

# 2024-25 Academic Catalog



ALMA COLLEGE

614 W. Superior St. • Alma, MI 48801-1599 • 1-800-321-ALMA • [www.alma.edu](http://www.alma.edu)



# 2024-25 Academic Calendar

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## Fall 2024

August	21	Wednesday	First-Year Orientation Begins
August	22	Thursday	Opening Convocation, 10 a.m.
August	26	Monday	Classes Begin, 8 a.m.
August	26–30	Monday–Friday	Drop/Add Week for all Fall Classes
August	30	Friday	Last Day to Add a 1st 7-week Class
September	2	Monday	Labor Day; No Classes, Offices Closed
September	3–6	Tuesday–Friday	Additional Drop/Add Period for 14-week Classes
September	6	Friday	Last Day to Add a 14-week Class
September	17	Tuesday	Progress Reports Due
September	27	Friday	Last Day to Drop or Elect Pass/Fail Option for 1st 7-week Class
September	27–29	Friday–Sunday	Homecoming Weekend
October	7–8	Monday–Tuesday	Fall Term Break; No Classes, Offices Open
October	9	Wednesday	Classes Resume, 8 a.m.
October	11	Friday	End of 1st 7-week Classes; Final Exams on Last Meeting Day
October	14	Monday	Begin 2nd 7-week Classes
October	15	Tuesday	Mid-Term Grades and 1st 7-week Grades Due, 9 a.m.
October	18	Friday	Last Day to Add a 2nd 7-week Class
October	25	Friday	Last Day to Drop or Elect Pass/Fail Option for a 14-week Class
October 28–November 8		Two Weeks	Winter and Spring Terms 2025 Registration
November	15	Friday	Last Day to Drop or Elect Pass/Fail Option for a 2nd 7-week Class
November	25–27	Monday–Wednesday	Additional Drop/Add Period for 2025 Winter and Spring Terms
November	27–29	Wednesday–Friday	Thanksgiving Break; No Classes, Offices Closed Thursday and Friday
December	2–6	Monday–Friday	Fall Term Exams
December	10	Tuesday	Final 14-week and 2nd 7-week Grades Due, 9 a.m.
December 23–January 1		Eleven days	Holiday Break; No Classes, Offices Closed

## Winter 2025

January	2	Thursday	Offices Open
January	6	Monday	Classes Begin, 8 a.m.
January	6–10	Monday–Friday	Drop/Add Week for all Winter Classes
January	10	Friday	Last Day to Add a 1st 7-week Class
January	13–17	Monday–Friday	Additional Drop/Add Period for 14-week Classes
January	17	Friday	Last Day to Add a 14-week Class
January	20	Monday	Martin Luther King Jr. Day Observance; No Classes, Offices Open
January	20–24	Monday–Friday	Additional Spring Term Registration
January	28	Tuesday	Progress Reports Due
February	7	Friday	Last Day to Drop or Elect Pass/Fail Option for 1st 7-week Class
February	18	Tuesday	End of 1st 7-week Classes; Final Exams on Last Meeting Day
February	19	Wednesday	Begin 2nd 7-week Classes
February	24–28	Monday–Friday	Winter Term Break; No Classes, Offices Open
February	25	Tuesday	Mid-Term Grades and 1st 7-week Grades Due, 9 a.m.
March	3	Monday	Classes Resume, 8 a.m.
March	4	Tuesday	Last Day to Add a 2nd 7-week Class
March	14	Friday	Last Day to Drop or Elect Pass/Fail Option for a 14-week Class
March	17–28	Two Weeks	Spring and Fall Terms 2025 Registration
March	28	Friday	Last Day to Drop or Elect Pass/Fail Option for a 2nd 7-week Class
April	3	Thursday	Honors Day; No Classes, Offices Open
April	14–18	Monday–Friday	Winter Term Exams
April	18	Friday	Good Friday; No Classes after 1 p.m., Offices Close at Noon
April	19	Saturday	Commencement, 2 p.m.
April	22	Tuesday	Final 14-week and 2nd 7-week Grades Due, 9 a.m.

## Spring 2025

April	27	Sunday	Classes Begin
April	30	Wednesday	Last Day to Add a Spring Term Class
May	16	Friday	Last Day to Drop a Class or Elect Pass/Fail Option
May	22	Thursday	Spring Term Ends
May	27	Tuesday	Final Grades Due, 9 a.m.

## Summer 2025

May 27–June 20		Summer Session I; Grades Due, 9 a.m., Tuesday, June 24
June 23–July 18		Summer Session II; Grades Due, 9 a.m., Tuesday, July 22
July 21–August 14		Summer Session III; Grades Due, 9 a.m., Tuesday, August 19

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# A College of Distinction

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## The Alma College Mission

Alma College's mission is to prepare graduates who think critically, serve generously, lead purposefully and live responsibly as stewards of the world they bequeath to future generations.



## Vision Statement

An Alma College education seeks to instill a love of learning and celebrate the joy of discovery. Each Alma student will experience a deeply interdisciplinary education that provides opportunity for self-reflection, hands-on learning, and personal and professional development. It will embrace the principle of local, national and global learning communities, build upon strong mentoring relationships, and integrate rapidly changing technology essential for current and future career paths.

## The Core Values

### *Student-centered education in a residential setting*

All members of the community — faculty, staff and trustees — are committed to creating an institution of quality centered on the growth and development of undergraduate students. The purpose of the residential college experience is to better prepare students to enter seamlessly into lives in community, vocation, family and faith.

### *Disciplinary expertise within an interdisciplinary context of learning*

The Alma Experience expects students to apply intellectual rigor to the exploration of a range of disciplines, building a broad foundation in the sciences, humanities, fine and performing arts and social sciences. This liberal arts education also prepares students to pursue advanced work, independent research and creative performances with the depth of understanding to excel in one's discipline and to perceive the connections among disciplines. The practical knowledge and skills of the liberal arts prepare students for lifelong learning and leadership within a wide array of settings.

### *Diversity, equity and inclusion*

We are all transformed when we celebrate and value the varied identities, backgrounds, experiences, and perspectives in our campus community. Alma College strives to cultivate a sense of belonging among students, faculty, and staff as they pursue learning together by recognizing and removing barriers to success as well as offering equitable access to opportunities through education and advocacy.

### *Engaged learning*

Because education takes place everywhere and all the time, it is important both to create an exciting residential learning environment and to extend opportunities for significant learning into the community and wider world. Active participation in learning, engaged citizenship, service-driven leadership and committed stewardship are fostered through research-based undergraduate scholarship as well as programs that support experiential, international and service-learning opportunities.

### *Ethical integrity, aesthetic appreciation, spiritual sensitivity*

With knowledge comes obligation. To live a complete life that withstands the scrutiny of self and others, individuals must exhibit personal integrity, respect for the value of all humanity and sensitivity to the spiritual and material beauty of one's existence. We expect these principles to be modeled in the educational programs, work and daily interactions of all members of the college community.

## Media Use Policy

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Alma College reserves the right to use any photograph or video taken on campus or at an event sponsored by the college as well as any photo provided to the college. A student who wishes to be excluded from campus photography must contact the Vice President for Communication and Marketing in writing within the first two weeks of the first day of class of the fall or winter term. Requests for non-disclosure are honored by the institution for only the current academic year, therefore, the request must be filed annually with

the Communication and Marketing Office. By failing to provide such notification, you agree that the college may use your likeness.

No person or organization may use, copy, alter or modify Alma College photographs, graphics, videography or other similar reproductions or recordings without the advance written permission of an authorized designee in the Communication and Marketing Office at Alma College.

# Welcome to Alma College

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The 2024–25 Alma College Catalog provides details on all of the College's academic programs, policies, and procedures. Here you will find descriptions of courses offered; details of requirements for each major, minor, and program; and an overview of the College's core curriculum.

This catalog will be a guide on your pathway to fulfilling the requirements of your degree and becoming an Alma College graduate who thinks critically, serves generously, leads purposefully, and lives responsibly.

The College's faculty and staff are all here to assist you, whether you are deciding on a major, planning your Venture, seeking an internship, engaging in service learning, exploring summer research opportunities, or preparing to study abroad.

Welcome to Alma! Go Scots!

— Sean D. Burke, Ph.D.  
Provost and Vice President for Academic Affairs

## Alma College in Brief

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### A Liberal Arts Education

More than 135 years ago, a group of devoted Presbyterian clergy and laymen had a dream: to establish a liberal arts college based upon the loftiest of ideals — unifying the human mind and spirit through knowledge.

The essence of a liberal arts education is learning *how* to learn. Once acquired, this skill can be applied to any task, any profession. Career success is determined by our abilities to exercise such skill. The college's membership in Phi Beta Kappa is an indication of excellence in the liberal arts. Only 10 percent of colleges and universities share this distinction.

A liberal arts education holds up a mirror to the world around us, and in its reflection we see ourselves: as we were, as we are, as we might be. Through such self-discovery comes inspiration and, from inspiration, lifelong commitment. The highest moral and ethical character is built upon such foundations. Our best leaders are shaped by such beliefs.

### Academic Programs and Degrees

Alma is classified as a selective Baccalaureate College: Diverse Fields by the Carnegie Foundation for the Advancement of Teaching. The College confers bachelor's degrees in five areas: arts, sciences, fine arts, music and nursing; and master's degrees in clinical mental health counseling, communication and information technology, creative writing, and special education.

### Religious Affiliation

Alma College, affiliated with the Presbyterian Church (U.S.A.), affirms its Christian heritage in which all people are made in the image of God. We seek to foster a diverse community by welcoming people of all faiths, as well as those with no faith tradition, into the Alma College experience. Founded by Presbyterians in 1886, Alma is a highly regarded four-year liberal arts college. Though it is church affiliated, the college does not make religious affiliation or doctrinal uniformity a condition for admission or employment. Our heritage affirms that faith and critical thinking reinforce each other. We are committed to cultivating intellectual, spiritual, and vocational discovery in all aspects of campus life.

### Scholarship and Assistance Opportunities

To recognize students' academic achievements in high school, Alma College administers a strong program of scholarships. Regardless of financial need, Alma students can receive scholarship support based on outstanding academic achievements.

Also available are State of Michigan scholarships, grants and loans; federal grants and loans; and federal and College work study program funding.

### Undergraduate Research

Alma students are often invited to team up with faculty on scholarly research or to collaborate on creative or performing arts projects. An annual Honors Day features student presentations, performances and exhibits. Many students also present such work at regional, national and international meetings.

# Accreditation and Compliance Statements

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Alma College is accredited by the Higher Learning Commission. Individual academic programs have received accreditation or approval from the following state or national credential-granting organizations.

Higher Learning Commission  
230 South La Salle Street, Suite 7-500  
Chicago, IL 60604-1411  
Phone: 1-800-621-7440 / (312) 263-0456  
E-mail: [info@hlcommission.org](mailto:info@hlcommission.org)  
Web site: [hlcommission.org](http://hlcommission.org)

American Chemical Society  
Committee on Professional Training  
1155 Sixteenth Street, NW  
Washington, DC 20036  
Phone: 1-800-227-5558 / (202) 872-4600  
Web site: [acs.org](http://acs.org)

Commission on Collegiate Nursing Education  
655 K Street NW, Suite 750  
Washington, DC 20001  
Phone: (202) 887-6791  
Web site: [cneaccreditation.org](http://cneaccreditation.org)

Council for the Accreditation of Educator Preparation  
1140 19th St. NW, Suite 400  
Washington, DC 20036  
Phone: (202) 223-0077  
E-mail: [caep@caepnet.org](mailto:caep@caepnet.org)  
Web site: [caepnet.org](http://caepnet.org)

Michigan Department of Education  
John A. Hannah Office Building  
608 West Allegan, PO Box 30008  
Lansing, MI 48909  
Phone: (833) 633-5788  
Web site: [michigan.gov/mde/](http://michigan.gov/mde/)

Michigan Department of Licensing and Regulatory Affairs  
Michigan Board of Nursing  
611 W. Ottawa, PO Box 30004  
Lansing, MI 48909  
Phone: (517) 335-9700  
Web site: [michigan.gov/lara](http://michigan.gov/lara)

National Association of Schools of Music  
11250 Roger Bacon Drive, Suite 21  
Reston, VA 20190-5248  
Phone: (703) 437-0700  
E-mail: [info@arts-accredit.org](mailto:info@arts-accredit.org)  
Web site: [nasm.arts-accredit.org](http://nasm.arts-accredit.org)

## Emergency Procedures

Alma College has adopted an Emergency Response Plan that provides contingency procedures for Alma College administrators, staff, faculty and students in the event of a campus emergency. The College also has implemented a Campus Alert System that allows the College to send immediate, time-sensitive voice, e-mail and text notifications to students, faculty and staff in the event of a campus emergency. Students, faculty and staff can update their emergency contact information by calling the Information Technology Services help desk at (989) 463-7303 or visiting the [Help Desk](#).

## Federal Compliance Statements

**Campus Security.** Alma College abides by the Student Right-to-Know, the Campus Security Act of 1990 and the Higher Education Act Reauthorization of 2008. The College makes information

concerning campus crime statistics available in printed form and electronically to the campus community each year. This information is also available to prospective students or employees upon request.

**Family Educational Rights and Privacy Act (FERPA).** Respecting our students' right to privacy is a priority at Alma College. The college complies with the Family Educational Rights and Privacy Act of 1974, as amended — a federal law that requires each institution to establish a written policy and procedures to protect the confidentiality of a student's education records.

At its discretion, Alma College may provide directory information in accordance with provisions of the Act. Typical use of this information includes but is not limited to media releases, publications, event programs and lists for on-campus office use. Directory information may include (1) student name, address, telephone number, and date and place of birth; (2) e-mail address; (3) field of study; (4) class schedule and class rosters; (5) identity of parents, guardians or next of kin; (6) dates of attendance, and degrees and awards received; (7) most recent previous educational agency or institution attended by the student; (8) participation in officially recognized activities and sports; (9) photographs; and (10) weight and height of members of athletic teams. Social security numbers are not considered directory information and will not be released except as required or permitted by the Act. As a general rule, Alma College will not release lists of directory information to off-campus vendors.

The Registrar at Alma College coordinates the inspection and review of procedures related to the protection and release of student education records. Visit [College Policies and Disclosures](#) for more information.

**Financial Information.** The College's annual financial report is available for review by prospective students, alumni and the public upon request at the Financial Services Office.

**Alma College Policy on Nondiscrimination.** Alma College adheres to all federal and state civil rights laws banning discrimination in private institutions of higher education. Alma College will not discriminate against any employee or applicant for employment, student or applicant for admission on the basis of race, color, sex, religion, national or ethnic origin, physical or mental disability, age, height, weight, marital status, sexual orientation, gender, gender identity, arrest record, genetic information, or any other protected category under applicable local, state or federal laws; including protections for those opposing discrimination or participating in any resolution process on campus or within the Equal Employment Opportunity Commission or other human rights agencies. Questions or concerns about our policies and practices regarding these matters should be directed to the Vice President for Human Resources and Deputy Civil Rights/Title IX Coordinator at (989) 463-7467 or [ac-hr@alma.edu](mailto:ac-hr@alma.edu).

**Students with Disabilities.** Alma College is committed to complying with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA) by providing access to campus facilities and reasonable accommodations in programs, services and classroom activities. Students with disabilities who require accommodation should contact [Disability Support Services](#) to initiate services.

