Medical Terminology for Nursing**

Three credit hours. An elective web-based course designed to provide an understanding of medical terminology; Provides the framework for understanding medical records by presenting terms, abbreviations, symbols, forms and formats commonly used by healthcare providers.

**NURS 1410 - Adult Nursing II**

Fours (2 theory; 2 lab) credit hours. Builds on NURS 1505 with focus on coordination of patient centered care and the evidence base for planning priorities based on the health problem, symptoms, and patient/family beliefs and values. Exemplars include acute and chronic health problems common in middle adulthood that require multidisciplinary management. Students continue to develop nursing knowledge, skills, and attitudes in the competencies of safety, teamwork and collaboration, quality improvement, and informatics with laboratory experiences in simulation, structured health care settings, and completion of a service learning activity. One-half semester. **Prerequisites:** NURS 1205 and NURS 1505. **Prerequisite/Concurrent:** BIOL 1412 or BIOL 1433.

**NURS 1415 - Nursing Role Transition**

Four credit hours. The course introduces LPNs, LPTNs, and paramedics to the knowledge, skills, and attitudes required for the registered nurse in patient centered care, teamwork and collaboration, evidence based practice, safety, quality improvement, and informatics. The concept of health will be explored through collaboration with peers to develop a patient centered risk assessment and teaching plan to promote health across the lifespan. Verification of mastery of essential psychomotor skills will be confirmed through completion of simulation activities. Web-based course with scheduled, mandatory class meetings. **Prerequisites:** Admission to the AAS Program: Transition Option; BIOL 1411 and BIOL 1412, or BIOL 1433

**NURS 1420 - Mental Health Nursing**

Fours (2 theory; 2 lab) credit hours. Builds on NURS 1505 or NURS 1415. Builds on NURS 1505 with a focus on mental health/illness across the lifespan and communication with patients, families, and the health care team, including principles of conflict management. Exemplars include psychosocial assessment in acute and chronic mental illness, symptom management, and patient advocacy. Students continue to develop nursing knowledge, skills, and attitudes in the competencies of safety, quality improvement, and informatics through learning experiences in the classroom, acute care/community mental health facilities. Traditional option: One-half semester; Transition option: Summer term. **Prerequisites:** NURS 1205 and NURS 1505 or NURS 1415 and BIOL 1412 or BIOL 1433.

**NURS 1505 - Adult Nursing I**

Fives (3 theory; 2 lab) credit hours. An introduction to the nurse's role in the delivery of patient centered care as a member of a multidisciplinary team with an emphasis on the growth and development in older adulthood, fundamental nursing assessment and interventions to promote functioning and comfort. Introduction to cultural considerations, pharmacology, physical and environmental safety, evidence based practice, legal/ethical principles, quality improvement, and informatics is incorporated through exemplars of chronic health problems and physical changes requiring acute or long term management. Learning activities include class and laboratory experiences in simulation, acute care, long-term care, and community settings. **Prerequisites:** NURS 1300 **Prerequisite/Concurrent:** NURS 1205, BIOL 1412 or BIOL 1433.

**NURS 2199 - Special Topics in Nursing**

One, two, or three credit hours. An elective course that provides opportunity for second year nursing students to use clinical decision making and evidence based practice to explore and coordinate projects of their choosing as a health care professional in community and service learning settings. **Prerequisites:** NURS 1410 or NURS 1415, NURS 1420.

**NURS 2201 - Pharmacology for Nurses**

Two credit hours. An elective web-based nursing course presenting the essential concepts of pharmacology. Designed to promote clinical decision making and the integration of pharmacological concepts to meet health needs of individuals across the lifespan. **Prerequisites:** NURS 1505 or NURS 1415.

**NURS 2202 - Diagnostic Studies in Nursing**

Two credit hours. An elective web-based nursing course presenting common laboratory and diagnostic tests and procedures commonly used in the diagnosis and treatment of common health problems. Designed to promote clinical decision making in patient preparation and education for procedures. **Prerequisites:** NURS 1505 or NURS 1415.

**NURS 2299 - Special Topics in Nursing**

One, two, or three credit hours. An elective course that provides opportunity for second year nursing students to use clinical decision making and evidence based practice to explore and coordinate projects of their choosing as a health care professional in community and service learning settings. **Prerequisites:** NURS 1410 or NURS 1415, NURS 1420.

**NURS 2350 - Competency for Entry into Practice**

Threes (2 theory; 1 lab) credit hours. The focus of this course is to support transition to the practice of nursing ng through synthesis of knowledge. Students will demonstrate the knowledge, skills, and attitudes in the program competencies of patient centered care, evidence based practice, teamwork and collaboration, safety, quality improvement, and informatics. The competencies will be demonstrated within a structured preceptor supervised practicum, during a practical management experience and/or during an interdisciplinary simulation-based learning experience. Comprehensive review will support student readiness for the NCLEXRN examination. Five weeks. **Prerequisites:** NURS 2410; NURS 2420; CHEM 1400 or CHEM 1402. **Prerequisite/Concurrent:** NURS 2550; BIOL 2401.

**NURS 2399 - Special Topics in Nursing**

One, two, or three credit hours. An elective course that provides opportunity for second year nursing students to use clinical decision making and evidence based practice to explore and coordinate projects of their choosing as a health care professional in community and service learning settings. **Prerequisites:** NURS 1410 or NURS 1415, NURS 1420.

**NURS 2410 - OB/Reproductive Health Nursing**

Fours (2 theory; 2 lab) credit hours. A study of the current evidence base for patient-centered care during the reproductive years, with emphasis on normal child-bearing processes. Exemplars illustrating expected processes and common problems that occur during childbearing will be used to facilitate students' application of decision-making skills to prioritize care as a member of the multidisciplinary team. Students will provide patient/family discharge teaching and implement an original community teaching project to further develop skills in quality improvement and informatics. Laboratory experiences will take place in simulation, acute care, and community settings. **Prerequisites:** NURS 1410 or NURS 1415; NURS 1420. **Prerequisite/Concurrent:** CHEM 1400 or CHEM 1402.

### **NURS 2420 - Pediatric Nursing**

A study of the growth and development of infancy through adolescence within the family context. Common acute and chronic health problems that occur during childhood will be incorporated through exemplars in which students must examine the current evidence base and prioritize care as a member of the multidisciplinary team. Students will collaborate in the development of a planned change related to safety needs across developmental stages in a variety of settings. Knowledge and skills related to quality improvement and informatics as they relate to care of children will continue to develop through classroom and laboratory experiences. Laboratory experiences will take place in simulation, acute care and community settings. Traditional option: One-half semester; Traditional Accelerated option: Summer term. **Prerequisites:** NURS 1410 or NURS 1415, NURS 1420; **Prerequisite/Concurrent:** CHEM 1400 or CHEM 1402.

### **NURS 2550 - Adult Nursing III**

Fives (3 theory; 2 lab) credit hours. The focus of this course is to further develop the knowledge, skills, and attitudes related to clinical decision making in the delivery of nursing care to adults. Complex health problems will be incorporated through exemplars in which students must prioritize care as a member of the multidisciplinary team. Laboratory experiences will include simulation and managing care for groups of patients and providing leadership within the nursing team, with emphasis on provision of evidence based, patient centered care in acute care settings. Competencies of safety, quality improvement, and informatics will be incorporated in laboratory experiences. Ten weeks. **Prerequisites:** NURS 2410, NURS 2420, CHEM 1400 or CHEM 1402. **Prerequisite/Concurrent:** BIOL 2401.

### **NURS 3201 - Pharmacology for Nurses: Specialty Medications**

Two Upper-Level Courses in Nursing (NURS) credit hours. An elective web-based nursing course presenting the essential concepts of pharmacology in specialized areas of nursing practice. Designed to promote clinical decision making and the integration of pharmacological concepts to meet health needs of individuals across the lifespan within specialized care areas. **Prerequisite/Concurrent:** NURS 2201; or with consent of instructor.

## **Nursing Upper-Level**

### **NURS 3220 - Nursing Health Assessment I**

Two credit hours. This course is the first in a two course sequence that focuses on client assessment. It provides the knowledge, skills, and attitudes for competency that focuses on the role of the professional nurse in performing a comprehensive health history, physical, and psychosocial assessment. A variety of assessment tools and techniques are utilized. Further focus is on data collection and accurate documentation to communicate findings to the health care team. Part of term course. **Prerequisites:** RN or enrolled in the final semester of an Accreditation Commission for Education in Nursing (ACEN) approved associate degree or diploma program with approval of department chairperson.

### **NURS 3230 - Nursing Health Assessment II**

Two credit hours. This course is the second in a two course sequence that focuses on client assessment. It provides the knowledge, skills, and attitudes for competency that focuses on the role of the professional nurse in performing a comprehensive health history, physical, and psychosocial assessment. A variety of assessment tools and techniques are utilized. Further focus is on data collection and accurate documentation to communicate findings to the health care team. Students are STRONGLY encouraged to take the course immediately following NURS 3220. Part of term course; **Prerequisites:** Grade of C or better in NURS 3220.

### **NURS 3305 - Informatics in Nursing (Elective)**

Three credit hours. This course explores knowledge, skills and attitudes associated with accessing, managing, and communicating information, particularly on the creation, structure, and delivery of health related information with the use of technology. Further emphasis is on the use of information technology to improve practice and support lifelong learning. Part of term course; **Prerequisite/Concurrent:** Consent of instructor.

### **NURS 3310 - Professional Nursing Role Development**

Three credit hours. Prerequisite to all other required upper level nursing courses except NURS 3220 and NURS 3230. The course focus is on the process of socialization into nursing as a profession. The process explores the impact of historical and current events in the development of the professional role of the nurse. Knowledge, skills, and attitudes related to QSEN competencies (EBP, T/C, QI, S, PCC, and I) in professional nursing and the BSN curriculum is included. A personal philosophy of nursing will be explored within the framework of various nursing theories. Part of term course; **Prerequisites:** Admission into the BSN Program.

**NURS 3350 - Ethics, Legalities, and Advocacy**

Three credit hours. This course explores various ethical guidelines that inform and guide the decision making of nurses, including the framework of the American Nurses Association Code of Ethics. Emphasis is on the knowledge, skills, and attitudes included in the legal and ethical responsibilities of nurses in all aspects of care. Patient-centered care is explored from the perspective of advocating for the patient within the interdisciplinary team. Part of term course; **Prerequisite/Concurrent:** NURS 3310.

**NURS 3420 - Wellness Promotion**

Fours (3 theory; 1 lab) credit hours. Provides an overview of knowledge, skills, and attitudes inherent in the nurse's role as educator. Emphasis is on principles of teaching and learning in diverse populations to implement evidence based practices to improve outcomes. Assessment of learning needs of patients and communities will be explored. The course will culminate with students designing an integrated practice project as an avenue for nurses to advance health. Part of term course; **Prerequisite/Concurrent:** NURS 3310; NURS 3220; NURS 3230

**NURS 3430 - Healthcare Economics**

Fours (3 theory; 1 lab) credit hours. This course focuses on knowledge, skills, and attitudes that relate to factors affecting costs of health care. Students will research cost/benefit analyses related to quality outcomes in the business of health care. Current local, state and national health policy issues as they relate to patient centered care will be discussed from a nursing perspective. The integrated practice project will be completed. Part of term course; **Prerequisites:** NURS 3310.

**NURS 3440 - Research and Evidenced-Based Practice in Nursing**

Fours (3 theory; 1 lab) credit hours. This course provides an overview of scientific evidence integrated into nursing practice. The focus is on knowledge, skills and attitudes required for the research process, including evaluation and dissemination of best practices to improve health care outcomes. Further emphasis is on the significance of research as it contributes to the profession of nursing. An integrated practice project will be completed. Part of term course; **Prerequisites:** This PSYC 2310 or PSYC 3335 or SOCI 3381/3181 or STAT 2350  
**Prerequisite/Concurrent:** NURS 3310.

**NURS 4110 - Special Topics in Nursing**

One, Two, or Three credit hours. This course is an upper level elective nursing course that provides opportunity for BSN nursing students to use clinical decision making and evidence based practice (EBP) to explore and coordinate role development projects in the areas of teaching, research, and/or community service. Part of term course. **Prerequisites:** Consent of BSN Program Coordinator.

**NURS 4210 - Special Topics in Nursing**

One, Two, or Three credit hours. This course is an upper level elective nursing course that provides opportunity for BSN nursing students to use clinical decision making and evidence based practice (EBP) to explore and coordinate role development projects in the areas of teaching, research, and/or community service. Part of term course. **Prerequisites:** Consent of BSN Program Coordinator.

**NURS 4305 - Standardized Participant in Simulation**

3 credit hours. Students will be assigned to specific SimCare courses. Under the guidance and direction of the simulation faculty facilitators, students will participate in simulation-based learning experiences (SBLE) as standardized participants (SP) in roles as patients, caregivers and interdisciplinary team members. Students will have opportunities to experience, practice and model the essential nursing competencies; quality improvement, teamwork/collaboration, patient-centered care, evidence based practice, informatics, and safety within the SBLE. Open to students from many disciplines. Instructor approval required.

**NURS 4310 - Special Topics in Nursing**

One, Two, or Three credit hours. This course is an upper level elective nursing course that provides opportunity for BSN nursing students to use clinical decision making and evidence based practice (EBP) to explore and coordinate role development projects in the areas of teaching, research, and/or community service. Part of term course. **Prerequisites:** Consent of BSN Program Coordinator.

**NURS 4415 - Community Health Needs**

Fours (3 theory; 1 lab) credit hours. This course provides an introduction to knowledge, skills, and attitudes for community health nursing including issues related to public health and concepts of epidemiology. Emphasis is on health promotion and illness prevention or disease management of specified groups. Integrated practice project focus is on the professional nurse's role in community assessment and development of an interventional project to meet identified community needs. Part of term course; **Prerequisites:** NURS 3310.

**NURS 4420 - Leadership and Management**

Fours (3 theory; 1 lab) credit hours. This course provides the opportunity to develop knowledge, skills and attitudes required for leadership and management in nursing. Leadership, organizational management and change theories are examined, with emphasis on conflict management, workplace diversity, resource allocation, quality and performance. The integrated practice project is designed to provide experiences to expand the application of leadership and management skills. Part of term course; **Prerequisites:** NURS 3310.

### **NURS 4430 - Integration of Concepts**

Fours (3 theory; 1 lab) credit hours. The course focuses on the synthesis of the essential competencies of the RNBSN program in a systematic and comprehensive manner in order to provide a framework for the transition to the BSN role. The essential competencies are: Quality improvement, teamwork/collaboration, patient-centered care, evidence based practice, informatics, and safety. The integrated practice project is designed to provide experiences to expand the analysis and synthesis of these competencies. Part of term course;

**Prerequisite/Concurrent:** NURS 4415; NURS 4420. Must be taken in the final term. Instructor approval required.

## **Public Administration**

### **PADM 3310 - Policy Process**

Three credit hours. See POLS 3310.

### **PADM 3331 - Public Administration**

Three credit hours. Trends and organization of public administration; fiscal and personnel management; administrative powers and responsibility. **Prerequisites:** POLS 1310 or junior standing.

### **PADM 4313 - Public Personnel Administration**

Three credit hours. Analysis of the policies, practices, and issues of public personnel administration, including recruitment and selection processes, classification and pay plans, training, career management, separation, grievances and appeals, and unionization and collective bargaining.

### **PADM 4341 - Seminar: Comparative Public Administration**

Three credit hours. A seminar survey of similarities and differences in bureaucratic structures and processes. Analysis of the organization, staffing, and role of administrative systems in contrasting social and cultural contexts of the Western and non-Western worlds. Dual listed in the Graduate Catalog as PADM 5341.

**Prerequisites:** senior standing.

### **PADM 4353 - Seminar in Budgeting**

Three credit hours. The course covers budgeting theory and practice. Topics include budgeting as allocations, process games, rituals, history, and politics. It examines institutions and their roles in budgeting as well as current issues such as uncontrollability, balanced budgets, and variance budgeting. Dual listed in the Graduate Catalog as PADM 5353. **Prerequisites:** POLS 1310.

## **Personal Awareness**

### **PEAW 1124 - Practicum: Leadership Training**

One credit hours. Designed to recognize and enhance the development of student leaders through an orientation to campus and community resources and through participation in service projects and social activities. Enrollment is restricted to students participating in official university leadership groups. Final course grade is credit/no-credit.

### **PEAW 1190 - Career Planning and Life Options**

One credit hours. A systematic approach to developing decision-making skills and an orientation to the world of work. The focal point of the course is the student and his or her goals. Emphasis is on clarifying and formulating realistic career goals and an appropriate career plan and strategy to achieve these goals. Final course grade is credit/no-credit.

### **PEAW 1300 - The First Year Experience**

Three credit hours. Helps students reach their educational objectives. Interactive instructional methods promote the development of critical thinking skills and positive educational values. Students 1) complete a personal assessment to enhance their understanding of communication and learning styles, lifestyle risks, and loci of control; 2) learn to identify and use appropriate resources both on campus and within the community; 3) acquire skills needed to promote study, personal wellness, goal setting and achievement; 4) develop strategies to manage money, time and stress wisely; and 5) participate in a service learning experience outside the classroom in a setting designed to foster community service. Final course grades are A, B, C, and NC.

### **PEAW 1310 - Library Research and Resources**

Three credit hours. Basic techniques for using the library effectively. Use of information resources, including online catalog, computerized databases, bibliographies, and indexes. Attention to students' individual subject needs.

### **PEAW 2124 - Practicum: Leadership Training**

One credit hours. Designed to recognize and enhance the development of student leaders through an orientation to campus and community resources and through participation in service projects and social activities. Enrollment is restricted to students participating in official university leadership groups. Final course grade is credit/no-credit.

### **PEAW 3124 - Practicum: Leadership Training**

One credit hours. Designed to recognize and enhance the development of student leaders through an orientation to campus and community resources and through participation in service projects and social activities. Enrollment is restricted to students participating in official university leadership groups. Final course grade is credit/no-credit.

**PEAW 4124 - Practicum: Leadership Training**

One credit hours. Designed to recognize and enhance the development of student leaders through an orientation to campus and community resources and through participation in service projects and social activities. Enrollment is restricted to students participating in official university leadership groups. Final course grade is credit/no-credit.

## Professional Selling

**PFSL 4395 - Cooperative Education I**

Three credit hours. The application of sales concepts and techniques in a field setting. A written project, designed in consultation with the faculty member, and a minimum of 200 hours with a participating employer during the semester are required. The exact number of weekly work hours, activities, and responsibilities are dependent on the nature of the work experience and must be specified in written agreements between the student, faculty member, and the Office of Cooperative Education. Course is offered on a credit/no credit basis only. **Prerequisites:** MKTG 3350, MKTG 3353 with grades of C or greater, a cumulative GPA of 2.5, and consent of a sponsoring faculty member prior to registration.

## Philosophy

**PHIL 1110 - Introduction to Ethics**

One hours lecture. One credit hours. Overview of ethical theory and moral reasoning; case-based approach emphasizing ethical issues in business and technology. Cross listed as IFSC 1110.

**PHIL 1310 - Introduction to Philosophy**

Three credit hours. Survey of basic themes in philosophy. Addresses such fundamental concerns as the nature of morality and beauty, the reasonableness of religious conviction, the nature of persons and the existence of free will, the status of animals and the environment, the relation of mind and body, the structure of a just society, and the nature of art through discussion and analysis of readings. **Prerequisites:** RHET 1311.

**PHIL 1330 - Introduction to Critical Thinking**

Three credit hours. An introduction to reasoning skills. Focus on the recognition of informal fallacies, the nature, use, and evaluation of arguments, and the characteristics of inductive and deductive arguments.

**PHIL 2320 - Ethics and Society**

Three credit hours. Study of selected texts reflecting a variety of ethical systems from Western and non-Western literary heritages and ethical traditions. Assigned works represent several national ethical literatures, with at least one major ethical text from each of four periods (antiquity, medieval, early modern, and contemporary). (ACTS Course Number PHIL 1103) **Prerequisites:** RHET 1311.

**PHIL 2321 - Ethics and Society: Professional Applications**

Three credit hours. Study of selected texts reflecting a variety of ethical systems from Western and non-Western literary heritages and ethical traditions. Assigned works represent several national ethical literatures, with at least one major ethical text from each of four periods (antiquity, medieval, early modern, and contemporary). Students will reflect on how these texts and ethical systems bear on specific ethical controversies arising in the workplace and in the contexts of professional life. **Prerequisites:** RHET 1311.

**PHIL 2350 - Introduction to Logic**

Three credit hours. (ACTS Course Number PHIL 1003) **Prerequisites:** instructor consent. Introduction to deductive logic including translation of sentences into formal systems, immediate inferences, syllogisms, formal fallacies, proofs of validity, and quantification.

**PHIL 3177 - Applied Ethics Practicum**

One, two, or three credit hours. Instructor approval required. Internship or practicum credit for students pursuing ethics-oriented activities outside the classroom. This includes, but is not limited to, working with local high schools in preparation for the Arkansas High School Ethics Bowl, or participation on the UA Little Rock Ethics Bowl Team in preparation for the National Intercollegiate Ethics Bowl.

**PHIL 3277 - Applied Ethics Practicum**

One, two, or three credit hours. Instructor approval required. Internship or practicum credit for students pursuing ethics-oriented activities outside the classroom. This includes, but is not limited to, working with local high schools in preparation for the Arkansas High School Ethics Bowl, or participation on the UA Little Rock Ethics Bowl Team in preparation for the National Intercollegiate Ethics Bowl.

**PHIL 3310 - Theories of Knowledge**

Three credit hours. Introduction to the field of epistemology. Skeptical and realist positions will be assessed by analyzing internal and external accounts of knowledge (including coherence, foundation, naturalized, and reliabilist theories). The connection between epistemology and artificial intelligence will also be examined. **Prerequisites:** PHIL 1310 or PHIL 2320 or instructor consent.

**PHIL 3312 - Science and Culture**

Three credit hours. Examination of the methods, presuppositions, and implications of empirical science. Special emphasis will be given to the metaphysical assumptions that ground the scientific enterprise, and the interface between the pursuit of science and the moral interests of society. **Prerequisites:** PHIL 2320 or PHIL 1310 or consent of instructor.

**PHIL 3315 - Philosophy and Narrative**

Three credit hours. This course will focus on philosophical issues relevant to one or more of the following topic areas: philosophical issues in literature and film, theories of drama and performance, the politics of narrative, and recent hermeneutical theory.

**PHIL 3320 - Modern Philosophy**

Three credit hours. This course will examine the writings of early modern philosophers (including Descartes, Locke, Berkeley, Hume, and Kant) and their influence on nineteenth century philosophers (including Hegel, Marx, and Kierkegaard). **Prerequisites:** PHIL 1310 or PHIL 2320, or instructor consent.

**PHIL 3321 - Kant & 19th Century Philosophy**

Three credit hours. This course investigates American, British and/or continental European philosophy after the eighteenth century, with an emphasis on selected major figures, works, or themes. **Prerequisites:** PHIL 1310, or PHIL 2320, or instructor consent (granted on the basis of similar preparation).

**PHIL 3322 - Contemporary Philosophy**

Three credit hours. This course will explore major developments in twentieth and twenty-first century philosophy. The themes and central figures under investigation will vary, but special emphasis will be placed on topics of current philosophical debate as well as those that bear directly on wider contemporary concerns. **Prerequisites:** PHIL 1310, PHIL 2320, or instructor consent.

**PHIL 3335 - Medical Ethics**

Three credit hours. Analysis of ethical issues in medicine affecting patients, healthcare workers, and the public. Materials drawn from medical, legal, philosophical, and psychiatric sources, addressing such issues as euthanasia, abortion, assisted suicide, involuntary commitment, resource distribution, AIDS, and health insurance. **Prerequisites:** PHIL 1310 or PHIL 2320 or instructor consent.

**PHIL 3341 - Contemporary Ethical Theory**

Three credit hours. This course examines some fundamental issues in 20th/21st century ethical theory. In addition to exploring recent defenses and criticisms of leading normative theories, the course focuses on recent work in meta-ethics-in particular, debates about moral realism and non-realism. **Prerequisites:** PHIL 1310, or PHIL 2320, or instructor consent (granted on the basis of similar preparation).

**PHIL 3345 - Ancient Greek Philosophy**

Three credit hours. Philosophical positions of ancient Greek philosophers (Plato, Aristotle, Epicurus, and others) and their influence on medieval philosophers (Augustine, Aquinas, Averroes, and others). **Prerequisites:** PHIL 1310 or PHIL 2320 or instructor consent.

**PHIL 3346 - Social and Political Philosophy**

This course will survey a number of different approaches to social and political philosophy. Students will have the opportunity to investigate and consider the role of the government, the engagement of individuals within society, and the relationship between law and politics. Similarly, students will read texts from throughout the history of philosophy in an effort to gain an appreciation of the varieties of theoretical approaches to society and the state. **Prerequisites:** PHIL 1310, PHIL 2320, or instructor consent.

**PHIL 3347 - Philosophy of Law**

Three credit hours. Examination of topics and areas of study in jurisprudence such as the justification for coercion and punishment; the nature, moral foundation, and authority of law; liberty and freedom of expression under the law; feminist legal theory; critical race theory and other contemporary challenges. **Prerequisites:** PHIL 2320 or PHIL 1310 or consent of instructor.

**PHIL 3350 - Eastern Thought**

Three credit hours. Survey of the beliefs, practices, and group structures of the major Eastern religious and social traditions (including Hinduism, Mahayana and Zen Buddhism, Shintoism, and Confucianism). **Prerequisites:** 3 hours of Philosophy, or 3 hours of Religious Studies, or instructor consent.

**PHIL 3360 - Philosophy of Religion**

Three credit hours. Major issues in the philosophy of religion including the knowledge of God, the problem of evil, life after death, religious language and experience, and the relationship of faith and reason. **Prerequisites:** 3 hours of Philosophy, or 3 hours of Religious Studies, or instructor consent.

**PHIL 3370 - Existentialism**

Three credit hours. Survey of the existential philosophers of the nineteenth and twentieth centuries including Kierkegaard, Nietzsche, Heidegger, Sartre, Camus, Jaspers, Marcel, and Tillich. **Prerequisites:** introductory philosophy course or instructor consent.

**PHIL 3372 - Philosophy and the Arts**

Three credit hours. This course investigates influential historical and/or contemporary contributions to aesthetics, philosophy of the arts, and philosophy of arts criticism. Topics may include: the nature of art and beauty; principles of criticism, standards of taste, and uniquely correct interpretations; the nature of an appropriate response to an artwork; the reality of aesthetic properties; and the relations between art, morality, and emotion.

**PHIL 3375 - Environmental Philosophy**

This course explores key texts and themes within the field of Environmental Philosophy. It will explore a variety of questions concerning the relationship between human beings and the natural world. Such questions may include, but are not limited to: what constitutes nature, what the relationship is between humanity and our environment, and what our obligations are toward nonhuman animals and natural habitats. **Prerequisites:** PHIL 1310, PHIL 2320, or instructor consent.

**PHIL 3377 - Applied Ethics Practicum**

One, two, or three credit hours. Instructor approval required. Internship or practicum credit for students pursuing ethics-oriented activities outside the classroom. This includes, but is not limited to, working with local high schools in preparation for the Arkansas High School Ethics Bowl, or participation on the UA Little Rock Ethics Bowl Team in preparation for the National Intercollegiate Ethics Bowl.

**PHIL 3386 - Ethics Bowl**

Three credit hours. Instructor approval required. This course gives students the opportunity to study normative ethical theories and apply those theories to a variety of current, real-world cases in the context of preparing for and competing in a regional Intercollegiate Ethics Bowl competition. Travel to and participation in a regional Ethics Bowl as part of the UA Little Rock Ethics Bowl Team is a course requirement. Instructor approval required.

**PHIL 4280 - Topics in Philosophy**

Two or three credit hours. Feminism, philosophy of art, metaphysics, and race theory are possible topics. Topics and course offering varies on demand.

**PHIL 4290 - Independent Study**

Two or three credit hours. Selective reading and written project on a topic submitted by the student and approved by the instructor before registration. Open only to students with demonstrated ability to write research papers of superior quality in philosophy. Applicants unknown to the instructor should submit academic transcripts and samples of their research papers in philosophy. **Prerequisites:** senior standing, 15 hours of philosophy, consent of instructor.

**PHIL 4333 - Feminist Theory**

Three credit hours. This course will study major issues in feminist theory, including historical and contemporary debates, and seeks a broad understanding of the development of various strands of feminist thought and the resulting range of interpretive possibilities. It may include explorations of feminist perspectives on epistemology, metaphysics, social and political theory, and ethics, as well as race, class, sexuality, and nationality.