**Right to Modify Policy.** Alma's academic catalog contains the most accurate information available at the time of publication. Alma College reserves the right to change without notice, statements in this catalog concerning, but not limited to, curricula, fees, rules, policies, scholarships and tuitions.

Alma College shall have full academic freedom to determine the best method and manner of teaching and does not guarantee a particular method of teaching, including but not limited to, face-to-face or virtual classes.

# Admission Information

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## First-Year and Transfer Student Admission

First-year students may apply to Alma College after completing their junior year of high school. To assure maximum consideration for scholarships and financial aid, applications should be submitted in the fall of a student's senior year. Transfer students may apply anytime. Alma College will continue evaluating applications on a rolling basis throughout the year. Online application and application requirements may be found at [alma.edu/apply](http://alma.edu/apply) or [commonapp.org](http://commonapp.org).

### Basis for Admission

To be considered for traditional admission, domestic high school students must submit an application and at least three years of transcribed high school coursework. Students with a 2.75 high school GPA (or higher) are automatically considered for admission without the need to submit an ACT/SAT test score through the fall of 2025.

- Students should have made progress toward a total of 16 academic units, which must include a minimum of four years of English, three years of mathematics, three years of social studies and three years of science. In addition, at least two years of one foreign language are strongly recommended.
- Students with less than a 2.75 high school GPA, or who complete a GED, are required to submit a standardized test score (SAT or ACT), complete an admissions interview with a designated test-optional interviewer, or be reviewed by the college's Faculty Reading Committee for admission.
- Students with less than a 2.5 high school GPA should contact the Admissions Office at [admissions@alma.edu](mailto:admissions@alma.edu) for more information on the application process.

Students who do not meet these requirements are considered individually for admission.

**International and Transfer Students.** Alma College will waive the English language interview requirement for international students applying from English speaking countries who speak English as the primary language in the home and/or whose high school coursework is primarily in English. Citizens of the TOEFL Exempt Countries (full list available in the Admissions Office) are also considered to have fulfilled the English language requirement.

All international students who apply to Alma College and who are not native English speakers must provide proof of English language proficiency in one of the following ways:

1. Submit official language scores:
  - a. TOEFL internet-based: 79 (school code 1010)  
IELTS overall band: 6.5  
Pearson Test of English (PTE) overall score: 56  
Michigan English Test (MET, 4-skill): 57  
Duolingo English Test: 110  
iTEP Academic: 4.5
2. Submit official SAT or ACT scores at or above these minimum scores:
  - SAT Evidence-Based Reading and Writing: 520
  - ACT (English section only): 21
3. Complete three subjects within the International Baccalaureate program.
4. Transfer students currently enrolled in undergraduate study in the United States, at a regionally accredited college or university, may fulfill the English language requirement if a course equivalent to Alma College English 101 (Writing with Purpose) has been passed with a score of "C" or higher.

5. Successfully complete level 112 at an ELS Language Center.
6. The completion of English language programs outside of ELS may be considered on an individual basis. Include certificates of completion with your application.
7. Applicants may qualify for a waiver based on high school or college language of instruction. On an individual basis, we will waive the English proficiency requirement for applicants who have successfully earned a high school diploma at an international high school or a bachelor's degree where the only language of instruction is English. The graduation date should be less than two years to qualify for this waiver.

The Admissions Office may still require an English language interview if they believe it would be in the best interests of the student and the college. Applicants deemed to be academically admissible who do not meet Alma College's English proficiency requirements may be eligible for conditional admission. This offer would be changed to regular admission once the English proficiency requirement is met.

International and transfer students should visit [alma.edu/admissions](http://alma.edu/admissions) for more information about admissions requirements. Alma College's non-discrimination policy includes race, color, sex, religion, national or ethnic origin, physical or mental disability, age, height, weight, marital status, sexual orientation, gender, gender identity, genetic information, or any other protected category under applicable local, state or federal laws.

### Pre-Enrollment Requirements

Before enrolling at Alma College, incoming students are required to:

1. Submit a final transcript of high school grades, including confirmation of graduation. Transcripts are also used in academic advising.
2. Show photo identification to confirm identity.
3. Provide emergency contact information.
4. Complete medical form that is used to establish the student's confidential medical history in the Wilcox Health Center.

### Campus Visits

Students are encouraged to schedule a personalized visit to Alma to meet with a member of the admissions staff, tour campus, meet professors and sit in on classes. The Admissions Office is open for visits Monday through Friday from 8 a.m. to 5 p.m. (ET) and selected Saturdays; virtual visits are also available. Please consult [alma.edu/visit](http://alma.edu/visit) for all our visit options. You may also call the Admissions Office at 1-800-321-ALMA or e-mail [admissions@alma.edu](mailto:admissions@alma.edu).

### Transfer Credit Policy

Alma College accepts credit earned from regionally accredited colleges or universities in the United States. International credit is evaluated using guidance from AACRAO and World Education Services. An evaluation of credit earned is available upon submission of an application and transcripts to the Admissions Office.

All transfer students with 25+ credits will have the First Year Seminar (FYS) requirement and one Spring Term requirement waived. Students are still required to take one Spring Term course at Alma.

Limitations are as follows:

1. Only non-developmental courses that are graded "C" (2.0) or higher are accepted for credit.

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2. All transfer students must complete the final 52 credits for the degree in residence at Alma or in an Alma-approved program.
  3. Transferred credit must be documented by receipt of an official transcript from each institution attended.
  4. Transfer credits from courses below the 100-level do not count toward the 136 credits required for graduation.

Transfer students are encouraged to consult with the Registrar's Office to review transfer credit equivalencies.

### **Michigan Transfer Agreement**

Alma College participates in the Michigan Transfer Agreement (MTA) to facilitate transfer from Michigan community colleges. A minimum of 30 credits, with at least a "C" (2.0) or higher in each course, must be completed at the community college level to satisfy the MTA, including:

- One course in English composition.
- A second course in English composition or a course in communication.
- Two courses in social sciences.
- Two courses in humanities and fine arts.
- Two courses in natural sciences including one with laboratory experience.
- One course in college-level mathematics.

Alma College recognizes students who have satisfied the MTA requirements satisfy the requirements for all four Explore courses, ENG 101, and meet math competency. A student's official transcript from the sending institution must indicate that the MTA has been satisfied.

### **Associate's Degree**

Students entering Alma College with an awarded associate's degree or comparable work will have the "Explore and Theme" requirements in the Core Curriculum waived. "Comparable work" means the equivalent of four full-time college terms with a minimum of 56 Alma credits accepted for transfer. This must include at least three credits each of courses addressing laboratory science, arts or humanities, and social science, plus at least nine additional credits of work outside of the primary area of emphasis.

### **Continuing Education**

Continuing education courses are offered at Alma College during Fall, Winter and Spring terms. Regular admission requirements are waived to continuing education students, who pay reduced tuition rates for such coursework. No more than eight credits each term and no more than 32 total may be taken in this manner.

After 32 hours, it is assumed that the individual is a degree student who must apply for regular admission in part- or full-time coursework and pay regular tuition rates. Any exception to this requires permission from the Provost's Office.

### **Dual Enrollment**

High school students interested in dual enrollment (high school/Alma College) should determine eligibility by consulting with their high school counselors. Students may apply for admission under Continuing Education status by submitting to the Registrar an Application for Dual Enrollment form available from the Registrar's Office and a high school transcript verifying a "B" average. College enrollment is limited to four credits for the first term and eight credits in subsequent terms. Contact the Registrar's Office for further information at (989) 463-7348.

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## **Accelerated Programs and Advanced Placement Options**

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### **Accelerated Program Options**

Students may accelerate their Alma degree program to finish in less than four years through a combination of concentrated academic scheduling, advanced credits gained while in high school and transferred credits from other college work.

### **Advanced Placement (AP)**

Students may earn college credit for work done in high school if they have participated in the College Entrance Examination Board Advanced Placement Program. The official results of examinations must be sent to the Registrar's Office for credit to be granted. The AP courses and qualifying scores for the examinations are listed on the table on the following page.

### **College Level Examination Program (CLEP)**

Alma College does not accept credit from the College Level Examination Program (CLEP).

### **International Baccalaureate (IB)**

Alma College awards 32 credits to students who earn the International Baccalaureate diploma. Alternatively, the College awards credit for individual exams taken at the Higher Level (HL) with earned scores of "5" or above. Alma College course credit earned by achievement on the IB HL exam with a score of 5 or higher may satisfy core curriculum requirements for graduation.



### Advanced Placement Courses and Qualifying Scores

AP Course Name	Scores	Alma College Course Equivalent Credits Awarded*
2D Art and Design	4-5	ART 180 (4)
3D Art and Design	4-5	ART 180 (4)
Art (Drawing)	4-5	ART 180 (4)
Art (Studio)	4-5	ART 180 (4)
Art History	4-5 (3 w/dept. approval)	ART 201 (4)
Biology	4	BIO 180 (4)
	5	BIO 121 (4)
Chemistry	4-5	CHM 115 (4)
Chinese Language	3	CHN 111 (4)
	4	CHN 111,112 (8)
	5	CHN 111,112, 280 (12)
Computer Science A	5 (4 w/dept. approval)	CSC 120 (4)
Computer Science Principles	4-5	CSC 180 (4)
Economics: Macro	4-5	ECN 111 (4)
Economics: Micro	4-5	ECN 112 (4)
English Language and Comp	3, 4	ENG 100 (4)
	5	ENG 101 (4)
English Literature and Comp	3-5	ENG 120 (4)
Environmental Science	4-5	ENV 180 (4)
French Language	3	FRN 111 (4)
	4	FRN 111,112 (8)
	5	FRN 111,112, 280 (12)
German Language	3	GRM 111 (4)
	4	GRM 111,112 (8)
	5	GRM 111,112, 280 (12)
Government and Politics: Comparative	4-5	POL 111 (4)
Government and Politics: U.S.	4-5	POL 101 (4)
European History	4-5	HST 180 (4)
U.S. History	4-5	HST 180 (4)
World History	4-5	HST 180 (4)
Human Geography	4-5	GGR 102 (4)
Italian Language	3	WLC 111 (4)
OR	4	WLC 111,112 (8)
Japanese Language	5	WLC 111,112, 280 (12)
Latin Language	3	LAT 111 (4)
	4	LAT 111,112 (8)
	5	LAT 111,112, 280 (12)
Math: Calculus AB	4-5	MTH 121 (4)
Math Calculus: BC	3-5	MTH 121, 122 (8)
Math: Precalculus	4-5	MTH 112 (4)
Math: Statistics	4-5	MTH 116 (4)
Music: Listening and Literature	4-5 (3 w/dept. approval)	MUS 180 (4)
Music Theory	4-5 (3 w/dept. approval)	MUS 111-112 (4-8)
Physics 1	4-5	PHY 112 (4)
Physics 2	4-5	PHY 113 (4)
Physics C: Mechanics	4-5	PHY 121 (4)
Physics C: Electricity and Magnetism	4-5	PHY 122 (4)
Psychology	4-5	PSY 120 (4)
Research	4-5	HUM 180 (4)
Seminar	4-5	HUM 180 (4)
Spanish Language	3	SPN 111 (4)
	4	SPN 111,112 (8)
	5	SPN 111,112, 280 (12)

\* All AP credit must have department approval to count in the major or minor.

# College Expenses

The total charges to attend Alma College for the 2024-25 academic year are as follows:

Residence and Term	Tuition	Housing*	Meals**	Student Activity Fee	Total
Bruske, Gelston, Mitchell Newberry, Brazell/Dunning, Carey/Bonbright					
Fall Term	\$24,641	\$4,093	\$2,997	\$135	\$31,866
Winter Term	\$24,641	\$4,093	\$2,997	\$135	\$31,866
<b>TOTAL</b>	<b>\$49,282</b>	<b>\$8,186</b>	<b>\$5,994</b>	<b>\$270</b>	<b>\$63,732</b>
Greek, Small Housing					
Fall Term	\$24,641	\$4,477	\$2,997	\$135	\$32,250
Winter Term	\$24,641	\$4,477	\$2,997	\$135	\$32,250
<b>TOTAL</b>	<b>\$49,282</b>	<b>\$8,954</b>	<b>\$5,994</b>	<b>\$270</b>	<b>\$64,500</b>
Wright Hall, Wright Ave. apts.					
Fall Term	\$24,641	\$5,171	\$2,997	\$135	\$32,994
Winter Term	\$24,641	\$5,171	\$2,997	\$135	\$32,994
<b>TOTAL</b>	<b>\$49,282</b>	<b>\$10,342</b>	<b>\$5,994</b>	<b>\$270</b>	<b>\$65,888</b>
Opera House					
Fall Term	\$24,641	\$5,485	\$2,997	\$135	\$33,258
Winter Term	\$24,641	\$5,485	\$2,997	\$135	\$33,258
<b>TOTAL</b>	<b>\$49,282</b>	<b>\$10,970</b>	<b>\$5,994</b>	<b>\$270</b>	<b>\$66,516</b>

## Spring Term

All Residences      \$2,053      \$316      \$669      \$3,038

## Summer Expenses

	2024	2025
Tuition on campus/online	\$309/credit	TBD
off campus	\$141/credit	
Housing	\$85/week	TBD

\*Housing charge is for a standard double room. A limited number of single rooms are available for an additional \$1,298 per term.

\*\*Meal charge is shown at the standard meal plan rate.

## Off-Campus Financial Aid Reduction Cap

	No room and meal plan	No meal plan	
Fall Term	\$3,545	\$1,198	\$4,743
Winter Term	\$3,545	\$1,198	\$4,743
<b>TOTAL</b>	<b>\$7,090</b>	<b>\$2,396</b>	<b>\$9,486</b>

## Meal Plans

Plan A – 19 meals per week with \$175 Munch Money per term.	\$2,997
Plan B – 210 meals per term with \$400 Munch Money per term.	\$2,997
Plan C – 160 meals per term with \$400 Munch Money per term.	\$2,405
Plan D – 120 meals per term with \$900 Munch Money per term.	\$2,997
Plan E – 50 meals per term with \$75 Munch Money.	\$669

Daily meal plan rate      \$30.58

**Note:** Non-resident students can purchase any plan for the cost indicated above.

The tuition charge is before any financial aid awards, which represent a significant cost reduction for most students. The Board of Trustees reserves the right to change any charges prior to the opening date of any term.

The Fall and Winter terms tuition charge shown is for a term load of 13 to 18 credit hours. Students registering for more than the normal allowable credit hours per term are charged an overload rate of \$1,540 for each credit hour over 18. See the Tuition-Exempt Credits section on this page for exceptions to the rule.

If a student goes from full-time status to part-time status after the official census date for the term (after the 10th day of classes) there is no tuition or financial aid adjustment. If a student adds a class and goes from part-time status to full-time status after the official census date, tuition is increased to the full-time rate but financial aid is not adjusted.

Students enrolled full time are required to live in Alma College residences and dine at the College's food service. Exceptions to this policy must be approved through the Residence Life Office.

Students may elect to participate in an off-campus Spring Term program. The costs — airline, hotel, meals, fees, special accommodations, etc. — are in addition to the Spring Term tuition charge. Room and meal plan charges are assessed for the days spent on campus. The student is responsible for *all* costs associated with their participation in the Spring Term.