**PHIL 4350 - Classical Political Theory**

Three credit hours. Major political ideas and doctrines of political thinkers from Plato to Montesquieu, with emphasis on the contributions of each to the theory and practice of government. Dual listed in the Graduate Catalog as POLS 5380. **Prerequisites:** POLS 1310 or junior standing.

**PHIL 4360 - Modern Political Theory**

[See course description for POLS 4390 Modern Political Theory.]

**PHIL 4373 - Philosophy of Race**

Three credit hours. This course is an introduction to the philosophy of race and ethnicity. It will explore the philosophical assumptions behind concepts of race, including: 1) historical origins and contemporary views of race and racial identities; 2) the intersection of racism and other forms of oppression; or 3) race in the history of philosophy.

**PHIL 4380 - Topics in Philosophy**

Two or three credit hours. Feminism, philosophy of art, metaphysics, and race theory are possible topics. Topics and course offering varies on demand.

**PHIL 4385 - Seminar in History of Philosophy**

Three credit hours. This seminar allows participants to pursue intensive study of a pivotal movement or central figure in the history of philosophy or the development of a particular idea. Topics may include Plato, Hellenistic Philosophy, Stoicism, Skepticism: Ancient and Modern, German Idealism, Marx and Marxism, Rationalism, Logical Positivism, Analytic Philosophy, or Post-structuralism. **Prerequisites:** PHIL 1310 and PHIL 2320 or Instructor Consent.

**PHIL 4386 - Seminar in Social/Political Philosophy**

Three credit hours. This seminar allows participants to pursue intensive study of a pivotal movement or central figure in the history of philosophy or the development of a particular idea. Topics may include Plato, Hellenistic Philosophy, Stoicism, Skepticism: Ancient and Modern, German Idealism, Marx and Marxism, Rationalism, Logical Positivism, Analytic Philosophy, or Poststructuralism. **Prerequisites:** PHIL 1310 and PHIL 2320 or Instructor Consent.

**PHIL 4387 - Seminar in Moral Philosophy**

Three credit hours. This seminar course offers an opportunity to either explore in greater depth a topic within moral philosophy that has been introduced in other courses offered by the department or explore a topic that is not covered in other regularly offered courses. **Prerequisites:** PHIL 1310 and PHIL 2320 or Instructor Consent.



**PHIL 4388 - Seminar in Metaphysics / Epistemology**

Three credit hours. This seminar course offers an opportunity to either explore in greater depth a topic within metaphysics or epistemology that has been introduced in other courses offered by the department or explore a topic that is not covered in other regularly offered courses.

**Prerequisites:** PHIL 1310 and PHIL 2320 or Instructor Consent.

**PHIL 4390 - Independent Study**

Two or three credit hours. Selective reading and written project on a topic submitted by the student and approved by the instructor before registration. Open only to students with demonstrated ability to write research papers of superior quality in philosophy. Applicants unknown to the instructor should submit academic transcripts and samples of their research papers in philosophy. **Prerequisites:** senior standing, 15 hours of philosophy, consent of instructor.

## Physics

**PHYS 1110 - Physical Concepts Laboratory**

Two hours laboratory per week. One credit hours. Designed to examine some experimental aspects of topics discussed in PHYS 1310. **Prerequisite or Corequisite:** PHYS 1310.

**PHYS 1121 - College Physics I Laboratory**

Covering topics in PHYS 1321 with two hours laboratory per week. One credit hours. Students explore concepts and principles using laboratory skills of inquiry, measuring techniques, mathematical analysis, graphing, and modeling. (ACTS Course Number PHYS 2014)

**Prerequisite/Concurrent:** PHYS 1321.

**PHYS 1122 - College Physics II Laboratory**

Covering topics in PHYS 1322 with two hours laboratory per week. One credit hours. Students explore concepts and principles using laboratory skills of inquiry, measuring techniques, mathematical analysis, graphing, and modeling. (ACTS Course Number PHYS 2024)

**Prerequisite/Concurrent:** PHYS 1322.

**PHYS 1310 - Physical Concepts**

Three hours lecture. Three credit hours. A one-semester course for students in programs of the health related professions. An introduction to the concepts of mechanics, properties of matter, heat, sound, electricity and magnetism, light, and atomic and nuclear physics.

**Prerequisites:** MATH 0301 or equivalent.

**PHYS 1321 - College Physics I**

One hour optional discussion and three hours lecture. Three credit hours. Introduction to the fundamental principles underlying the foundations of classical and modern physics, including kinematics, Newtonian mechanics, fluids, thermodynamics, simple harmonic motion, and wave motion. An algebra-based course designed for majors in the life sciences, pre-professional students, and engineering technology students, but is open to any student who meets the prerequisites.

**Prerequisites:** Grade of C or better in MATH 1302 or MATH 1401.

**PHYS 1322 - College Physics II**

One hour optional discussion and three hours lecture. Three credit hours. Continuation of PHYS 1321, including topics of electricity, magnetism, electromagnetism, electromagnetic radiation, geometric and physical optics, and selected topics from modern physics, including radioactivity. **Prerequisites:** PHYS 1321 with a grade of C or better.

**PHYS 2121 - Physics for Scientists and Engineers I Laboratory**

Two hours laboratory per week. One credit hours. (ACTS Course Number PHYS 2034) **Prerequisite or Corequisite:** PHYS 2321.

**PHYS 2122 - Physics for Scientists and Engineers II Laboratory**

Two hours laboratory per week. One credit hours. (ACTS Course Number PHYS 2044) **Prerequisite or Corequisite:** PHYS 2322.

**PHYS 2321 - Physics for Scientists and Engineers I**

One hour optional discussion and three hours lecture. Three credit hours. A calculus-based introduction to the fundamental principles underlying classical physics and modern physics and the applications of those principles in science and engineering. **Prerequisites:** MATH 1304 or MATH 1451.

**PHYS 2322 - Physics for Scientists and Engineers II**

One hour optional discussion and three hours lecture. Three credit hours. Continuation of PHYS 2321 for students majoring in physics, astronomy, chemistry, computer science, engineering, geology, information science, mathematics, and systems engineering. Topics include electricity, magnetism, optics, relativity, and quantum physics. (ACTS Course Number PHYS 2044) **Prerequisites:** PHYS 2321 and MATH 1305 or MATH 1452.

**PHYS 2391 - Cooperative Education Work Experience I**

Three credit hours. Designed to enhance college education through career exploration in astronomy, engineering physics, or physics. A minimum of nine hours work per week. Exact number of hours will depend on the nature of the work experience and will be specified by a contract. **Prerequisites:** consent of department chairperson. **Corequisites:** PHYS 1321, PHYS 1121 or PHYS 2321, PHYS 2121.

**PHYS 3123 - Physics for Scientists and Engineers III Laboratory**

Three hours laboratory per week. One credit hours. **Prerequisite or Corequisite:** PHYS 3323.

**PHYS 3130 - Medical Physics Laboratory**

Three hours laboratory per week. One credit hours. Approximately 18 hours of hospital time supplemented by laboratory work in the Physics Department. **Prerequisite or Corequisite:** PHYS 3330.

**PHYS 3315 - Teaching Physics in the Secondary School**

Three hours lecture. Three credit hours. A study of physics laboratory experiments and demonstrations available for secondary school physics courses. **Prerequisites:** consent of instructor.

**PHYS 3323 - Physics for Scientists and Engineers III**

One hour optional discussion and three hours lecture. Three credit hours. A continuation of topics in relativity and quantum physics introduced in PHYS 2322 or PHYS 1322 for students majoring in physics, astronomy, chemistry, computer science, engineering, geology, information science, mathematics, and systems engineering. **Prerequisites:** PHYS 2322 or PHYS 1322 and MATH 2306, MATH 1452 or MATH 2453.

**PHYS 3330 - Medical Physics**

Three hours lecture. Three credit hours. The applications of the concepts, methods, and principles of physics to the diagnosis and treatment of human disease. **Prerequisites:** PHYS 1321, PHYS 1322 or PHYS 2321, PHYS 2322.

**PHYS 3350 - Electronics**

One hours lecture. Four hours laboratory per week. Three credit hours. DC & AC electronics, semiconductors, operational amplifiers, and digital logic circuits with lab applications in experimental physics. **Prerequisites:** PHYS 2322 or PHYS 1322 and consent of the instructor.

**PHYS 3391 - Cooperative Education Work Experience II**

Three credit hours. Further work experiences to enhance college education through an internship in astronomy, engineering physics, or physics. A minimum of nine hours work per week. The exact number of hours will depend on the nature of the work experience and will be specified by a contract. **Prerequisites:** major in physics, junior standing, and consent of department chairperson.

**PHYS 4100 - Independent Study**

One, two, or three credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interests and availability. One to three hours per credit hour. Exact time and nature of the experience will depend on the particular subject of the independent study and will be agreed on at the beginning of the term by the student and the instructor. **Prerequisites:** consent of chairperson.

**PHYS 4111 - Advanced Laboratory I**

Three to six hours laboratory per week. One or two credit hours. Advanced experiments to acquaint the student with the problems and techniques of research activities. Equipment such as a 12-inch computer-controlled telescope with electronic camera, a 17-inch heliostat, and audio spectrum analyzers are available for student use. The advanced laboratory exposes the student to modern research techniques and provides many traditional laboratory experiences. **Prerequisites:** consent of instructor.

**PHYS 4112 - Advanced Laboratory I**

Three to six hours laboratory per week. One or two credit hours. Advanced experiments to acquaint the student with the problems and techniques of research activities. Equipment such as a 12-inch computer-controlled telescope with electronic camera, a 17-inch heliostat, and audio spectrum analyzers are available for student use. The advanced laboratory exposes the student to modern research techniques and provides many traditional laboratory experiences. **Prerequisites:** consent of instructor.

**PHYS 4112 - Advanced Laboratory II**

Three to six hours laboratory per week. One or two credit hours. Continuation of PHYS 4111 or PHYS 4112. **Prerequisites:** PHYS 4111 or PHYS 4112.

**PHYS 4190 - Seminar**

One credit hours. Presentation of selected papers by students, faculty members, and invited speakers at weekly departmental meetings. Discussions, analysis, and implications of theoretical and experimental studies in the physical sciences. One hour.

**PHYS 4199 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in physics and astronomy. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** Consent of instructor.

**PHYS 4200 - Independent Study**

One, two, or three credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interests and availability. One to three hours per credit hour. Exact time and nature of the experience will depend on the particular subject of the independent study and will be agreed on at the beginning of the term by the student and the instructor. **Prerequisites:** consent of chairperson.

**PHYS 4212 - Advanced Laboratory II**

Three to six hours laboratory per week. One or two credit hours. Continuation of PHYS 4111 or 4112.

**Prerequisites:** PHYS 4111 or 4112.

**PHYS 4289 - Undergraduate Research**

Two, three, or four credit hours. Trains the student to analyze, plan and conduct experimental work on a research problem. Frequent conferences and a study of research literature with a final report are required. May extend over two semesters. Four to six hours per week for each hour of credit earned. Exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor.

**Prerequisites:** consent of department chairperson, junior or senior standing, compliance with approved guidelines (available from chairperson).

**PHYS 4299 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in physics and astronomy. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** Consent of instructor.

**PHYS 4300 - Independent Study**

One, two, or three credit hours. Individual research by the advanced student. Topics determined on the basis of faculty interests and availability. One to three hours per credit hour. Exact time and nature of the experience will depend on the particular subject of the independent study and will be agreed on at the beginning of the term by the student and the instructor. **Prerequisites:** consent of chairperson.

**PHYS 4310 - Statistical Thermodynamics**

One hour optional discussion and three hours lecture. Three credit hours. A microscopic, unified approach to thermodynamics and statistical mechanics with applications to ideal gases, including blackbody radiation and conduction electrons, magnetic systems, the Debye model, and chemical and phase equilibria. Dual listed in the Graduate Catalog as PHYS 5310. **Prerequisites:** PHYS 2322, PHYS 3323.

**PHYS 4311 - Classical Mechanics**

One hour optional discussion and three hours lecture. Three credit hours. Concepts of Newtonian mechanics, dynamics of particles and systems of particles, gravitation, vector analysis, dynamics of rigid bodies, moving coordinate systems, continuous media, small oscillations, and the methods of Lagrange and Hamilton. Dual listed in the Graduate Catalog as PHYS 5311. **Prerequisites:** PHYS 2321, MATH 2306 or MATH 1452, or consent of the instructor.

**PHYS 4321 - Electromagnetism I**

One hour optional discussion and three hours lecture. Three credit hours. Includes the Coulomb and Gauss laws, the Poisson and Laplace equations and solutions in several coordinate systems, electric and magnetic energy, AC and DC circuits, Ampere's and Faraday's laws, the vector potential, Maxwell's equations, and the propagation of electromagnetic waves. Dual listed in the Graduate Catalog as PHYS 5321. **Prerequisites:** PHYS 2322.

**PHYS 4322 - Electromagnetism II**

One hour optional discussion and three hours lecture. Three credit hours. Continuation of PHYS 4321. **Prerequisites:** PHYS 4321.

**PHYS 4330 - Mathematical Methods in the Physical Sciences**

One hour optional discussion and three hours lecture. Three credit hours. Review of vector calculus, differential equations of physics, and techniques of solution. Fourier series, statistics, probability, error theory, partial differentiation, and functions of a complex variable. Dual listed in the Graduate Catalog as PHYS 5330. **Prerequisites:** MATH 2306 or MATH 1452.

**PHYS 4340 - Solid State Physics**

One hour optional discussion and three hours lecture. Three credit hours. Structure of crystals, dispersion relations, specific heat, phonons, electric and magnetic properties of insulators and metals, band theory of metals, insulators and semiconductors, superconductivity. **Prerequisites:** PHYS 3323.

**PHYS 4350 - Quantum Mechanics I**

One hour optional discussion and three hours lecture. Three credit hours. Concepts and history of quantum mechanics, experimental basis, the uncertainty principle, the Schrodinger equation with applications to simple systems, the hydrogen atom, perturbation theory, the interpretations of quantum mechanics, symmetry principles. Dual listed in the Graduate Catalog as PHYS 5350. **Prerequisites:** PHYS 3323.

**PHYS 4360 - High Energy and Nuclear Physics**

One hour optional discussion and three hours lecture. Three credit hours. Properties of the nuclei, nuclear structure and stability, quark-gluon structure of hadrons, thermodynamics of large ensembles of hadrons, nuclear reactions, instrumentation and accelerators. Dual listed in the Graduate Catalog as PHYS 5360. **Prerequisites:** PHYS 3323.

**PHYS 4370 - Advanced Theoretical Physics**

One hour optional discussion and three hours lecture. Three credit hours. Topics vary with the experience and interests of students. Some possible topics are scattering of waves, plasma physics, atmospheric physics, fluid dynamics, and quantum optics. **Prerequisites:** consent of instructor.

### **PHYS 4380 - Wave Motion and Optics**

One hour optional discussion and three hours lecture. Three credit hours. The wave equation and solutions, wave propagation, coherence, interference, diffraction, polarization, refraction and reflection, dispersion, the interactions of light with matter, Huygens' principle, optical instruments, quantum optics. Dual listed in the Graduate Catalog as PHYS 5380. **Prerequisites:** PHYS 2322.

### **PHYS 4389 - Undergraduate Research**

Two, three, or four credit hours. Trains the student to analyze, plan and conduct experimental work on a research problem. Frequent conferences and a study of research literature with a final report are required. May extend over two semesters. Four to six hours per week for each hour of credit earned. Exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** consent of department chairperson, junior or senior standing, compliance with approved guidelines (available from chairperson).

### **PHYS 4399 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in physics and astronomy. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** Consent of instructor.

### **PHYS 4489 - Undergraduate Research**

Two, three, or four credit hours. Trains the student to analyze, plan and conduct experimental work on a research problem. Frequent conferences and a study of research literature with a final report are required. May extend over two semesters. Four to six hours per week for each hour of credit earned. Exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor. **Prerequisites:** consent of department chairperson, junior or senior standing, compliance with approved guidelines (available from chairperson).

### **PHYS 4499 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced, specialized topics of current interest in physics and astronomy. Dual listed in the Graduate Catalog as the 5000-level. **Prerequisites:** Consent of instructor.

### **PHYS 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure in upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. **Prerequisites:** TCED 4383, EDUC 4321, 2.75 GPA, Praxis II content area examination(s) must be passed. **Concurrent:** TCED 4330.

## **Political Science**

### **POLS 1310 - American National Government**

Three credit hours. An introduction to the political institutions, processes, and patterns of the national government of the United States, focusing on the Congress, presidency, and courts, and on their interrelationships. Attention is given to suffrage and elections, political parties, interest groups, and public opinion. Significant issues and problems of national policy such as civil rights and civil liberties are considered. (ACTS Course Number PLSC 2003)

### **POLS 2303 - Introduction to International Politics**

Three credit hours. Introduction to the Political Science subfields of Comparative Politics and International Relations. Analysis of the variety of different types of political structures that exist around the world and how they shape the behavior of individuals and groups. Examination of the interaction of various actors on the international stage, such as states, multinational organizations, activists, and transnational terrorist groups. Introduction to the study of these phenomena as a social science, the major theoretical and empirical approaches in both subfields, and enduring questions of domestic and international politics.

### **POLS 2330 - Introduction to Sustainability**

Three hours lecture. Three credit hours. This interdisciplinary course introduces students to the concept of sustainability and the greatest sustainability challenges of our time related to natural, social, built, and managed systems. Students will study each module in class, prepare a research presentation related to one topic module, and participate in a community engagement service learning project related to one module. The course will challenge students to take action toward increased personal sustainability and responsibility. Cross listed as MGMT 2330 and CNMG 2330.

### **POLS 3101 - Seminar in Political Science**

[See course description for POLS 3301 Seminar in Political Science ]

### **POLS 3201 - Seminar in Political Science**

[See course description for POLS 3301 Seminar in Political Science ]

### **POLS 3300 - American Political Parties**

Three credit hours. The nature, function, and history of political parties in the United States and the process by which the will of the electorate is applied to public problems through suffrage, nominations, campaigns, and elections. **Prerequisites:** POLS 1310 or junior standing.

### **POLS 3301 - Seminar in Political Science**

One, two, or three credit hours. Special problems, issues, or trends in the theory and practice of politics and government. May be repeated with a change of subject and permission of department chairperson. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3302 - Methods of Political Inquiry**

Three credit hours. Introduction to basic research methods in empirical political analysis. Research design in political science; data collection techniques; data analysis and hypothesis testing; statistics and computer use for political science.

**POLS 3303 - American State and Local Government**

Three credit hours. Problems of state and local government; the party system in the state; organization, functions, and powers of the legislative, executive, and judicial branches of the state government; organization and operation of county, city, village, and township government in the United States; emphasizes the effect of federalism on American state and local governments.

**POLS 3304 - Qualitative Methods in Political Science**

Three credit hours. An introduction to qualitative research in political science, including examination of research design, question selection, literature reviews, and methods of gathering, coding, and analyzing information.

**POLS 3305 - Elections and Public Opinion**

Three credit hours. The roles of elections and public opinion within the democratic system are thoroughly analyzed, with emphasis on factors leading to different electoral behavior and opinions within the public.

**Prerequisites:** POLS 1310 or junior standing.

**POLS 3310 - Policy Process**

Three credit hours. Surveys alternative approaches for analyzing policy making, the political and institutional context affecting the policy process, and selected public policies and decisions. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3320 - The American Presidency**

Three credit hours. Powers, duties, and responsibilities of our greatest executive officer, centering on historic and contemporary conceptions of the office; the presidency as an administrative institution. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3325 - Legislative Process and Behavior**

Three credit hours. Legislative politics in the United States Congress: socialization; role of party, constituency, and legislative institutions as they affect legislative behavior and public policy. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3331 - Public Administration**

Three credit hours. Trends and organization of public administration, fiscal and personnel management, administrative powers, and responsibility. Cross listed as PADM 3331. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3338 - Cooperative Education in Political Science I & II**

Three credit hours. Cooperative Education in Political Science is designed to give a student majoring in the discipline an educationally applied field work learning experience. A maximum of six hours of Cooperative Education may be taken in the major. **Prerequisites:** declared major in political science; POLS 1310; and at least one upper-level course in political science, basic computer literacy, and consent of the department's cooperative education coordinator. POLS 3303 is strongly recommended but not required.

**POLS 3339 - Cooperative Education in Political Science I & II**

Three credit hours. Cooperative Education in Political Science is designed to give a student majoring in the discipline an educationally applied field work learning experience. A maximum of six hours of Cooperative Education may be taken in the major. **Prerequisites:** declared major in political science; POLS 1310; and at least one upper-level course in political science, basic computer literacy, and consent of the department's cooperative education coordinator. POLS 3303 is strongly recommended but not required.

**POLS 3348 - Internship I**

Three credit hours. Public service learning in an applied setting. Provides undergraduate students interested in politics and government with practical governmental experience. Students, through the writing of a primary internship paper and the attendance at periodic intern seminars, synthesize practical and theoretical learning in government, politics, and law. **Prerequisites:** at least 45 hours of completed work and permission of the instructor.

**POLS 3350 - Arkansas Government and Politics**

Three credit hours. A study of contemporary politics and government of Arkansas with a brief introduction to the state's political history and a concentration on the twentieth-century experience. Topics include elections, the constitution, organization of Arkansas state and local government, and the operation of the executive, legislative, and judicial branches. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3360 - Comparative Government: Western**

Three credit hours. The structure, powers, and principles of the national governments of the leading European nations, including the former Soviet republics, in contrast with one another and the United States. The course also includes Canada. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3365 - The European Union**

Three credit hours. This course examines the structures and functions of European governance, both at the nation-state and at the EU level, and tackles some of the concepts behind, impediments to, and consequences of, European integration in both theory and form. Students will become familiar with the politics of both large and small member states and how these politics are reflected in governance at the EU level.

**POLS 3370 - Comparative Politics: Developing Areas**

Three credit hours. An examination of the major themes and practical problems central to third world politics such as development, state-society relations and change. A general focus on cases from Africa, Asia and Latin America will help ground thematic discussions. POLS 3360 is recommended as background. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3380 - Seminar in Comparative Politics**

Three credit hours. Special problems, issues, or trends in the study of comparative politics. May be repeated with a change of subject and permission of the department chairperson. **Prerequisites:** POLS 1310 or junior standing.

**POLS 3390 - American Political Thought**

Three credit hours. The lives and ideas of leading political thinkers of the United States from the colonial period to the present. **Prerequisites:** POLS 1310 or junior standing.

**POLS 4100 - Independent Study**

One, two, or three credit hours. Advanced study and research. The student should prepare a prospectus before applying for independent study. **Prerequisites:** senior standing, 15 credit hours of political science, consent of instructor.

**POLS 4200 - Independent Study**

One, two, or three credit hours. Advanced study and research. The student should prepare a prospectus before applying for independent study. **Prerequisites:** senior standing, 15 credit hours of political science, consent of instructor.

**POLS 4300 - Independent Study**

One, two, or three credit hours. Advanced study and research. The student should prepare a prospectus before applying for independent study. **Prerequisites:** senior standing, 15 credit hours of political science, consent of instructor.

**POLS 4301 - Judicial System and Process**

Three credit hours. A survey of state, local, and federal judicial systems and their interrelationships. Examines judicial structure, functions, and decision-making procedures.

**POLS 4302 - Law and Society**

Three credit hours. An examination of the origins and history of law in society, including the evolving roles of judges, juries, defense attorneys, and prosecutors. Examines the evolution of civil and criminal law, the adversary system, and the concept of justice.

**POLS 4308 - Topics in Urban Studies**

In-depth analysis of selected urban topics and themes. Course emphasizes multidisciplinary nature of urban issues and various approaches used to characterize, investigate and understand urban phenomena. May be repeated for credit with a change of subject and permission of the department chairperson. Dual listed in the Graduate Catalog as POLS 5308. Cross listed as URST 4308.

**POLS 4310 - Seminar in American National Government**

Three credit hours. Research seminar dealing with selected phases of politics and government in the United States. It gives students the opportunity to bring analytical skills and substantive knowledge gained in prior courses to bear on a selected topic of importance, and will involve a substantial writing project. Dual listed in the Graduate Catalog as POLS 5310. **Prerequisites:** senior standing.

**POLS 4315 - Capitol Hill Seminar**

Three credit hours. An introduction to politics and government in Washington, DC politics. Through meetings with Washington decisionmakers from the three branches of government, the major governmental linkage institutions and lobbyists, congressional staffers, members of the media, think tanks, and political analysts, the course facilitates understanding of the theoretical and practical worlds of American politics from an insider, Capitol Hill, perspective.

**POLS 4320 - American Foreign Policy**

Three credit hours. Examines the goals and motivation of American foreign policy and relations, the actors and processes that shape policies and decisions, and selected foreign policy problems and issues. Dual listed in the Graduate Catalog as POLS 5320. **Prerequisites:** POLS 1310 or junior standing.

**POLS 4333 - Seminar in State Politics**

Three credit hours. Research seminar dealing with selected aspects of state politics such as comparative policy making, political culture variations, and problem solving. Dual listed in the Graduate Catalog as POLS 5333.

**POLS 4340 - International Relations**

Three credit hours. Provides a conceptual foundation for understanding and analyzing the international system, states, and actors. Examines economic, political, and military aspects of national security, power, and national interest, and patterns of national decision making. **Prerequisites:** POLS 1310 or junior standing.

**POLS 4341 - Seminar in International Relations**

Three credit hours. Special problems, issues, or trends in the study of international relations. May be repeated with a change of subject and permission of the department chairperson.

**POLS 4343 - Seminar in Local Politics**

Three credit hours. Research seminar dealing with selected aspects of local politics such as community power structure, local autonomy, and comparative administration. Dual listed in the Graduate Catalog as POLS 5343.

**POLS 4345 - The Clinton Presidency**

Three credit hours. The presidency of Bill Clinton from several perspectives, all grounded in the discipline of political science: the administration's policy making; presidential power and leadership; crises and turning points in the Clinton administration; campaigning and communications skill of the president; relations with the press, political parties and groups; and the legacy of the Clinton presidency. Dual listed in the Graduate Catalog as POLS 5345. **Prerequisites:** consent of the instructor.

**POLS 4348 - Internship II**

Three credit hours. A public service learning experience which gives students the opportunity to blend practical concepts learned on the job with their academic course work in political science. Students attend periodic seminars and participate in a substantial writing assignment aimed at fully integrating and synthesizing their public service experience. Dual listed in the Graduate Catalog as POLS 5348. **Prerequisites:** Senior standing and permission of the instructor.

**POLS 4350 - Constitutional Law: Governmental Powers**

Three credit hours. The Supreme Court as a political institution in American democracy. Analysis of leading constitutional decisions exploring judicial review, federalism, separation of powers, regulation of commerce, due process, and equal protection. The dynamics of Supreme Court decisionmaking. Civil liberties; analysis of leading constitutional decisions focusing on human freedom and fundamental rights. Emphasis on religious liberty, freedom of expression, racial equality, privacy, criminal procedures, and the dynamics of Supreme Court decision making. **Prerequisites:** POLS 1310 or junior standing. **Prerequisite/Concurrent:** POLS 1310 or junior standing.

**POLS 4355 - Urban Planning and Land Use**

Three credit hours. A view of urban planning and land use from critical, analytical urban studies perspective. The course inquires into the meaning of planning for communities and cities. Course uses case studies to explore positive and negative impacts of planning technique and professionalism. Considers historical and modern alternatives to planning and subsequent land use and how urban planning and land use relate to quality of urban life. Dual listed in the Graduate Catalog as POLS 5355.

**POLS 4356 - Urban Policy and Government**

Three credit hours. Course explores urban policy-making and urban government from a critical, analytical urban studies perspective. Considers historical and modern variations of urban government and intergovernmental relations and how this relates to urban policy making, political will and quality of urban life issues. Dual listed in the Graduate Catalog as POLS 5356.

**POLS 4360 - Selected Topics in Political Science**

Three credit hours. The seminar provides students the opportunity to bring analytical skills and substantive knowledge gained in prior courses to bear on a selected topic of special importance, and will involve a substantial writing project. Students should inquire at the department for the topic that will be addressed in a given semester. **Prerequisites:** senior standing.

**POLS 4370 - Readings in Political Science**

Three credit hours. In this readings seminar several outstanding books, including classics and notable current works, are assigned for analysis and discussion. The course is designed to give students an opportunity to consider fundamental themes that perennially concern the discipline: the nature of power, politics, and governance. **Prerequisites:** senior standing.

**POLS 4375 - Politics of the Middle East**

Three credit hours. The course covers the politics and political dynamics of the Middle East, introducing the student to the main issues and actors (state and nonstate) of the contemporary Middle East. The course explores the nature of contemporary politics in the region including the impact of the complex relationships among great power intervention, economics, ethnicity, nationalism, and religion.

**POLS 4376 - Global Terrorism**

Three credit hours. The course will cover history, contemporary nature and defense against terrorism, with a particular emphasis on post 09/11 "war on terror."

**POLS 4380 - Classical Political Theory**

Three credit hours. Major political ideas and doctrines of political thinkers from Plato to Montesquieu, with emphasis on the contributions of each to the theory and practice of government. Dual listed in the Graduate Catalog as POLS 5380. **Prerequisites:** POLS 1310 or junior standing.

**POLS 4387 - Great Decisions in American Foreign Policy**

Three credit hours. Examines eight current foreign policy issues. Explores the origin of each issue, alternative proposals and strategies for American foreign policy, other nations' proposals and strategies, and the consequences of past and current international problems for the United States and the world community. Dual listed in the Graduate Catalog as POLS 5387. **Prerequisites:** POLS 1310, HIST 2311, or junior standing.

**POLS 4390 - Modern Political Theory**

Three credit hours. A continuation of POLS 4380; from Edmund Burke to the present, with emphasis on the more recent political theories and systems of democracy, communism, and socialism. Dual listed in the Graduate Catalog as POLS 5390. **Prerequisites:** POLS 1310 or junior standing.

**POLS 4395 - Seminar in Political Science Research**

Three credit hours. Special problems, issue, or trends in the study of politics. The course will involve student participation in conducting political science research. May be repeated with a change of subject and permission of department chairperson.

**POLS 4397 - Social Studies Teaching Applications**

Three credit hours. A link between social studies content with practical applications for classroom instruction. Content information comes from history, geography, political science, sociology/anthropology, and psychology. Modeled for prospective secondary education teachers to illustrate how content can be applied in the classroom. Critical components of each of the disciplines integrated into the content presentations and the demonstrated applications. Team taught. Cross listed as GEOG 4397 and HIST 4397.

**POLS 4399 - Undergraduate Research Project**

Three credit hours. Completion of a major research project in political science. The student should complete a research proposal before applying. **Prerequisites:** Junior or senior standing, POLS 3302, 15 credit hours of political science, and consent of the instructor.

## Psychology

**PSYC 2300 - Psychology and the Human Experience**

Three credit hours. Focuses on development of the individual in the context of physical and social environments. Topics include the scientific method and its application to the study of the individual, the relationship between brain and behavior, social and personality development, theories of motivation, maladaptive behavior, social cognition and interaction, and the effects of membership in different groups. Students learn through writing, reading, discussing, listening, and participating in critical thinking and problem-solving activities. (ACTS Course Number PSYC 1103) **Prerequisites:** RHET 1311.

**PSYC 2310 - General Psychological Statistics**

Three credit hours. A general survey of statistical methods in psychology, including descriptive and inferential techniques. Emphasis on application and interpretation of the statistical procedures. Course does not fulfill requirement for psychology majors, or count toward the minimum of 31 hours of psychology courses for majors. May be useful in preparation for required statistics courses. Accepted by some majors. See program advisor for information. **Prerequisites:** MATH 1302 or 1315 or equivalent.

**PSYC 3305 - Sensation-Perception**

Three credit hours. Study of the perception external events and sensory processes underlying that perception. **Prerequisites:** PSYC 2300.

**PSYC 3308 - Urban Environmental Psychology**

Three credit hours. Study of the effects of physical environments on individuals. Topics include individual perceptions of local environments, pollution, and energy costs; individual privacy needs versus crowding; unique environments, such as wilderness, museums, and zoos; and the design of more livable homes. **Prerequisites:** PSYC 2300.

**PSYC 3310 - Motivation and Emotion**

Three credit hours. Detailed coverage of important forms of human motivation and cursory treatment of emotions. **Prerequisites:** PSYC 2300.

**PSYC 3320 - Introduction to Applied Psychology**

Three credit hours. An introduction to the application of psychology to a variety of problems concerning mental and physical health, communication, motivation, the use of tests and other psychological techniques in industry and government, social engineering, environmental issues, and the legal system. Also covers careers in psychology, their educational requirements, and career planning. **Prerequisites:** PSYC 2300.

**PSYC 3330 - Health Psychology**

Three credit hours. The causes of stress and how stress impacts health, behavioral contributions to an individual's or community's health status, and the ways in which health is being re-conceptualized. **Prerequisites:** PSYC 2300.

**PSYC 3335 - Statistics and Methods for Non-majors**

Three credit hours. Course is restricted to Nursing students. A study of descriptive and inferential statistical techniques. Topics include central tendency, dispersion, graphical displays of data, probability distributions for discrete and continuous variables, frequency distributions, percentiles, null hypothesis testing, power, effect sizes, type I and type II errors, one and two tailed tests, sampling distributions, chi square, correlation and regression.

**Prerequisites:** RN to BSN online students in Department of Nursing only. MATH 1302 or MATH 1321 or equivalent.

**PSYC 3340 - Meditation Techniques**

Three credit hours. Theoretical framework for understanding the meditation experience, namely, Jung's depth psychology, yoga psychology, and Buddhist psychology; training in specific meditation techniques of various religious traditions, including Hatha Yoga, Zen, and the Silence, as well as the self-analysis of dreams. Cross listed as RELS 3340.



**PSYC 3341 - Research Methods I**

Three credit hours. This course is designed as a survey of methods used in psychological research with equal treatment given to quasi experimental and experimental designs. Topics will include experiments, survey research, qualitative field research and unobtrusive research with an emphasis on the purposes, strengths and weaknesses of each. This course is required for psychology majors entering Fall 2010. **Prerequisites:** PSCY 2340 with grade of "C" or greater.

**PSYC 3342 - Statistics and Methods II**

Three credit hours. A study of inferential research techniques, with an emphasis on the design and statistical analysis of controlled experimental procedures. Topics include sampling procedures and distributions, hypothesis testing, within and between subjects designs, tests of the difference between two means, and one-way and factorial analyses of variance. **Prerequisites:** PSYC 3335 with a "C" or greater.

**PSYC 3350 - Social Psychology**

Three credit hours. An introduction of theories, research, and problems regarding interrelationships of social structure, interpersonal interaction, and behavior of individuals. Topics include human aggression, prejudice, attraction, persuasion, self-perception, and conformity. **Prerequisites:** PSYC 2300.

**PSYC 3356 - Developmental Psychology**

Three credit hours. Development of the individual from conception through adolescence. Topics include prenatal, intellectual, emotional, social, and personality development. **Prerequisites:** PSYC 2300.

**PSYC 3357 - Infancy**

Three credit hours. Theory and research on the psychological development of infants. Topics include sensory and perceptual development, intellectual development, social and emotional development, and physical development during the first two years of life. **Prerequisites:** PSYC 2300, PSYC 3356, or consent of the instructor.

**PSYC 3358 - Adolescent Psychology**

Three credit hours. Theory and research on the psychological development of adolescents; physical, social, personality, and intellectual development during adolescence; major theories concerning adolescence. **Prerequisites:** PSYC 2300, PSYC 3356, or consent of instructor.

**PSYC 3360 - Abnormal Psychology**

Three credit hours. The causes, symptoms, and treatment of abnormalities in human behavior. **Prerequisites:** PSYC 2300.

**PSYC 3363 - Psychology of Religion**

Three credit hours. Various interpretations of religious experience in terms of modern Western psychology and their use in religious counseling. Varieties of religious experiences, psychological interpretations of religious experiences, religion and stages of human development, and techniques of religious counseling. **Prerequisites:** PSYC 2300 or consent of instructor.

**PSYC 3365 - Fundamentals of Psychosexual Behavior**

Three credit hours. The emotional, attitudinal, and developmental parameters of human sexual motivation and behavior; masculinity-femininity; sexual deviation; and prevalent sexual behaviors. **Prerequisites:** PSYC 2300.

**PSYC 3366 - Psychology of Women**

Three credit hours. The study of the psychology of women, emphasizing the different views of women in our society, the bases of these views, and their implications for men and women. **Prerequisites:** PSYC 2300.

**PSYC 3368 - Psychology Cooperative Education**

Three credit hours. Designed to complement and extend the classroom learning experience through the application of psychology-based concepts, skills, and technology in a professional work environment. PSYC 3368 normally requires 200 hours per semester with the employer. Number of work hours, activities, and responsibilities depends on the nature of the work and must be specified in a written agreement coordinated with the course instructor and the Office of Cooperative Education. Grading is based on the criteria of the written agreement and is the responsibility of the instructor. **Prerequisites:** completed 30 semester hours with a 2.50 GPA overall, PSYC 2300, six upper-level hours in psychology and consent of the psychology department coordinator and the director of cooperative education. Transfer students must have completed one semester in residence. **Prerequisite or Corequisite:** PSYC 3335 or PSYC 2310.

**PSYC 3369 - Internship**

Three or four credit hours. Provides practical experience in a professional urban setting. Students work in a business, government agency, state mental health institution, or similar location giving opportunities to apply their academic background to develop applied skills. **Prerequisites:** junior standing, consent of instructor.

**PSYC 3370 - Industrial Psychology**

Three credit hours. A survey of the field of industrial psychology. Application of psychological principles to prediction, performance criteria, job analysis, employee evaluation, training, work environment, management, motivation, and job satisfaction. Recommended for business students and those interested in applied psychology. **Prerequisites:** PSYC 2300.

**PSYC 3375 - Psychology of Consumer Behavior**

Three credit hours. Psychology of advertising; motivational, perceptual, social, and learning variables influencing consumer choice. Recommended for advertising, marketing, business, and psychology majors. **Prerequisites:** PSYC 2300.

**PSYC 3380 - Cognitive Psychology**

Three credit hours. An introduction to theories and research regarding human information processing. Topics include attention, memory, problem solving, information representation, and individual differences in cognitive ability. **Prerequisites:** PSYC 2300.

**PSYC 3435 - Statistics and Methods I**

Three hours lecture. Two hours laboratory per week. Four credit hours. A study of descriptive and inferential statistical techniques. Topics include central tendency, dispersion, graphical displays of data, probability distributions for discrete and continuous variables, frequency distributions, percentiles, null hypothesis testing, power, effect sizes, type I and type II errors, one and two-tailed tests, sampling distributions, chi square, correlation and regression. **Prerequisites:** MATH 1302 or MATH 1321 or equivalent.

**PSYC 3469 - Internship**

Three or four credit hours. Provides practical experience in a professional urban setting. Students work in a business, government agency, state mental health institution, or similar location giving opportunities to apply their academic background to develop applied skills. **Prerequisites:** junior standing, consent of instructor.

**PSYC 4121 - Independent Study**

Two or three credit hours. Readings and research in various areas of psychology. **Prerequisites:** senior standing psychology major, consent of the professor.

**PSYC 4221 - Independent Study**

Two or three credit hours. Readings and research in various areas of psychology. **Prerequisites:** senior standing psychology major, consent of the professor.

**PSYC 4290 - Senior Seminar**

Two or three credit hours. Topics vary with instructor. **Prerequisites:** PSYC 3335 and senior status in psychology major.

**PSYC 4300 - Drugs and Behavior**

Three credit hours. An analysis of the effects of drug administration on ongoing behavior and learning. Emphasis on drugs of clinical application and usages. Dual listed in the Graduate Catalog as PSYC 5300. **Prerequisites:** PSYC 2300, senior standing, or consent of instructor.

**PSYC 4301 - Drug Abuse**

Three credit hours. A study of drug abuse and addiction with an emphasis on pharmacological, psychological, and behavior aspects of abused drugs. There is also an emphasis on the differing treatments used in the attempt to control these addictions. **Prerequisites:** PSYC 2300.

**PSYC 4310 - Counseling Psychology**

Three credit hours. A survey of the field of counseling and its philosophy, with emphasis on the counseling relationship. Educational, vocational, industrial, and personal counseling are covered. Dual listed in the Graduate Catalog as PSYC 5310. **Prerequisites:** PSYC 2300, senior standing, or consent of the instructor.

**PSYC 4320 - Physiological Psychology**

Three credit hours. Principal neuroanatomical structures, with emphasis on their behavioral correlates. **Prerequisites:** PSYC 2300.

**PSYC 4321 - Independent Study**

Two or three credit hours. Readings and research in various areas of psychology. **Prerequisites:** senior standing psychology major, consent of the professor.

**PSYC 4325 - Personnel Psychology**

Three credit hours. Analysis of industrial psychology in terms of personnel work. Topics include predictors and related issues, criteria and related issues, statistical analysis for selection and placement, testing, interviews and other non-test procedures, personnel development, and attitude measurement. Dual listed in the Graduate Catalog as PSYC 5325. **Prerequisites:** PSYC 2300, three hours of statistics.

**PSYC 4330 - Learning and Memory**

Three credit hours. Fundamental principles of conditioning and learning. Topics include traditional and modern approaches to reinforcement, punishment, generalization, discrimination, constraints on learning, and applications of learning principles. Dual listed in the Graduate Catalog as PSYC 5330. **Prerequisites:** PSYC 2300.

**PSYC 4335 - Personality and Social Development**

Three credit hours. Examines the interaction between developing children and the social environment and the implications for adult personality using an Eriksonian stage model. Constitutional predispositions, parental care giving, modeling, peer interaction, and social institutions considered. **Prerequisites:** PSYC 2300. Recommended: PSYC 3356.

**PSYC 4336 - Cognitive Development**

Three credit hours. An introduction to the theories and research on the development of thinking in infants, children, and adolescents. Dual listed in the Graduate Catalog as PSYC 5336. **Prerequisites:** PSYC 2300, PSYC 3356, and senior standing or consent of the instructor.

**PSYC 4337 - Adult Psychology and Aging**

Three credit hours. This comprehensive course focuses on typical transitional aspects of development across the adult lifespan including physical, cognitive, emotional, and social development domains. Theoretical perspectives and practical applications from psychology will be emphasized including cross-cultural, gender, ethnic, familial, historical perspectives, and temporal culture interventions.

**Prerequisites:** PSYC 2300 with grade of C or greater.

**PSYC 4340 - Shaping of Human Behavior**

Three credit hours. A study of the application of principles of learning and conditioning to the shaping of the behavior of people in a variety of settings. Ethical issues in changing human behavior. Dual listed in the Graduate Catalog as PSYC 5340. **Prerequisites:** PSYC 2300, and senior standing or consent of the instructor.

**PSYC 4345 - History of Psychology**

Three credit hours. An examination of concepts, methods, and systems that have contributed to the development of modern psychology. Provides excellent preparation for the Advanced Psychology GRE. **Prerequisites:** PSYC 2300.

**PSYC 4355 - Psychology of Personal Adjustment**

Three credit hours. A study of the healthy personality, emphasizing characteristics, development, and promotion of mental health. **Prerequisites:** PSYC 2300.

**PSYC 4360 - Psychological Tests and Measurement**

Three credit hours. An examination of classical test theory with extensive treatments of reliability, validity, item analysis and standardization. An introduction to other scaling and test construction approaches is included. The construction and use of common psychological tests are considered. **Prerequisites:** PSYC 2300 with grade of C or greater, and three hours of college-level statistics.

**PSYC 4363 - Organizational Psychology**

Three credit hours. An analysis of the interplay of individuals and the organizations for which they work. Topics include job satisfaction, motivation, morale, leadership, group dynamics, conflict, communication, union-management relations, and organizational growth and development. **Prerequisites:** PSYC 2300 or consent of the instructor.

**PSYC 4365 - Psychological Disorders of Childhood**

Three credit hours. A study of the nature, causes, and treatment of disturbed behavior in children and their families. Topics include childhood psychoses, attention deficit disorder, autism, depression, behavior problems, and the abused child. Dual listed in the Graduate Catalog as PSYC 5365. **Prerequisites:** PSYC 2300, and senior standing or consent of instructor.

**PSYC 4370 - Psychology of Personality**

Three credit hours. A critical survey of modern approaches to the organization and development of personality, with extensive reading to integrate experimental, clinical, biographical, and cultural evidence. **Prerequisites:** PSYC 2300 and PSYC 3360.

**PSYC 4380 - Human Factors Psychology**

Three credit hours. An analysis of relevant information about human behavior for the design of physical objects people use, the methods for their use, and the design of environments in which people live and work.

**Prerequisites:** PSYC 2300.

**PSYC 4385 - Psychology and Public Health**

Three credit hours. Considers how psychological science and applications can help shape community health and public health efforts. Issues related to health psychology research, community psychology, preventive health, and public health practice will be considered. Will explore innovative public health models in which psychological science or applications have been prominent. Dual listed in the Graduate Catalog as PSYC 5385. **Prerequisites:** PSYC 2300, and senior standing, or consent of the instructor for undergraduates; graduate standing for graduates.

**PSYC 4390 - Senior Seminar**

Two or three credit hours. Topics vary with instructor.

**Prerequisites:** PSYC 3335 and senior status in psychology major.

**PSYC 4392 - Capstone**

Three credit hours. A capstone course for the psychology major. The course is designed to complement and enhance knowledge and skills acquired from previous psychology courses, with an emphasis on personal, social and professional development. **Prerequisites:** Senior standing and 18 hours in psychology, or consent of instructor.

**PSYC 4397 - Social Studies Teaching Applications**

Three credit hours. A link between social studies content with practical applications for classroom instruction. Information comes from history, geography, political science, sociology/anthropology, and psychology. Content modeled for prospective secondary education teachers to illustrate how content can be applied in the classroom. Critical components of each discipline integrated into the content presentations and the demonstrated applications. Team taught.

**PSYC 4399 - Special Topics in Psychology**

Three credit hours. Advanced specialized topics of current interest in psychology. Topics vary with faculty interest and availability. With a different topic the course may be repeated for credit. **Prerequisites:** PSYC 2300.

**PSYC 4412 - Computer Applications in Psychology**

Two hours lecture. four hours laboratory per week. Four credit hours. The basic instrumentation involved in psychological research, with emphasis on the use of programming language in experimental situations and interfacing microcomputers with common laboratory equipment. **Prerequisites:** consent of instructor.

**PSYC 4450 - Experimental Psychology**

Three hours lecture. Two hours laboratory per week. Four credit hours. General methodological principles and techniques of psychological experimentation. Students design, conduct, analyze, and report experiments in their areas of interest. **Prerequisites:** PSYC 2300, 2340.

**PSYC 4495 - Practicum in Psychology**

Four credit hours. The student will perform independent laboratory research or assist in the instructional process. **Prerequisites:** senior standing, consent of instructor.

## Poverty Studies

**PVYS 2301 - Introduction to Poverty Studies**

Three credit hours. This course serves as an introduction to a multidisciplinary study of poverty, including emphases on causes and effects of poverty, values, moral, and legal issues related to poverty, and difficulties in breaking the cycle of poverty.

**PVYS 2302 - Poverty Reduction Strategies**

Three credit hours. In response to the incidence of poverty, both in urban and rural areas, this course equips the student with analytical tools that aid in the planning, design, and implementation of antipoverty strategies. Macro and micro approaches include individual counseling and prevention tactics, policy making, continua of care, community development, and community collaboration. The course is required for Shepherd Scholars.

**Prerequisites:** PVYS 2301.

**PVYS 3301 - Service-Learning Placement I**

Three credit hours. In this intensive fieldwork course, Shepherd Scholars will be placed with an agency in either an urban or rural poverty situation where they will be integrated into the work of that organization. Successful completion requires at least four weeks (160 contact hours) and both written and oral reflection presentations.

**Prerequisites:** PVYS 2301, PVYS 2302 and admission to the Shepherd Scholars program.

**PVYS 3302 - Service-Learning Placement II**

Three credit hours. Similar to PVYS 3301, this course offers Shepherd Scholars with an intensive fieldwork opportunity. Students will be placed with an agency in either an urban or rural poverty situation where they will be integrated into the work of that organization. Students successfully completing POLS 3201 may continue in that placement for this course with the approval of the program director and community mentor. Successful completion requires at least four weeks (160 contact hours) and both written and oral reflection presentations. **Prerequisites:** PVYS 2301, PVYS 2302, and PVYS 3301 and admission to the Shepherd Scholars program.

**PVYS 4301 - Seminar in Poverty Studies**

This capstone course is conducted as a seminar in which students play a lead role along with the instructor in discussions of readings, papers, and presentations. It is designed to challenge students to propose, research, and write a major paper on poverty and its reduction. Topics may derive from any relevant discipline and will be selected in consultation with a participating instructor who will serve as a preceptor.

## Race and Ethnicity

**RACE 2301 - Introduction to Race and Ethnicity**

This course provides an overview of the key concepts and issues in the interdisciplinary study of race and ethnicity. The course serves as an introduction to complex issues such as the social construction of race and ethnicity, white privilege, the role of media in that construction, the effect of immigration on conversations about race, individual and institutional discrimination, multiple differences and intersecting oppressions. Students will explore their own racial identities, biases, and prejudices. Course materials facilitate engagement in critical analysis of textual and statistical information from a variety of disciplinary sources. This course is required for the minor in Race and Ethnicity.

**RACE 4100 - Independent Study Race and Ethnicity**

One, Two, or Three credit hours. This course is available to students minoring in Race and Ethnicity only. For the student of superior ability who wishes to pursue research in the field. **Prerequisites:** Consent of instructor.

**RACE 4200 - Independent Study Race and Ethnicity**

One, Two, or Three credit hours. This course is available to students minoring in Race and Ethnicity only. For the student of superior ability who wishes to pursue research in the field. **Prerequisites:** Consent of instructor.

**RACE 4300 - Independent Study Race and Ethnicity**

One, Two, or Three credit hours. This course is available to students minoring in Race and Ethnicity only. For the student of superior ability who wishes to pursue research in the field. **Prerequisites:** Consent of instructor.

**RACE 4356 - History of Race and Ethnicity in America**

Three credit hours. A survey of the history of race and ethnicity in the United States from prehistory to present with a special focus on selected topics in the experience of African Americans, Asian Americans, European Americans, Latino Americans, and Native Americans. Dual listed in the Graduate Catalog as HIST/RACE 5356.

## Reading

### **READ 3322 - Foundations of Reading**

Three credit hours. This course introduces teacher candidates to the principles of literacy development, factors affecting literacy development, and different approaches to reading instruction. Focusing on phonemic awareness, phonics, fluency, vocabulary development, comprehension, and selection of appropriate materials to influence motivation for reading, teacher candidates will explore instructional strategies that address struggling readers as well as high-risk learners in the context of a balanced approach to literacy instruction. Candidates will be introduced to concepts in the Science of Reading as codified by the Arkansas Department of Education.

### **READ 4322 - Literacy Assessment of Students with Special Needs**

Three credit hours. This course provides candidates with the knowledge of current concepts and issues associated with literacy assessment ranging from kindergarten to grade twelve for students with special needs. Focusing on appropriate selection, administration, and interpretation of curriculum-based assessments, authentic assessments, and standardized reading assessments, candidates also will explore connections between referral and IEP processes, and RTI with attention to research-based intervention reading strategies embedded in field activities. **Prerequisites:** READ 3322.

## Religious Studies

### **RELS 2305 - World Religions**

Three credit hours. This course will examine the beliefs, practices, histories, and selected sacred texts of major Eastern and Western religions, including Hinduism, Buddhism, Confucianism, Daoism, Judaism, Christianity, and Islam. It will examine the ways in which religious texts and traditions represent total symbol systems and expressions of cultures, and it will emphasize themes that reflect common values across different religious perspectives while acknowledging key differences. **Prerequisites:** RHET 1311 recommended.

### **RELS 3300 - Theories of Religion**

Three credit hours. This course will familiarize students with a variety of theoretical approaches and methods used in the study of religions, both currently and historically. It also highlights central issues that arise in studying religions from the academic perspective, including but not limited to: the difficulties of defining religion, the differences between "insider" and "outsider" perspectives, the challenges present in comparing religions, and attempts to explain the origin of religion. **Prerequisites:** RHET 1311 recommended.

### **RELS 3320 - Christianity**

Three credit hours. A survey of major developments in the history of Christian thought from its origins in the New Testament through the Protestant Reformation.

**Prerequisites:** RELS 2305 or consent of instructor.

### **RELS 3330 - Religious Countercultures**

Three credit hours. A cross-cultural survey of sects and cults throughout history, emphasizing contemporary groups in America. Examination of relevant issues concerning cults; the definitions of sect and cult; the relationship between cults and main line religions; brainwashing, deprogramming, government regulation. Cross listed as ANTH 3366.

### **RELS 3333 - Reading Sacred Texts**

Three credit hours. This course is designed to provide both an opportunity to examine the texts of a particular religious tradition in detail and to introduce students to interdisciplinary methods for interpreting such texts.

### **RELS 3336 - Islam**

Three credit hours. An examination of the role of Islam as the primary cohesive element in the social, political, and cultural development of the modern Middle East. Comparison and contrast of Western and Middle Eastern perspectives on relevant current issues. **Prerequisites:** RELS 2305 or consent of instructor.

### **RELS 3338 - Religion and Modern South Asia**

Three credit hours. The role of religion (Hinduism, Buddhism, Islam, Christianity) in the formulation of South Asian responses to the processes of Anglicization, Westernization, and Modernization. Cross listed as HIST 3338.

### **RELS 3340 - Meditation Techniques**

Three credit hours. Theoretical framework for understanding the meditation experience, namely, Jung's depth psychology, yoga psychology, and Buddhist psychology; training in specific meditation techniques of various religious traditions, including Hatha Yoga, Zen, and the Silence, as well as the self-analysis of dreams. Cross listed as PSYC 3340.

### **RELS 3350 - Eastern Thought**

Three credit hours. Survey of the beliefs, practices, and group structures of the major Eastern religious and social traditions (including Hinduism, Mahayana and Zen Buddhism, Shintoism, and Confucianism). **Prerequisites:** 3 hours of Philosophy, or 3 hours of Religious Studies, or instructor consent.

### **RELS 3360 - Philosophy of Religion**

Three credit hours. Major issues in the philosophy of religion including the knowledge of God, the problem of evil, life after death, religious language and experience, and the relationship of faith and reason. **Prerequisites:** 3 hours of Philosophy, or 3 hours of Religious Studies, or instructor consent.

**RELS 3363 - Psychology of Religion**

Three credit hours. See PSYC 3363.

**RELS 3370 - Judaism**

Three credit hours. A survey of major developments in the history of Jewish thought from its origins in the Hebrew Bible through the present. **Prerequisites:** RELS 2305 or consent of instructor.

**RELS 4180 - Topics in Religion**

One, two, or three credit hours. Analysis of selected issues in religious studies. Course content will change. For descriptive title of the content, refer to the semester class schedule. **Prerequisites:** consent of instructor.

**RELS 4180 - Topics in Religion**

One, two, or three credit hours. Analysis of selected issues in religious studies. Course content will change. For descriptive title of the content, refer to the semester class schedule. **Prerequisites:** consent of instructor.

**RELS 4280 - Topics in Religion**

One, two, or three credit hours. Analysis of selected issues in religious studies. Course content will change. For descriptive title of the content, refer to the semester class schedule. **Prerequisites:** consent of instructor.

**RELS 4280 - Topics in Religion**

One, two, or three credit hours. Analysis of selected issues in religious studies. Course content will change. For descriptive title of the content, refer to the semester class schedule. **Prerequisites:** consent of instructor.

**RELS 4290 - Independent Study**

Two or three credit hours. Selective reading and a formal written project on a topic submitted by the student and approved by the instructor at a conference in advance of registration. Open only to students with demonstrated ability to write research papers of superior quality in religious studies. Applicants unknown to the instructor should submit academic transcripts and samples of their research papers in religious studies. **Prerequisites:** consent of instructor, see philosophy website for independent study guidelines.

**RELS 4313 - Apocalypse Now...and Then: A History of Apocalyptic Thought and Movements**

See HIST 4313.

**RELS 4315 - Religious History of the United States**

See HIST 4315.

**RELS 4321 - Religion, Society, and Culture**

Three credit hours. Introduction to the role of shamans, witches, diviners, cultic and magic belief systems, function of myth, ritual, religious symbolism, meaning of spirit possession, revitalization, and ancestor worship in tribal, peasant, and modern societies. Cross listed as ANTH 4321.

**RELS 4380 - Topics in Religion**

One, two, or three credit hours. Analysis of selected issues in religious studies. Course content will change. For descriptive title of the content, refer to the semester class schedule. **Prerequisites:** consent of instructor.

**RELS 4385 - Seminar in Major Religions**

Three credit hours. This course provides for a more in-depth examination of a particular religious tradition. The tradition is typically non-Western and varies by semester. Check with the department for details.

**RELS 4390 - Independent Study**

Two or three credit hours. Selective reading and a formal written project on a topic submitted by the student and approved by the instructor at a conference in advance of registration. Open only to students with demonstrated ability to write research papers of superior quality in religious studies. Applicants unknown to the instructor should submit academic transcripts and samples of their research papers in religious studies. **Prerequisites:** consent of instructor, see philosophy website for independent study guidelines.