The students of Alma College have elected to assess a student activity fee on themselves at the rate of \$270 per year. This fee is used to sponsor social events such as dances, movies and live entertainment; support the yearbook and student newspaper; and admit each student to athletic events. *All students enrolled for eight or more credits are charged this fee.*

Full time students who are ineligible to file the Free Application for Federal Student Aid (FAFSA) and do not receive Alma College institutional financial aid; therefore, paying the full time full-tuition rate, will have the fee for housing and meals waived if they live on Alma's campus. This waiver is available to students only during their first eight semesters on campus. Students will not receive credit or reimbursement if they are eligible for this waiver and live off campus or if they are not charged a fee for any reason. The waiver applies to standard housing and meals fees only, which are set each year by the Board of Trustees. Additional fees associated with premium housing and/or special meal plans are not included.

**Deposits.** Accepted applicants are required to pay a Commitment Deposit of \$300, refundable until May 1. This deposit is applied as credit to the student's first semester bill.

**Tuition-Exempt Credits.** Students are permitted to enroll in a maximum of two credits, *from the approved overload exempt class list*, above the normal load of 18 credits without incurring a tuition overload charge. Additional exceptions may be allowed for first year Fall Term students, and some music major students. Students should contact the Registrar's Office for overload exempt courses and questions related to exempt courses. **Note:** approval for an exempt overload course can only be granted by the Registrar's Office.

**Health Insurance Plan.** All full-time residential Alma College undergraduate students are required to have health insurance and must participate in the Student Insurance Plan unless proof of comparable coverage is furnished. Students covered under a family plan, or who have other comparable coverage to the Alma College Plan, may waive coverage under the College Plan.

Alma College makes a comprehensive student insurance program available to undergraduate students that is compliant with the Affordable Care Act. The plan provides for physician visits, prescription drug expense benefit, outpatient services including medical emergency, x-rays, lab procedures and miscellaneous tests, hospital miscellaneous, surgery (inpatient and outpatient), wellness benefits and a 24-hour Nurse Advice Line. This plan is not available for low-residency graduate students. The annual premium cost for the 2024-25 academic year is \$1,806. Full details about the plan are available at the [Wilcox Health Center](#).

**International Student Health Insurance.** All international students or exchange visitors who attend Alma College on F, J, or other visa status must purchase and enroll in the Alma College Student Injury and Sickness Health Insurance Plan before the start of classes for any given term, or the College will purchase coverage and place the charges on the student's account.

Outside health insurance plans will not satisfy the institutional requirement, except in the following limited cases. An international student may request a waiver if:

- The student provides proof of health insurance through a sponsor.
- The student provides proof of health insurance provided by a United States employer.
- The student provides proof of health insurance provided by a U.S.-based parent, spouse, or domestic partner.

A student will be granted a waiver in the cases above if the health insurance coverage meets or exceeds the college specific coverage requirements. Students who wish to submit a waiver request may send an email or contact the [Student Affairs Office](#) for additional information.

Other charges that students may experience are described below.

<b>Miscellaneous Fees</b>	
Auditing – no credits earned	\$620/credit
Continuing Education	\$223/credit
Early Examination Fee	\$125
Late Registration Fee	\$125
Motor Vehicle Registration	
Resident Students	\$350/year
Resident Students – Silver Parking	\$300/year
Commuter Students	\$210/year
Auxiliary lots	\$165/year
Proficiency Examination	\$275/credit
Room Change Fee	\$50/term

**Off-Campus Study Costs and Financial Aid.** Students are assessed a \$490 administrative fee and costs appropriate to their major and the program in which they are enrolled. Those who study off campus at the same host program for two or more consecutive terms are not assessed an additional administrative fee. However, those who study at different host programs or for non-consecutive terms are charged \$490 for each program or term.

1. Exchange Programs — defined as programs with institutions or organizations that have a reciprocal exchange agreement with Alma College to both send and receive students. Students are assessed Alma College tuition and mandatory fees for semester programs. Tuition for summer programs and all housing and

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meal plan fees are assessed for either Alma College or the host institution, depending on the College's agreement with the host institution. Alma College, state and federal financial aid may be applied toward semester exchange programs.

2. Off-Campus Study – defined as non-exchange domestic and study abroad programs approved for currently enrolled Alma College students. Students pay application and confirmation fees. Alma College pays other mandatory program fees to the host institution, such as orientation fees, etc., on behalf of the student and the cost is added to the Alma College student account.
  - a. All students except those who have declared a World Languages and Cultures major requiring study abroad are assessed the tuition and mandatory fees of the selected host program. External funding, including federal financial aid, may be applied to off-campus study. Alma College financial aid, including Tuition Exchange Programs, is generally not applied toward study abroad and domestic off-campus study programs. Employee Tuition Grants (ETG) may be applied to off-campus study up to the cost of Alma College tuition.
  - b. Students **who have** declared a World Languages and Cultures major that requires study abroad may choose either of the following:
    - i. Students may be assessed Alma College tuition and receive all Alma College and state and federal financial aid during their study abroad in the fall, winter or spring terms. No financial aid is available for summer programs. If the host institution's tuition cost exceeds the cost of Alma College tuition, the student is charged for the excess amount in addition to the cost of Alma's tuition.

or:

  - ii. Students may be assessed the host institution tuition and receive only federal financial aid for semester programs. No financial aid is available for summer programs. ETG may be applied up to the cost of Alma College tuition. Unused ETG may occasionally be used in a subsequent semester.

**Orientation.** It is the student's responsibility to fulfill their financial obligations by paying their account balance in full by the due date – second Friday of August or move in date, whichever is earlier, for the fall term – or setting up a payment plan. The winter term payment is due on the first day of classes. Any student who hasn't fulfilled this financial obligation will be dropped from classes on the 10th day of the standard term, considered a withdrawn student and have 48 hours to move out of housing.

An educational financing plan permits payment of the term or annual expense over the term of academic year is available through PayMyTuition. Information is available from the [Financial Services Office](#).

Billings are available to be viewed and/or downloaded from the student portal by mid-July; and 30 days prior to each term thereafter.

Payment of tuition and fee charges can be made with cash, personal checks, bank drafts, or money orders by mail or in person at the Alma College Financial Services Office. Payments can also be made [online](#) with a Visa, Mastercard, American Express or Discover card, or with an e-check at the Financial Services Office. A convenience fee is charged for all credit and debit card payments. There is no fee to make an electronic check payment. If the amount of the payment is more than the amount due, students may request a refund or the amount will be credited to their account.

**Account Holds.** A student's account is placed on a financial hold if they have an unresolved balance on or after the 10th day of classes of the standard term. Students will also not be allowed to re-enroll or register for future semesters until all current financial obligations are satisfied. Students who are not registered for the next semester, or in good financial standing or in a sport that is not currently competing are not eligible to remain in on-campus housing after the last day of final exam week.

**Late Payment Fees.** Tuition and fees are due before classes start for each term. A late payment fee of \$25 per month is assessed on student accounts with a past due balance.

**Failure to Meet Financial Obligations.** In accordance with standard practice at colleges and universities, students are required to make satisfactory arrangements with the Financial Services Office for the settlement of all financial obligations. These include student accounts, student loans, parking fines, library fines, music rentals and other expenses.

When a student fails to meet financial obligations, Alma College reserves the right to withhold transcripts and/or the student's diploma to the extent allowable by law. Failure to resolve the balance within 90 days from the date of departing Alma College will result in the account being sent to a third-party collection agency. If a student's account is sent to a third party for collection, the student will be responsible for additional collection costs equal to 25% of the account balance at the time the account is referred to a third party. Delinquent accounts may be reported to one or more of the national credit bureaus.

**Financial Aid.** All financial aid awarded to students is split evenly between the fall and winter semesters. Federal Work Study (FWS) funds are not deducted from the bill at Alma College, but can be used by students to earn biweekly wages from an on- or off-campus job and be used toward other educational expenses. Scholarships and grants awarded by organizations other than Alma College will not be credited until the funds are received by our office. You may review all financial aid [policies](#) online so that you are familiar with situations that may affect your financial aid.

**Refund of Federal Title IV Financial Aid.** The Higher Education Amendments of 1998 mandates the formula for calculating the amount of financial aid a student and school may retain when a student withdraws from all classes before completing 60% of the term. Under Title IV financial aid regulations, the withdrawal date is defined as the earlier of:

1. The date the student began the withdrawal process or officially notified the institution of the intent to withdraw, or
2. The student's last date of documented attendance at an academically-related activity. If a student stops attending and fails to officially withdraw from classes, the student is considered to be unofficially withdrawn.

Unofficial withdrawal dates are determined by an end-of-term report from the Registrar's Office to identify students who have no passing grades. Faculty are contacted to determine the last date of attendance or academic activity for a student and that date is used as the withdrawal date.

If there is no proof of attendance beyond 60% completion of the term, the student is considered unofficially withdrawn and a refund calculation is performed.

Section 484B (c) of the HEA states that it is the institution's responsibility to determine a student's withdrawal date. Therefore, the institution, not the student, must document a student's atten-

dance at an academically related activity. A student's certification of attendance that is not supported by documentation by the institution would not be acceptable documentation of the student's attendance.

The percentage of Title IV assistance earned is determined by dividing the total number of calendar days in the semester into the number of calendar days completed as of the withdrawal date. Any unearned aid must be returned to the Title IV program(s). Funds are returned in the following order: Unsubsidized Direct Loan, Subsidized Direct Loan, PLUS Loan, Federal Pell Grant, Federal SEOG and other Title IV programs. The student must either repay the federal overpayment in full or make satisfactory arrangements with either the Alma College Financial Services Office or the federal Department of Education. The payment or arrangement for payment must be made within 45 days of the date of notification of the federal overpayment or the student will lose further eligibility of federal Title IV aid until the debt is paid in full. Information is available from the [Financial Aid Office](#).

**Withdraw and Refund Policy.** Withdrawing from a course or program may have academic and/or athletic consequences, such as impacting a student's progress, grade, or eligibility for financial aid. Students are advised to consult with academic advisors and the financial aid office to understand the potential implications of withdrawing. It is the student's responsibility to determine his, her or their best course of action when it comes to deciding to withdraw.

Students must follow the institution's designated process for withdrawing. It's important to ensure that all necessary steps are completed to ensure a smooth withdrawal process.

**Tuition and Fees.** If a student withdraws from a course or program before the start of the term, a full refund of tuition and fees will be provided. If a student withdraws from a course or program within the first week of the term, a partial refund of tuition and fees may be granted. The specific percentage of the refund will be determined by the institution's refund schedule listed below.

Refunds for Fall and Winter Terms	
Withdrawal During Calendar Week No.	Percentage of Tuition Refundable
1	100%
2	100%
3	75%
4	50%
5	25%

Beginning with week six there will be no refunds for tuition and fees when withdrawing from course or program. Exceptions may be made for extenuating circumstances, such as medical emergencies or other unforeseen events, and will be considered on a case-by-case basis.

College scholarships, grants and/or loans received by the student are refunded on a comparable percentage basis. Refunds for other non-College financial aid are made in accordance with the rules and regulations applicable to those programs.

Non-refundable fees will include orientation fee, class fee, health insurance and commitment fee and therefore will not be eligible for a refund under any circumstances.

**Room and Meal Plans.** If the student cancels before moving in, no fee charged. Once a student moves in the student is responsible for all housing and meal plan costs unless they formally withdraw from the college or receive a residency exemption. If the student with-

draws or receives a residency exemption, housing and meal plan costs will be prorated to the date of checkout, formal withdrawal or residency exemption approval, whichever is later. No future term charges will apply.

**Spring and Summer Terms.** No refund of tuition for withdrawals that occur after the fifth business day from the start of the term. A 100% tuition refund is provided for withdrawals during the first five business days of classes. Trip or class fees will be refunded only if the trip or class costs, such as airlines, hotels and other fees can be recovered.

**Refunds.** Students who are withdrawing from the institution should expect to see their refund within 3-4 weeks once the withdrawal paperwork is submitted to the Student Success Office.

Students who withdraw from a course and are due a refund should complete the electronic student refund request form. Refund forms are processed weekly beginning after the 10th day of classes.

**Other information.** If a student wishes to re-enroll in the future, they will need to contact the Registrar's office for clearance. Any outstanding balance on their student account with financial services must also be paid in full.

The College reserves the right to administratively declare a student withdrawn from the college if the student's financial account is not in good standing. The college also has the right to academically withdraw a student from the College if the student is not meeting the academic satisfaction guidelines.

**Veterans Pending Payment Compliance.** In accordance with Title 38 US Code 3679 subsection (e), this school adopts the following additional provisions for any students using U.S. Department of Veteran Affairs (VA) Post 9/11 \*G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. This school will not:

- Prevent the student's enrollment;
- Assess a late penalty fee;
- Require student secure alternative or additional funding;
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Provide Chapter 33 Certificate of Eligibility (or its equivalent) or for Chapter 31, VA VR&E's contract with the school on VA Form 28-1905 by the first day of class.

**Note:** Chapter 33 students can register at the VA Regional Office to use E-Benefits to get the equivalent of a Chapter 33 Certificate of Eligibility. Chapter 31 students cannot get a completed VA Form 28-1905 (or any equivalent) before the VA VR&E case-manager issues it to the school.

- Provide written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

\*G.I. Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at <https://www.benefits.va.gov/gibill>. (for more information, visit the VA's trademark website page:

[Trademark Terms of Use – Education and Training \[va.gov\]](#))

# Academic Rules and Procedures

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## Academic Advising Program

Upon admission to Alma College, each student is assigned a faculty advisor on the basis of academic and career interests. Working with this advisor, students plan their courses and evaluate their progress. For those students who are uncertain about their interests, advisors are specially selected who can assist them in exploring and establishing a career direction through a well-developed plan of coursework and co-curricular experiences. Students' academic goals may also change during the course of their college careers. Accordingly, students may change advisors at any time, especially when an academic major is declared.

## Conditions of Enrollment

**Registration.** Returning students usually select courses during the registration period in the preceding term. Newly admitted students will work with assigned Master Advisors to make course selections online during the summer months preceding fall enrollment. Course selections are reviewed with their faculty advisors during Orientation week, at which time the schedule may be adjusted.

**Changes in Registration.** Students must file changes through the approval process with the Registrar's Office by completing the Drop/Add Request Electronic Form. Students may also drop and add courses when the portal is open for course adjustments. Courses may be added during the first week of each term if approved by the advisor and during the second week if approved by both the advisor and the instructor. No courses, except for those scheduled for the last seven weeks of the term, may be added after the second week. In rare circumstances, an academic petition may be completed with the Registrar's Office and approved by the Academic Standards Committee to add or drop a course after the published deadlines.

**Withdrawal.** Withdrawal from an individual class may occur through the ninth week of a 14-week course, the fifth week of a seven-week course, or the third week of a four-week course. Neither the course nor the withdrawal will appear on the student's record. Please refer to the Alma College Academic Calendar for specific course add and drop dates.

**Class Load.** The class load for a 14-week term shall be no fewer than 13 and no more than 18 credits for full-time status. A bachelor's degree from Alma College requires the completion of 136 credits to graduate in four years: 16 credits per term/eight full-time terms; and two four-credit Spring Terms. Students are advised to consider this total when selecting classes/credits for each term as it's possible to take more or fewer credits in a term. Students who want to qualify for full benefits from the Veterans Administration, Social Security or other financial aid sources are advised to enroll for no fewer than 13 credits. Athletes should be aware that Alma College requires a 13-credit course load for eligibility.