## Rhetoric And Writing

**RHET 0310 - Composition Fundamentals**

Three credit hours. Practice in writing, with an emphasis on developing fluency and editing. This course does not fulfill the core curriculum requirement and is intended for students who are not ready for RHET 1311; RHET 0310 is taken concurrently with RHET 1311. Institutional credit only; final grades are A, B, C, or NC.

**RHET 0321 - Academic Literacy**

Three credit hours. Practice in academic writing and reading with an emphasis on developing strategies and skills for college success: reading and writing fluency, editing techniques, reading comprehension, and vocabulary development. This fulfills the requirement for developmental reading and writing, but does not fulfill a core curriculum requirement. Institutional credit only; final grades are A, B, C, or No Credit. This is a combined lecture/lab course.

**RHET 1110 - Composition Fundamentals Writing Laboratory(The University Writing Center)**

One credit hours. Individualized supplemental help for students enrolled in RHET 0310 or RHET 1311. Practice in basic grammar and writing skills. May be used as a refresher course before taking RHET 1311; may be used to prepare for composition test-outs. Graded CR/NC.

**RHET 1130 - Writing on Computers (The University Writing Center)**

One credit hours. A practical course for writers to use the computer in the composing process. Students will learn one word processing program well, integrate it into their individual writing processes, and use other software that supports writing on computers.

**RHET 1311 - Composition I**

Three credit hours. Practice in writing, with an emphasis on personal, expressive writing, as well as transactional writing. Students will focus on organizing and revising ideas and writing well organized, thoroughly developed papers that achieve the writer's purpose, meet the readers' needs, and develop the writer's voice. Final course grades are A, B, C, or NC. Students must complete this course with a grade of C or greater to take RHET 1312. (ACTS Course Number ENGL 1013)

**Prerequisites:** A minimum ACT English score of 19, a minimum SAT I verbal score of 450, RHET 0310, or RHET 0321.

**RHET 1312 - Composition II**

Three credit hours. Practice in writing, with an emphasis on academic forms. Students will focus on analysis, argumentation, research, and documentation writing. Final course grades are A, B, C, or NC. (ACTS Course Number ENGL 1023) **Prerequisites:** RHET 1311 with a C or greater or equivalent. Those students required by state law to enroll in RHET 0321 must successfully complete that course before enrolling in RHET 1312.

**RHET 1320 - Honors Composition**

Three credit hours. For students with superior achievement in English. Fulfills first year composition core curriculum requirement. Admission by invitation.

**RHET 2100 - Writing Laboratory (The University Writing Center)**

One credit hours. Individualized supplemental help for students enrolled in RHET 1312 or who have completed composition courses. May be used as a refresher course. Graded CR/NC.

**RHET 2312 - Advanced Composition**

Three credit hours. A course designed to offer the student advanced practice in essay and other academic writing forms; includes review of composition modes as well as grammar and mechanics. The course is especially appropriate for returning, transfer, and other students who want or need additional writing practice in preparation for performance in upper-level coursework, or students who wish additional writing practice before entering a writing major. **Prerequisites:** RHET 1312 or equivalent.

**RHET 3300 - Introduction to Research**

Three credit hours. Introduction to quantitative and qualitative research methods and the research process as applied to the study of written communication.

**Prerequisites:** RHET 1312 or the equivalent.

**RHET 3301 - Editing for Usage, Style, and Clarity**

Three credit hours. An introductory editing course that focuses on basic editing and proofreading skills. Course includes review of grammar, punctuation, and mechanics. Editing practice includes work with the student's own writing as well as secondary texts. **Prerequisites:** RHET 1311 and RHET 1312 or equivalents.

**RHET 3315 - Persuasive Writing**

Three credit hours. A theoretical and practical introduction to the art of written persuasion. Emphasis on persuasive techniques and their ethical consequences.

**Prerequisites:** RHET 1312 or the equivalent.

**RHET 3316 - Writing for the Workplace**

Three credit hours. Study and practice of workplace communication required of professionals who write as part of their jobs. Emphasis on developing a sense of audience and purpose, writing in teams, and learning problem solving strategies. Intensive practice writing workplace documents such as memos, letters, email, résumés, and reports. **Prerequisites:** RHET 1312 or the equivalent.

**RHET 3317 - Nonfiction**

Three credit hours. Study and practice of nonfiction writing to explore, investigate, and explain ideas, experiences, and perspectives. Emphasis on style, voice, revision, and collaboration. **Prerequisites:** RHET 1312 or the equivalent.

**RHET 3320 - Contemporary Issues in Language and Rhetoric**

Three credit hours. A study of contemporary issues in language research from rhetorical and social perspectives. **Prerequisites:** RHET 1311 and RHET 1312 or equivalents.

**RHET 3322 - Introduction to Professional and Technical Writing**

An introduction to the Rhetoric and Writing major and professional and technical writing theory and practice. **Prerequisites:** RHET 1312 or the equivalent.

**RHET 3326 - Technical Writing**

Three credit hours. Intensive instruction in the theory and practice of technical communication. Emphasis on understanding audience, establishing a clear purpose, using technology, acquiring a sense of the profession, and developing strategies for successfully producing individual and collaborative documents. Practice writing genres such as reports, instructions, descriptions, specifications, and proposals. **Prerequisites:** RHET 1312 or the equivalent.

**RHET 4100 - Independent Study**

One or two credit hours. For the student of superior ability who wishes to undertake an independent writing project.

**Prerequisites:** senior standing, 12 hours of upper-level RHET courses.

**RHET 4190 - Colloquium in Rhetoric and Writing**

One credit hours. Focuses on professional development and synthesizing the major concepts within rhetorical/writing theory. **Prerequisites:** senior standing.

**RHET 4191 - Writing Internship**

One or two credit hours. On-the-job training for students planning to enter a writing career or teach writing. For assignment, see the director of the University Writing Center in the Department of Rhetoric and Writing. CR/NC grading optional. **Prerequisites:** junior standing, consent of director.

**RHET 4200 - Independent Study**

One or two credit hours. For the student of superior ability who wishes to undertake an independent writing project. **Prerequisites:** senior standing, 12 hours of upper-level RHET courses.

**RHET 4202 - Teaching Writing in Secondary Schools**

Two credit hours. A methods course team-taught by faculty from the Departments of English and Rhetoric and Writing. Topics include making classroom presentations, managing small-group work, responding to student writing, evaluating and using secondary school literature and composition textbooks, and learning approaches to teaching literature and writing. Taken in conjunction with ENGL 4202. Dual listed in the Graduate Catalog as RHET 5202. **Prerequisites:** RHET 1312.

**RHET 4291 - Writing Internship**

One or two credit hours. On-the-job training for students planning to enter a writing career or teach writing. For assignment, see the director of the University Writing Center in the Department of Rhetoric and Writing. CR/NC grading optional. **Prerequisites:** junior standing, consent of director.

**RHET 4301 - Theories of Rhetoric and Writing**

Three credit hours. A study of theories of rhetoric and writing. Dual listed in the Graduate Catalog as RHET 5301. **Prerequisites:** RHET 3315 with a grade of C or greater, or consent of instructor.

**RHET 4304 - Technical Style and Editing**

Three credit hours. Studies the nature of technical communication and its editing needs. Practice in editing for correctness, consistency, accuracy, and completeness—accomplished by establishing levels of edit, making multiple passes, and setting up/keeping style sheets. Major project for "real-world" client gives students opportunity to put into practice what they've learned. Dual listed in the Graduate Catalog as RHET 5304. **Prerequisites:** RHET 3301 with a grade of C or better, or consent of instructor.

**RHET 4305 - Document Design**

Three credit hours. Study and practice of the use of visual elements in technical communication. Emphasis on typography, page layout, data displays, pictorial communication, and usability testing for both print and online documents. Dual listed in the Graduate Catalog as RHET 5305. **Prerequisites:** RHET 3316 or RHET 3326.

**RHET 4306 - Writing for Business and Government**

Three credit hours. Theory of and practice in writing for government and business organizations. Topics will include training manuals, job descriptions, policy writing, records, and correspondence. Dual listed in the Graduate Catalog as RHET 5306. **Prerequisites:** RHET 3316 or RHET 3326 with a grade of C or greater, or consent of instructor.

**RHET 4307 - Writing Software Documentation**

Three credit hours. Study and practice of writing documentation for computer software, including printed manuals, tutorials, reference guides, and online help systems. Emphasis on analyzing prospective users and their tasks, interviewing subject matter experts, developing help for different levels of users, writing user-friendly text, editing documentation for style and clarity, and working on a documentation team. Intensive practice with RoboHELP HTML software for composing online help. Dual listed in the Graduate Catalog as RHET 5307. **Prerequisites:** RHET 3316 or RHET 3326 with a grade of C or greater, or consent of instructor.

**RHET 4315 - Advanced Persuasive Writing**

Three credit hours. Intensive study of classical and new rhetorics. Emphasis on solving rhetorical problems. Dual listed in the Graduate Catalog as RHET 5315. **Prerequisites:** RHET 3315 with a grade of C or greater, or permission of the instructor.

**RHET 4317 - The Personal Essay**

This course introduces students to the study and practice of the personal essay as a genre with an emphasis on form, techniques, and research methods appropriate to shorter nonfiction. **Prerequisites:** RHET 3317. Prerequisite for RHET 5317 is graduate standing.

**RHET 4318 - Memoir**

This course introduces students to the study and practice of memoir as a genre with an emphasis on narrative structures, techniques, and research methods appropriate to extended nonfiction. **Prerequisites:** RHET 3317. Prerequisite for RHET 5318 is graduate standing.

**RHET 4321 - Editing for Publication**

Three credit hours. A hands-on experience in preproduction editing for publication. Includes study of the editing process, manuscript acquisition, the peer review process, manuscript editing, editorial correspondence, and preproduction manuscript preparation. Dual listed in the Graduate Catalog as RHET 5321. **Prerequisites:** RHET 3301.



**RHET 4322 - Advanced Editing**

Three credit hours. Topics include editing graphics, illustrations, and document design; editing for comprehension and organization; editing text electronically, applying styles to text, and creating templates; studying legal and ethical issues in editing; acquiring project management and effective teamwork skills. Students work with actual clients and their document needs. Dual listed in the Graduate Catalog as RHET 5322. **Prerequisites:** RHET 4304 or RHET 4321, or comparable skills as determined by the instructor.

**RHET 4323 - Production for Editors**

Three credit hours. Designed to help future editors learn about and participate in the production of a book length collection of nonfiction essays. Class focuses on creation of table of contents, arrangement of essays into thematic sequences, book layout and design using high-end desktop publishing software, final proofreading, page proofing, and work with printers. Dual listed in the Graduate Catalog as RHET 5323 **Prerequisites:** RHET 3301 with a grade of C or better or consent of the instructor.

**RHET 4324 - Publishing Inside Out**

Publishing Inside Out introduces students to the publishing process and provides insight into the roles and career paths available in publishing today. The course offers guided practice in conceiving and developing a proposal for a nonfiction book and teaches core skills in content editing, market research, and project development. Students may repeat for graduate credit.

**RHET 4325 - Legal Writing, Reasoning, and Argument**

Three credit hours. Designed for all majors, particularly for prelaw students and writers interested in the discourse of the law. Students will read a variety of judicial decisions on current issues such as Freedom of Speech and complete several relatively short assignments focusing on legal reasoning and argument. Students will also learn how to find information on legal decisions and issues. Dual listed in the Graduate Catalog as RHET 5325.

**Prerequisites:** RHET 3315 or permission of instructor.

**RHET 4326 - Technology of the Book**

This course presents an overview of the history of book printing and publishing technologies from 1450 to present. Students will explore the implications of different publishing technologies for literacy, learning, and civic participation, focusing particularly on current debates about the shift from print to digital publishing. Students will evaluate changes in the responsibilities of authors, editors, and publishers as they explore the future of the book, including print and digital books, and who will control the publishing process and profit from it. Students may repeat for graduate credit. Dual listed in the Graduate Catalog as RHET 5326.

**RHET 4345 - Topics in Persuasive Writing**

Three credit hours. Theory and practice of persuasion with topics varying each semester. Dual listed in the Graduate Catalog as RHET 5345. **Prerequisites:** RHET 3315 with a grade of C or greater, or consent of the instructor.

**RHET 4346 - Topics in Technical Communication**

Three credit hours. The theory and practice of technical communication; topics vary each semester. Dual listed in the Graduate Catalog as RHET 5346. **Prerequisites:** RHET 3316 or RHET 3326 with a grade of C or greater, or consent of the instructor.

**RHET 4347 - Topics in Nonfiction Writing**

Three credit hours. Theory and practice of nonfiction writing with topics varying each semester. Dual listed in the Graduate Catalog as RHET 5347. **Prerequisites:** RHET 3317 with a grade of C or greater, or consent of the instructor.

**RHET 4371 - Writing on the Web**

Three credit hours. Ability to compose effective technical writing and/or computer competency. Introduction to basic web design and construction; course emphasizes audience(s), purpose(s), and accessibility issues such as web site navigation, multiple browsers, and ADA compliance. Dual listed in the Graduate Catalog as RHET 5371. **Prerequisites:** RHET 3316 or RHET 3326 with a grade of C or greater, or consent of instructor.

**RHET 4372 - Usability Testing and Design**

Three credit hours. An introduction to principles of user experience (UX) design, usability, and usability testing in the context of new media. Topics covered include interaction design, audience and requirements analysis, prototyping, document aesthetics, and usability testing procedures. Dual listed in the Graduate Catalog as RHET 5372. **Prerequisites:** RHET 3316, RHET 3326, IFSC 1310, RST 2318, or consent of instructor.

**RHET 4375 - Grant Writing**

Three credit hours. Survey, theory and practice of grant writing (solicited and non-solicited) and the philanthropic sector. Topics include, but are not limited to, finding and researching a foundation, resources for each stage of the grant writing process, developing a problem statement, creating objectives and goals, creating a budget, and working with foundations. Dual listed in the Graduate Catalog as RHET 5375. **Prerequisites:** RHET 3316 or RHET 3326 with a grade of C or greater, or consent of the instructor.

**RHET 4395 - Cooperative Education**

Three credit hours. Designed to complement and extend the classroom learning experience through the application of theoretical concepts in a professional workplace. Exact number of work hours, activities, and responsibilities depend on the work experience and must be specified in a written agreement between the employer and student in coordination with the Office of Cooperative Education.

**Prerequisites:** RHET 3315, RHET 3316, or RHET 3317; recommendation of the departmental cooperative education coordinator.

**RHET 4396 - Cooperative Education**

Three credit hours. Designed to complement and extend the classroom learning experience through the application of theoretical concepts in a professional workplace. Exact number of work hours, activities, and responsibilities depend on the work experience and must be specified in a written agreement between the employer and student in coordination with the Office of Cooperative Education.

**Prerequisites:** RHET 3315, RHET 3316, or RHET 3317; recommendation of the departmental cooperative education coordinator.

**RHET 4398 - Senior Writing Project**

Three credit hours. Student will complete either a portfolio or a final project written in cooperative arrangement with advisor from both major and minor department.

**Prerequisites:** senior writing major or minor with 12 hours of upper-level courses.

**RHET 4399 - Senior Writing Project**

Three credit hours. Student will complete either a portfolio or a final project written in cooperative arrangement with advisor from both major and minor department.

**Prerequisites:** senior writing major or minor with 12 hours of upper-level courses.

## Secondary Education

**SCED 1101 - FE: Step 1-Inquiry Approaches to Teaching**

An introduction to the theory and practice necessary to design and deliver quality inquiry-based science and mathematics instruction that provides the scaffold for the early field experience. In this one hour credit course, the instructor or master teacher and the elementary school mentor teacher emphasize both inquiry and classroom management techniques. This course satisfies the first year colloquium requirement. Step 1 invites candidates to explore teaching as a career. With the guidance of the instructor, in Step 1, candidates teach science or math lessons in upper elementary classrooms to obtain firsthand experience with planning and implementing inquiry-based curriculum. Master teachers teach Step 1, so candidates have direct access to accomplished teachers holding certificates who love teaching and who believe that teaching is a rewarding career choice. Local public school elementary classrooms provide the future teachers with a first taste of teaching in a supportive, diverse environment. Candidates shall be required to submit to a criminal background check.

**SCED 1101 - Step 1: Inquiry Teaching (FYC)**

One credit hours. Prepare, implement and reflect on lessons designed to teach elementary students to obtain and analyze data. (qualifies as a Freshman Experience Course)

**SCED 1102 - Inquiry-Based Lesson Design (Step 2)**

This course (Step 2) continues the exploration of teaching careers in a middle school environment that began in SCED/IGSC 1101 (Step 1). In this one hour credit course, students observe a lesson taught by a middle school mentor teacher, and then plan and teach three inquiry-based middle school lessons with a partner. Students build on and practice lesson design skills developed in the Step 1 course while also becoming familiar with science or mathematics curricula for the middle school setting. Students demonstrate their own content knowledge in developing the lesson plans. As a result of their classroom experiences, students reflect on the observation and their teaching. At the end of the Step 2 experience, students are generally ready to make a decision about whether they want to pursue a pathway to teacher certification.

**Prerequisites:** SCED/IGSC 1101.

**SCED 1102 - Step 2: Inquiry Lesson Design**

One credit hours. Prepare, implement and reflect on lessons aligned with district math and/or science curriculum at the middle/junior high school level.

**SCED 3383 - Knowing and Learning**

Three credit hours. Explore the implications of learning theories on individual learning, social (classroom) learning, and within the context of larger social justice issues.

### **SCED 3383 - Knowing and Learning**

Three credit hours. The goal of this course is to develop a powerful tool kit of approaches to knowing and learning in mathematics and science. This course focuses on issues of what it means to learn and know science and mathematics. Topics covered will include: standards of knowing, structures for knowing and learning, cross-disciplinary learning, concepts of assessment, and utilities of technology. **Prerequisite or Corequisite:** SCED/IGSC 1102 and admission to the secondary education minor for science and mathematics.

### **SCED 3384 - Classroom Interactions**

Three credit hours. Apply theoretical and practical frameworks to analyze various instruction activities, focus on content development through teacher-student, student-student, and group interactions.

### **SCED 3384 - Classroom Interactions**

Three credit hours. An important focus of the course is on building awareness and understanding social equity issues and their effects on learning. Candidates are provided with frameworks for teaching students of diverse backgrounds equitably. Classroom Interactions is centered around a close examination of the interplay between teachers, students, and content, and how such interactions enable students to develop deep conceptual understanding. **Prerequisites:** SCED/IGSC 1102 grade of C or greater and admission to the secondary education minor for science and mathematics.

### **SCED 4385 - Perspectives**

Perspectives on Science and Mathematics explores a selection of topics and episodes in the history of science and mathematics. The course illustrates how knowledge has often emerged through many struggles, against obstinate resistance, and within cultural, religious, and social structures. Candidates are brought to understand that science is not merely a body of facts, theories, and techniques; science involves diverse processes by which it is continually generated and reformulated. **Prerequisites:** SCED/IGSC 1102 and admission to the secondary education minor for science and mathematics.

### **SCED 4387 - Project Based Instruction**

Three credit hours. Design, implement and evaluate authentic learning processes (challenge-based, problem-based, project-based, etc.).

### **SCED 4387 - Project Based Instruction**

Through a dynamic process of investigation and collaboration and using the same processes and technologies that scientists, mathematicians, and engineers use, candidates work in teams to formulate questions, make predictions, design investigations, collect and analyze data, make products and share ideas. Candidates learn fundamental science and mathematical concepts and principles that they apply to their daily lives. **Prerequisites:** SCED/IGSC 1102 and admission to the secondary education minor for science and mathematics.

### **SCED 4689 - Apprentice Teaching**

Engage in an intensive, culminating experience that equips students with the tools needed for their first teaching experience.

### **SCED 4689 - Apprentice Teaching**

The purpose of the Apprentice Teaching course is to offer candidates a culminating experience that provides them with the tools needed for their first teaching position. In Apprentice Teaching, candidates are immersed in the expectations, processes, and rewards of teaching. Apprentice Teaching is comprised of field experience, teaching in local public secondary schools, and a weekly seminar, which brings apprentice teachers together with university master teachers to share experiences and work on solutions to problems they encounter in the field.

**Prerequisites:** SCED/IGSC 1102.

## **Scholars**

### **SCHL 1101 - Scholars Colloquium I**

Weekly discussions with faculty and community representatives and a time for advising, testing, and other organizational aspects of the program. **Prerequisites:** admission to the Scholars Program or consent of the program director.

### **SCHL 1102 - Scholars Colloquium II**

Weekly discussions with faculty and community representatives and a time for advising, testing, and other organizational aspects of the program. **Prerequisites:** admission to the Scholars Program or consent of the program director.

### **SCHL 1300 - Rhetoric and Communication I**

Logic combined with oral and written communication; critical examination of ideas and facts in a rhetorical context; and effective communication. **Prerequisites:** admission to the Scholars Program or consent of the program director.

### **SCHL 1301 - Rhetoric and Communication II**

Logic combined with oral and written communication; critical examination of ideas and facts in a rhetorical context; and effective communication. **Prerequisites:** admission to the Scholars Program or consent of the program director.

### **SCHL 1320 - Science and Society I**

Science as a mode of thought and a method of inquiry; impact of scientific thought and scientific technological discoveries on humanity. **Prerequisites:** admission to the Scholars Program or consent of the program director.

### **SCHL 1321 - Science and Society II**

Science as a mode of thought and a method of inquiry; impact of scientific thought and scientific technological discoveries on humanity. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 2300 - History of Ideas I**

Three recurring themes: humanity's conceptions of and perceived relationships to the divine; humanity's conceptions of reality in general and perceived methods of knowing this reality; and humanity's conceptions of the roles people do and should play as individuals and as members of the social order. These themes are studied in both Western and non-Western cultures, using the methods of history, philosophy, and the study of literature. This is a three-semester course; all three semesters must be taken. The normal sequence is II, III, I. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 2301 - History of Ideas II**

Three recurring themes: humanity's conceptions of and perceived relationships to the divine; humanity's conceptions of reality in general and perceived methods of knowing this reality; and humanity's conceptions of the roles people do and should play as individuals and as members of the social order. These themes are studied in both Western and non-Western cultures, using the methods of history, philosophy, and the study of literature. This is a three-semester course; all three semesters must be taken. The normal sequence is II, III, I. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 2310 - Individual and Society I**

Individual and group relationships, combining views from political science, anthropology, psychology, literature, and history. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 2311 - Individual and Society II**

Individual and group relationships, combining views from political science, anthropology, psychology, literature, and history. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 3150 - Scholars Seminar**

Special courses on topics that vary from semester to semester. Scholars seminars will explore issues in depth from an interdisciplinary perspective. These seminars involve active modes of learning (such as reports, projects, or fieldwork); enrollment is normally limited to 15. Non-scholars students are admitted when space is available. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 3250 - Scholars Seminar**

Special courses on topics that vary from semester to semester. Scholars seminars will explore issues in depth from an interdisciplinary perspective. These seminars involve active modes of learning (such as reports, projects, or fieldwork); enrollment is normally limited to 15. Non-scholars students are admitted when space is available. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 3300 - History of Ideas III**

Three recurring themes: humanity's conceptions of and perceived relationships to the divine; humanity's conceptions of reality in general and perceived methods of knowing this reality; and humanity's conceptions of the roles people do and should play as individuals and as members of the social order. These themes are studied in both Western and non-Western cultures, using the methods of history, philosophy, and the study of literature. This is a three-semester course; all three semesters must be taken. The normal sequence is II, III, I. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 3310 - Individual and the Creative Arts I**

An examination of the role of artistic endeavors in enriching human life, including material from art, architecture, music, dance, literature, and theatre. Students must attend and discuss concerts, plays, exhibits, and related events. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 3311 - Individual and the Creative Arts II**

An examination of the role of artistic endeavors in enriching human life, including material from art, architecture, music, dance, literature, and theatre. Students must attend and discuss concerts, plays, exhibits, and related events. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 3350 - Scholars Seminar**

Special courses on topics that vary from semester to semester. Scholars seminars will explore issues in depth from an interdisciplinary perspective. These seminars involve active modes of learning (such as reports, projects, or fieldwork); enrollment is normally limited to 15. Non-scholars students are admitted when space is available. **Prerequisites:** admission to the Scholars Program or consent of the program director.

**SCHL 4399 - Independent Study**

This course is designed for students engaged in research leading to the Scholars final project. Topic and thesis committee must be approved by the Scholars Policy Council. **Prerequisites:** admission to the Scholars Program or consent of the program director.

## Sociology

**SOCI 2300 - Introduction to Sociology**

Three credit hours. Introduction to sociological concepts. Analysis of society, particularly the study of human organization. An overview of the theories and methods utilized in the discipline is provided and will be used as a framework for critical analysis. Students will learn to investigate group and societal connections in major social institutions-religion, family, politics, economics, education. (ACTS Course Number SOCI 1013) **Prerequisites:** Recommended: RHET 1311.

**SOCI 3300 - Sociology of Sports**

Three credit hours. An overview of sports in the contemporary United States; covers the athletes, the spectators (on site, television, and radio), the therapeutic functions for individuals, and the impact of sports on other institutions in society. Explores the commercialization of sports and its effects on other economic activities.

**SOCI 3312 - North American Indians**

Three credit hours. A study of Indian cultures from the Arctic to northern Mexico from immediately after European contact to the present. **Prerequisites:** ANTH 2316.

**SOCI 3316 - Japanese Culture and Society**

Three credit hours. The anthropological and sociological study of Japanese culture and society; covers Japanese history, major social institutions, and aspects of culture that are unique to Japan. **Prerequisites:** ANTH 2316 or SOCI 2300.

**SOCI 3318 - Sexuality, Society, and Culture**

See ANTH 3318.

**SOCI 3330 - Racial and Minority Groups**

Three credit hours. Analysis of social processes in a pluralistic society, with emphasis on the cultural contributions and ethos of the different ethnic groups. **Prerequisites:** SOCI 2300.

**SOCI 3333 - Women in a Changing Society**

Three credit hours. An analysis of the socialization of women for their ascribed roles, with emphasis on the molding forces of culture and the changes taking place in women's roles in contemporary, US, and other societies. **Prerequisites:** SOCI 2300.

**SOCI 3334 - Social Problems**

Three credit hours. Application of sociological principles to the study of social problems, such as juvenile delinquency, sex-based inequality, educational systems, ethnic groups, ethnic group conflict, crime, industrial conflict and unemployment, poverty, and the maintenance of a free society. **Prerequisites:** SOCI 2300.

**SOCI 3335 - Sociology of Deviant Behavior**

Three credit hours. A survey of deviant behavior in modern society. Emphasis on the theories and causes of deviant behavior, including societal reactions and deviant action and reaction in the contemporary United States. Emphasis on the various theoretical orientations used in sociology today. **Prerequisites:** SOCI 2300.

**SOCI 3336 - Criminology**

Three credit hours. The nature of criminal deviation, theories of causations, processes of criminal justice, penal and correctional methods and institutions. **Prerequisites:** SOCI 2300.

**SOCI 3337 - Juvenile Delinquency**

Three credit hours. Juvenile delinquent behavior, problems, theory, cause, control, and prevention. **Prerequisites:** SOCI 2300.

**SOCI 3340 - Experiences of Black Americans**

Three credit hours. The experiences of blacks in America are subdivided into significant periods with corresponding motifs. Attempts will be made to conceptualize the major influences from each motif-period in the struggle of blacks for sociopolitical and economic equality in a dominantly white society. **Prerequisites:** SOCI 2300.

**SOCI 3341 - Urban Sociology**

Three credit hours. Analysis of elements of change in cities and suburbs in contemporary society. Social problems related to urbanization and urban centers. **Prerequisites:** SOCI 2300.

**SOCI 3343 - Social Stratification**

Three credit hours. Analysis of selected theories of stratification, various lifestyles, other bases of social differentiation, and their consequences for individuals and society. **Prerequisites:** SOCI 2300.

**SOCI 3346 - Sociology of the Family**

Three credit hours. The family as a major unifying force for the individual, the community, and the total society, with emphasis on parental and marital dynamics; analysis of the changes associated with the emergence of urban industrial societies. **Prerequisites:** SOCI 2300.

**SOCI 3350 - Family Violence**

Three credit hours. A consideration of abuse, neglect, and conflict within the family. Review of basic theories of interpersonal violence and conflict resolution. Focus on abuse of children, siblings, spouses, and elders. Discussion of social policy responses and appropriate interventions.