**Class Attendance Requirements.** Class attendance requirements are set by each individual instructor. Among the options available is mandatory attendance, with absences resulting in a lower grade. Faculty members who do not implement a mandatory attendance policy will take measures to combat a common student misconception — that if attendance is not required (with penalties attached), it is not important. To this end, the syllabi for all classes will explicitly state the attendance policy.

**Commencement Attendance.** Alma College offers one commencement each year, in April after the Winter Term. Graduates completing degree requirements are required to participate in Commencement unless excused by the Provost or the Registrar.

**Final Examination Schedule.** The Final Examination Schedule is established by the Registrar and published at the beginning of each term. Instructors will announce testing plans in the course syllabus; the final test or activity (presentation, paper, etc.) must be at the officially-scheduled time. Make-up examinations are given only with the permission of the instructor and may be charged a fee.

**Withdrawal from College.** Students who wish to withdraw from Alma College must complete the withdrawal process by contacting Student Affairs to complete formal withdrawal. If this process is not completed, students will forfeit their deposits and refunds. The College assumes that students beginning a term intend to complete it. Students who leave during a term without completing the withdrawal process may receive failing grades for course enrollments.

Service members who must withdraw during the term due to unanticipated deployments or mobilization, activation, and/or temporary duty assignments may have the option to complete the term off campus, if feasible. The student would need to consult with faculty members and the Registrar's Office to review the options available.

If completion of the term is not an option, students withdrawing would be assigned non-punitive grades of "W" (for "withdraw") for the term.

## Grading Practices

**Grading System.** The following letters and grade points are used to record evaluations of student work: "A" (4.0); "AB" (3.5); "B" (3.0); "BC" (2.5); "C" (2.0); "CD" (1.5); "D" (1.0); "DE" (0.5); and "E" (0.0 — failing). An "E" will be recorded for such reasons (other than failure to meet course requirements) as dishonesty, excessive absence or failure to comply with other conditions specified by the instructor.

**Incomplete Grades.** Incomplete ("IN") grades must be replaced by letter grades within six weeks after the end of the term or they automatically convert to "E."

**Work in Progress.** Work in Progress ("IP") must be successfully completed and graded within one year of the date of enrollment, or the grade automatically converts to "E" unless the instructor initiates Withdrawal Pass ("WP") or Withdrawal Fail ("WF"). Work in Progress grades may be used only for independent study or practicum courses. A grade of "Z" is assigned by the Registrar when a grade has not been received from an instructor and the grading period has closed.

**Satisfactory Grade Option.** Students may elect the Satisfactory Grade Option ("S" or "F") by filing the approved form with the instructor's consent at the Registrar's Office before the deadline to drop the class. If the student elects this option, evaluation of the course work is recorded as "S" (equivalent to a "C" or better) or as "F" (failing, no credit). Neither grade is computed in the GPA.

Application of the "S/F" option is limited as described below:

1. It is available only to students of sophomore, junior or senior standing.
2. No more than 16 credits may apply to the 136-156 required for the degree.
3. No more than six credits per term may be elected under this option.
4. No course counting for a Teaching Major or Minor and no education course presented for teacher certification may be graded using this option.
5. No more than four credits of the 36 required for the major (or six credits of the 56 required for an interdepartmental major or POE) may be graded under this option.

Some classes are graded only "S" or "F" and the student has no option. Credits earned for these courses are not subject to the limitations described above.

**Grade Reports.** Grade Reports are made available to all students on the student portal at the end of each term and to first-year students and sophomores at mid-term.

**Appeal of Grades.** Appeal of grades may be made when the student has evidence that the final grade is unfair, but the appeal must be made not later than six months after the recording of the initial grade. The appeal proceeds first to the instructor, then to the department chair, and, if the disagreement still stands, it may go to the Provost.

## Academic Progress

**Classification of Students.** Students admitted to Alma College may earn degree credits. If enrolled in a full class load, students are certified as regularly enrolled students and classification is based on the number of credits earned: freshman (0-24); sophomore (25-55); junior (56-89); or senior (90 plus). Eligibility for some forms of financial aid may depend upon progress toward the degree as indicated by these classifications.

**Probation and Dismissal.** Students must achieve a 2.0 cumulative GPA and major GPA to complete graduation requirements. Students with less than a 2.0 GPA are placed on probation and may be dismissed or barred from registration whenever such action is considered to be in the best interest of the student or the College.

**Probation Guidelines.** The Probation Guidelines in the chart below are based on an ascending scale of grade point deficiencies and the number of terms enrolled in college. Normal progress is defined as any condition above unsatisfactory progress (i.e., jeopardy).

Students making unsatisfactory progress are subject to restrictions on athletic eligibility, extracurricular activities and/or financial aid eligibility. Students will qualify for the recommended status when either the GPA equals or falls below, or the grade point deficiency equals or exceeds, the posted criteria.

Probation Guidelines				
# Terms	Unsatisfactory Progress		Satisfactory Progress	
	Dismissal	Jeopardy	Probation	Warning
1	—	1.25 (-12)	1.75 (-4)	<2.00 (-0.5)
2	1.50 (-16)	1.70 (-10)	<2.00 (-0.5)	
3	1.70 (-14)	1.85 (-8)	<2.00 (-0.5)	
4	1.80 (-12)	1.90 (-6)	<2.00 (-0.5)	
5	1.90 (-10)	1.95 (-4)	<2.00 (-0.5)	
6	1.95 (-6)	<2.00 (-0.5)		
7-10	<2.00 (-0.5)			

**Academic Dismissal.** Academic dismissal constitutes involuntary separation of the student from the College for a minimum of one Fall or Winter term. Re-enrollment, on academic jeopardy, is contingent upon approval of the Academic Standards Committee. Approval typically is granted upon evidence of improved performance in academic work as demonstrated by successful (cumulative 3.0 or higher) completion of the equivalent of 13 credits of coursework which meets the requirements for transfer credits. In no case will a student be readmitted for the regular term succeeding the term in which the student was dismissed. First-term freshmen and first-term transfer students are not subject to academic dismissal.

**Academic Jeopardy.** Academic Jeopardy represents “unsatisfactory progress toward the degree” for determining eligibility for such programs as intercollegiate athletics and financial aid. Unsatisfactory progress also results from failure to complete credits according to this schedule: first year – 25; second year – 56; third year – 90; fourth year – 110; and fifth year – 136. Students who are subject to this level of probation may re-enroll at Alma College in a subsequent term according to the conditions as follows:

1. Arrangement with the academic advisor of a plan for improving academic performance to include repetition of classes, change of academic program, participation in the academic enrichment program, weekly meetings with the advisor to monitor progress and/or reduction of course load.
2. Agreement to the restriction of participation in extracurricular activities including varsity athletics, Greek societies, community government and/or hours of employment.
3. Completion of an interview with an administrator in the Center for Student Opportunity to verify understanding of and compliance with these conditions prior to re-enrollment.

First-term transfer students will qualify for jeopardy status according to the criteria for first-term freshmen. After the first term of enrollment at Alma, however, the published guidelines will apply.

**Academic Probation and Warning.** Academic Probation and Warning are categories of probation that should warrant the student’s concern, but are not subject to the extracurricular restrictions cited above. Eligibility for some forms of financial aid, however, may be affected.

**Right of Appeal.** Individuals or groups affected directly by committee actions or decisions have the right to appeal such actions or decisions by submitting dissenting reports first to the committee, and second to the Faculty Organization and/or Student Congress (except in those cases where appeal procedures are delineated in the description of committee functions.)

Notification of these actions is sent from the Office of the Provost to the student after review by the Academic Standards Committee of the faculty.

In accordance with Veterans Administration regulations, students who receive VA benefits and remain on probation for two consecutive terms may be deemed ineligible for further VA benefit certification. To qualify again for VA benefits, such students must achieve a 2.0 GPA.

## Other Procedures

**Academic Minors.** Students may obtain a minor in some fields of study. The minor must be a concentration of at least 24 credits including the requirements listed by the department. Every 24-credit concentration does not constitute a minor; to qualify, it must be approved by the department on a minor declaration form available from the Registrar’s Office, or an electronic form through Inside Alma.

The GPA in the area of the minor concentration must be at least 2.0 (“C”).

**Repetition of Coursework.** Repetition of coursework is permitted. In each case, the most recent effort is counted. Each effort is recorded on the student’s permanent record. Students may repeat a course that they passed previously to try to improve the original grade; however, no additional credits are earned for the repeated course even if both courses earn passing grades.

**Waiver Petitions.** To secure waiver of College policies or requirements, students may petition the Academic Standards Committee. Comments from the advisor and other concerned parties are often required before the petition is reviewed. There is no charge for the petition process. Petition forms are available in the Registrar’s Office, or electronically through Inside Alma.

**Academic Dishonesty.** Appropriate disciplinary action, including possible separation from the College, is taken when students engage in plagiarism; the exchange of information on examinations; assisting or receiving **unauthorized** assistance in the completion of an examination, the writing of an essay or the preparation of a laboratory report; using generative AI or machine learning in ways that violate an instructor’s stated policy; or any other attempt to obtain deceptively an unearned grade.

**Disciplinary Procedures.** Disciplinary action following dishonesty is handled by the faculty member. It may result in failure of the assignment or the course. A student may not drop a class in which he or she has been failed for academic dishonesty cheating. All infractions and actions will be also reported to and documented by the Provost’s Office. Repeated evidence of academic dishonesty may involve more severe penalties beyond those imposed by the instructor. These include restrictions on athletic eligibility and college-sponsored travel – including travel spring terms and performance ensembles – suspension, or expulsion from the college.

**Appeals Procedures.** A student may appeal the instructor’s decision to the Provost.

# Special Programs

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## Honors Program

The Alma College Honors Program is designed to encourage students to discern and cultivate their interests, passions and abilities; develop an environment of civil discourse, service and inclusion; support community members, both on and off campus; welcome challenging conversations, listen to marginalized voices, and provide leadership in a community that provides space for all identities to grow and thrive. Program requirements include:

1. Earn a minimum of 12 Honors credits.
  - a. Minimum of four required core credits: one credit each of HNR 100, 200, 300 (repeatable for credit), 400.
  - b. Minimum of four required credits from independent study or research, and/or internship; this may include work towards department honors.
  - c. Minimum of four elective credits: Honors Reading Groups and/or Honors Contracts.
2. Present at Honors Day.
3. Present an Honors Portfolio.
4. Retain a 3.5 GPA.

## Interdisciplinary Programs

In addition to providing a solid foundation in basic skills and knowledge, the Alma curriculum offers students many opportunities to specialize. Students may choose from any one or a combination of 47 majors and interdepartmental majors, 34 minors, four different degree programs, and individually designed areas of concentration called Programs of Emphasis which are aimed at specific professional careers.

### Interdisciplinary Programs

American Studies	Neuroscience
Biochemistry	Nursing
Communication and New Media Studies	Public Affairs
Environmental Studies	Public Health
Foreign Service	Women's and Gender Studies
Gerontology	

## Off-Campus Study

### Grades from Alma-Approved Off-Campus Study Programs.

Alma-approved off-campus study programs are those that have been reviewed and recommended by the Off-Campus Study Committee (OCSC), approved by the Educational Policy Committee (EPC), and reported to the faculty. Students approved by the OCSC to participate in Alma-approved off-campus study programs will remain enrolled at Alma College during their term(s) of study, enrolled in an off-campus study placeholder course, and receive Alma College grades for approved coursework upon completion. Alma grades are applied by the Registrar's Office in accordance with grade equivalency tables that have been approved by the Academic Standards Committee. These courses are considered Alma College credit completed 'in residence,' not transfer credit. Students may elect the Satisfactory Grade Option, as outlined in the academic catalog, if they file the approved form by the add/drop deadline or an appropriate equivalent timeframe, pro-rated if necessary in accordance with the length of the off-campus study program.

**Grades from Non-Alma Off-Campus Study Programs.** Students may petition the Off-Campus Study Committee for approval of programs not on the Alma-approved list. Petitions must include review by at least two faculty members who attest that the program meets Alma standards for quality and academic rigor. If approved to participate in a non-Alma program students would remain enrolled at Alma during the term off-campus, and enrolled in an off-campus study placeholder course. When assigned upon their return, grades returned from non-Alma programs are assessed Pass/Fail credit by the Registrar's Office in accordance with the transfer credit policies.

## Pre-Professional Programs

With numerous opportunities to choose from, Alma graduates have many ways to prepare for satisfying careers in a wide range of professions.

### Pre-Professional Programs

Education	Pre-Occupational Therapy
Military Service: ROTC	Pre-Optometry
Pre-Dentistry	Pre-Physical Therapy
Pre-Engineering	Pre-Physician Assistant
Pre-Law	Pre-Sports Medicine
Pre-Medicine	Pre-Veterinary
Pre-Ministry	

# Academic Honors

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## Dean's List

Students who achieve a 3.5 term GPA while carrying a minimum load of 13 credits (eight of which must be graded A-E) qualify for the Dean's List. The Dean's List is compiled at the end of both the Fall and Winter terms.

## Departmental Honors

To graduate with Departmental Honors, students must demonstrate superior performance on the departmental comprehensive evaluation (where offered), present a thesis of honors caliber and achieve at least a 3.5 GPA in the major field. Each department has autonomy over the comprehensive evaluation and the thesis.

## President's Outstanding Senior Award

The President of Alma College may select seniors who have completed four full (Fall or Winter) terms at Alma College and demonstrated scholastic superiority to receive the President's Outstanding Senior Award.

## President's Award

Juniors, sophomores and first-year degree-seeking students who have been at Alma College for one academic year and who attain the highest academic ranks in their classes based on GPA receive the President's Award.

## Graduation Honors

Graduation Honors are awarded to graduating seniors who have completed at least 52 credits at Alma College:

- **Summa cum laude** to students who have achieved a 3.8 GPA (and 3.6 in credits outside the division of the major)
- **Magna cum laude** to students who have achieved a 3.6 GPA (and 3.4 in credits outside the division of the major)
- **Cum laude** to students who have achieved a 3.4 GPA (and 3.2 outside the division of the major)



# Requirements for Degrees

## Alma College Credit

Alma College defines its credit hour in the context of the 4-4-1 calendar, just as institutions using semester systems link their credits to that calendar. The credit value of Alma courses is measured by “the Alma College 4-4-1 Credit Hour,” hereafter referred to as an “Alma credit.”

An Alma credit is equivalent to 120/136 – or, rounded to nearest tenth, .9 – of a semester credit hour. It is likewise equivalent to 136/108 – or, rounded, 1.3 – of a quarter credit hour. These equivalences are used when calculating compliance with the federal definition of the credit hour (34CFR 600.2):

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than:

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately 15 weeks for one semester or trimester hour of credit, or 10–12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other activities as established by an institution, including laboratory work, internships, practica, studio work, and other academic work leading toward the award of credit hours.

## Contact Hours

Sixty minutes a week of classroom or direct faculty instruction constitutes 1 contact hour.

## Major Declaration

Each student must declare a major field of study before the end of the sophomore year by completing the major declaration form found at the Registrar’s Office and online through Inside Alma. Students may select a Departmental Major (at least 36 credits as prescribed by the department), an Interdepartmental Major (56 credits in courses approved by two or more departments and the Educational Policy Committee), or a Program of Emphasis [POE] (56–68 credits in courses selected by the student to meet a specific educational goal as approved by the POE Committee no later than November of the junior year).

Students are required to earn at least a 2.0 (“C”) cumulative GPA in their chosen major field of study for the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science and Bachelor of Music degrees. The Bachelor of Science in Nursing degree requires a 2.5 cumulative GPA and a minimum 3.0 GPA in all nursing (NUR) courses. For teacher certification purposes, a 2.75 GPA is required for all coursework. Additional certification and other requirements are found in the Education Department section of this catalog. To satisfy degree requirements, courses completed outside the major area must total a minimum of 68 credits.

## Comprehensive Evaluation

Most departments require graduating seniors to complete a comprehensive evaluation. Departments determine the form of the comprehensive evaluation and may require students to take a nationally normed test, such as the Graduate Record Examination. Regardless of the form of the evaluation, the department shall determine the minimum criteria for passing with distinction, passing and failing.

Departments have the discretion to require satisfactory performance on a comprehensive evaluation for completion of the major. Results of evaluations that are non-credit bearing are not recorded on the student’s transcript.

Failure of the comprehensive evaluation will not affect degree status unless a department specifies that successful completion is necessary to satisfy major requirements. Students may retake the comprehensive evaluation only with the permission of the department (or in the case of a POE, the POE Subcommittee of the Educational Policy Committee of the faculty). Only the results of the most recent effort are recorded.

## Cumulative Grade Point Average

The cumulative Grade Point Average (GPA) must be at least 2.0 for all degrees. This average is based only on grades achieved at Alma College or in its programs. Grades earned at other institutions are not incorporated into this evaluation. Credits earned with a grade of “C” (2.0) or better at other institutions and accepted for transfer by Alma College will count toward the 136–156 credits required for the degree.

## Degrees Awarded

Degrees are awarded at the end of the term in which the student completes all requirements; a formal commencement program is held only at the end of the Winter Term. The College awards the following degrees, which require total credits as listed:

Bachelor of Arts	136 credits
Bachelor of Fine Arts	136 credits
Bachelor of Science	136 credits
68 of the total credits earned must be in designated Science and Mathematics courses; specific requirements for the B.S. degree are available in the Registrar’s Office and online.	
Bachelor of Science in Nursing	136 credits
Bachelor of Music	144–156 credits
Specific requirements for the B.M. degree in Music Education are listed in the Music section of the catalog.	
Master of Arts	
Master of Fine Arts	
Master of Science	

## Earning an Additional Bachelor’s Degree

A student may earn more than one bachelor’s degree if:

1. The degrees are different.
2. The student completes a minimum of 168 credits.
3. The student completes all requirements for both degrees.

Note: Students who earn a Bachelor of Music degree cannot also earn a Bachelor of Arts degree unless they qualify on the basis of a major other than music.

Students who desire multiple degrees must notify the Registrar’s Office by the end of the term prior to the one in which they plan to graduate. All degrees for which a student qualifies are awarded as completed.

## Double-counting Credits

A student may count up to eight credits of one major or minor in a different major or minor when those courses appear within the requirements, unless a department states otherwise within a departmental listing.

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If a course is a required prerequisite or cognate to a major, it is automatically available for application to a different major or minor when that course appears within the requirements.

### **Graduation Requirements and Full Time Enrollment**

The minimum number of Alma credits required for graduation is 136. A full-time student shall take between 13 and 18 credits in each Fall or Winter term, with 16 credits being a standard load to graduate in four years, and work beyond 18 credits constituting overload. Full-time enrollment shall be 4 credits in each Spring Term.

#### **Limitations**

Of the 136–156 credits required for a degree, students may apply up to the following number of credits from the classes listed here:

1 credit	Strategic Learning (ACP 100)
8 credits	Music 151, 152, 153, 153G, 154, 155, 156, 157, 158 and 159
6 credits	Exercise and Health Science 100–165
8 credits	Theatre/Dance 150, 151 and 152
8 credits	Practicums – numbered 385 or 386 in any department
24 credits	Independent Study – in a single department
36 credits	Practicum, Independent Study, Field Experience, Internship or Directed Teaching (in total)

#### **Programs of Emphasis (POEs)**

With the assistance of a faculty advisor, students may design an area of concentration composed of 56–68 credits in courses chosen to meet specific educational or career goals. In recent years, students have graduated with POEs in such fields as biomedical science, arts management, foreign and public service, and environmental policy and sustainability. For more information, contact the Registrar's Office and your academic advisor.

#### **Residency Requirement**

In accordance with the Residency Policy and Transfer Credit Policy, a minimum of 52 credits applied toward graduation must be earned at Alma College or through Alma College-approved programs to earn a degree. Credit earned by enrollment in Alma College courses, or transfer credits earned at another institution, below the 100-level do not count toward the 136–156 credits required for graduation.

Seniors completing coursework after participating in graduation must secure approval of coursework from the Registrar's Office and department chairs.

#### **Spring Term Requirements**

Two Spring Term courses must be successfully completed, as part of the general education requirements to graduate. Standard credit is usually 4-cr. per course; 8-cr. total is needed. Transfer students of sophomore standing or above must complete only one Spring Term course.

### **Statute of Limitation for Degree Requirements**

If candidates are unable to fulfill all requirements, *including requirements for teacher certification*, by August 30 of the year of graduation, a five-year grace period is allowed for completion of deficiencies. This grace period is further defined as a maximum of nine years after the date of initial enrollment at Alma College. After the five-year period, the student must re-apply for candidacy and have his/her record re-evaluated under the requirements then in force. If those requirements are significantly different, the candidate may be required to complete additional work for the degree and/or teaching certificate. Certification requirements are subject to change by action of the State Board of Education and may not be reflected in this catalog.

#### **Upper Level Courses**

Upper-level courses are beyond the introductory level and may or may not have prerequisites. These courses typically require students to have some college experience or a maturity of skills in critical thinking.

- 100-level courses introduce basic skills, techniques, concepts, or questions of the field; some 100-level courses do have prerequisites, and students are advised to consult the description for each course.
- 200-level courses are beyond the introductory level and continue the introduction to the field or focus on a major area in the field. Such courses may or may not have departmental prerequisites but are designed for students with some college experience or other appropriate academic preparation.
- 300-level courses are advanced courses that depend on previously learned knowledge and/or skills in the discipline or a maturity of skills in critical thinking. In such courses, students are asked increasingly to employ the tools of the discipline in response to basic questions. Ordinarily these courses have prerequisites or require junior standing.
- 400- and 500-level courses are typically seminars, theses, capstones, or primarily for students focused in that discipline. These courses require students to do more independent work, often involving the creation or synthesis of knowledge using previously learned skills.
- 600-level and above are graduate level courses.

#### **Graduate Student Enrollment Policy**

Full-time and half-time status classification: graduate students are considered full-time if they are enrolled in at least six graduate credits per term; and half-time if they are enrolled in at least three graduate credits per term. Graduate courses are taught at the 600-level or higher. During the academic year, international students in F-1 or J-1 status must be enrolled full-time to remain compliant with visa requirements.

# Guide to Core Curriculum Requirements

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## First Year Seminar (FYS)

2–4 credits

All first-year students entering Alma College and incoming transfer students with fewer than 25 credits awarded will take a minimum of two credits of FYS. Course is typically taken during the first term.

## Competency and Badged Courses

Students must meet the competency and complete badge courses in each of the areas below. Competencies must be met prior to taking badged courses.

### Writing (WI)

4–8 credits

1. Students must demonstrate proficiency in college-level writing. Students may demonstrate proficiency in the following ways: completing ENG 101 with a C or better, or earning transfer, IB, or AP credits that are equivalent to ENG 101.
2. Each student will also successfully complete a minimum of four credits of 200- or 300-level writing intensive coursework that focuses on writing and research within a discipline.
3. These courses are badged WI.

### Second Language and Global Cultural Awareness (GCA)

4–8 credits

1. All students must demonstrate at least novice-high proficiency in a language other than English. Students can demonstrate proficiency in the following ways: completing a college language course at Alma College of a sufficient level; earning transfer, IB, or AP credits that are equivalent to these Alma classes; or attaining a sufficient score on the language proficiency exam.
2. Each student will also successfully complete a minimum of four credits of work in courses designated as global cultural awareness.
3. These courses are badged GCA.

### Mathematics and Quantitative Reasoning (QR)

4–8 credits

1. All students must demonstrate proficiency in college-level mathematics. Students may demonstrate proficiency in the following ways: completing a college math course at Alma College (MTH 110 or higher excluding MTH 203, 204, 205, and 206); earning transfer, IB, or AP credits that are equivalent to MTH 110 or higher; or attaining a sufficient score on the math placement exam.
2. Each student will also successfully complete a minimum of four credits of work in courses designated as quantitative reasoning.
3. These courses are badged QR.

### Explore

16 credits

1. Students will take at least four credits in each of the four explore areas: EXP1 Making and Understanding the Arts; EXP2 Examining Self and Society; EXP3 Applying Scientific Thinking; and EXP4 Justice, Equity, Diversity and Inclusion.
2. These courses should be taken in the first or second years.
3. These courses will be from four different subjects.

### Themes

12 credits

1. Students will take three courses from a theme.
2. At least eight of these credits should be upper-level, numbered 200-level or higher.
3. These courses will be from three different subjects.

### Interdisciplinary Seminar (IDS)

4 credits

1. All students will take four credits of an Interdisciplinary Seminar in their third or fourth year.
2. These courses must be taken at Alma College.
3. These courses are badged IDS.

Note: All courses badged Writing Intensive (WI) and / or Global Cultural Awareness (GCA) in the core curriculum are automatically given the previous general education designations of Quill and International Awareness, respectively.

# General Education Goals

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The purpose of the general education program is to ensure that all students can understand and apply a wide range of disciplinary and interdisciplinary approaches in the liberal arts — arts, humanities, social sciences and natural sciences — and to explore questions and problems they encounter. The following overarching goals shape the general education curriculum.

1. **Thinking** — Students comprehensively evaluate issues, ideas, artifacts, and events through observation, experience, analysis, synthesis, and reflection before accepting or formulating an opinion or conclusion.
2. **Interpreting** — Students demonstrate an ability to interact with, comprehend, interpret, evaluate, and respond to a variety of complex texts (visual, literary, mediated, quantitative, embodied, etc.) with appropriate strategies and with attention to context.
3. **Communicating** — Students communicate effectively and clearly, demonstrating an understanding of context, audience, purpose, genre, and discipline in both written and oral communication.
4. **Engaging** — Students recognize their own place within a cultural context, demonstrate an understanding of the patterns and power structures that shape the communities they work with, and can apply tools that ensure they can engage meaningfully and ethically with people of other backgrounds, languages, experiences, and beliefs across the spectrum of differences in order to adapt empathetically and with flexibility to unfamiliar ways of being.

## Courses of Instruction

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Courses of instruction are described on the following pages. Courses 200-level and above are considered upper-level. Students are required to complete 44 credits of upper-level coursework to complete degree requirements.

Courses listed in this catalog are subject to change. New courses and changes in existing courses are initiated by the appropriate departments or programs, and approved by the Provost, the Educational Policy Committee and the faculty.

### Academic Divisions and Courses of Instruction

#### Humanities

Academic and Career Planning  
Arabic  
Art and Design  
Chinese  
Communication  
Dance  
Design  
English  
French  
General Studies  
German  
Honors Program  
Humanities  
Latin  
Library Research  
Medieval Studies  
Music  
New Media Studies  
Philosophy  
Religious Studies  
Spanish  
Theatre  
Women's and Gender Studies  
World Languages and Cultures

#### Natural Sciences

Actuarial Science  
Astronomy  
Biochemistry  
Biology  
Biotechnology  
Chemistry  
Computer Game Programming  
Computer Science  
Data Analytics  
Engineering  
Environmental Science  
Geology  
Health Studies  
Integrated Science  
Integrative Physiology and Health Science  
Mathematics  
Nursing  
Physical Science  
Physics  
Psychology  
Public Health

#### Social Sciences

American Studies  
Business  
Digital Marketing  
Economics  
Education  
Financial Economics  
Foreign Service  
Geography  
Gerontology  
Healthcare Administration  
History  
Political Science  
Public Affairs  
Sociology

# American Studies (AMS)

## Minor Requirements

Thirty credits which must include:

1. Core: AMS-101, 102, 301, and 16 credits from the following (no more than one course per department): ECN-111; ENG-260 or 261; HST-104, 105, 228; POL-101; and SOC-101.
2. Advanced Electives: 8 credits from the following (no more than one course per department): ART-250; ENG-361 or 366; HST-277, 323, 325, or 326; POL-231, 325 or 336; and SOC-241 or 380A; or other approved (with substantial American content) topics courses (e.g., African American literature or religion, Native-American literature, etc.) AMS independent study or practicum subject to approval of the AMS Coordinator.

### AMS 101 Introduction to American Studies

2 cr

Focuses on the multi-disciplinary perspectives needed to understand the complexity of "the American experience(s)."

*Prerequisite: First-year or Sophomore Standing*

### AMS 102 Perspective American Experience

2 cr

Focuses on seminal sources for deepening one's perspectives on "America."

*Prerequisite: First-year or Sophomore Standing*

### AMS 120 Superheroes & Identity

EXP2 4 cr

Stan Lee himself once said Superheroes, like Jazz, were a uniquely American creation. This class examines that statement by studying superhero and supervillain archetypes in multiple media. The class will explore how these 4-color characters are both rigid representations of morals and ideals while also analyzing how they stretch, mutate, and ultimately evolve over time to better reflect an ever-changing society.

### AMS 301 American Studies Seminar

2-4 cr UL

Open only to students who have completed or are concurrently enrolled in the completion of 24 credits toward the AMS minor.

*Prerequisite: AMS-101 and 102*

# Arabic (ARB)

### ARB 111 Beginning Arabic I

4 cr

This introduction to Arabic places emphasis on all four basic skills: speaking, listening, reading and writing. Secondary objective provides insight into cultures and societies where Arabic is spoken.

### ARB 112 Beginning Arabic II

AH 4 cr

Continued study of spoken and written Arabic for students who have successfully completed Beginning Arabic I. Development of basic communicative skills, both in standard modern written form and as a spoken dialect. Deeper exploration of contemporary Arab culture.

*Prerequisites: ARB-111 or Permission*

# Art and Design (ART)

Alma College offers both the Bachelor of Arts (B.A.) and the Bachelor of Fine Arts (B.F.A.) programs within the Department of Art and Design. These programs are designed for students seeking a broad overview of various media within the Studio Arts, and is often combined with other majors such as Business, English or Psychology.

## The Bachelor of Fine Arts (BFA) in Art and Design Program

This is a pre-professional program designed for those who seek employment in the field of art and design or are advancing to graduate school. The BFA is a breadth of knowledge across art and design disciplines with specializations in drawing and painting or design.

BFA Requirements: Acceptance into the B.F.A program requires submission of a portfolio to the department for approval. The portfolio is to be submitted in November of the candidate's junior year. B.F.A candidates must have a 3.0 GPA in art and design.

## Art and Design Major Requirements (B.F.A Degree)

Sixty credits total, to include thirty-six credits of B.A. core and twenty-four credits within one selected concentration.