**SOCI 3370 - The Sociology of Mental Health**

Three credit hours. The cultural, social, and social-psychological aspects of mental health. Examination of issues such as who is normal, how one is declared abnormal, theories of mental health and illness, and various modes of treatment.

**SOCI 3376 - Sociology of Health and Illness**

Three credit hours. Sociological theory and research related to social epidemiology and to the organization of efforts to cope with illness and disease. **Prerequisites:** SOCI 2300.

**SOCI 3381 - Social Statistics**

Three credit hours. Basic statistical techniques and their corresponding theoretical premises, which are often used in statistical reasoning in sociology. Qualitative variables, characteristics of attributes, measures of their variation, correlation, and tests of significance are stressed. **Prerequisites:** SOCI 2300. Recommended: MATH 1301 or equivalent.

**SOCI 3383 - Classical Sociological Theory**

Three credit hours. The conceptual and historical framework of classical sociological theories will be considered. Special emphases will be given to twentieth-century theory and the philosophical underpinnings of sociological theory. **Prerequisites:** SOCI 2300.

**SOCI 3384 - Contemporary Sociological Theory**

Three credit hours. Introduction to and critical examination of contemporary sociological theory. The course offers an overview of the concepts, methods, and theoretical perspectives employed by contemporary sociologists. Students are encouraged to take this course after completing SOCI 3383. **Prerequisites:** SOCI 2300.

**SOCI 3385 - Research Methods**

Three credit hours. Methods of research in sociology; trends in methodology and use of computers in processing data and presentation of research reports. **Prerequisites:** SOCI 2300. Recommended: MATH 1301 or equivalent.

**SOCI 3392 - Environmental Sociology**

Three credit hours. The environment viewed from a sociological perspective. The environmental movement and issues, such as the transition to an ecologically sound society, as they relate to the social structure of United States society. **Prerequisites:** SOCI 2300.

**SOCI 4190 - Independent Study**

One, two, or three credit hours. Advanced assignments in selected areas. **Prerequisites:** SOCI 2300, 3181, SOCI 3381, SOCI 3383 or SOCI 3384, SOCI 3385, 3185 or 15 hours in departmental courses, senior standing, or consent of chairperson.

**SOCI 4290 - Independent Study**

One, two, or three credit hours. Advanced assignments in selected areas. **Prerequisites:** SOCI 2300, 3181, SOCI 3381, SOCI 3383 or SOCI 3384, SOCI 3385, 3185 or 15 hours in departmental courses, senior standing, or consent of chairperson.

**SOCI 4320 - Sociocultural Change**

See ANTH 4320.

**SOCI 4321 - Religion, Society, and Culture**

See ANTH 4321.

**SOCI 4328 - Internship**

Three credit hours. Practical experience consisting of at least 90 hours of supervised work in a community agency or any other context of sociological interest. The objective is for students to apply theoretical orientations to real world situations and to develop working skills. May be repeated one time. **Prerequisites:** SOCI 2300, senior standing, or consent of chairperson.

**SOCI 4330 - Political Sociology**

Three credit hours. The sociological study of the United States political economy. Sociological theories and concepts applied to the analysis of various aspects of political theory and behavior. **Prerequisites:** SOCI 2300.

**SOCI 4332 - Population Analysis**

Three credit hours. Population growth; description of population dynamics; analysis of economic, social and political, and ecological implications of population growth or decrease. **Prerequisites:** SOCI 2300.

**SOCI 4353 - The Sociology of Developing Nations**

Three credit hours. A study of the socioeconomic characteristics of third world nations with emphasis on the sociocultural values and dynamics relevant to economic development theories and programs. **Prerequisites:** SOCI 2300.

**SOCI 4365 - Sociology of Organizations**

Three credit hours. Examination of a variety of complex organizations in modern society: schools, hospitals, corporations, unions, universities, and government. Organizational structures and processes are analyzed with emphasis on interorganizational and organization-environment relations. **Prerequisites:** SOCI 2300.

**SOCI 4387 - Senior Capstone Seminar**

Capstone experience designed to review and apply fundamentals of sociological understanding and research. **Prerequisites:** SOCI 2300, SOCI 3381, SOCI 3383 or SOCI 3384, SOCI 3385, and senior standing.

**SOCI 4390 - Independent Study**

One, two, or three credit hours. Advanced assignments in selected areas. **Prerequisites:** SOCI 2300, 3181, SOCI 3381, SOCI 3383 or SOCI 3384, SOCI 3385, 3185 or 15 hours in departmental courses, senior standing, or consent of chairperson.

**SOCI 4393 - Sociology Internship in the SNRC**

Students will work under the direction of the directors of the SNRC in areas **Prerequisites:** declared major, 60 hours of course work completed, consent of the department chairperson and director of the Sequoyah National Research Center (SNRC).

## Social Work

**SOWK 1301 - Introduction to Social Work**

Three credit hours. This course focuses on the major concepts and principles of professional social work, including: the development of social welfare; the history of social work; the knowledge, skills, and value base of social work; models of social work methods; and current social work practice applications. The course also looks at the basis of knowledge from which the theories of social justice and diversity spring and lays a foundation for social workers' professional entry into both public and private arenas.

**SOWK 3302 - Social Work and Diversity**

Three credit hours. This course focuses on the strengths and challenges faced by different groups including but not limited to gay, lesbian, and bisexual individuals; people of color; people with disabilities; religious minorities; and the elderly. Students will learn about the characteristics of culturally competent social work practice with diverse populations and the knowledge, attitudes, and skills for working with different population groups. **Prerequisites:** formal admission to the social work program and completion of SOWK 1301 with a grade of "C" or above.

**SOWK 3303 - Human Behavior in the Social Environment I**

Three credit hours. Part one of a two-course sequence, this course provides students with the content necessary to understand the complexities of human development and behavior. Students learn to evaluate various social environmental influences that affect human behavior and functioning as well as the ways in which the social environment can impede or promote well-being. Particular attention is paid to life span development of infancy, early childhood and adolescence as well as highlighting issues of oppression, privilege and discrimination.

**Prerequisites:** formal admission to social work and SOWK 1301 with a grade of "C" or above.

**SOWK 3304 - Human Behavior in the Social Environment II**

Three credit hours. Part two of a two-course sequence, this course continues to analyze theories of the development and behavior of individuals, families, communities, groups, and organizations, as well as the interactions of these systems with and among one another in larger sociocultural environments. Particular attention is paid to life span development of young adulthood, middle adulthood and older adulthood. **Prerequisites:** formal admission to social work and SOWK 1301 and SOWK 3303 with a grade of "C" or above.

**SOWK 3313 - Social Welfare Policy**

Three credit hours. Part one of a two-course sequence, this course examines policymaking in the governmental context. The process at the local, state, regional and national levels will be reviewed and service and benefits entitlements provided under these policies will be summarized. The history, organization, guiding principles and resulting programs that govern major social welfare institutions will be explored. Theories of social justice will be studied to understand the phrasing of policy claims and their assessment. **Prerequisites:** Formal admission to the social work program or human services minor and SOWK 1301 with a grade of "C" or above.

**SOWK 3314 - Social Welfare Policy II**

Three credit hours. Part two of a two-course sequence, this course explores topics such as (1) history and current structures of social welfare services, (2) the role of policy in service delivery and in social work practice, (3) attainment of individual and social well being, and (4) comparative and international social welfare. The course also emphasizes understanding of current developments in social welfare, factors affecting the structure and dynamics of social welfare policies/services as well as understanding the role of the social work profession within that framework. Additionally, models for analyzing social welfare policy are introduced, and students apply these models to past policy decisions and current issues.

**Prerequisites:** formal admission to social work and SOWK 1301 and SOWK 3313 with a grade of "C" or above.

**SOWK 3315 - Policy Practice**

Three credit hours. Training student social workers to engage in policy practice. Oriented to the creation of the professional skills associated with policy action. Conceptualizes policy action as a series of skill areas that start with problem identification and analysis and conclude with policy proposal, action planning, and mobilization of political and public support. **Prerequisites:** SOWK 3313, SOWK 3314, and formal admission to the social work program.

**SOWK 3322 - Methods of Social Work Research**

An overview of the approaches to and uses of research in generalist social work practice. Emphasis placed on the practice-research link with a focus on conducting practice and program evaluation within a social work agency setting. Ethical and human diversity issues are considered throughout the course. **Prerequisites:** MATH 1302 or MATH 1315, and formal admission to the social work program.

**SOWK 3331 - Social Work Practice I**

Three credit hours. This is the first course in a three-course practice sequence, introduces the student to therapeutic relationship building, interviewing, and client-system assessment. The primary objective of the sequence is to prepare students to engage in culturally-competent, family-centered practice which incorporates a strengths perspective needed for practice with individuals, families, groups, organizations, and communities.

**Prerequisites:** SOWK 3303, and formal admission to the social work program.

**SOWK 3381 - Statistics for Social Workers**

Three credit hours. This course is an introduction to statistics and their use in analyzing and interpreting data. The course is designed to teach students statistics applicable to social work practice and decision-making. In particular, it is an introduction to probability, descriptive statistics, and beginning inferential statistics. The course covers basic descriptive statistics and introduces the student to hypothesis testing and bivariate statistics. Students will use the knowledge of statistics learned in this course to interpret and critique statistical analyses published in journal articles. Students will also analyze real data, interpret the findings and write reports.

**Prerequisites:** SOWK 1301, formal admission to the social work program.

**SOWK 4190 - Independent Study**

One credit hours. Advanced study and assignments in selected areas of social work. **Prerequisites:** SOWK 1301, formal admission to the social work program, and consent of instructor.

**SOWK 4212 - Field Seminar I**

Two credit hours. Field Seminar I is the first of a two course seminar that provides the student with the opportunity to integrate knowledge and insights developed in the classroom by exploring the field experience through the group process. The practice model of engagement, assessment, planning, implementation, evaluation and termination is the basis for student learning and self-evaluation. This course introduces the student to "use of self" within the group context and utilizes presentations, case consultations, group process, agency resources, ethical dilemmas, and personal development to achieve professional awareness and identity. Student must receive a "B" or higher to move on to Field Seminar II.

**Prerequisites:** formal admission to BSW program; a "C" or better in SOWK 1301, SOWK 3303, SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3302, SOWK 3331; a 2.5 cumulative GPA in all social work courses taken to date; a 2.5 overall GPA; and formal admission to the Field Experience. **Corequisites:** SOWK 4341/SOWK 4541.

**Prerequisite or Corequisite:** SOWK 4332.

**SOWK 4213 - Field Seminar II**

Two credit hours. Field Seminar II is the second of two seminars that provide the student with the opportunity to integrate knowledge and insights developed in the classroom by exploring the field experience through the group process. The Generalist Intervention Model of engagement, assessment, planning, implementation, evaluation and termination is the basis for student learning and self-evaluation. Seminar II builds on the strengths and experience of Seminar I to further student development toward full integration of knowledge, skills and values in generalist practice. Group discussion and process, the basis and coordination of skills, establishment of values, collaboration with colleagues, and community visits provide the framework to identify as a professional social worker. Student must receive a "B" or higher to move on to graduate. **Prerequisites:** formal admission to BSW program; a "C" or better in SOWK 1301, SOWK 3303,

SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3302, SOWK 3331; a "B" in SOWK 4212 and SOWK 4341/SOWK 4541; a 2.5 cumulative GPA in all social work courses taken to date; a 2.5 overall GPA; and formal admission to the Field Experience. **Corequisites:** SOWK 4342/SOWK 4542. **Prerequisite or Corequisite:** SOWK 4333.

**SOWK 4290 - Independent Study**

Two credit hours. Advanced study and assignments in selected areas of social work. **Prerequisites:** SOWK 1301, formal admission to the social work program, and consent of instructor.

**SOWK 4310 - Social Gerontology**

Three credit hours. This course explores the social aspects of aging – how do older adults affect society and how does society affect older adults? The interaction of older adults with society is examined along with many of our social institutions such as family, healthcare, government, and the economy. Also examined are the issues associated with our aging population and how those issues affect people of all ages. A number of current controversies associated with our changing population structure will be discussed in class.

**SOWK 4316 - Addictions in SOWK**

Three credit hours. Addictions in SOWK provides an introduction to core concepts in the addiction field. An overview of historical, biological and psychosocial perspectives on addiction, a summary of the current trends in addictions and substance use, the influence of multicultural factors, how addiction is understood and treated by professionals, including preventative interventions, basic assessment methods, evidence-based interventions from a strengths perspective, and relapse prevention. **Prerequisites:** SOWK 1301; Senior status is BSW Program.

**SOWK 4330 - Animal Assisted Therapy**

Three credit hours. Course provides an overview of the interdisciplinary field of animal-assisted therapy and the human-animal bond. Course will include observations of AAT visits to human service settings and web-enhanced classes. **Prerequisites:** junior status.

**SOWK 4332 - Social Work Practice II**

Three credit hours. The second in the three-course sequence, this course builds on the foundation interviewing and client-system assessment skills by introducing students to various intervention skills to be used with individuals, groups, communities, and in family-centered practice. The focus is on generalist practice utilizing problem-solving and solution-focused techniques. Skills learned in this course are integrated with actual practice experience through the SOWK 4541 - Field Experience I and SOWK 4212 - Field Seminar I. **Prerequisites:** SOWK 3331.



### **SOWK 4333 - Social Work Practice III**

Three credit hours. The third in the three-course sequence, this course builds on the foundation interviewing and client-system assessment skills presented in Practice I and the various intervention skills to be used with individuals, groups, communities, and in family-centered practice, which were the focus of Practice II. Practice III introduces methods for terminating a client from service by focusing on final empowerment strategies and strategies for program and practice evaluation. The focus on program and practice evaluation, in correlation with social work values, will integrate research methods into the professional world of practice. Skills learned in this course will also help to prepare the student for supervisory and managerial positions within the agency arena and are integrated with actual practice experience through the SOWK 4542 - Field Experience II and SOWK 4213 - Field Seminar II. **Prerequisites:** SOWK 4332.

### **SOWK 4336 - Social Aspects Death & Dying**

Three credit hours. Gerontology and social work seek to apply knowledge from the social sciences, medicine, and the humanities with the skills and values of the helping professions. The multidisciplinary study of death (thanatology) itself comes out of studying these different disciplines. There are many social, psychological, philosophical, and religious theories concerning the passage of death—for both ourselves and those around us. We will study many diverse contributions in the social aspects of death and dying.

### **SOWK 4337 - Adult Development and Aging**

Three credit hours. This course emphasizes the life course perspective as it looks at adult development and aging within the context of the social environment. Aspects of "successful aging" that will be examined cover growth and development from emerging adulthood to old age, and the impact that culture, gender, ethnicity, and individual differences have on these processes. Human development and aging is examined during early adulthood, middle adulthood, and late adulthood. We will study aspects of development that are common to persons at all ages across the life course, individual differences in development, and differences that characterize the separate age cohorts.

### **SOWK 4341 - Field Experience I**

Field Experience I is the first of two opportunities for the student to integrate knowledge and values acquired in the classroom into practice by observing and engaging with the client system under supervision of a social worker in a human services agency. The introduction of the student to direct practice will involve the elements of the generalist intervention model: engagement, assessment, planning, implementation, evaluation, and termination. Field Experience I provides a structured learning environment in which professional ethics, critical thinking, generalist practice, and applicable skills are explored for greater depth and application. The corequisite SOWK 4212 - Field Seminar I, is offered concurrently with Field Experience I for in-depth consultation with other students and seminar instructor to allow feedback and consultation in a group

process. SOWK 4541 is 240 hours in the field setting in the fall semester of the senior year for five credits. The student must receive a "B" in order to progress to Field Experience II. **Prerequisites:** formal admission to BSW program; a "C" or better in SOWK 1301, SOWK 3303, SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3302, SOWK 3331; a "B" in SOWK 4212 and SOWK 4541; a 2.5 cumulative GPA in all social work courses taken to date; a 2.5 overall GPA; and formal admission to the Field Experience. **Corequisites:** SOWK 4542. **Prerequisite or Corequisite:** SOWK 4332.

### **SOWK 4342 - Field Experience II**

Field Experience II is the second of two opportunities for the student to integrate knowledge developed in the classroom into practice by working directly with the client system under supervision of a social worker. Field Experience II provides a structured learning environment in which professional ethics, critical thinking, generalist practice, and applicable skills are explored for greater depth and application. The corequisite SOWK 4213 - Field Seminar II, is offered concurrently with Field Experience II for in-depth consultation with other students and seminar instructor to allow feedback and consultation in a group process. SOWK 4542 is 240 hours in the field setting in the spring semester of the senior year for five credits. The student must receive a "B" in order to graduate from the social work program. **Prerequisites:** formal admission to BSW program; a "C" or better in SOWK 1301, SOWK 3303, SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3302, SOWK 3331; a "B" in SOWK 4212 and SOWK 4341/SOWK 4541; a 2.5 cumulative GPA in all social work courses taken to date; a 2.5 overall GPA; and formal admission to the Field Experience. **Corequisites:** SOWK 4342/SOWK 4542. **Prerequisite or Corequisite:** SOWK 4333.

### **SOWK 4390 - Independent Study**

Three credit hours. Advanced study and assignments in selected areas of social work. **Prerequisites:** SOWK 1301, formal admission to the social work program, and consent of instructor.

### **SOWK 4541 - Field Experience I**

Field Experience I is the first of two opportunities for the student to integrate knowledge and values acquired in the classroom into practice by observing and engaging with the client system under supervision of a social worker in a human services agency. The introduction of the student to direct practice will involve the elements of the generalist intervention model: engagement, assessment, planning, implementation, evaluation, and termination. Field Experience I provides a structured learning environment in which professional ethics, critical thinking, generalist practice, and applicable skills are explored for greater depth and application. The corequisite SOWK 4212 - Field Seminar I, is offered concurrently with Field Experience I for in-depth consultation with other students and seminar instructor to allow feedback and consultation in a group process. SOWK 4541 is 240 hours in the field setting in the fall semester of the senior year for five credits. The student must receive a "B" in order to progress to Field

Experience II. **Prerequisites:** formal admission to BSW program; a "C" or better in SOWK 1301, SOWK 3303, SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3302, SOWK 3331; a "B" in SOWK 4212 and 4541; a 2.5 cumulative GPA in all social work courses taken to date; a 2.5 overall GPA; and formal admission to the Field Experience. **Corequisites:** SOWK 4542. **Prerequisite or Corequisite:** SOWK 4332.

### **SOWK 4542 - Field Experience II**

Field Experience II is the second of two opportunities for the student to integrate knowledge developed in the classroom into practice by working directly with the client system under supervision of a social worker. Field Experience II provides a structured learning environment in which professional ethics, critical thinking, generalist practice, and applicable skills are explored for greater depth and application. The corequisite SOWK 4213 - Field Seminar II, is offered concurrently with Field Experience II for in-depth consultation with other students and seminar instructor to allow feedback and consultation in a group process. SOWK 4542 is 240 hours in the field setting in the spring semester of the senior year for five credits. The student must receive a "B" in order to graduate from the social work program. **Prerequisites:** formal admission to BSW program; a "C" or better in SOWK 1301, SOWK 3303, SOWK 3304, SOWK 3313, SOWK 3314, SOWK 3302, SOWK 3331; a "B" in SOWK 4212 and SOWK 4341/SOWK 4541; a 2.5 cumulative GPA in all social work courses taken to date; a 2.5 overall GPA; and formal admission to the Field Experience. **Corequisites:** SOWK 4342/4542. **Prerequisite or Corequisite:** SOWK 4333.

## **Spanish**

### **SPAN 1111 - Elementary Spanish Laboratory I**

One credit hours. Supervised laboratory practice in listening, speaking, and aural comprehension. **Corequisites:** SPAN 1311.

### **SPAN 1112 - Elementary Spanish Laboratory II**

One credit hours. Continuation of SPAN 1111. **Corequisites:** SPAN 1312.

### **SPAN 1301 - Reading Spanish**

Three credit hours. Essential grammar for reading Spanish with minor emphasis on pronunciation. Will not substitute for any other course in Spanish or apply toward a major or minor in Spanish.

### **SPAN 1311 - Elementary Spanish I**

Three credit hours. A course for students with no knowledge of Spanish. Instruction in correct pronunciation, aural comprehension, and simple speaking ability. (ACTS Course Number SPAN 1013)

### **SPAN 1312 - Elementary Spanish II**

Three credit hours. Practice in correct pronunciation, aural comprehension, and simple speaking ability leading to mastery of basic grammar and limited reading ability. (ACTS Course Number SPAN 1023) **Prerequisites:** SPAN 1311 or equivalent.

### **SPAN 1315 - Conversational Spanish**

Three credit hours. A performance course with emphasis on elementary conversation and discussion. For students with a basic knowledge of Spanish grammar. **Prerequisites:** SPAN 1312 or consent of instructor.

### **SPAN 2311 - Intermediate Spanish**

Three credit hours. The intermediate course leads to a greater facility in the spoken language and to more advanced reading skills. (ACTS Course Number SPAN 2013) **Prerequisites:** SPAN 1312 or equivalent.

### **SPAN 2313 - Intermediate Spanish II**

Three credit hours. Continued development of essential speaking, listening, reading, and writing skills through the study of discipline-related vocabulary and appropriate content knowledge in relevant professional fields. **Prerequisites:** SPAN 2311 or equivalent proficiency.

### **SPAN 2315 - Intermediate Spanish Conversation**

Three credit hours. A course to practice oral skills on a wide range of topics. Students narrate, describe, compare, and comment. **Prerequisites:** SPAN 2311 or consent of instructor.

### **SPAN 3115 - Advanced Spanish Conversation**

Three credit hours. A course to practice oral skills on a wide range of topics. Leads to expanded vocabulary mastery and greater fluency in the spoken idiom. **Prerequisites:** SPAN 2311 or higher or consent of instructor.

### **SPAN 3116 - Advanced Spanish Conversation**

Three credit hours. A course to practice oral skills on a wide range of topics. Leads to expanded vocabulary mastery and greater fluency in the spoken idiom. **Prerequisites:** SPAN 2311 or higher or consent of instructor.

### **SPAN 3117 - Advanced Spanish Conversation**

Three credit hours. A course to practice oral skills on a wide range of topics. Leads to expanded vocabulary mastery and greater fluency in the spoken idiom. **Prerequisites:** SPAN 2311 or higher or consent of instructor.

### **SPAN 3301 - Contextualized Spanish Grammar**

Three credit hours. An intensive study of Spanish grammar and application of specific grammatical structures to authentic communicative contexts. **Prerequisites:** SPAN 2311 or consent of instructor.

**SPAN 3303 - Spanish for Heritage Speakers**

An intensive study of Spanish language and cultural issues unique to heritage speakers that will improve future academic and professional speaking and writing.

**SPAN 3313 - Conversation and Presentation**

Three credit hours. Practice listening and speaking in formal and informal settings, leading to expanded vocabulary, greater accuracy and fluency in the spoken language and intermediate-high proficiency.

**Prerequisites:** Prerequisite: SPAN 2311 or equivalent.

**SPAN 3314 - Spanish for Writing**

Three credit hours. Practice reading and writing in common styles. Leads to greater control of specific grammatical and syntactic structures, expanded vocabulary, ability to self-edit and intermediate-high proficiency. **Prerequisites:** SPAN 2311 or equivalent.

**SPAN 3315 - Translation Studies**

Three credit hours. Students refine their language skills and learn to express themselves more accurately through intensive translation practice in both Spanish-to-English and English-to-Spanish. **Prerequisites:** SPAN 3313 and SPAN 3314, or SPAN 3303, or consent of instructor.

**SPAN 3316 - Spanish Phonetics**

Three credit hours. This course introduces students to the sounds and phonetic symbols of the Spanish language with reference to phrasing, stress, rhythm, and intonation.

**Prerequisites:** SPAN 3313 and SPAN 3314, or SPAN 3303, or consent of instructor.

**SPAN 3317 - Introduction to Literary and Cultural Studies**

Three credit hours. This course introduces students to critical analyses and discussion about literary, filmic, and other cultural texts. **Prerequisites:** SPAN 3313 or SPAN 3314 or equivalent.

**SPAN 3320 - Spanish Around the World**

Three credit hours. An exploration of the variation in the Spanish language, focusing on the lexical and grammatical features that distinguish them, the social factors that determine current usage, and the historical sources of modern-day dialects. May be repeated.

**Prerequisites:** SPAN 3314 or equivalent.

**SPAN 3333 - Selected Readings in Spanish Literature**

Three credit hours. Reading and discussion of selected works from Spanish and Spanish American literature.

**Prerequisites:** 3000-level Spanish course or consent of instructor.

**SPAN 3334 - Hispanic Culture: Peninsular**

Three credit hours. Historical, sociological, and cultural background of people of the Iberian peninsula.

**Prerequisites:** SPAN 2311 or equivalent (or corequisite with consent of instructor).

**SPAN 3335 - Hispanic Culture: Americas**

Three credit hours. Historical, sociological, and cultural background of Hispano-America. **Prerequisites:** SPAN 2311 or equivalent (may be corequisite with consent of the instructor).

**SPAN 3344 - Advanced Spanish for the Professions**

Three credit hours. An intensive exploration of vocabulary, high-frequency structures, and cultural issues related to one profession, which will be specified when offered (e.g., healthcare, legal, business, social work, education). May be repeated. **Prerequisite or Corequisite:** SPAN 3313 or SPAN 3314.

**SPAN 3351 - Survey of Latin American Literature**

Three credit hours. This course is a survey of Latin American literature from the 15 century to the present. Taught in Spanish. **Prerequisites:** SPAN 3313, SPAN 3314, SPAN 3317.

**SPAN 3352 - Survey of Peninsular Literature**

Three credit hours. This course is a survey of Latin American literature from the 11 century to the present. Taught in Spanish. **Prerequisites:** SPAN 3313, SPAN 3314, SPAN 3317.

**SPAN 4101 - Independent Study**

One, two, or three credit hours. Reading from a selected bibliography in Spanish. Credit is determined at the beginning of the semester by the complexity of the problem and will not be altered. Open only to majors.

**Prerequisites:** consent of instructor.

**SPAN 4201 - Independent Study**

One, two, or three credit hours. Reading from a selected bibliography in Spanish. Credit is determined at the beginning of the semester by the complexity of the problem and will not be altered. Open only to majors.

**Prerequisites:** consent of instructor.

**SPAN 4301 - Independent Study**

One, two, or three credit hours. Reading from a selected bibliography in Spanish. Credit is determined at the beginning of the semester by the complexity of the problem and will not be altered. Open only to majors.

**Prerequisites:** consent of instructor.

**SPAN 4310 - Structured Internship**

Three credit hours. Taken by permission, this course allows students to use Spanish in a professional setting in the Central Arkansas community. 90 hours of service at an external site are accompanied by structured reflection activities. **Prerequisites:** SPAN 3313, SPAN 3314, SPAN 3316, SPAN 3317.

**SPAN 4361 - Seminar**

Three credit hours. Advanced topics in language, literature, or linguistics. May be repeated for maximum of 6 hours per seminar course.

## Special Education

### **SPED 3304 - Multicultural Families and Collaborative Partnerships**

Three credit hours. This course is designed to promote development and effective use of skills in the areas of consultation and collaboration with families of diverse backgrounds and children with disabilities. The course examines the philosophies, roles and services of various professionals providing services to individuals with disabilities in inclusive settings. Models of teaming, collaborative strategies, communication techniques, problem solving approaches and role management skills are explored. Candidates will study personal and professional dispositions required to support families of learners with disabilities. Methods for identifying resources within communities and processes for communicating and consulting with families and professionals are examined. Factors that affect family functioning and the family's influence on child development will be examined. The course emphasizes the impact of individuals with disabilities on families. Strategies for assessing family strengths and needs, and techniques for communicating and collaborating with families are also explored.

### **SPED 4101 - Field Experience I Mild Disabilities**

One credit hours. In field experience, candidates observe the application and assessment of teaching content, practices, and methodologies for students with mild to moderate disabilities in elementary, middle, and high school settings.

### **SPED 4102 - Workshop**

One, two, or three credit hours. Subjects vary.

### **SPED 4103 - Field Experience II Severe Disabilities**

One credit hours. In field experience, candidates observe the application and assessment of teaching content, practices, and methodologies for students with severe to profound disabilities in elementary, middle, and high school settings.

### **SPED 4108 - Independent Study**

One, two, or three credit hours. An in-depth study of a selected problem or trend in special education for advanced students. **Prerequisites:** consent of the department chairperson.

### **SPED 4202 - Workshop**

One, two, or three credit hours. Subjects vary.

### **SPED 4208 - Independent Study**

One, two, or three credit hours. An in-depth study of a selected problem or trend in special education for advanced students. **Prerequisites:** consent of the department chairperson.