Thirty-Six credits (B.A. Degree), which include:

1. Core Requirements: (20 credits) ART-101, 150, 201, 202 and DES-131
2. 4 credits in upper-level Art History
3. 8 credits in ART electives
4. ART-501 and 502

*Select one twenty-four credit concentration:*

## Drawing and Painting

Twenty-Four credits, which must include:

- ART-162, 261, 262, 281, 361 or 362
- Advanced Studio Requirement (8 credits): ART-461 and 462

## Design

Twenty-Four credits, which must include:

1. DES-101, 231, 245, and 284
2. Advanced Studio Requirement (8 credits): Chosen from DES-331, 401, or 431

## Art and Design Major Requirements (B.A. degree)

Thirty-Six credits, which must include:

1. 20 credits, Core Requirements: ART-101, 150, 201, 202 and DES-131.
2. 4 credits in upper-level Art History
3. 8 credits of ART electives
4. ART-501 and 502

**Drawing & Painting Studio Area:** ART-162; 261; 262; 361; 362; 461; 462; 500

**Ceramics & Sculpture Studio Area:** ART-140; 240; 241; 250; 253; 340; 350; 450

**Graphic Design Studio Area:** ART-231; 330; 430; DES-131

**Photography Studio Area:** ART-126; 226; 326; 426

An emphasis in Animation, Graphic Novel and Comic Design are available through our partnership with Duncan of Jordanstone College of Art and Design (DJCAD) at the University of Dundee in Scotland. In addition to the above coursework required for the major, students wishing to continue in Animation should take ART-162, 228, 253, and NMS-232 to prepare for their semester or year-long experience in Scotland during their Junior year.

## Art Minor Requirements

Twenty-Four credits which must include:

1. ART-101, 120, 150, 201 and 202.
2. Four elective credits in Studio Art courses.

## Drawing and Painting Minor Requirements

Twenty-Four credits, which must include:

1. ART-101; 162; 261; 262; 361; 362; and 461

### Art History Minor Requirements

1. Twenty-four credits which must include: ART-111 and 112
2. Sixteen upper-level credits in Art History from 210, 211, 212, 215, 218, 280 (which may be taken more than once for credit if different topics), or other pre-approved course. Students may substitute up to four upper-level credits from other related disciplines with prior department approval.

### Program Considerations for Art History Minor

- Students who have had little or no studio experience are strongly encouraged to complete at least one studio course from the 100-200 level series.
- Because graduate programs in Art History typically require proficiency in at least two foreign languages, students who are considering advanced studies in this discipline should plan to include at least four terms of foreign language coursework in their curriculum.
- A Program of Emphasis (P.O.E.) in Art History or in Arts or Gallery Management is also available in consultation with the Art History faculty. Art History courses are supplemented with other appropriate courses in coordinate disciplines (Business, Anthropology, History, Religious Studies, etc.). Each P.O.E. is tailored to the student's particular interests and goals.
- Completion of a senior thesis is strongly encouraged if student is considering graduate school.


### Transfer Credits in Studio Art

Up to three studio art courses may be included in the major by transfer from an accredited institution. Transfer of upper-level studio work will require Departmental review.

### ART 101 Drawing I

AH EXP1 4 cr  
Through observation, this class will concentrate on the essential elements of drawing, its materials, and methods. This is an introductory level class, which prepares the student for higher levels of visual problem-solving. Course fee.

### ART 109 Greek Myth & Classical Art

 AH 4 cr  
The ancient Greeks told their famous stories of themselves and their history in both the intimate spaces of vase painting and in the more public displays of sculpture. We will examine images of Greek Myth by asking: How was export vase ware to be read by their Greek and non-Greek audiences? How do we determine the referents of those images, when the myths had not yet been recorded in texts? How did viewers encounter, read and understand their highly decorated temples? The course will also engage later Hellenistic and Roman works.

### ART 120 Two-Dimensional Design

AH EXP1 4 cr  
Investigation of foundational elements and principles of visual design as the basic building blocks for visual art and communication. Critical thinking skills, as they apply to studio art, are explored using traditional and digital techniques. Course fee.

### ART 126 Photography I

AH EXP1 4 cr  
Introduction to digital photography. Students will learn the functions of camera bodies and lenses, a basic understanding of editing software, and the ability to think critically about what makes a "good" photograph. This course will focus on creative techniques accomplished both in camera and during post processing. A digital camera with manual settings is suggested, but not required. Course fee.

### ART 140 Ceramics I

AH EXP1 4 cr  
Introduction to direct forming processes in clay; hand building and wheel-throwing. Investigation of the uses of slips, glazes, underglazes and other methods of surface enrichment. Participation in class kiln firings. Course fee.

### ART 150 3-Dimensional Design

AH EXP1 4 cr  
Introduction to studio work with emphasis on exploring a variety of materials in three-dimensions in solving visual and spatial problems. Line, volume, mass, scale, composition, plane, as well as other elements of design will be utilized in investigating form. Course fee.

### ART 162 Figure Drawing I

AH THM 4 cr  
An introductory drawing course using the human body to discuss proportion and space. Much of the class will focus on developing drawing technique and observational skills for naturalistic rendering. Course fee.  
*Prerequisite: ART-101 or ART-120 / NMS-120*


### ART 171 Printmaking I

AH 4 cr  
This course will explore the basic printmaking methods and their artistic historical significance. The students will gain basic knowledge of techniques and vocabulary that will further develop their artistic expression through the creation of the multiple print and/or presentation processes. We will cover Monotype, Collagraph, Relief, and Dry point Etching using a more contemporary, less toxic process. Course fee.


### ART 180 Topics in Studio Art

AH 1-4 cr  
Selective topics in studio art. Topics can be taught within the college or external experiences in department recommended workshops, residencies, or other special programming from other qualified institutions. Credit will be awarded based on program content, length of time/hours, and portfolio brought back for review. May require a course fee.

### ART 201 History of Art I

 AH THM 4 cr **UL**  
In this course we will explore what it means to be human through the study of art and design. We will examine works of art from visual cultures across the globe, from the earliest records to the Medieval period, to analyze concepts of identity, social structure, and power structures, including discussions of class, gender, and race/ethnicity. Course Fee.  
*Prerequisite: ENG-101*

### ART 202 History of Art II

 AH THM 4 cr **UL**  
In this course we will explore what it means to be human through the study of art and design. We will examine works of art from visual cultures across the globe, from the Renaissance through the 20th century, to analyze concepts of identity, social structure, and power structures, including discussions of class, gender, and race/ethnicity. Course Fee.  
*Prerequisite: ENG-101*

### ART 209 Greek Myth & Classical Art



4 cr UL

The ancient Greeks told their famous stories of themselves and their history in both the intimate spaces of vase painting and in the more public displays of sculpture. We will examine images of Greek Myth by asking: How was export vase ware to be read by their Greek and non-Greek audiences? How do we determine the referents of those images, when the myths had not yet been recorded in texts? How did viewers encounter, read and understand their highly decorated temples? The course will also engage later Hellenistic and Roman works.

### ART 212 Survey of Renaissance Art



4 cr UL

Introduction to the visual cultures of the Renaissance in Northern and Southern Europe, with an emphasis on the context in which the arts were produced. Surveys of Renaissance history, literature and religion are included to enrich students' comprehension of the artworks. Course fee.

### ART 213 Survey of Modern Art



4 cr UL

Survey of the visual cultures of Europe and the United States that gave rise to "Modernity," with an emphasis on the theory of its development and the cultural contexts in which it occurred. The course covers the arts produced from 1840 to 2001 and includes careful consideration of the different art movements that comprise modern art. Course fee.

### ART 216 Art Appreciation



4 cr UL

General introduction and exploration to arts and design. Students will experiment, research and write on multiple art processes, basic 2D and 3D techniques, theories, and survey history of modern visual forms. This course is appropriate for students with little to no art and design experience. The class is designed to familiarize students with diverse ways of making art and learning how to speak and write intelligently about art and design.

### ART 226 Photography II

AH

4 cr UL

Introduction to basic 35mm photography including black and white film and darkroom techniques. Students will learn all aspects of the camera body, lenses, and how to properly use them. Students will photograph with standard 35mm film cameras then process and print black and white film in the darkroom using traditional paper and chemistry. They will focus on photographing with intention using a limited amount of film. A traditional 35mm SLR film camera is suggested but not required. Course fee.

*Prerequisite:* ART-126

### ART 228 Lighting Studio

AH

4 cr UL

Introduction to studio lighting concepts and techniques for still life, portraiture, documenting artwork, and commercial uses. These techniques are applicable to film, video and still images. Course fee.

### ART 240 Ceramics II

AH

4 cr UL

A continuation of direct hand-building and throwing techniques, continued surface enrichment, and an introduction to basic mold-making and glaze mixing/testing. Course fee.

*Prerequisite:* ART-140

### ART 241 Wheel Throwing

AH

2-4 cr UL

An introduction to wheel throwing with a secondary emphasis on altering and hand-building forms. Glaze mixing, surface development, and kiln firing will be covered. We will investigate traditional and contemporary forms and figure out how a pot is never just a pot. Course fee.

### ART 250 Sculpture I

AH

4 cr UL

An investigation of both traditional and contemporary materials, methods, and subject matter. Form will be approached through processes that utilize addition, subtraction, manipulation and transformation. Course fee.

### ART 253 Figurative Clay Sculpture

AH

4 cr UL

An introduction to building figures and animals in clay. Through the use of visual references, there will be a focus on understanding measurement, alignment, and proportion. Narrative development and content exploration will be supported by class discussions, lectures, and independent research. Works will be prepared for kiln firing and will be surfaced with glazes and paint. Course fee.

### ART 261 Painting I

AH EXP1

4 cr UL

This course is an introductory course discussing basic concepts of painting in oil. Focusing on value, minimal color, space and developing observational skills. Course fee.

### ART 262 Figure Drawing II

AH

4 cr UL

This course is an advanced drawing course, which reaffirms practice in proportion, space, drawing techniques and observational skills applied to the figure. In addition, this course will discuss various materials, color, scale, and concept. Course fee.

*Prerequisite:* ART-101 and ART-162 or Permission

### ART 280 Topics in Art History

AH

4 cr UL

Selected topics in the history of art. Subject varies according to Instructor's field. Course content and Instructor announced in advance. May be repeated for credit if course content covers a different topic. (Past courses include women in art, history of prints). Course fee.

### ART 281 Topics in Studio Arts

AH THM

2-4 cr UL

Selected topics in studio art. Subject varies according to Instructor's field. Course content and Instructor announced in advance. May be repeated for credit if course content covers a different topic. May include course fee.

### ART 290 Directed Studio

AH

2-4 cr UL

Exploration at the intermediate level through a studio project in a selected medium. Open to majors and non-majors. Utilizes a directed studio format. (Past courses included book arts, jewelry, watercolor, wheel-thrown ceramics, etc.). Course fee.

*Prerequisite:* Permission

### ART 319 Art Theory



4 cr UL

An exploration of the main theoretical discourses (philosophical, critical, historical) that impel both the creation and the reception of art, including the very definition of art, as deployed throughout the 20th century. Course fee.

*Prerequisite:* Junior or Senior Standing

### ART 326 Photography III

AH

4 cr UL

An intermediate photography course centered around digital photography. This course will focus on using photography as a method of storytelling. Students will learn ways to apply these techniques to both fine art and commercial work. A digital camera with manual settings is suggested, but not required. Course fee.

*Prerequisite:* ART-126

**ART 340 Ceramics III**AH 4 cr **UL**

This course is designed around developing an individual voice with fired clay and ceramic surface. Both form and surface will be explored in contributing to the content of the piece. Through research, surface testing, and experimentation, students will develop skills towards a disciplined studio practice. Course fee.

*Prerequisite: ART-240*

**ART 350 Sculpture II**AH 4 cr **UL**

A continued material investigation in three-dimensions with a focused introduction to wood. Additionally, there will be a stronger emphasis on the students' individual investigation of material, process, and conceptual thought process. Course fee.

*Prerequisite: ART-250*

**ART 361 Drawing and Painting I**AH 4 cr **UL**

This is an intermediate course, which discusses contemporary as well as traditional ways of creating a drawing and a painting. Time will be devoted to developing ideas of a unique body of work as well as material experimentation. Course fee.

*Prerequisite: ART-262 or Permission*

**ART 362 Drawing and Painting II**AH 4 cr **UL**

This is an intermediate course, which discusses contemporary as well as traditional ways of creating a drawing and a painting. Time will be devoted to developing ideas of a unique body of work as well as material experimentation. Course fee.

*Prerequisite: ART-361 or Permission*

**ART 380 Topics in Studio Art**AH 2-4 cr **UL**

Selected topics in studio art. Subject varies according to Instructor's field. Course content and artist announced in advance.

May be repeated for credit if course content covers a different topic. (Past courses included advanced illustration, landscape photography and architectural ceramics.) Studio courses may be taught overseas during Spring Term. Course fee.

*Prerequisite: ART-101 and ART/NMS-120; or Permission*

**ART 385 Art Internship**1-8 cr **UL**

Designed to provide on-site working experiences in the student's area of interest. Examples include: apprenticeships with professional artists, internships with museums or art centers, internships with community art councils, or short-term employment in firms specializing in an art-related area. Internships are arranged with assistance of faculty advisor. Possible course fee.

*Prerequisite: ART-101, 111, 112, 120, 150 and Permission*

**ART 390 Advanced Directed Studio**AH 2-4 cr **UL**

In-depth study in the student's area of interest under direction of a faculty member in that area. Designed for junior and senior Art and Design majors who have completed 12 credits of studio work. Exceptions to this policy made only with Departmental Permission. Subject matter arranged through close consultation with advisor according to individual needs or to specified curricula available. Course fee. *Prerequisite: Permission*

**ART 400 Art History Thesis**AH 2-4 cr **UL**

Readings, discussion and research paper on special topics in Art History. Course fee.

*Prerequisite: Permission*

**ART 424 Photography III**AH 4 cr **UL**

Exploration of images made with digital and traditional technology. Students learn to create digital negatives that are printed using alternative hand-mixed light sensitive chemicals on papers. Students may also explore photo lithography, intaglio, and relief. Course fee.

*Prerequisite: ART-120 / NMS-120, 224, and 225*

**ART 426 Photography IV**AH 4 cr **UL**

This is an advanced photography course in which students will work toward self-assigned goals with Permission and direction from the Instructor. They will be able to choose whether they use digital or traditional technology to achieve these goals. Students will develop a body of work suitable for exhibition and will be required to write an artist statement and learn how to mat their prints. A digital camera with manual settings and/or a traditional 35mm SLR film camera is suggested, but not required. Additional supplies may need to be purchased depending on the medium chosen by the student. Course fee.

*Prerequisite: Two of the following: ART-126, 226, 228, or 326*

**ART 440 Ceramics IV**AH 4 cr **UL**

This course is designed around developing an individual voice with fired clay and ceramic surface. Both form and surface will be explored in contributing to the content of the piece. Through research, surface testing, and experimentation, students will develop skills towards a disciplined studio practice. Course fee.

*Prerequisite: ART-340*

**ART 450 Sculpture III**AH 4 cr **UL**

This course is designed for students exploring complex technical procedures pertaining to sculpture. It will require in-depth research, presentation, and application of knowledge into a focused body of work. Course fee.

*Prerequisite: ART-350*

**ART 461 Advanced Making I**AH 4 cr **UL**

An advanced studio course engaged in rigorous visual problem solving. Create a body of work which supports completion of the senior capstone experience. Time in a studio space to engage with informal and formal class critiques. Course fee.

*Prerequisite: ART-101 or 120 or 150; Junior Standing*

**ART 462 Advanced Making II**AH 4 cr **UL**

An advanced studio course engaged in rigorous visual problem solving in which students prepare for senior show and the senior capstone experience. Course fee.

*Prerequisite: ART-461; Junior Standing*

**ART 490 Advanced Directed Studio**AH 2-4 cr **UL**

In-depth study in the student's area of interest under direction of a faculty member in that area. Designed for junior and senior Art and Design majors who have completed 12 credits of studio work. Exceptions to this policy made only with Departmental Permission. Subject matter arranged through close consultation with advisor according to individual needs or to specified curricula available. Course fee.

*Prerequisite: Permission*

**ART 500 Senior Show Studio**AH 2-4 cr **UL**

Student will work on a specific thesis and body of work as it relates to their capstone senior show thesis within their area of emphasis. Course fee.

*Prerequisite: Permission*



### ART 501 Professional Practice I

AH 2 cr **UL**

This course is a requirement for seniors majoring in art. ART 501 is the first part of the art department's capstone experience. Students will take this course their senior year fall semester. The class will build application materials for success after graduation as well as create an exhibition for their senior thesis. Course fee.

*Prerequisite: Senior Standing, Declared Major in Art*

### ART 502 Professional Practice II

AH 2 cr **UL**

This course is a requirement for seniors majoring in art. ART-502 is the second part of the art department's capstone experience.

Students will take this course their senior year winter semester. In this course, we will continue building application materials for success after graduation as well as create an exhibition for their senior thesis.

Course fee.

*Prerequisite: Senior Standing, Declared Major in Art*

## Astronomy (AST)

### AST 101 Planetary Science

NS2 4 cr

Examines the solar system from the perspective of the interdisciplinary fields of planetary science. Study of both solid surfaces and atmospheres using the concepts and techniques of astronomy, geology, atmospheric science, meteoritics, physics and chemistry. Work involves theoretical and experimental studies of planetary processes at an introductory level in lecture, discussions and laboratory. Course fee.

*Prerequisite: MTH-100 or higher*

### AST 112 The Universe

NS2 4 cr

Introduction to the current view of the physical universe. Topics include the stars, star clusters, the galaxy and cosmology.

Required laboratory exercises illustrate principles and ideas used by astronomers to support their views of the cosmos. Course fee.

*Prerequisite: MTH-112 or higher*

### AST 225 Astrophysics

NS2 4 cr **UL**

Study of the physics of stellar constituents of the universe: distances, magnitudes, colors, spectra and motions of stars; multiple and variable stars; stellar structure and evolution, star clusters, structure and rotation of the Milky Way galaxy, galaxies and cosmology.

*Prerequisite: PHY-221 previously or concurrently*

## Biochemistry (BCM)

### Major Requirements

Sixty credits, which must include:

1. Core (36 credits) BIO-121; CHM-115, 223, 224, 230; MTH-121; BCM-321, 422 and 430.
2. Electives (24 credits - no more than 12 credits from the same department): BIO-204, 221, 290, 308, 319, 320, 325, 330, 333; BCM courses at the 200-level or above; CHM course(s) at the 300-level; CHM-411; IPH-230, 340, 401; 122, 211; PHY-112 (or 121), PHY-113 (or 122).
3. Successful completion of the departmental Senior Comprehensive Examination.

### Program Considerations

- Students that are interested in graduate programs in Biochemistry are strongly advised to take BIO-204, MTH-122, PHY-121, PHY-122, followed by CHM-331 and/or CHM-332. Students that are not sure should start this math and physics sequence in their second year to retain this possibility.

- Completion of an independent research project culminating in a senior thesis is encouraged, especially for students interested in graduate programs.
- In accordance with college policy, a student may only double count up to eight credits of one major or minor in a different major or minor. Therefore, students who declare a Biochemistry major may not elect a second major or minor in Chemistry.

### BCM 180 Topics in Biochemistry

NS1 1-4 cr

Topics vary. Previous offerings have included "Genes and Society" (4 credits) for non-science majors, and the lab-only "Introduction to Molecular Genetics" (1 credit) for science majors seeking a peer-mentored experience. Laboratory. Course fee.

*Prerequisite: Permission*

### BCM 201 Biotechnology Journal Club

2 cr **UL**

Gain familiarity with, and be conversant in current literature and developments in the biotechnology sector. Primary research literature articles of various thematic topics are discussed and presented in a student-directed format.

### BCM 319 Toxicology

NS1 4 cr **UL**

An introduction to Toxicology. Topics include general principles, toxicodynamics and kinetics, metabolism and biochemical mechanisms, system and organismal responses, testing guidelines, analytical methods, and case studies (clinical and environmental). Laboratory. Course fee.

*Prerequisite: BIO-121 and CHM-230*

### BCM 321 Biochemistry

NS1 4 cr **UL**

Overview of the major topics of biochemistry including the chemistry, structure, function, biological activity and molecular mechanisms of the major biological macromolecules. Introduction to bioenergetics and central metabolic pathways. Laboratory. Course fee.

*Prerequisite: BIO-121, CHM-223, CHM-224 (CHM-224 may be taken concurrently), and Junior Standing*

### BCM 401 Biotechnology Journal Club

2 cr **UL**

Gain familiarity with, and be conversant in current literature and developments in the biotechnology sector. Primary research literature articles of various thematic topics are discussed and presented in a student-directed format.

*Prerequisite: BIO-121 and BCM-201*

### BCM 422 Advanced Biochemistry

 NS1 4 cr **UL**

Further study of intermediary metabolism through the use of historical and current research articles. Introduction to biophysical methods. Emphasis on experimental design, data analysis and integration of biochemical information. Laboratory. Course fee. (Offered Winter, Odd numbered years)

*Prerequisite: BCM-321, CHM-230 (CHM-230 may be taken concurrently)*

### BCM 430 Molecular Genetics

NS1 4 cr **UL**

Study of the transmission of information at the molecular level and the techniques used in gene analysis. Topics include gene structure and function, gene expression, genetic mobility, genomics, transgenics and recombinant DNA methodology. (Offered Winter, Even-numbered years) Laboratory. Course fee.

*Prerequisite: BIO-204 or BCM-401, Junior or Senior Standing*

## BCM 500 Senior Thesis

NS1

4 cr UL

Independent laboratory research of an original problem resulting in a thesis and public presentation. Required for departmental honors.

Course fee.

*Prerequisite: Permission*

# Biology (BIO)

## Major Requirements

Thirty-six credits, which must include:

1. Core (20 credits): BIO-121, 221, 222, 223, 290, and 490
2. Electives (16 credits; complete 4 credits per group):
  - Evolution and Genetics (4 credits): BIO-204 or 360
  - Ecology and Biodiversity (4 credits): BIO-215, 302, 309, 319, and 361
  - Form and Function (4 credits): BIO-205, 207, 305, 387 or IPH-232
  - Cell and Molecular (4 credits): BIO-125, 308, 325, 330, 333, or BCM-430
3. Completion of the MFT examination for Biology
4. Pre-approved spring term courses may be used to fulfill any of the four elective areas.

## Biology Specialization Teaching Major (7-12)

Thirty-six credits which must include:

1. BIO-121, 204, 207, 221, 222, 290, 302, 308, and 490.
2. Four credits of upper-level BIO electives not including BIO 223.
3. Successful completion of requirements of the Science Teaching Major (5-12) and the Secondary Education Major.
4. A grade point average of at least 2.5 in Biology Specialization Teaching Major (7-12) courses.

## Program Considerations

- Potential Biology majors should note that many career opportunities for biologists, including graduate and professional programs, require two terms each of Inorganic and Organic Chemistry, Physics, and Mathematics
- Therefore, Biology majors are encouraged to complete CHM-115, 223, 224 and 230; PHY-112 and 113 or PHY-121 and 122; and MTH-112 and 113, 116, or 121 and 122. Additional courses may be required for specific graduate/professional schools; majors should check prospective program websites for specific admission requirements.
- Students are also encouraged to complete a primary research experience either through independent study or a summer internship at Alma College or another institution. For those students considering graduate school and/or a career in research, multiple experiences are highly recommended.

## Biology Minor Requirements

Twenty-four credits which must include:

1. BIO-121, 222, 223
2. Twelve additional credits of upper-level BIO electives.

## Biology Specialization Teaching Minor (7-12)

Twenty-eight credits, which must include:

1. BIO-121, 204, 207, 221, 222, 223, and 302.
2. Successful completion of requirements of the Science Teaching Major (5-12) and the Secondary Education Major
3. A grade point average of at least 2.5 in Biology Specialization Teaching Minor (7-12) courses.

## BIO 121 Foundations of Biology

NS1 EXP3

4 cr

Foundational concepts of biology are introduced through a combination of activities, case studies, presentations and discussions, and hands-on laboratory experiences. Students explore the essentials of metabolism, basic cell membrane and organelle structure and function, biosynthesis, DNA replication, cell division, reproduction, and Mendelian genetics within broader biological contexts such as human ecology and health, environmental issues, and evolution. The laboratory component provides students with practical experiences that develop laboratory skills and that employ the scientific method and basic data analyses. Laboratory. Course fee.

## BIO 180 Biological Topics

NS1

4 cr

Lecture, laboratory and/or field experiences of special relevance to biology. Recent topics have included animal behavior, recombinant gene techniques, microbial ecology and cell culture. May be taken more than once for credit. May include a course fee.

## BIO 204 Genetics

NS1 QR

4 cr UL

The mechanics of inheritance at the molecular and cellular levels and the relationship of this phenomenon to gene action, organismal development, population changes and evolution. Laboratory. Course fee.

*Prerequisite: BIO-121 and Sophomore Standing*

## BIO 205 Human Embryology

NS1

4 cr UL

Development of the organism from its beginning to the establishment of the basic body plan and organ systems. Live embryos and developmental morphology of vertebrates. Laboratory. Course fee.

*Prerequisite: BIO-121*

## BIO 207 Animal Physiology

NS1

4 cr UL

Study dynamic organ system functions of animals with emphasis on homeostasis, variable activity levels, and challenging environmental conditions. Neurological and endocrinological control systems related to all major organ systems are studied. Analysis and interpretation of data collected during hands-on experimentation with various animal species, including humans, are emphasized in class and in the laboratory. The course is especially relevant for students in biology, environmental studies, and in the pre-health professions.

## BIO 210 Medical Apartheid

NS1 THM GCA

4 cr UL

Examination of the history of medical experimentation and therapies conducted on marginalized, disadvantaged and/or discriminated populations without informed consent. Topics will primarily focus on cases from colonial times to the present day in the United States.

## BIO 221 Cell Biology

NS1

4 cr UL

The course focuses on the molecular structure of cells and how those structures permit and constrain cell functions. BIO-221 answers questions regarding how cells function from protein, lipid, and organellar trafficking, chromatin organization, and cytoskeletal function, to cell division mechanics. Course includes clinical correlates involving many common disease conditions including cancer, cystic fibrosis, lysosomal storage diseases, Creutzfeldt-Jakob Disease, and muscular dystrophy. Laboratory includes in vitro cell culturing experience and basic molecular techniques. Laboratory. Course fee.

*Prerequisite: BIO-121*

**BIO 222 Plant Biology**

NS1 4 cr UL

An introductory course emphasizing plants as the model organism for learning about basic biological principles including plant development, anatomy, physiology, behavior, evolution, and ecology. Studio format course, in which lectures and labs are combined for a student-focused, active-learning experience. Students work throughout the semester as members of collaborative groups to answer and develop questions, solve problems, perform experiments, and conduct research that is intended to help them learn. (Formerly offered as BIO-202).

Laboratory. Course fee.

*Prerequisite: BIO-121***BIO 223 Animal Biology**

NS1 4 cr UL

This course examines the diversity of the animal kingdom. Animals will be studied in an evolutionary context, emphasizing morphology, life history, ecology and behavior. The laboratory will include dissections and demonstrations that allow students to appreciate the physical differences across the major phyla. (Formerly offered as BIO-203).

Laboratory. Course fee.

*Prerequisite: BIO-121***BIO 280 Topics in Biology**

NS1 2 cr UL

Biological topics selected by the Instructor. May be taken more than once for credit.

**BIO 290 Experimental Design & Analysis**

NS1 2 cr UL

Biology as a quantitative, experimental, and theoretical science is a central focus of the course. Foundational skills essential for conducting research in biology and for critical evaluation of research are established. Students learn the underlying principles and practical skills necessary for the exploration of questions and for testing hypotheses with special emphasis on research design and analysis and interpretation of data using statistical techniques. Sound experimental and statistical principles are demonstrated through the use of data from several diverse fields of biology. The course provides an essential foundation for undergraduate research in biology. Course fee.

*Prerequisite: BIO-121 and Sophomore Standing***BIO 302 Ecology**

NS1 4 cr UL

Investigation of population, community and ecosystem structure, dynamics and energetics. Laboratory and field studies. Course fee.

*Prerequisite: Sophomore Standing or Permission***BIO 305 Comparative Vertebrate Anatomy**

NS1 4 cr UL

Explores the use of homology and cladistics to recover phylogenies and to understand the evolution of anatomical features of vertebrates. The function, form, and biodiversity of chordates with emphasis on vertebrates are discussed. Laboratory. Course fee.

*Prerequisite: BIO-223***BIO 308 Microbiology**

NS1 4 cr UL

Survey of the bacteria, viruses and other protists emphasizing their structure, physiology, systematics, ecology and genetics. Focuses on microbes important to humans including disease and the immune response. Laboratory. Course fee.

*Prerequisite: Junior or Senior Standing or Permission***BIO 309 Aquatic Biology**

NS1 4 cr UL

The physical, chemical and biological factors that affect fresh water organisms. Comparison of streams, rivers and lake habitats of Michigan. Laboratory. Course fee.

*Prerequisite: BIO-121 or Permission***BIO 319 Toxicology**

NS1 QR WI 4 cr UL

The study of toxic effects of chemicals on human and ecological populations. This includes the basic principles of toxicology and toxicity testing, fate and transport of materials in the environment and the body, key toxins and toxicants, and modes of toxic action among other topics. These subjects are supplemented with scientific literature on current topics in toxicology. Laboratory. Course fee.

*Prerequisite: BIO-121 and CHM-115 (one course from CHM-223, BIO-223, or IPH-227 recommended)***BIO 320 Medical Botany**

NS1 4 cr UL

Study of the contribution of plants to modern medicine. Topics include the botany, anthropology, chemistry, and pharmacology of plant derived drugs. Cross-listed with BTC-320. Laboratory. Course fee.

*Prerequisite: BIO-121 and CHM-223***BIO 330 Immunology**

NS1 4 cr UL

The basic elements of the immune system that govern the innate and adaptive immune responses will be covered. Emphasis will be spent on B and T lymphocyte functions and the mechanisms of immune defense against pathogens. Course fee.

*Prerequisite: BIO-121 or IPH-131 or Permission***BIO 333 Cancer Biology**

NS1 4 cr UL

Cancer biology is an interdisciplinary field spanning several disciplines that include genetics, cell biology, immunology, and microbiology. Basic principles of tumor biology are explored initially from a historical view of diagnosis and treatment paradigms and then through discussions of chemo- and immune-therapies, an introduction to oncogenes, tumor suppressor and DNA repair genes that are disrupted during carcinogenesis, and an in-depth look into several common types of malignancies.

*Prerequisite: BIO-121 or IPH-131 or Permission***BIO 360 Evolution**

NS1 4 cr UL

Study of evolution as it applies to aspects of the biological sciences. Topics include history, mechanisms of evolution and population genetics. Laboratory. Course fee.