### **SPED 4301 - Education of Exceptional Learners**

Three credit hours. Introduction to the psychological, sociological, philosophical, legal, and educational implications of educating exceptional learners in the mainstream; the role of teachers, professionals, and parents as team members in providing appropriate education and necessary adaptations for exceptional learners. Dual listed in the Graduate Catalog as SPED 5301. **Prerequisites:** PSYC 2300 or consent of instructor.

### **SPED 4302 - Assistive Technology in Special Education**

Three credit hours. This course will prepare teachers to respond to individuals' functional needs in order to enhance access to the general or special education curricula. Candidates will identify and assess how to evaluate, select and use both hardware and software for the purposes of enhancing instruction, assist students with school-related tasks, help students communicate and help students function better in their environment.

**Prerequisites:** Successful completion of the Teacher Education Block.

### **SPED 4302 - Workshop**

One, two, or three credit hours. Subjects vary.

### **SPED 4306 - Characteristics and Methods of Mild/Moderate Disabilities**

Three credit hours. Methods and materials for educating students with mild disabilities in regular and special education environments including behavior management, programming for secondary students with mild disabilities, career education, teacher-made materials, and commercially available materials appropriate for use with students with mild disabilities. **Prerequisites:** an introductory course in exceptional learners and/or characteristics of students with mild disabilities.

### **SPED 4308 - Independent Study**

One, two, or three credit hours. An in-depth study of a selected problem or trend in special education for advanced students. **Prerequisites:** consent of the department chairperson.

### **SPED 4311 - Behavior Management**

Three credit hours. Positive approaches to behavior management. Students receive firsthand experience in using behavior analysis in field settings. Dual listed in the Graduate Catalog as SPED 5311. **Prerequisites:** EDFN 2300.

**SPED 4312 - Medical Problems in Child Development**

Three credit hours. The primary concern of the course is to review medical conditions and events arising during prenatal, postnatal and early childhood, which contribute to the nature and cause of major educational disabilities. Special attention is given to syndromes associated with mental retardation, disorders of the central nervous system, infectious disease, and a wide range of conditions placing children at-risk for developmental delays. Emphasis is directed toward early medical identification, prevention of secondary disabilities, and strategies for responding to chronic health conditions in educational settings. Guest lectures by physicians and other health related professionals are an integral part of the course. Dual listed in the Graduate Catalog as SPED 5312.

**Prerequisites:** Admission to the Elementary education Program and eligible for admission to Block III with a 2.75 GPA or greater.

**SPED 4320 - Behavior Management**

Three credit hours. Theory, research, and application for behavior management. Current issues and research in applied behavioral analysis and other forms of classroom management; cognitive, verbal behavioral, and emerging management procedures; emphasis on application of research. An emphasis will be on applied behavior analysis and methods to observe, track and evaluate programming for students with mild to severe learning or behavioral disabilities. Dual listed in the Graduate Catalog as SPED 5320.

**SPED 4323 - Language Development and Disorders**

Three credit hours. This course focuses primarily on the acquisition of language by children, including the acquisition of phonology (the sound system of the language), semantics (the meaning of units in the language), syntax (the structure of sentences), morphology (the structure of words), and pragmatics (language use). The course will address the acquisition of human language, issues in language development, and the effects of disability and/or trauma on the language and cognition. Although the major portion of the course will focus on the acquisition of English, course content will include language development for people of other cultures and languages. Content will additionally observe language development of other spoken and signed languages. Sessions will include lecture, demonstration, discussions, video, individual and group activities. Dual listed in the Graduate Catalog as SPED 5323.

**SPED 4326 - Assessment in Special Education**

Three credit hours. This course addresses assessment strategies for K-12 special education. A specific focus will be given to the principles of assessment. Various aspects of the learning environment are examined and procedures for gathering assessment data are explored. The general goal of this course is to develop competencies in assessment. Candidates will use content from foundational knowledge and skill related to the characteristics of disability and ways to identify disability. Major emphasis will focus on assessment for eligibility for special educational services. Specific emphasis will be

placed upon developing skills to observe learners for disabilities, identify and evaluate relevant formal and informal assessment strategies that contribute to the identification, placement and instructional planning for students with learning problems in both early and school age populations. Candidates will learn to identify the needs of children related to health and/or sensory impairments, the identification of abilities in the developmental domains along various age groups.

**SPED 4328 - Teaching Content in Special Education**

Three credit hours. Candidates will learn to individualize instruction for learners with various disabilities. Candidates will use formal and informal assessment data to design instruction in general academic content. Additionally, candidates will identify strategies to modify and adapt the curriculum for delivery in inclusive settings. Candidates will align instruction to Common Core State Standards, use evidence-based best practices to individualize instruction, and design curriculum based assessments.

**Prerequisites:** Successful completion of Teacher Education Block, and SPED 4311, SPED 4301, EDFN 3320, and SPED 4326.

**SPED 4330 - Characteristics & Methods of Severe Disabilities**

Three credit hours. This course focuses on current best practices in curriculum, and methods for students with severe disabilities, including specific strategies for teaching students with severe disabilities, general strategies for working with heterogeneous groups of students in inclusive settings, and methods for adapting the general education curriculum to include students with severe disabilities in elementary, middle, and high school.

**SPED 4331 - Internship Seminar 1**

This is a corequisite to the first student teaching experience. Students will practice and demonstrate skills and competencies required to effectively teach learners with mild to moderate disabilities in grades K-6. This Seminar course will help the preservice teacher to make sense of the student teaching experience. It will provide an opportunity for candidates to discuss activities and concerns and to explore ways to ensure that the student teaching experience is rich and provides a quality professional experience. During course meetings, candidates discuss varied expectations of the student teaching experience, including planning, assessment, instruction and classroom management. Candidates will have opportunities to explore questions about their student teaching experiences. The course is designed to help the pre-professional develop the professional competencies and dispositions of the professional special educator. Candidates will reflect on teaching and gain confidence in self assessment through questions. The goal of the seminar is to engage in the socialization to the teaching profession and develop professionals who are committed to special education, to the teaching profession, and the frameworks that create a competent and reflective practitioner. Supervision is provided by faculty from the university. **Concurrent:** SPED 4901.

### **SPED 4332 - Internship Seminar 2**

Three credit hours. As a corequisite to the second student teaching experience, this Seminar course will help the preservice teacher to enhance their skills/competencies in delivering instruction to learners with disabilities in the experience in grades 7-12. It will provide a forum for students to discuss activities, concerns and explore ways to ensure that the experience is rich and provides a quality professional development. During course meetings, candidates discuss varied expectations, including planning, assessment, instruction and classroom management. Candidates will have opportunities to explore questions about the student teaching experience. The course is designed to help the preprofessional hone the professional competencies and dispositions of the professional special educator in their second internship setting. Becoming a reflective educator is a focus of this experience in addition to evaluating professional development. The goal of the seminar is to enhance their socialization into the teaching profession, prepare for required for exit exams, and develop a professional teaching portfolio.

### **SPED 4343 - Special Education Law**

Three credit hours. The purpose of the course is to provide students with the basic understanding of the legal and ethical issues that impact assessment, eligibility, placement, and delivery of services of students with disabilities. The focus will be on the due process procedures and elements of Free Appropriate Public Education (FAPE) necessary for successful teaching of students with disabilities as found in Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA).

### **SPED 4344 - Disability Law**

Three credit hours. The purpose of the course is to provide students with the basic understanding of the legal and ethical issues that impact assessment, eligibility, placement and delivery of services of students with disabilities. The focus will be on the due process procedures and elements of Free Appropriate Public Education (FAPE) necessary for successful teaching of students with disabilities as found in Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973 and American with Disabilities Act (ADA). Dual listed in the Graduate Catalog as SPED 5344.

### **SPED 4353 - Transition and Life Adjustment**

Three credit hours. This course presents information regarding the transition and life adjustment of persons with mild to severe disabilities. The focus is on the development and implementation of transition plans for adolescents with disabilities, self-advocacy development, and services available to adolescents and adults with disabilities. Course activities will include assisting students who present more challenging learning/behavioral problems and requiring more intensive interventions for behavioral concerns. Candidates will complete course activities in three functional areas. 1) Students who

present with challenging learning or behavioral concerns, 2) Students requiring transition and life adjustment planning, and 3) Accessing and informing transition planning through teaming and planning skills.

**Prerequisites:** Successful completion of the teacher education block.

### **SPED 4901 - Internship I (K-6)**

Nine credit hours. This is the first fulltime (12 week) internship in the preservice teacher's experience in which they will practice and demonstrate skills and competencies required to effectively teach learners with disabilities in a K-6th grade setting. Supervision is provided by faculty from the university. **Concurrent:** SPED 4331.

### **SPED 4902 - Internship II (7-12)**

Nine credit hours. This is the second fulltime (12-week) internship in the preservice teacher's experience in which they will practice and demonstrate skills and competencies required to effectively teach learners with disabilities in a 7-12th grade setting. Supervision is provided by faculty from the university. **Concurrent:** SPED 4332.

## **Statistics**

### **STAT 2350 - Introduction to Statistical Methods**

Three hours lecture. Three credit hours. Introduction to the fundamental ideas of statistics, including descriptive statistics, normal distributions, sampling experiments, tests of hypotheses, and elementary probability. This course cannot be applied as upper-level credit toward a major in mathematics. **Prerequisites:** MATH 1302 or 1315 or MATH 1321 or equivalent.

### **STAT 3350 - Introduction to Probability**

Three hours lecture. Three credit hours. Combinatorial theory, random variables, continuous and discrete distributions, expected value, jointly distributed random variables, conditional expectation, law of large numbers, central limit theorem. **Prerequisites:** a grade of C or greater in MATH 1452.

### **STAT 3351 - Statistical Inference**

Three hours lecture. Three credit hours. Point estimation, interval estimation, tests of statistical hypotheses, distribution free methods, regression, order statistics. **Prerequisites:** a grade of C or greater in STAT 3350.

### **STAT 3352 - Applied Statistics I**

Three hours lecture. Three credit hours. Measures of central tendency and variation, probability distributions, sampling distributions, tests of hypotheses, confidence intervals. **Prerequisites:** a grade of C or greater in either MATH 1451 or MATH 1311.

### **STAT 3353 - Applied Statistics II**

Three hours lecture. Three credit hours. Analysis of variance, factorial experiments, unequal subclasses, multiple regression and correlation, analysis of covariance, uses of chi-square tests, tests of independence, goodness of fit. **Prerequisites:** a grade of C or greater in STAT 3352; knowledge of a scientific programming language.

**STAT 4342 - Introduction to SAS**

Three credit hours. This course is designed to introduce students in all disciplines to conducting data analyses and managing data using the SAS system and SAS programming language. Students will learn the basics of the SAS language and SAS data sets, reading SAS logs, viewing and printing output, inputting data into SAS, manipulating data and creating new variables using SAS procedures, generating descriptive statistics and frequency distributions using SAS Insight. They will be able to perform hypothesis tests and construct confidence intervals, build categorical models, build and interpret simple and multiple linear regression models, as well as construct ANOVA models using SAS procedures and Analyst. Dual listed in the Graduate Catalog as STAT 5342. **Prerequisites:** A grade of C or greater in STAT 3352.

**STAT 4352 - Distribution-Free Statistical Methods**

Three hours lecture. Three credit hours. Comparison of classical and distribution-free tests of hypotheses, test assumptions, efficiency and related characteristics, Fisher's method of randomization, ranking tests, tests based on the binomial distribution. **Prerequisites:** a grade of C or greater in STAT 3352 or its equivalent.

**STAT 4354 - Design and Analysis of Experiments**

Three hours lecture. Three credit hours. Factorial experiments, randomized block designs, Latin squares, Graeco-Latin squares, analysis of covariance, incomplete block designs, distribution-free methods. **Prerequisites:** STAT 3351.

## Systems Engineering

**SYEN 1207 - Introduction to Mechanical Engineering**

Two hours lecture. Two credit hours. The mechanical engineering profession; problem-solving skills; machine components and tools; forces in structures and fluids, materials and stresses; thermal and energy systems; motion of machinery; mechanical design. Required for SYEN students in the mechanical option, but open to all students on a space available basis. **Prerequisites:** C or better in MATH 1302 or equivalent.

**SYEN 1210 - Introduction to Systems Engineering**

One hours lecture. Two hours laboratory per week. Two credit hours. Introduction to engineering as a profession, engineering problem solving, engineering design process, engineering ethics, engineering communication, history of engineering developments, and case studies involving leading inventions in the engineering field from a variety of disciplines. Students work in teams to build small engineering projects. Course includes industry visits and talks by industry specialists. **Prerequisites:** MATH 1302 or 1315, or consent of instructor.

**SYEN 1301 - Introduction to Computer Systems**

Two hours lab and two hours lecture. Four hours laboratory per week. Three credit hours. Introduction to the fundamental hardware and software underpinning of computing systems, MOS transistors, logic gates, latches, logic structure, memory, von Neumann model of execution, organization and architecture of a simple computer; machine, assembly, and high-level language programming. Required for systems engineering students in the computer systems option, but open to all students on a space-available basis. **Prerequisites:** consent of instructor.

**SYEN 1302 - C/C++ Programming for Engineers and Scientists**

Two hours lecture. Two hours laboratory per week. Three credit hours. Introduction to programming and problem solving with science and engineering applications. Program design methodology. Elements of C: variables, control structures, input/output, functions, storage classes. Arrays: one-dimensional, two-dimensional arrays, array pointers, dynamic storage for arrays. Declaration and definition of structure variables. Object oriented design and programming. Abstract data types. Elements of C++: classes, data members and member functions, access specifiers, access methods. Constructors and destructors. Arrays: One-dimensional and two-dimensional arrays, dynamic storage for arrays. Operator overloading. Inheritance: base class and derived class. Polymorphism: abstract class and virtual functions. Function template and template classes.

**SYEN 1303 - Introduction to Telecommunication Systems**

Two hours lecture. Two hours laboratory per week. Three credit hours. Source coding, Line Coding, Multiplexing and Multiple Access, Analog and digital modulation, fundamentals of Information theory and coding. Required for systems engineering students in the telecommunication systems option, but open to all students on a space-available basis. **Prerequisites:** MATH 1303 or equivalent.

**SYEN 1304 - Introduction to Electrical Engineering**

Two hours lecture. Two hours laboratory per week. Three credit hours. Direct current fundamentals; alternating current and components; electrical and electronic component functions; digital logic devices; computer architecture; computer components; semiconductors; the load line; CMOS logic and memory; other semiconductor devices and circuits; fabrication of ICs and MEMS; power generation, transmission, and distribution; wireless communication systems; digital signal processing; electronics terminology. Required for systems engineering students in the computer systems in the students in the electrical systems option, but open to all students on a space-available basis. **Prerequisites:** consent of instructor.

**SYEN 2110 - Computational Engineering Laboratory**

Three hours laboratory per week. One credit hours. Introduction to engineering problem solving using Matlab, vector and matrix operations, data input and output, program flow control, Matlab functions, graphics in 2D and 3D, symbolic mathematics, engineering examples.

**Prerequisite/Concurrent:** SYEN 1302 or consent of instructor.

**SYEN 2115 - Circuits and Systems Laboratory**

Two hours laboratory per week. One credit hours. Structured exercises to illustrate class topics. Both SPICE simulation and bread-boarding/measurement exercises.

Use of spectrum analyzer to determine frequency response and system identification. **Prerequisite or Corequisite:** SYEN 2315.

**SYEN 2117 - Fabrication Laboratory I**

Three hours laboratory per week. One credit hours. Introduction to machine shop equipment and processes; metal fabricating applications, including metal cutting, such as turning, drilling, milling; welding, and measurement and inspection, Course project and the application of Ethics and safety in design and manufacturing. **Prerequisite/Concurrent:** SYEN 1207.

**SYEN 2118 - Fabrication lab II**

Two hours laboratory per week. One credit hours. This course will introduce engineering students to alternative and advanced fabrication techniques, such as 3D printing, mold-making and plastics, CNC fabrication, and welding.

**SYEN 2233 - Solid Modeling and Design**

One hours lecture. Two hours laboratory per week. Two credit hours. Modern engineers use computer aided design and engineering (CAD/CAE) programs to improve the design process. This course will introduce the concepts of three-dimensional part modeling and assembly for analysis and manufacturing. The principle method for design communication is through two-dimensional standard drawing practices which can be easily extracted from three-dimensional models. This course will cover the basic nomenclature to allow engineers to communicate with manufacturers. Some focus will be applied to the intersection of tolerances, as expressed on engineering drawings, with design and manufacturing processes. The course will introduce how to interface solid models with CAE simulations, such as a Finite Element Analysis program. **Prerequisites:** SYEN 2117 or equivalent.

**SYEN 2310 - Systems Modeling – Discrete**

Three hours lecture. Three credit hours. Introduction to dynamic modeling, converting real world problems into mathematical models, discrete dynamical system models with examples from natural sciences, social sciences, and engineering, systems with inputs, probabilistic modeling with discrete systems. **Prerequisites:** MATH 1452.

**SYEN 2315 - Circuits and Systems**

Three hours lecture. Three credit hours. DC and AC circuits. Electrical units. Passive linear components including resistor, capacitor, inductor. Basic circuit laws. Thevenin and Norton equivalent circuits. Transient and frequency domain analysis of linear circuits. Power and power transfer in circuits. Impedances. **Prerequisite or Corequisite:** PHYS 2322 and MATH 3322.

**SYEN 2370 - Engineering Statics**

Three hours lecture. Three credit hours. Static equilibrium of particles, equivalent systems of forces, equilibrium of rigid bodies, centroids and centers of gravity, analysis of structures, dry friction, and moments of inertia.

**Prerequisites:** PHYS 2321 or consent of instructor. **Prerequisite/Concurrent:** MATH 2453 or consent of instructor.

**SYEN 3110 - Dynamic Systems Modeling and Simulation Laboratory**

Two hours laboratory per week. One credit hours. Modeling and simulation of dynamic systems on personal computers. Introduction to computer modeling. Graphical presentation of results. **Prerequisite or Corequisite:** SYEN 3310.

**SYEN 3130 - Digital Systems Laboratory**

Two hours laboratory per week. One credit hours. Weekly laboratory providing practical knowledge in designing, assembling, testing, and simulating combinational and sequential digital circuits. **Prerequisite or Corequisite:** SYEN 3330.

**SYEN 3134 - Advanced Microprocessor Systems Laboratory**

Two hours laboratory per week. One credit hours. Laboratory course to accompany SYEN 3334 - Advanced Microprocessor Systems. **Prerequisite or Corequisite:** SYEN 3334.

**SYEN 3150 - Signals and Systems Laboratory**

Two hours laboratory per week. One credit hours. Laboratory course to accompany SYEN 3350 - Signals and Systems. **Prerequisite or Corequisite:** SYEN 3350.

**SYEN 3152 - Analog and Digital Electronics Laboratory**

Two hours laboratory per week. One credit hours. Laboratory course to accompany SYEN 3352 - Analog and Digital Electronics. **Prerequisite or Corequisite:** SYEN 3352.

**SYEN 3154 - Digital and Analog Communications Laboratory**

Two hours laboratory per week. One credit hours. Weekly laboratory experiments to accompany Communication Systems I. **Prerequisite or Corequisite:** SYEN 3354.



**SYEN 3158 - Power Systems Laboratory**

Two hours lecture. One credit hours. This lab is designed to accompany SYEN 3358. The lab includes the tests of transformers, DC and AC motors, and power electronic systems. **Prerequisites:** SYEN 2315 and SYEN 2115.

**SYEN 3301 - Engineering Economy**

Three hours lecture. Three credit hours. Introduction to engineering economic decisions for evaluating the worth of products, services, projects and systems; time value of money, economic equivalence concepts, comparison of investment alternatives, evaluating economic life and replacement analysis, inflation, depreciation and impact of taxes on engineering decisions, and economic risk analysis. Cross listed as CNMG 3302. **Prerequisites:** MATH 1342, MATH 1342 or MATH 1451, or consent of instructor.

**SYEN 3310 - Dynamic Systems Modeling and Simulation**

Three hours lecture. Three credit hours. Introduction to mathematical modeling of dynamic systems, continuous and discrete system models, system response in time and frequency domains, transfer functions, stability characterization, state-space formulation of modeling problems, fitting models to data, examples from sciences and engineering. **Prerequisites:** MATH 3312 and MATH 3322.

**SYEN 3312 - Optimization Methods in Systems Engineering**

Three hours lecture. Three credit hours. Mathematical foundations, optimality criteria for unconstrained and constrained problems, one-dimensional search methods, gradient and Newtonian methods, linear programming, non-linear programming, discrete optimization, advanced techniques. **Prerequisites:** MATH 2453 and MATH 3312, SYEN 2110.

**SYEN 3314 - Probability Theory and Random Variables**

Three hours lecture. Three credit hours. Sample space and events, axioms of probability, conditional probability, independence, Bayes' rule, discrete and continuous random variables and probability distributions, joint probability distributions, random sampling, limit theorems, confidence intervals, hypothesis testing, introduction to random processes. **Prerequisite/Concurrent:** MATH 2453.

**SYEN 3316 - Discrete Event Systems Modeling and Simulation**

Three hours lecture. Three credit hours. The theory and practice of discrete-event simulation modeling and analysis, discrete-event dynamic systems (DEDS), simulation logic and data structures, random number generation, computational issues, experiment design, output analysis, model verification and validation, and modern simulation languages including animation. **Prerequisites:** SYEN 3314.

**SYEN 3318 - Decision and Risk Analysis**

Three hours lecture. Three credit hours. A study in analytic techniques for rational decision-making. Address uncertainty, conflicting objectives, and risk attitudes. Modeling uncertainty; rational decision-making principles; representing decision problems with value trees, decision trees, and influence diagrams; solving value hierarchies and decision trees; defining and calculating the value of information; incorporating risk attitudes into the analysis; and conducting sensitivity analyses. **Prerequisites:** SYEN 3314.

**SYEN 3320 - Systems Engineering Design and Analysis**

Three hours lecture. Three credit hours. An integrated introduction to systems design, analysis, and management. The steps of the systems engineering lifecycle process, including identification of system requirements, system concept, engineering design, system testing and integration, and system operation and support. Presentation of basic systems analysis tools, including decision-making, economic evaluation, modeling and simulation, and statistical process control. Elements of systems engineering program management and evaluation. **Prerequisites:** SYEN 3314.

**SYEN 3330 - Digital Systems**

Three hours lecture. Three credit hours. An introduction to digital system design necessary to do modern digital design. Exposure to a balanced treatment of logic design, digital system design, and computer system design basics. New paradigms that cover classical topics and integrate modern technology into the discussion for a real-world viewpoint of modern computer systems. **Prerequisites:** SYEN 1302 and SYEN 2315.

**SYEN 3332 - Communication Networks**

Three hours lecture. Three credit hours. Comprehensive study of the major communication networks. Essentials of communication engineering. Circuit switching networks. Packet switching networks. OSI model. TCP/IP model. Connection and connectionless applications. LAN and WAN. SONET. ATM. Quality of service (QoS). **Prerequisite or Corequisite:** SYEN 3314.

**SYEN 3334 - Advanced Microprocessor Systems**

Three hours lecture. Three credit hours. The 80×86 Intel series of microprocessors (from the 8086 to the Pentium members of the series). Principles of microprocessor system design. Architecture of microprocessors, memory interfacing, assembly language programming, I/O programming, I/O peripheral devices, I/O interface design, and data communications. **Prerequisites:** SYEN 3330.

**SYEN 3336 - Computer Architecture**

Three hours lecture. Three credit hours. The evolution of computers, design methodology, processor basics, data path and control design, memory organization, and system organization. **Prerequisites:** SYEN 3330, or consent of the instructor.

**SYEN 3350 - Signals and Systems**

Three hours lecture. Three credit hours. Linear system theory, convolution, sampling theorem, Fourier series representation, Laplace transform, Fourier transform, digital filtering. **Prerequisites:** MATH 3322.

**Corequisites:** MATH 2453.

**SYEN 3351 - Network Analysis**

Three hours lecture. Three credit hours. Basic circuit laws; circuit analysis methods; capacitive and inductive transients and equivalent circuits; initial, final, and first-order circuits; Laplace transforms; circuit analysis with Laplace transforms; transfer functions; sinusoidal steady-state analysis; frequency response analysis and Bode plots; waveform analysis; Fourier analysis.

**Prerequisites:** SYEN 2315 and SYEN 2115.

**SYEN 3352 - Analog and Digital Electronics**

Three hours lecture. Three credit hours. Electronic systems; measurement sensors and actuators; amplification; feedback; semiconductors and diodes; field effect transistors; bipolar junction transistors; analog signal processing; digital systems; sequential logic; digital devices; microcomputers; data acquisition and conversion; system design. **Prerequisites:** SYEN 2315 and SYEN 2115.

**SYEN 3354 - Digital and Analog Communication**

Three hours lecture. Three credit hours. Introduction to communication systems, signals and spectra, signal transmission over communication channels, filtering, linear and exponential CW modulation, sampling, pulse modulation, random signals, noise in communication systems. **Prerequisites:** SYEN 3350. **Corequisites:** SYEN 3314.

**SYEN 3356 - Electromagnetic Fields and Waves**

Three hours lecture. Three credit hours. Vector algebra and vector calculus; electrostatics, magnetostatics, Maxwell's equations for time-varying fields, plane-wave propagation; transmission lines; wave reflection and transmission; radiation and antennas. **Prerequisites:** SYEN 2315 and MATH 2453.

**SYEN 3358 - Fundamentals of Power Systems**

Three hours lecture. Three credit hours. Electrical machines: generators, motors, and transformers; electrical and electronic drives: motor control and power electronics; electric utility power systems: generation, transmission, distribution, and utilization of electricity. **Prerequisites:** SYEN 2315.

**SYEN 3362 - Algorithm Design**

Three hours lecture. Three credit hours. Design, analysis, and implementation of algorithms important to computer systems and telecommunication systems; algorithmic design patterns and frameworks; data structures; combinatorial algorithms; graph algorithms; geometric algorithms; numerical algorithms; and internet algorithms, including text processing, cryptography, and network algorithms. **Prerequisites:** SYEN 1302.

**SYEN 3364 - Introduction to Control Systems Engineering**

Three hours lecture. Three credit hours. Introduction to feedback digital control systems, PID control, continuous modeling of physical systems, application of integral transforms to control system design and analysis, transfer functions, block diagrams, control system characteristics, stability analysis, performance criteria, frequency response methods. **Prerequisites:** MATH 3322.

**SYEN 3370 - Introduction to Vibrations**

Three hours lecture. Three credit hours. Free and forced vibrations of one and two degree of freedom systems. Natural frequencies. Analysis of rotating unbalance. Damping and vibration isolation. Introduction to continuous systems. **Prerequisites:** SYEN 3371 (or equivalent).

**SYEN 3371 - Dynamics I**

Three hours lecture. Three credit hours. Kinematics and kinetics of particles, systems of particles, and rigid bodies; energy and momentum methods; mechanical vibrations and resonance; introduction to structural dynamics due to time-varying loads, such as wind and seismic loading. **Prerequisites:** SYEN 2370 (or equivalent), B or better in MATH 3322 (or equivalent).

**SYEN 3372 - Engineering Materials**

Three hours lecture. Three credit hours. Atomic structure and atomic bonding in solids; crystalline structures of solids; introduction to crystalline imperfections and diffusion. Mechanical properties of metals; failure and their types: fracture, fatigue and creep. Introduction to phase diagrams. Processing of metal alloys and applications. Introduction to polymers, ceramics, composites and their applications. Corrosion. **Prerequisites:** MATH 1451 (or equivalent) with a grade of C or better and CHEM 1402/CHEM 1406.

**SYEN 3373 - Introduction to the Mechanics of Materials**

Three hours lecture. Three credit hours. The concepts of infinitesimal stress and strain will be introduced, and stress-strain relations for isotropic materials will be developed. Axially loaded members, torsion of circular shafts, and bending of beams will be covered. Stress transformation and Mohr's circle will be introduced. Advanced topics, including buckling in columns, pressure vessels, thermal stresses, and interference fits, will be introduced as time and interest permit. **Prerequisites:** SYEN 2370 or equivalent.

**SYEN 3374 - Fluid Mechanics I**

Three credit hours. The aim of this course is to provide a comprehensive understanding of the basic theories and principles of fluid mechanics, with emphasis on the three commonly used analysis methods: finite control volume (also known as "integral") analysis, differential analysis, and dimensional analysis. The topics covered throughout the semester include fluid statics, inviscid and viscous flow motions (dynamics). The governing equations that dictate fluid motions are discussed: continuity, linear momentum, and energy equations. **Prerequisites:** SYEN 3378.

**SYEN 3378 - Engineering Thermodynamics**

Three hours lecture. Three credit hours. Properties of pure substances, thermodynamic processes, heat and work, the first law of thermodynamics, closed systems, enthalpy, open systems, the second law of thermodynamics, entropy, exergy, and an introduction to power and refrigeration cycles. **Prerequisites:** CHEM 1402 or CHEM 1406, PHYS 2321, and MATH 1452, or consent of instructor.

**SYEN 3379 - Elements of Mechanical Design**

Two hours lecture. Four hours laboratory per week. Three credit hours. Introduction to the design, integration, and best practices for using mechanical elements such as springs, gears, cams and mechanisms, clutches and brakes, and bearings. Methods of joining such as fasteners, welds, press and shrink fits, and shaft coupling will be covered. Performance and failure analysis for components and machines will be covered. Solid modeling of machine assemblies for documentation and basic analysis will be emphasized. A semester-long design project in which a mechanical system is designed, fabricated, and characterized will serve as the practical application of these concepts. **Prerequisites:** SYEN 2233 (or equivalent) and SYEN 3373 (or equivalent).

**SYEN 3391 - Cooperative Education in Systems Engineering I**

Three credit hours. This course is for qualified students who would like to combine classroom study with at least 200 hours of engineering-related paid employment. The course is a partnership between the student, the employer, the systems engineering faculty, and the Office of Cooperative Education. An individualized Cooperative Education Learning Agreement will specify the detailed work assignment, including employer, supervisor, job title, work schedule, and rate of pay, as well as the academic requirements, including learning objectives, learning activities, documentation of learning, learning assessments, and grading policy. This course will be allowed to satisfy up to six hours of program electives. **Prerequisites:** declaration of systems engineering major, completion of at least 60 hours total credit hours with an overall GPA of 2.5 or higher, completion of 20 or more credit hours of systems engineering courses with a GPA of 2.5 or higher, and permission of the systems engineering cooperative education faculty coordinator.

**SYEN 4100 - Independent Study**

One to five credit hours. Individual investigation by an upper level student. Topics determined in consultation with supervising faculty. For each credit hour, the student is expected to work two to four hours per week as determined by the instructor. Agreement must be in writing and filed with the department chairperson. A maximum of six credit hours can be applied toward the SYEN major requirement. **Prerequisites:** Senior standing.

**SYEN 4174 - Mechanical Engineering Laboratory I**

Two hours laboratory per week. One credit hours. Standard mechanical testing measurements. Mechanical sensors, such as pressure, flow, temperature. Analysis of experimental data, data acquisition and processing, report writing and presentation, design of experiments. **Prerequisites:** SYEN 3378.

**SYEN 4176 - Mechanical Engineering Laboratory II**

Two hours laboratory per week. One credit hours. Standard mechanical testing measurements, such as axial stress, torsional stress, 3 point bending, fatigue testing. Mechanical sensors, such as force, acceleration, position, torque. Analysis of experimental data, data acquisition and processing, report writing and presentation, design of experiments. **Prerequisites:** SYEN 3378.

**SYEN 4182 - MEMS and Microsystems Laboratory**

Two hours laboratory per week. One credit hours. This laboratory course is an introduction to the principles of microfabrication for microelectronic devices, sensors, and micromechanical structures, MEMS, and microsystems with applications in engineering. Course comprised of laboratory work and accompanying lectures that cover silicon oxidation, photolithography, thin film deposition, etching, electrochemical deposition (plating) and packaging. Some selected topics in yield and reliability, as well as process simulation may be covered. Dual listed in the Graduate Catalog as SYEN 5182. **Prerequisites:** SYEN 4376 and SYEN 4176 or consent of instructor.

**SYEN 4185 - System Engineering Capstone Design I**

One hours lecture. One credit hours. First semester of systems engineering capstone design sequence. Focuses on the requirements definition process to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, ethical, health and safety, and manufacturability using appropriate engineering standards. Students work in multidisciplinary teams on systems engineering design projects. **Prerequisites:** completion of 35 credit hours of Systems Engineering courses or consent of instructor.

**SYEN 4199 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced specialized topics of current interest in systems engineering. Topics vary with faculty interest and availability. Dual listed in the Graduate Catalog as SYEN 5199, 5299, 5399, 5499. **Prerequisites:** consent of instructor.

**SYEN 4200 - Independent Study**

One to five credit hours. Individual investigation by an upper level student. Topics determined in consultation with supervising faculty. For each credit hour, the student is expected to work two to four hours per week as determined by the instructor. Agreement must be in writing and filed with the department chairperson. A maximum of six credit hours can be applied toward the SYEN major requirement. **Prerequisites:** Senior standing.

**SYEN 4282 - MEMS and Microsystems**

Two hours lecture. Two credit hours. In this introductory MEMS class, we cover the fundamental basis of Microsystems technology. Microelectromechanical devices (MEMS), such as actuators, pressure sensors, and optomechanical assemblies, require knowledge of a broad range of disciplines, from microfabrication and mechanics to chemistry and solid state device physics. Dual listed in the Graduate Catalog as SYEN 5282. **Prerequisites:** SYEN 3372 or equivalent with a grade of C or higher. **Corequisites:** SYEN 4182.

**SYEN 4299 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced specialized topics of current interest in systems engineering. Topics vary with faculty interest and availability. Dual listed in the Graduate Catalog as SYEN 5199, 5299, 5399, 5499. **Prerequisites:** consent of instructor.

**SYEN 4300 - Independent Study**

One to five credit hours. Individual investigation by an upper level student. Topics determined in consultation with supervising faculty. For each credit hour, the student is expected to work two to four hours per week as determined by the instructor. Agreement must be in writing and filed with the department chairperson. A maximum of six credit hours can be applied toward the SYEN major requirement. **Prerequisites:** Senior standing.

**SYEN 4314 - Queuing Theory and Systems**

Three hours lecture. Three credit hours. Theoretical foundations, models and techniques or queuing theory. Topics include classic models of queues including simple and advanced Markovian queuing models, and models with general arrival and service patterns. Applications of queuing theory and queuing systems design considerations. Dual listed in the Graduate Catalog as SYEN 5314. **Prerequisites:** SYEN 3314 or equivalent.

**SYEN 4315 - Advanced Dynamics**

Three hours lecture. Three credit hours. Kinematics of translating and rotating vectors. Dynamics of systems of particles and rigid bodies. Angular momentum. Newtonian mechanics. Lagrangian mechanics. Examples drawn from the fields of robotics, biological motion, and planetary motion. **Prerequisites:** SYEN 3371.

**SYEN 4320 - Linear State-Space Control Systems**

Three hours lecture. Three credit hours. Introduction to modern control systems, state-space models of linear time-invariant systems, solution to state equations, linear transformations and canonical forms, stability analysis, controller synthesis via state feedback, tracking system design, observer-based compensator design, optimal control problems. Dual listed in the Graduate Catalog as SYEN 5320. **Prerequisites:** SYEN 3364 or consent of instructor.

**SYEN 4322 - Modeling Transportation Systems**

Three hours lecture. Three credit hours. The objectives of transportation analysis are defined to include mobility provision, consequence identification and selection of courses of action. A set of methodologies has evolved to exclusively address transport modeling, including demand forecasting, technology representation, network-flow, and multi-attribute assessment of performance. This course reviews very powerful tools to analyze such a class of technological and socioeconomic problems, characterized by the explicit recognition of a spatial dimension. Dual listed in the Graduate Catalog as SYEN 5322. **Prerequisites:** SYEN 3312 or equivalent, SYEN 3314 or equivalent, or Consent of instructor.

**SYEN 4325 - Fuzzy Logic in Control and Systems Engineering**

Three hours lecture. Three credit hours. Introduction, basic concepts of fuzzy logic, fuzzy sets, fuzzy relations, fuzzy If/Then rules, fuzzy implications and approximate reasoning, fuzzy logic in control theory, hierarchical intelligent control, fuzzy logic applications in information systems, fuzzy model identification, neuro-fuzzy systems and genetic algorithms. Dual listed in the Graduate Catalog as SYEN 5325. **Prerequisites:** SYEN 3364.

**SYEN 4326 - Measurement Techniques**

Two hours lecture. Two hours laboratory per week. Three credit hours. Principles of operation and implementation of transducers used in electronic measuring systems. Sensors used for the measurement of strength, capacitance, pressure, flow, force velocity, temperature, humidity, vibration, sound, and acceleration are discussed. Interfacing transducers with a digital system will be emphasized. Effects of quantization, scaling, sampling time, and bandwidth will be examined. Dual listed in the Graduate Catalog as SYEN 5326. **Prerequisites:** SYEN 2315 or equivalent.

**SYEN 4327 - Acoustics**

Development of the equations for acoustics. Transducers for measurement of sound. The ear as a transducer and standard units for sound, for instance, sound pressure level). Analog and digital processing of signals, including spectral analysis and adaptive signal processing. Simple sources, resonators, and reflection. Applications to noise analysis and control and machinery diagnosis through sound. **Prerequisites:** SYEN 4374 or equivalent.

**SYEN 4329 - Robust and Optimal Control**

Three hours lecture. Three credit hours. Fundamentals of linear systems, signal and system spaces, power and spectral norms, feedback structure, internal stability, coprime factorization, Bode's gain and phase relations, observability, controllability, balanced realizations, model reduction, model uncertainty, small gain theorem, controller parameterization, existence of stabilizing controllers, H<sub>2</sub> optimal control, synthesis of state feedback via LMIs, and H<sub>∞</sub> control, and uncertain systems. Dual listed in the Graduate Catalog as SYEN 5329. **Prerequisites:** SYEN 4320.

**SYEN 4331 - Advanced Computer Architecture**

Three hours lecture. Three credit hours. Introduction to Computer Systems, Instruction-Set architecture, Arithmetic/Logic Unit, Data Path and Control, Memory System Design, I/O Interface, and Advanced Architectures. Dual listed in the Graduate Catalog as SYEN 5331. **Prerequisites:** SYEN 3336, or consent of the instructor.

**SYEN 4332 - Applied Operating Systems**

Three hours lecture. Three credit hours. Introduction to operating systems. Buffering, physical input/output, and file management. Multiprogramming and processing, resource scheduling, memory management, concept of virtual memory. Process management and scheduling. Device management and scheduling. Process communication, network communication, and protection. Dual listed in the Graduate Catalog as SYEN 5332.

**Prerequisite or Corequisite:** SYEN 3362.

**SYEN 4334 - Software System Engineering**

Three hours lecture. Three credit hours. Engineering approach to the development of software systems, including the life cycle steps of project planning, requirements analysis and specification, design, production, testing, and maintenance of software systems.

**Prerequisites:** SYEN 3362.

**SYEN 4335 - Mechatronics**

Two hours lecture. Three hours laboratory per week. Three credit hours. The combination of classical mechanical design, electronic analysis and design, control engineering, and computer science in the design of complex electric-mechanical-controlled systems. Commonly used sensors (Encoders, potentiometers, accelerometers) and actuators (stepping motors, DC motors) are studied. Interfacing sensors and actuators to a microcomputer, discrete controller design, and real-time programming for control using the C programming language. There is a significant, out-of-class project exercise associated with this course. **Prerequisites:** SYEN 3379 or equivalent.

**SYEN 4336 - Advances in Communication Networks**

Three hours lecture. Three credit hours. Essentials of S-ISDN, InteServ, MPLS, DiffServ. Advances in optical networks, wireless networks, satellite networks, sensor networks, ad hoc networks, access networks, and autonomous networks. Modeling and optimization of networks. Communication switch OS. Elementary queuing theory. Security issues. OPNET training. Socket programming. Dual listed in the Graduate Catalog as SYEN 5336. **Prerequisites:** SYEN 3312, SYEN 3316, and SYEN 3332.

**SYEN 4340 - Applied Numerical Methods**

Three hours lecture. Three credit hours. MATLAB fundamentals and programming, roundoff and truncation errors, roots of equations, systems of linear algebraic equations, curve fitting, polynomial interpolation, numerical integration, ordinary differential equations, and eigenvalues. Dual listed in the Graduate Catalog as SYEN 5340. **Prerequisites:** MATH 3312 and MATH 3322.

**SYEN 4342 - Linear Program and Network Flows**

Three hours lecture. Three credit hours. This course covers salient linear optimization topics, including computational issues such as decomposition, LU factorization, and network flow. Of equal interest is the equivalence between the network flow paradigm and discrete optimization of a model and its solution algorithms. The relationship between the network flow paradigm and discrete optimization is also emphasized. Software libraries are available to solve linear optimization models. Dual listed in the Graduate Catalog as SYEN 5342. **Prerequisites:** SYEN 3312 or equivalent, or Consent of instructor.

**SYEN 4350 - Digital Signal Processing**

Three hours lecture. Three credit hours. Signals and signal processing; discrete-time signals and systems in the time and frequency domains; digital processing of continuous-time signals; finite-length discrete transforms; discrete-time signals and systems in the z-domain; LTI discrete-time systems in the transform domain; digital filter structures; IIR digital filter design; FIR digital filter design; DSP algorithm implementation; analysis of finite word-length effects; multi-rate DSP fundamentals; multi-rate filter banks and wavelets; applications of DSP.

**Prerequisites:** SYEN 3350.

**SYEN 4352 - Spatial Time Series**

Three hours lecture. Three credit hours. Instead of a single stream of data, multiple streams are gathered over the target can provide better information. Because of the inherent spatial correlation among these data streams, spatial time-series can play an important role in multiple-sensor and other data-intensive applications. Image-processing applications include image rectification and restoration, image enhancement, image classification, and data merging. Signal processing applications include Spatial-temporal Autoregressive Moving-Average model and Intervention Analysis. Unifying these diverse analyses and applications is Markov Random Field Theory. Dual listed in the Graduate Catalog as SYEN 5352.

**Prerequisites:** SYEN 3312, SYEN 3314 or STAT 3353, and consent of instructor.

**SYEN 4353 - Advanced Digital Communications**

Three hours lecture. Three credit hours. In-depth examination of wireless digital communication design strategies. Topics covered include digital modulation, radiowave propagation characteristics. Signal detection methods, BER performance improvement and simulation techniques RF/hardware architectures, migration path for modulation and demodulation techniques, signal processing building blocks for wireless systems, method for mitigating wireless channel impairments, perform system simulations, BER and channel models, predict system performance and evaluate trade-offs, list TDMA and CDMA techniques, and 3G evolution, describe design issues for wireless systems, particularly those issue in which transmit and receive implementation affect system performance. Dual listed in the Graduate Catalog as SYEN 5353. **Prerequisites:** SYEN 3154 and SYEN 3354.

**SYEN 4354 - Power Systems Analysis**

Three hours lecture. Three credit hours. Fundamental concepts of power system analysis, transmission line parameters, system models, steady-state performance, network calculations, power flow solutions, fault studies, symmetrical components, operation, and control. Dual listed in the Graduate Catalog as SYEN 5354. **Prerequisites:** SYEN 3358, or consent of the instructor.

**SYEN 4355 - Mobile Multimedia Internet**

Three hours lecture. Three credit hours. The course will provide state-of-the-art perspective of the emerging landscape of Mobile Multimedia Internet. Key subject areas covered in advanced mobile internet technologies include WLAN, GPRS, 3G UMTS, and VoIP. Topics covered will involve architecture of the systems, protocol issues, the design and analysis of solutions for mobility, quality of service, mobile IP, and standardization efforts. **Prerequisites:** SYEN 3314.

**SYEN 4356 - Radio Frequency Techniques and Systems**

Three hours lecture. Three credit hours. Analysis of electrostatic, magnetostatic, and dynamic fields using vector analysis. Coulomb's Law, electric field intensity, electric flux density, Gauss' Law. Energy and potential. Conductors, dielectrics, and capacitance. Poisson's and Laplace's equations. The steady magnetic field magnetic forces, materials, and inductance. Time-varying fields and Maxwell's equations. Boundary conditions. The uniform plane wave. Plane waves at boundaries and in dispersive media. Transmission lines and antenna fundamentals. Examples are taken from the field of wireless communications. Dual listed in the Graduate Catalog as SYEN 5356. **Prerequisites:** SYEN 3356.

**SYEN 4358 - Cellular and Wireless Communications**

Three hours lecture. Three credit hours. Characteristics of mobile radio environment, multipath and fading, cellular communication concepts, channel allocation and reuse, access and scheduling techniques, system capacity, power control, diversity, coding, modulation in cellular systems, examples of digital wireless systems, wireless local area networks. **Prerequisites:** SYEN 3354 and SYEN 3314.

**SYEN 4359 - Optical Networking**

Three credit hours. Fundamental concepts of networking, optical networks elements and devices, SONET, WDM, DWDM, optical control plane, MPLS and GMPLS. Free Space Optical Mesh Networks. **Prerequisites:** SYEN 4355 or consent of instructor.

**SYEN 4362 - Neural Networks & Adaptive Systems**

Three hours lecture. Three credit hours. Introduction to neural networks, neuron models and learning strategies, pattern recognition, multi-layer perception, back propagation, principle component analysis, self-organizing feature maps, neural networks for time series-forecasting. Dual listed in the Graduate Catalog as SYEN 5362. **Prerequisites:** SYEN 3312 or consent of the instructor.

**SYEN 4366 - Advanced Digital Systems**

Three hours lecture. Three credit hours. Advanced design principles for digital systems. Hardware modeling in the hardware description language VHDL (Verilog Hardware Description Language), compilation techniques for hardware models, and logic-level synthesis and optimization techniques for combinational and sequential circuits. Dual listed in the Graduate Catalog as SYEN 5366. **Prerequisites:** SYEN 3330 and SYEN 3130.

**SYEN 4371 - Introductory Continuum Mechanics**

This introductory course on Continuum Mechanics will take a unified approach to train the student in the modeling of deformation in solids, fluid flow, and electrical fields. Using a first principles approach, the fundamental conservation laws of mass, charge, momentum and energy will be covered. Application to deformation in solids, heat transfer, fluid flow and electrical fields will be addressed. **Prerequisites:** MATH 2453 and MATH 3322 or their equivalent, PHYS 231 and PHYS 3300 or their equivalent.

**SYEN 4372 - Mechatronics II**

Three hours lecture. Three credit hours. The combination of classical mechanical design, electronic analysis and design, control engineering, and computer science in the design of complex electric-mechanical-controlled systems. Commonly used sensors (potentiometers, accelerometers) and actuators (stepping motors, DC motors) are studied. Interfacing sensors and actuators to a microcomputer, discrete controller design, and real-time programming for control using the C programming language. There is a significant out-of-class project exercise associated with this course. **Prerequisites:** SYEN 4335 or equivalent.

**SYEN 4374 - Fluid Mechanics II**

Three credit hours. The important features of compressible flows of ideal gas will be discussed with particular attention on the role of Mach number and speed of sound in the analysis. Characteristics of isentropic and non-isentropic flows including normal shock waves will be investigated. Turbomachines such as pumps, fans, compressors, and turbines will be introduced. The angular momentum equation will be used to analyze performance characteristics of these turbomachines. **Prerequisites:** SYEN 3374.

**SYEN 4375 - Mechanical Vibration**

Three hours lecture. Three credit hours. Analysis of linear multi-degree of freedom systems. Lagrangian formulation, model analysis, lumped parameter analysis of discrete systems, and continuous system vibrations. Introduction to non-linear systems. **Prerequisites:** SYEN 3370 or consent of instructor.

**SYEN 4376 - Mechanics of Materials II**

Three hours lecture. Three credit hours. Stress, strain and stress-strain relations in two and three dimensions; two-dimensional elasticity; advanced beam bending theory; torsion; beams on elastic foundations; energy methods; plates and shells; failure criteria. **Prerequisites:** SYEN 3372 and SYEN 3373.

**SYEN 4379 - Heat Transfer**

Three hours lecture. Three credit hours. Steady and transient heat conduction; forced, natural, and multiphase convection; heat exchanger design and analysis; radiation heat transfer; mass transfer. **Prerequisites:** SYEN 4374 or consent of instructor.

**SYEN 4380 - HVACR Engineering Fundamentals**

Two hours lecture. Two hours laboratory per week. Three credit hours. Fundamentals of heating, ventilating, air-conditioning, and refrigeration (HVACR) engineering; refrigeration cycles; psychometrics; indoor air quality and ventilation; heating and cooling loads. Cross listed as CNMG 4380. **Prerequisites:** CNMG 2274 or SYEN 3378/CNMG 3378, or consent of instructor.

**SYEN 4381 - Thermal Powerplant Engineering**

Two hours lecture. Two hours laboratory per week. Three credit hours. Thermodynamics of combustion and power cycles; internal combustion engines; steam turbine powerplants; gas turbine powerplants; combined cycle powerplants; introduction to alternative energy systems. Dual listed in the Graduate Catalog as SYEN 5381. **Prerequisites:** CNMG 2274 or SYEN 3378/CNMG 3378, or consent of instructor.

**SYEN 4383 - Finite Element Analysis**

Three hours lecture. Three credit hours. Basic concepts of the finite element method (FEM); stiffness matrices, spring and bar elements; truss structures, the direct stiffness method; flexure elements; method of weighted residuals; interpolation functions for general element formulation; applications in heat transfer, fluid mechanics, and solid mechanics; structural dynamics. Dual listed in the Graduate Catalog as SYEN 5383. **Prerequisites:** SYEN 3378 and SYEN 4376.

**SYEN 4384 - Computer Methods in Fluids and Heat Transfer**

Three hours lecture. Three credit hours. Modeling and simulation of thermal-fluid problems using commercial software, finite volume method, solution algorithms for pressure-velocity coupling, solution of discretized equations, unsteady flows, uncertainty in CFD modeling, methods for dealing with complex geometrics, modeling of combustion, heat transfer, and unsteady flows. **Prerequisites:** SYEN 4374, or with instructor's consent.

**SYEN 4385 - Systems Engineering Capstone Design I**

Three hours lecture. Three credit hours. First semester of systems engineering capstone design sequence. Focuses on the requirements definition process and involves designing a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability, using appropriate engineering standards. Students work in multidisciplinary teams on system engineering design projects and make formal written and oral presentations of their preliminary work. **Prerequisites:** completion of at least 40 credit hours of SYEN courses.

**SYEN 4386 - Systems Engineering Capstone Design II**

Six hours laboratory per week. Three credit hours. Second semester of systems engineering capstone design sequence. Focuses on the solution definition process and involves designing a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, ethical, health and safety and manufacturability using appropriate engineering standards. Students work in multidisciplinary teams on system engineering design projects and make formal written and oral presentations of their preliminary work. **Prerequisites:** SYEN 4185.

**SYEN 4389 - Professional Engineering Licensure**

Three hours lecture. Three credit hours. Legal, regulatory, and ethical issues related to the practice of engineering; preparation for engineering licensure examinations. Cross listed as CNMG 4389. **Prerequisite/Concurrent:** Senior standing and registration for the Fundamentals of Engineering exam, or consent of instructor.

### **SYEN 4391 - Cooperative Education in Systems Engineering II**

Three credit hours. This course is for qualified students who would like to combine classroom study with at least 200 hours of engineering-related paid employment. The course is a partnership between the student, the employer, the systems engineering faculty, and the Office of Cooperative Education. An individualized Cooperative Education Learning Agreement will specify the detailed work assignment, including employer, supervisor, job title, work schedule, and rate of pay, as well as the academic requirements, including learning objectives, learning activities, documentation of learning, learning assessments, and grading policy. This course will be allowed to satisfy up to six hours of program electives.

**Prerequisites:** SYEN 3391, an overall GPA of 2.5 or higher, completion of 40 or more credit hours of systems engineering courses with a GPA of 2.5 or higher, and permission of the systems engineering cooperative education faculty coordinator.

### **SYEN 4399 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced specialized topics of current interest in systems engineering. Topics vary with faculty interest and availability. Dual listed in the Graduate Catalog as SYEN 5199, 5299, 5399, 5499.

**Prerequisites:** consent of instructor.

### **SYEN 4400 - Independent Study**

One to five credit hours. Individual investigation by an upper level student. Topics determined in consultation with supervising faculty. For each credit hour, the student is expected to work two to four hours per week as determined by the instructor. Agreement must be in writing and filed with the department chairperson. A maximum of six credit hours can be applied toward the SYEN major requirement. **Prerequisites:** Senior standing.

### **SYEN 4499 - Special Topics**

One, two, three, or four hours lecture. One, two, three, or four credit hours. Advanced specialized topics of current interest in systems engineering. Topics vary with faculty interest and availability. Dual listed in the Graduate Catalog as SYEN 5199, 5299, 5399, 5499.

**Prerequisites:** consent of instructor.

### **SYEN 4500 - Independent Study**

One to five credit hours. Individual investigation by an upper level student. Topics determined in consultation with supervising faculty. For each credit hour, the student is expected to work two to four hours per week as determined by the instructor. Agreement must be in writing and filed with the department chairperson. A maximum of six credit hours can be applied toward the SYEN major requirement. **Prerequisites:** Senior standing.

## **Teacher Education**

### **TCED 1100 - Introduction to Teaching and Learning**

One credit hours. This course satisfies the First-Year Course requirements for first-year students and is an introduction to teaching and learning in American elementary and secondary schools. The course is open for all first-time students, but is especially applicable for those who may be considering a major or minor in education and teaching as a career. The course includes introductions to the field of education, current issues in teaching and learning in schools, and a service-learning project involving the teaching and learning of school-age students in the Little Rock area.

### **TCED 1200 - Preparation for Education**

Two credit hours. This course will prepare candidates to successfully complete the necessary requirements for entrance into the undergraduate, initial licensure teacher education programs (Elementary Education, Middle Childhood Education, Special Education, or the Secondary Education Minor). This is not a required course for any of the Teacher Education programs, but it will better prepare candidates to successfully complete entrance requirements, especially in passing the state required entrance exam.

### **TCED 4100 - Workshop**

One, two, or three credit hours. Designed to provide an opportunity for preservice and in-service teachers to explore areas of interest and prepare educational materials through a workshop format. **Prerequisites:** consent of instructor (based on student's experience and course work in the educational area).

### **TCED 4200 - Workshop**

One, two, or three credit hours. Designed to provide an opportunity for preservice and in-service teachers to explore areas of interest and prepare educational materials through a workshop format. **Prerequisites:** consent of instructor (based on student's experience and course work in the educational area).

### **TCED 4300 - Workshop**

One, two, or three credit hours. Designed to provide an opportunity for preservice and in-service teachers to explore areas of interest and prepare educational materials through a workshop format. **Prerequisites:** consent of instructor (based on student's experience and course work in the educational area).

### **TCED 4301 - Introduction to Instructional Technology**

Three credit hours. The selection, use, and creation of 10 different types of fundamental media software found in today's educational institutions. The student is required to teach a single unit using media created within the media center laboratory. **Prerequisites:** EDFN 2300.



**TCED 4320 - Interactive Technology for Middle School**

Three credit hours. The production and application of Interactive Instructional units where the microcomputer is the controlling medium for such peripherals as CDROM players and web browsers.

**TCED 4321 - Teaching Diverse Learners**

Three credit hours. This course provides knowledge of educational psychology, special education, and diversity and incorporates technology for learning and teaching. Course assignment requires students to observe classes in a variety of school settings with diverse populations. Includes a field component of 15 hours of classroom observation under the supervision of a cooperating teacher. Dual listed in the Graduate Catalog as TCED 5321, may not be repeated for credit. **Prerequisites:** TCED 4383/5383.

**TCED 4330 - Classroom Management**

Three credit hours. Emphasizes creation of and fostering of classroom management techniques and strategies for the design of environments that are conducive to a safe place for teaching and learning. Includes connecting the school-home-community connections. Incorporates technology for learning and teaching. Candidates will have taken or passed Praxis CORE prior to course. Dual listed in the Graduate Catalog as TCED 5330. **Corequisites:** TCED 4600

**TCED 4383 - Instructional Skills**

Three credit hours. This course provides knowledge of instructional skills, assessment, and disciplinary literacy. Lesson planning and design, evaluation, equity, legal issues, technology implementation, and content area literacy strategies will be addressed. Includes a field component of 15 hours individualized or small group instruction/support in a K-12 classroom setting under the supervision of a cooperating teacher. Dual listed in the Graduate Catalog as TCED 5383, may not be repeated for credit.

**TCED 4600 - Internship**

An educational internship with a field component of a minimum of 12 weeks (480 hours) of internship in a classroom setting under the supervision of a cooperating teacher. Total field experience hours must reflect exposure at both the lower (K-6 or 712) and upper (79 and 1012) grades. Each program will ensure that no less than 25% of total field experiences are completed in either grade range. Cross listed as ARED 4600/ACOM/BIOL 4600/CHEM 4600/ENGL 4600/HHPS 4600/HIST 4600/IGSC/LANG 4600/MATH 4600/MUED 4600/PHYS 4600/THEA 4600. **Prerequisites:** TCED 4383, TCED 4321, 2.75 GPA, Praxis II content area examination(s) as required by department/ program. **Concurrent:** TCED 4330.

## Teaching Students who are Deaf or Hard of Hearing

**TDHH 4301 - Foundations of Education for Deaf and Hard of Hearing Students**

Three credit hours. This foundations course is a broad-based introductory course to the profession of teaching students who are deaf or hard of hearing. This course articulates the historical background, philosophical approaches, and current trends, problems, and issues in the education of the deaf and hard of hearing. An overview of the psychological, emotional, and educational problems of the deaf and hard of hearing is included. Knowledge of contemporary educational processes and programs for deaf or hard of hearing infants, children, and adolescents are incorporated into the course content. Dual listed in the Graduate Catalog as TDHH 5301.

## Theatre

**THEA 1201 - Theatre/Dance**

Two credit hours. A First Experience This course is designed for individuals considering majoring in theatre or dance. It serves as an introduction to the discipline, the profession, career options, and theatre as a "way of knowing." Moreover, the course is tied to the specific identity of the department, and the faculty at the time the course is offered.

**THEA 1310 - Introduction to Theatrical Design**

Three credit hours. To introduce the student to the conceptualized aesthetic approaches utilized in the creation of the visual and aural world of theatre production. Through hands-on creative endeavor that utilizes critical thinking, students will investigate how costume and makeup, scenery and props, lighting, and sound amplify and underpin the collaborative vision of a play.

**THEA 2305 - Introduction to Theatre & Dance**

Three credit hours. An exploration of the components of the creative process as related to the making of theatre and dance. The purpose of this study is to develop in students an understanding of the theatrical experience. Attendance at arts events is required. (ACTS Course Number DRAM 1003)

**THEA 2310 - Costume Techniques**

Three credit hours. An exploration of craft skills used for costume construction including work with patterns, fabric, stitching and garment execution.

**THEA 2320 - Stagecraft/ Lighting Technology**

Three credit hours. This course will present the fundamentals of lighting technology and Stagecraft, and the equipment and methods used in both areas as it applies to theatre making. Students taking this class will practice skill sets needed in theatrical construction; including the use of power tools.

**THEA 2352 - Script Analysis**

Three credit hours. An exploration of in-depth analysis of a play's storyline, characters, dialogue, images, metaphors and themes. Students will read, view and analyze play scripts, learning how essential information is conveyed, how story elements are communicated through visual means, how a dramatic arc is built with cause and effect, and what makes a character credible and complex.

**THEA 2359 - IT for Theatre and Dance**

Three credit hours. An exploration of current forms of information technology such as video editing, graphic design, presentation platforms, web design, blogging, etc. as tools for creative design in choreography and directing, and as marketing tools for career promotion.

**THEA 2360 - Acting I**

Three credit hours. A beginning level performance course. Class exercises and projects are structured to emphasize the basic theories of acting at the core of the contemporary American theatre.

**THEA 3160 - Stage Production**

One credit hours. Designed to provide a laboratory experience with supervised practice in order to introduce the various positions and skills associated with theatrical production. Special emphasis is placed on the communicative processes used in collaborative production.

**THEA 3161 - Stage Production**

One credit hours. Designed to provide a laboratory experience with supervised practice in order to introduce the various positions and skills associated with theatrical production. Special emphasis is placed on the communicative processes used in collaborative production.

**THEA 3350 - Voice and Movement**

Three credit hours. Focuses on building a process for correct, healthy voice usage in theatre performance in combination with movement training. **Prerequisites:** THEA 2360 or consent of instructor.

**THEA 3351 - Acting II**

Three credit hours. A performance course designed to teach what acting is and to provide a structured opportunity for the individual to become familiar in an intellectual and a hands-on manner with the craft and skills required to create and perform a character in a text oriented theatrical production. **Prerequisites:** THEA 2352 & THEA 2360.

**THEA 3360 - Stage Management**

Three credit hours. A systematic exploration of the stage manager's role in theatrical production ranging from communicative collaboration to the management of time, materials, and personnel in relation to preproduction, rehearsal, and "calling" a show.

**THEA 3362 - Directing I**

Three credit hours. This course explores the study of interpretive styles of play direction, rehearsal techniques, audience analysis, contemporary trends and the way a director thinks. Opportunity to test principles in assigned laboratory production. **Prerequisites:** THEA 2352 & THEA 2360.

**THEA 3380 - Lighting Design**

Three credit hours. An exploratory class in the fundamentals of lighting design introducing students to design concepts for theatre and dance through the development of creative thinking and the specific language of the medium.

**THEA 3381 - Scenic Design**

Three credit hours. This course explores the creative making and artistry of scenic design. The student will develop the ability to perform an extrinsic interpretation of a play and then by use of skill-based experimentation create a design that supports his/her specific concept for the environment the actors will live in on stage.

**THEA 3382 - Costume Design**

Three credit hours. The students will combine acquired knowledge of design theory and practice, acquired skills of text analysis, and acquired skills of oral and written presentation to define, develop and demonstrate a creative process that utilizes costume as visual storytelling.

**THEA 4140 - Special Topics in Theatre Arts**

One, two, or three credit hours. Special topics for the study of plays, playwrights, theatrical periods, styles, production methods, and other topics related to the general curriculum. The content and course subtitle change each time offered. Refer to the semester class schedule for a descriptive title of the content. Dual listed in the Graduate Catalog as the 5000-level.

**THEA 4160 - Independent Study**

One, two, or three credit hours. Open only to qualified students who seek to do advanced research on a topic selected in consultation with an instructor. **Prerequisites:** Consent of Theatre faculty.

**THEA 4161 - Stage Production**

One credit hours. Designed to provide a laboratory experience with supervised practice in order to introduce the various positions and skills associated with theatrical production. Special emphasis is placed on the communicative processes used in collaborative production.

**THEA 4162 - Stage Production**

One credit hours. Designed to provide a laboratory experience with supervised practice in order to introduce the various positions and skills associated with theatrical production. Special emphasis is placed on the communicative processes used in collaborative production.

**THEA 4240 - Special Topics in Theatre Arts**

One, two, or three credit hours. Special topics for the study of plays, playwrights, theatrical periods, styles, production methods, and other topics related to the general curriculum. The content and course subtitle change each time offered. Refer to the semester class schedule for a descriptive title of the content. Dual listed in the Graduate Catalog as the 5000-level.

**THEA 4260 - Independent Study**

One, two, or three credit hours. Open only to qualified students who seek to do advanced research on a topic selected in consultation with an instructor. **Prerequisites:** Consent of Theatre faculty.

**THEA 4340 - Special Topics in Theatre Arts**

One, two, or three credit hours. Special topics for the study of plays, playwrights, theatrical periods, styles, production methods, and other topics related to the general curriculum. The content and course subtitle change each time offered. Refer to the semester class schedule for a descriptive title of the content. Dual listed in the Graduate Catalog as the 5000-level.

**THEA 4350 - History of Theatre I**

Three credit hours. A chronological survey of theatre history from its origins through the Baroque period. Particular emphasis paid to major periods of theatrical achievement, studying conjectural and documented styles in acting, design and production methods. This course will look at the influences of painting, sculpture, architecture and music on theatre and dance during each of the following artistic periods: Greek and Roman, Medieval, Renaissance, and Baroque. **Prerequisites:** Junior or Senior standing.

**THEA 4351 - History of Theatre II**

Three credit hours. A survey of Theatre practice from Romanticism through Postmodernism. Special attention given to innovative aspects, such as surrealism and expressionism, epic theatre, the absurd movement, multimedia presentations, and environmental theatre. Influences from painting, sculpture, architecture and music will also be examined. **Prerequisites:** Junior or Senior standing.

**THEA 4352 - Dramatic Criticism**

Three credit hours. An introduction to critical and aesthetic theory as applied to dramatic literature and theatrical production. Emphasis on the exploration of evolving theories in the last century including semiotics, phenomenology, poststructuralism, post colonial and post modern theory, feminist, gender and performance studies.

**THEA 4360 - Independent Study**

One, two, or three credit hours. Open only to qualified students who seek to do advanced research on a topic selected in consultation with an instructor. **Prerequisites:** Consent of Theatre faculty.

**THEA 4361 - Directing II**

Three credit hours. An advanced course dealing with the theory of directing and the development of skills introduced in the Directing 1 course. Students will be given opportunity to test principles in an assigned laboratory production. **Prerequisites:** THEA 2352, THEA 2360, & THEA 3362.

**THEA 4362 - Capstone**

Three credit hours. This course is designed to provide students with an opportunity to integrate core and major concentration courses into an in-depth project that focuses on academic and/or creative skills. The result of the work will support a pursuit of continued education and or a professional career. The project may take the form of a creative project (performance, design, production) or a research project based on a hypothesis that can be explored by a literary survey and/or laboratory application. **Prerequisites:** Senior major in good standing; Faculty approval of the project proposal.

**THEA 4364 - Contemporary Theatre**

Three credit hours. This course will examine contemporary plays and musicals by employing the examination of the script, choice of costumes, scene design, choreography, music and special effects, acting and directing. Students will critique at least one contemporary theatre production from the UA Little Rock season, associated regional and local theatres. Students will work in teams to create their own contemporary theatre events.

**THEA 4369 - Performance Internship**

Three credit hours. This course is designed to provide an internship with a professional theatre company focused on an aspect of performance (acting, directing, choreography, stage management, dramaturgy). The student will spend the majority of time on site working with and according to the company's schedule in fulfillment of production assignments determined by the management in consultation with the department coordinator. **Prerequisites:** Theatre major and consent of faculty.

**THEA 4370 - Design/Technical Internship**

Three credit hours. This course is designed to provide an internship with a professional theatre company focused on an aspect of design and technical theatre (scenic design, lighting design, costume design, properties, sound design, & technical direction). The student will spend the majority of time on site working with and according to the company's schedule in fulfillment of production assignments determined by the management in consultation with the department coordinator. **Prerequisites:** Theatre major and consent of faculty.

## Technology Innovation

### **TINV 4301 - Strategies for Innovation**

This course examines strategies for developing innovative products. Topics include how to choose promising problems that are ripe for innovative solutions, how to generate multiple ideas for solving these problems, how to select the most promising solutions and how to sell your solution to potential partners, managers and investors. This is a hands-on project-based course. **Prerequisites:** Junior or senior standing (TINV 4301) or graduate standing (TINV 5301).

### **TINV 4302 - Information, Computing, and the Future**

Three hours lecture. Three credit hours. Topics on information and computing and their interactions with society. Emphasizes the history and present status of information and computing technologies and their implications for possible future changes in the profession, the field, and society. Includes discussion of change as a factor in personal career preparation, goals, and activities. Topics may vary based on student interest and current events. Cross listed as IFSC 4301.

### **TINV 4303 - Applied Innovation Project**

The purpose of this course is to give students experience in developing a prototype product in their chosen technological inventions and introduces students to commonly used design tools. It is open to students in any field of science and technology. This is primarily a laboratory class that requires a substantial time commitment. In addition to the activities listed above, students enrolled in TINV 5303 will need to prepare a Prototype User Evaluation Report that documents how potential users of the innovation evaluate the prototype. **Prerequisites:** TINV 4301 / 5301, MGMT 4361 / 5361 and MGMT 4383/5383.

## About UA Little Rock

### History

The University of Arkansas at Little Rock was founded in 1927 as Little Rock Junior College under the supervision of the Little Rock Board of Education. During the first semester, there were eight instructors and about 100 students. By 1929, the college was accredited by the North Central Association of Colleges and Schools, a status it has kept through changes in size and status.

Housed at first in public school buildings, the college moved in 1949 to its present location in southwest Little Rock on a beautifully wooded site donated by Raymond Rebsamen, a Little Rock businessman. By that time, the college was the sole beneficiary of a continuing trust established by former Governor George W. Donaghey.

The institution began a four-year degree program in 1957. At that time, the University was independent and privately supported under a separate board of trustees and took the name Little Rock University. In September 1969, after several years of discussion and study, Little Rock University merged with the University of Arkansas System to create the University of Arkansas at Little Rock. That was a major step in the creation of a multi-campus system. Within this structure, UA Little Rock is state supported, operationally separate, and specifically oriented toward serving the educational needs of Arkansas.

The University of Arkansas merger began a period of rapid growth, which saw UA Little Rock go from about 3,500 students and 75 full-time faculty members in 1969 to about 12,000 students and 500 full-time faculty members today. The University's expanded offerings now include more than 100 undergraduate and graduate degrees, an extensive schedule of night, weekend, as well as extended programs. We also provide a wide range of community educational services. UA Little Rock began offering graduate and professional work in 1975 and the UA Little Rock Graduate School was created in 1977. Besides the juris doctor, UA Little Rock has ten doctoral programs and 39 graduate and professional programs, as well as joint programs with other campuses of the University of Arkansas System. UA Little Rock is classified by the Carnegie Foundation for the Advancement of Teaching as a Doctoral/Research University.

Presidents of the Little Rock Junior College and Little Rock University include R.C. Hall (1927-1930), John A. Larson (1930-1950), Granville Davis (1950-1954), E.Q. Brothers

(acting president 1954-1956), and Carey V. Stabler (1956-1969).

Chancellors of the University of Arkansas at Little Rock include Carey V. Stabler (1969-1972), James H. Fribourgh (acting chancellor 1972-1973, 1982), G. Robert Ross (1973-1982), James H. Young (1982-1992), Joel E. Anderson (interim chancellor 1993), Charles E. Hathaway (1993-2002), Joel E. Anderson (2003-2016), and Andrew Rogerson (2016 – present).

### Student Body

One of the most exciting things about UA Little Rock is the diversity reflected in the student body. The campus includes people ranging from the usual college ages of 18 to 21 to many over the age of 60. Most students work at least part-time, and many are married. Many go to college part-time and take one, two, or three courses a semester. Some students take courses for personal enrichment or job advancement without immediate plans to get a degree. About a third are going to college at night only. More than 60 percent of the students are women, about 29 percent are African-American, and a growing number are international students. The majority of students at UA Little Rock are transfer students.

### University of Arkansas System Mission

The University of Arkansas System is a comprehensive, multi-campus, publicly-aided institution dedicated to the improvement of the mind and spirit through the development and dissemination of knowledge. The University embraces and expands the historic trust inherent in the land-grant philosophy by providing access to academic and professional education, by developing intellectual growth and cultural awareness in its students, and by applying knowledge and research skills to an ever-changing human condition. (Adopted by the University of Arkansas Board of Trustees, 1989)

Most universities today develop and publish statements explaining their purposes and describing their programs. Official boards that govern a campus or coordinate its activities in relation to other campuses also develop and publish such statements. For UA Little Rock there are mission statements and role and scope statements developed at three levels: the University of Arkansas System, the statewide coordinating board, and the campus. Although not identical, the statements are similar and consistent in content, each reflecting a different perspective from a different level of responsibility.

The mission statement typically is brief, general, and philosophical. It states why the institution exists. It addresses fundamental purposes and permanent commitments. It distinguishes the university from other social institutions such as a church, a factory, a political party, or an elementary school.

The role and scope statement is more concrete and specific than the mission statement. Elements of a role and scope statement have only relative permanence. The role and scope statement distinguishes one university from other universities. Each university campus has a role to play in a larger cast of actors. Thus role and scope statements tend to be of particular concern to officials responsible for governing or coordinating multiple university campuses.

The role and scope statement typically discloses the nature and range of the institution's responsibilities and activities: geographical service area; disciplines in which programs are provided; levels of degree offerings, e.g., associate, baccalaureate, master's, doctoral; dominant characteristics of the student clientele; other constituencies to be served; emphasis areas; and sometimes future directions.

Included in this chapter are the mission statement of the University of Arkansas System, the role and scope statement for UA Little Rock adopted by the University of Arkansas Board of Trustees, and the role and scope statement for UA Little Rock published by the Arkansas Department of Higher Education and adopted by the Arkansas Higher Education Coordinating Board. They are followed by the current mission, objectives, and role and scope statements developed at UA Little Rock.

## UA Little Rock Mission

The mission of the University of Arkansas at Little Rock is to develop the intellect of students; to discover and disseminate knowledge; to serve and strengthen society by enhancing awareness in scientific, technical, and cultural arenas; and to promote humane sensitivities and understanding of interdependence. Within this broad mission are the responsibilities to use quality instruction to instill in students a lifelong desire to learn; to use knowledge in ways that will contribute to society; and to apply the resources and research skills of the University community to the service of the city, the state, the nation, and the world in ways that will benefit humanity. (Adopted by the UA Little Rock Faculty Senate, 1988)

## UA Little Rock Objectives

The University, through its various programs, works toward six mission objectives:

- **Excellence in Instruction:** The University has a responsibility to provide excellence in instruction to ensure high-quality education for our students. This responsibility includes developing faculty teaching skills, awareness of the ways students learn, assessing student learning outcomes, and enhancement of resources to support effective instruction.
- **Scholarly Inquiry:** The University has a responsibility to use scholarly inquiry to advance the discovery, preservation, and dissemination of knowledge. This responsibility includes the creation of a university environment that supports diverse research activities by faculty, staff, and students.
- **Service to Society:** The University has a responsibility to serve society through the application of knowledge and research skills. This responsibility includes applying the University's resources to local, state, national, and international needs in order to improve the human condition.
- **Community of Learning:** The University has a responsibility to provide a community of learning through the creation of an academic environment that stimulates students, faculty, and staff to become lifelong learners. This environment should heighten the intellectual, cultural, and humane sensitivities of students, faculty, and staff.
- **Accessibility:** The University has a responsibility to serve the needs of a heterogeneous student population and to make its resources accessible to the general public and to local, state, national, and international groups. This responsibility includes creating opportunities for access to the University's academic and other resources.
- **Responsiveness:** The University has a responsibility to remain responsive to a changing environment and society. This responsibility includes a continuous assessment of the University's strengths and weaknesses in planning for and meeting internal and external needs. It also includes developing the faculty, staff, and students' desire and capacity in order to create an academic community that is open to change and ready to meet the demands of a dynamic environment and student body.

(Adopted by the UA Little Rock Faculty Senate, 1988)

## **UA Little Rock Role and Scope Developed by the University of Arkansas Board of Trustees**

The University of Arkansas at Little Rock (UA Little Rock) is a Carnegie "Doctoral/Research University" offering a comprehensive range of undergraduate, master's, and doctoral programs, and a first professional degree in law. Due to its location in the state's capital city and largest, most complex metropolitan area, the demand for UA Little Rock to offer graduate, professional, and doctoral education continues to increase, and, thus, post-baccalaureate offerings will become a larger part of the institution's instructional program. Because of its metropolitan location, UA Little Rock assumes a special role in relation to the needs of urban areas in modern society in its instruction, research, and public service programs. UA Little Rock recognizes and accepts that in the 21st Century universities are critical to regional and state economic development.

UA Little Rock serves a diverse student body. While it serves traditional students as do most other universities, UA Little Rock also serves large numbers of nontraditional students who enroll part-time, commute to campus, have job and family responsibilities, and may be older than the traditional college student. The university also enrolls international students from more than 50 countries. Honors courses and a nationally recognized undergraduate scholars program respond to the needs of superior students while students with developmental needs are afforded organized assistance in meeting their educational goals. UA Little Rock emphasizes excellence in teaching by all faculty. Developing technological competence in students receives particular attention.

UA Little Rock is strongly committed to research and public service. Faculty engage in applied and basic research appropriate to their academic disciplines and in response to economic development needs and other state and regional needs. The university is committed to supporting research and development, often in cooperative relationships, leading to intellectual property and commercialization. UA Little Rock's public service mission is reflected in numerous outreach activities by individual faculty members, academic units, and a number of specialized units established to provide assistance and expertise to organizations and groups in the community and across the state.

Partnerships are very important to UA Little Rock for they enable the university to extend its reach, increase its effectiveness, and leverage its resources. UA Little Rock works with other institutions of higher education-particularly the University of Arkansas for Medical Sciences, the

University of Arkansas Cooperative Extension Service, the University of Arkansas Clinton School of Public Service, and Pulaski Technical College-to coordinate instructional programs. UA Little Rock partners with and complements the research activities of the University of Arkansas for Medical Sciences. UA Little Rock gives and receives benefit from partnerships with businesses, schools, governmental offices, neighborhood groups, cultural organizations, and nonprofit organizations. (Adopted by the University of Arkansas Board of Trustees, 1978; revised 1982, 1989, 1991, 2006)

## **Role and Scope Developed by the Arkansas State Board of Higher Education**

### **Audiences**

As the state's metropolitan university, the University of Arkansas at Little Rock (UA Little Rock) has the responsibility for serving:

- Residents of Arkansas and the Little Rock metropolitan area who have completed a high school education and are seeking either a college degree or continuing professional education. As a metropolitan university, the institution serves adult, part-time students in particular.
- Employers across the state, particularly in the region, both public and private, seeking well-educated employees, technical assistance and applied research.
- Economic development interests and entrepreneurs in the region and across the state.
- The research community.
- The community and area by providing a broad range of academic and cultural activities and public events.
- Area K-12 schools seeking college general education courses for advanced students.
- Two-year college transfer students.

### **Array of Programs and Services**

UA Little Rock serves these audiences by providing:

- Baccalaureate programs in arts and humanities, the natural sciences, and social sciences appropriate to a teaching institution with a predominantly undergraduate student body.
- Associate, baccalaureate and masters programs in the professional fields of particular importance in the region, including journalism and communications, public administration and community services, computer and information science, nursing, human services (including

social work and criminal justice), education, engineering, and business.

- Doctoral programs most needed by regional and state employers, most importantly, programs in education and applied science.
- Services specifically designed to meet the needs of statewide and regional economic development—continuing professional education, technical and professional services, support of small businesses and entrepreneurs, and technology transfer.

## **Role and Scope Developed by the UA Little Rock Faculty Senate**

The University of Arkansas at Little Rock offers certificates and degree programs at the associate, baccalaureate, master's, specialist, and doctoral levels. Disciplines in which degrees are offered include applied science, the arts; business, health, and public administration; communication; education; engineering technology; the humanities; law; social, physical, and life sciences; and social work. The institution emphasizes the liberal education of undergraduate students and offers more focused professional study, particularly at graduate levels.

The University of Arkansas at Little Rock, taking advantage of its metropolitan location, offers programs and services that respond to the special needs and interests of individuals, organizations, institutions, businesses, and governmental units. Academic programs, student services, research activities, public service projects, and institutional policies reflect the University's commitment to a diverse student body composed of recent high school graduates, students returning to school after other experiences, retirees, international students, disabled students, and professionals seeking a career change or enrichment. A significant percentage of these students attend school part-time and work full- or part-time. As a result, many UA Little Rock students bring experience and a high level of motivation into the classroom.

The University of Arkansas at Little Rock strives to make higher education accessible to all those who can benefit. The institution's academic courses are offered in flexible and varied time periods and learning formats, at off-campus locations as well as in traditional classrooms, and by radio, telecommunication, and newspaper. In all of these forms, the quality of instruction is of paramount importance. The University has a nationally recognized scholars program and curriculum, honors courses, and other programs for superior students. Specialized programs and assistance are offered to educationally disadvantaged students. The University is committed to international education,

supporting programs and courses that attract international students and offer opportunities for all students to explore and experience other cultures.

The University of Arkansas at Little Rock recognizes its responsibility to contribute to bodies of knowledge through research as well as to disseminate ideas through instruction. The University fosters both basic and applied research appropriate to its programs and faculty. The University supports grant applications and other attempts to gain sponsorship for research. Many research activities address the problems of Arkansas as it interacts with an increasingly complex and interdependent world.

The University of Arkansas at Little Rock shares its resources with the larger community through public service. Activities include noncredit educational offerings ranging from college preparatory classes to courses for personal enrichment and awareness; special programs for pre-collegiate students; programs for professional advancement; and institutes and centers to focus research and study on such areas as teaching and learning, technology, government, management, and urban affairs. The University serves the State of Arkansas in economic development through assistance from businesses, seminars for managers and workers, and support for entrepreneurial ventures. The University provides leadership in cultural enrichment and makes its resources available to the community. Relationships with local, state, and national governments and with business and industry strengthen the curriculum and provide students and faculty opportunities to apply theory and research.

The University anticipates continued growth in the number of students and in the number and size of academic programs. The primary aim of the University in all of its varied activities will continue to be maintaining and improving the quality of education for all its students.

(Adopted by the UA Little Rock Faculty Senate, 1988)

## **Assessment**

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

This involves a variety of methods of inquiry to examine student needs, attributes, and success in learning. Each academic unit at UA Little Rock has an assessment program to conduct research that will be used to make



decisions to improve its curriculum, instruction, and both academic and career advising. Students, alumni, and various stakeholders participate in a variety of assessment activities designed to assess learning in the major and in the core curriculum.

## **Administration**

The University of Arkansas at Little Rock is a part of the University of Arkansas System and governed by the Board of Trustees.

The structure of the university has changed. Refer to the Chancellor's University Restructuring website for additional information.

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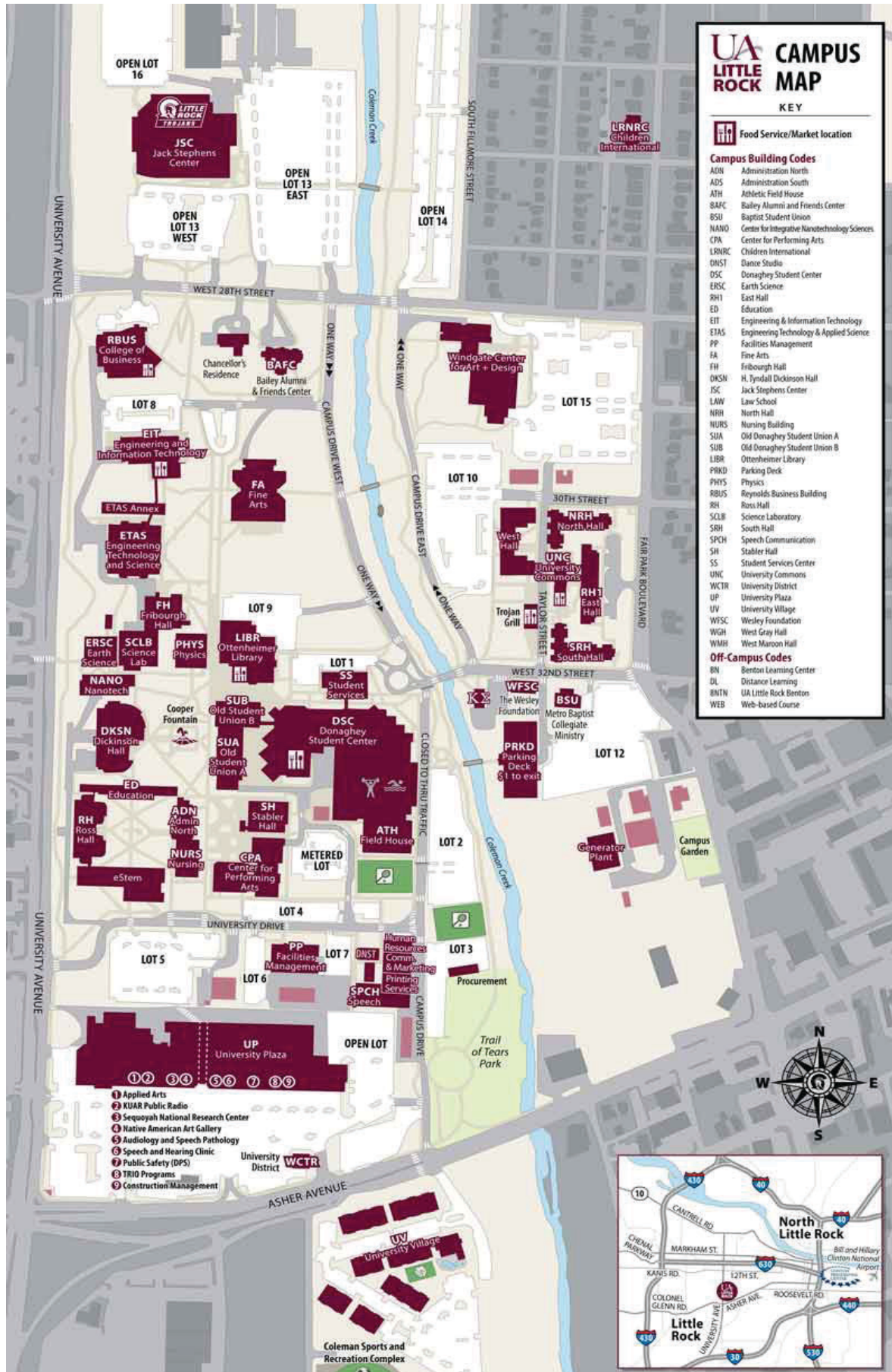
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# CAMPUS MAP





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