*Prerequisite: BIO-121***BIO 361 Animal Behavior**

NS1 4 cr UL

Animal behavior is examined from an ecological and evolutionary perspective. Topics include reproduction, habitat selection, foraging and fighting behaviors. Laboratory. Course fee.

*Prerequisite: BIO-222 or 223 or Permission***BIO 380 Topics in Biology**

NS1 2-4 cr UL

Lecture, laboratory and/or field experiences of special relevance to biology. Recent topics have included animal behavior, recombinant gene techniques, microbial ecology and cell culture. May be taken more than once for credit. Course fee.

*Prerequisite: BIO-121 (or equivalent) or Permission***BIO 385 Biology Practicum**

2-4 cr UL

Biological knowledge is applied to an outside working situation. Pass/Fail only.

*Prerequisite: BIO-121 and Permission*

### BIO 490 Senior Capstone Seminar

NS1 2 cr **UL**

A retrospective of each student's experiences as a biology major that encourages students to make the connections among the various areas of biology, to reflect upon opportunities and personal pathways through the biology major, and to link their past experiences to future endeavors. Students complete reading and writing assignments and are required to complete the Mean Field Aptitude test. Course fee.

*Prerequisite: Senior Standing*

### BIO 500 Senior Thesis

 NS1 4 cr **UL**

Independent laboratory research of an original problem culminating in a thesis. Course fee.

*Prerequisite: Permission*

## Biotechnology (BTC)

### Minor Requirements

Twenty-four credits which must include:

1. Core (12 credits): BIO-121, BCM-201, 401, and 430;
2. Electives (12 credits): Choose 12 credits from BIO-207, 125, BCM-321, BCM-380, BCM-422, BIO-204, BIO-308, BIO-320, CHM-224, IPH-232.

### Program Considerations:

- Note that some elective courses have additional prerequisites
- Students with AP Biology test scores of 5 may elect to receive four credits of BIO-121, thus fulfilling this requirement.
- Students are invited to petition the Biotechnology Steering Committee in writing if they encounter new or distinctive course offerings that are relevant to the minor.

### BTC 320 Medical Botany

NS1 4 cr **UL**

Study of the contribution of plants to modern medicine. Topics include the botany, anthropology, chemistry, and pharmacology of plant derived drugs. Course fee. (Cross-listed as BIO-320.)

*Prerequisite: BIO-121 and CHM-223*

### BTC 430 Molecular Genetics

NS1 4 cr **UL**

Study of the transmission of information at the molecular level and the techniques used in gene analysis. Topics include gene structure and function, gene expression, genetic mobility, genomics, transgenics and recombinant DNA methodology. Laboratory. Course fee.

*Prerequisite: BIO-204 or BCM-401, Junior or Senior Standing*

### BTC 500 Senior Thesis

 4 cr **UL**

Independent laboratory research of an original problem resulting in a thesis and public presentation. Required for departmental honors.

*Prerequisite: Permission*

## Business Administration (BUS)

Business majors will complete a 52-credit business core along with selecting one 12-credit concentration. Concentrations include: Analytics, Environmental Responsibility, Leadership and Management, Operations & Supply Chain Management or Sports Management. Sixty-four credits total will include the business core and chosen concentration.

### Business Core Courses (52 credits):

1. BUS-117, 121, 221, 222, 225, 309, 317, 323, 333, 440
2. ECN-111 or ECN-112
3. Ethics: four credits from PHL-225, 227, 228, 229 or other course pre-approved by the department.
4. BUS-385 Business Practicum

### Analytics Concentration (12 credits);

**only 8 credits are permitted from the same discipline:**

- MTH-116 or 118 or POL-210 or PSY-220
- BUS-417 Business Analytics III
- DAT-115 Introduction to Data Analytics
- DAT-116 Programming with Data
- DAT-315 Machine Learning
- ECN-217 Quantitative Methods
- ECN-317 Econometrics
- HCA-405 Healthcare Informatics
- IPH-330 Health Data Analysis

### Environmental Responsibility Concentration (12 credits);

**only 8 credits are permitted from the same discipline:**

- COM-253 Environmental Communication
- ECN-340 Environmental Economics
- ENG-180 Environmental Literature
- ENV-105 Our Environment
- ENV-280 Environmental Seminar
- ENV-291 Scientific Writing and Methods
- ECN-360 Environmental Policy Analysis
- ENV-370 Risk Assessment
- ENV-205 Environmental Health
- NMS-253 Environmental Media
- PHL-225 Environmental Ethics

### Leadership & Management Concentration (12 credits);

**only 8 credits are permitted from the same discipline:**

- BUS-223 Business Leadership and Society
- BUS-341 Applications and Cases in Management
- BUS-380 Strategic Leadership
- COM-102 Group and Team Communication
- COM-192 Introduction to Public Relations
- COM-353 Risk and Crisis Communication
- COM-380 PR Strategy
- ECN-314 Behavioral Economics
- EHS-231 Team Leadership
- ENG-203 Professional and Technical Writing
- NMS-310 Social Media
- PSY-276 Industrial Organization

### Operations & Supply Chain Mgmt. Concentration (12 credits);

**only 8 credits are permitted from the same discipline:**

- BUS-470 Operations Management
- DES-321 Project Management
- MTH-116 Statistics

### Sports Management Concentration (12 credits);

**only 8 credits are permitted from the same discipline:**

- BUS-230 Sports Management
- COM-212 Sports Communication
- ECN-380 Economics of Sports
- IPH-224 Principles of Sports Medicine
- NMS-310 Social Media
- PHL-242 Philosophy of Sport
- PSY-242 Sport Psychology

## Accounting Major Requirements

Seventy-two credits, which must include:

Business Core Courses (52 credits):

1. BUS-117, 121, 221, 222, 225, 309, 317, 323, 333, 440
2. ECN-111 or ECN-112
3. Ethics: four credits from PHL-225, 227, 228, 229 or other course pre-approved by the Accounting / Business department.
4. BUS-385 Business Practicum

Accounting Concentration (20 credits):

1. BUS-321, 322, 331, 442
2. BUS-425 or BUS-426

## Professional Accounting Major Requirements

The State of Michigan requires five years of coursework in order to sit for the CPA exam (or 167 credit hours at Alma College). Students interested in pursuing the Professional Accounting (CPA) can, with careful planning of coursework at Alma, complete the necessary coursework required to sit for the exam in four years.

Ninety-two credits, which must include:

Business Core Courses (52 credits):

1. BUS-117, 121, 221, 222, 225, 309, 317, 323, 333, 440
2. ECN-111 or ECN-112
3. PHL-227 Ethics and Business
4. BUS-385 Business Practicum

Accounting Concentration (40 credits):

1. BUS-321, 322, 331, 422, 425, 426, 431, 437, 442, 449

## Business Secondary Teaching Major Requirements

Business Core Courses (48 credits):

1. BUS-117, 121, 221, 222, 225, 309, 317, 323, 333, 440
2. ECN-111 or ECN-112
3. Ethics: four credits from PHL-225, 227, 228, 229 or other course pre-approved by the department.

## Business Administration Minor Requirements

Twenty-four credits which must include:

1. BUS-117, 121, and 221
2. Twelve additional credits of BUS courses at the 200 level and above.

## BUS 117 Business Analytics I

4 cr

Microsoft Excel is the most widely used software in business. Bankers, accountants, analysts, marketing professionals, scientists, entrepreneurs, and most professionals use Excel. This course will cover advanced skills in the use of Excel spreadsheets, workbooks, tools, techniques, and functions.

## BUS 121 Values Driven Organizations

4 cr

Provides a multidisciplinary examination of the core themes of organizations, including planning, organizing, staffing, leading, controlling, marketing practices, decision-making and problem solving, change management, financial acumen, professionalism and communication. These aspects of organizations will be explored through the lens of Diversity, Equity, and Inclusion to achieve organizational goals.

## BUS 221 Financial Accounting

4 cr UL

General survey course that introduces the study and application of the basic concepts and methods used in developing and reporting financial information about an economic entity. Emphasis on developing the ability to interpret and apply accounting information to the decision-making process. Course fee

*Prerequisite: BUS-117 or Permission*

## BUS 222 Managerial Accounting

4 cr UL

Study of accounting with emphasis on cost accounting, Cost-volume-profit, budgeting, capital budgeting and decision making. Emphasis on how cost and managerial accounting concepts apply to decision making and management analysis. Course fee

*Prerequisite: BUS-117, BUS-121 or HCA-131, BUS-221*

## BUS 223 Business Leadership and Society

4 cr UL

Social, ethical and legal responsibilities that leaders have to society at large in profit and non-profit enterprises. Special focus on helping students become future leaders who think critically about the outcome of decisions they make and how these decisions impact society as a whole. Uses a case-analysis approach to study decisions made by business leaders that have had positive and negative impacts on companies in our society. Designed as an experiential learning class. Includes simulations, case applications and projects.

*Prerequisite: BUS-121 or Permission*

## BUS 225 Legal Environment of Business

4 cr UL

Introduces legal concepts and critical thinking that are applied in a business context. Includes the study of complex business problems with a legal and ethical focus. Students will build knowledge of the law and legal concepts to help navigate the everyday business world. Topics may include: the court system, litigation process, negligence and strict liability, employment law and discrimination, contracts, real and personal property law, torts, product liability, consumer law and criminal law impacting business.

## BUS 230 Sports Management

4 cr UL

An overview of the sports industry and the history of sports as a cultural phenomenon. Introduces the student to the basic fundamental knowledge and skill sets required of the sport manager to solve sport business problems. Additional topics may include: historical, ethical, social, and economic aspects of the sports industry; the terminology of sports; and the forces that have affected the growth of sports as a business.

*Prerequisite: BUS-117 & BUS-121 or HCA-131*

## BUS 234 Business & Marketing for the Arts

4 cr UL

Develop skills in business and marketing related to self and collaborative promotion in the arts. Learn effective social media marketing. Explore distribution platforms for music and the arts. Create a toolkit portfolio of strategies to achieve financial and market success as an artist.

## BUS 309 Managerial Finance

4 cr UL

An introductory course in finance designed for general business students with an emphasis on core financial principles. Students will acquire a working knowledge of how capital markets function, learn to analyze financial statements, assess the time value of money and the valuation of debt and stock, and make capital budgeting decisions.

*Prerequisite: BUS-117, BUS-121 or HCA-131, and BUS-221; or Permission*

## BUS 317 Business Analytics II

QR

4 cr UL

A data analytics course using multiple tools to emphasize critical thinking and data analysis skills, including descriptive, diagnostic, predictive and prescriptive analyses. Students will take real business data and determine what questions to ask and what decisions to make to solve business problems. Students will: learn how to ask the right questions; extract, transform and load relevant data; apply appropriate data analytic techniques; interpret and share the results with stakeholders using basic data visualizations.

*Prerequisite: BUS-117*

**BUS 321 Intermediate Financial Accounting I**4 cr **UL**

In-depth study of theoretical framework, concepts and methods relating to financial accounting, with special attention given to asset measurement and income determination. Emphasis on developing analytical and problem-solving skills.

*Prerequisite: BUS-222*

**BUS 322 Intermediate Financial Accounting II**4 cr **UL**

Thorough and balanced study of theory, concepts, methods and applications relating to financial accounting with special attention to debt and owner equity measurement and disclosure. Emphasis on earnings per share calculation and accounting for leases and pensions.

*Prerequisite: BUS-321*

**BUS 323 Management**4 cr **UL**

Exploration of the four primary functions of management: planning, organizing, leading and controlling. Emphasis on understanding functions and roles that managers play within organizational structures and society stakeholders. Students will engage in numerous contemporary experiential learning and project applications.

Developing managerial problem-solving, business professionalism, teamwork, and communication skills are a cornerstone of this course.

*Prerequisite: BUS-117, BUS-121 or HCA-131; or Permission*

**BUS 324 Human Resource Management**4 cr **UL**

Emphasis on employment issues of organizations such as: recruiting, selecting, training, compensating and managing human resources. Other critical topics such as appraisal, discipline, safety, benefits and collective bargaining are discussed. Insight is also provided into the legal issues involved with human resource management and the framework for equal opportunity employment.

*Prerequisite: BUS-323 or Permission*

**BUS 331 Intermediate Managerial Accounting**4 cr **UL**

For service and manufacturing sectors, study of cost accounting systems and cost information including objectives, data accumulation, presentation and communication. Emphasis on cash flow, cost behavior and allocation, management planning and control, breakeven analysis and variance analysis useful in decision making.

*Prerequisite: BUS-222*

**BUS 333 Marketing**4 cr **UL**

General survey course acquainting students with the business and economic principles underlying the transfer of goods and services from producer to consumers. Investigation of the institutions, systems of distribution, and the functions and policies of the marketing discipline.

*Prerequisite: BUS-117, BUS-121 or HCA-131; or Permission*

**BUS 339 Logistics/Supply Chain Management**2 cr **UL**

Supply chain management encompasses all areas of business that deal with the movement of product. This includes the inbound movement of raw materials and component parts, the transfer of inventory from one location to another and the outbound movement of products to the customer. Areas covered include customer service, facility location, inventory management, order processing, purchasing/procurement, transportation and warehousing.

*Prerequisite: BUS-333*

**BUS 341 Applications and Cases in Management**4 cr **UL**

Apply management concepts to real life cases and situations. Examine complex management problems in the business world. Learn critical thinking, problem solving and conceptual thinking through the use of role play, simulations, projects, and case applications. This is a synergistic class and content from core classes will be utilized in this experiential learning environment.

*Prerequisite: BUS-121, 221, 222, 309, 323, 333*

**BUS 366 Commercial Law**4 cr **UL**

Focuses on the legal theory and mechanisms designed to facilitate commercial transactions within our society. Topics may include: the law of agency, partnerships, corporations, sales, commercial paper, debtor-creditor relations, secured transactions, and other appropriate topics for professionals working with the commercial realm.

*Prerequisite: Junior Standing or Permission*

**BUS 385 Business Practicum**4 cr **UL**

Only four credits will count in the major. Requires Instructor Permission. Students must also successfully complete the professional skills workshop series offered by the BUS department and the Center for Student Opportunity (CSO). Pass/Fail only.

*Prerequisite: Junior Standing, BUS-117, BUS-121 or HCA-131, BUS-221, BUS-222; or Permission*

**BUS 410 Investments**4 cr **UL**

Principles of investments, types of investments including common and preferred stocks, bonds, options, mutual funds and derivatives, analysis of risk and return, portfolio structure, operation of markets, analysis of investment requirements, and market timing strategies.

*Prerequisite: BUS-309 or Permission*

**BUS 415 Advanced Finance**4 cr **UL**

An advanced finance course designed to cover more complicated topics in corporate finance. In this course, students will increase understanding of cash flow estimation and risk analysis, capital structure and leverage, dividends and share repurchase, and working capital management.

*Prerequisite: BUS-309; or Permission*

**BUS 417 Business Analytics III**4 cr **UL**

Advanced themes in business analytics that may include database management, multi variate regression, Monte Carlo simulations, and data visualization.

*Prerequisite: BUS-317*

**BUS 422 Advanced Financial Accounting**4 cr **UL**

Accounting for partnerships, governmental units, not-for-profit organizations, corporate consolidations, foreign currency transactions and translation of foreign financial statements.

*Prerequisite: BUS-322 and Senior Standing*

**BUS 425 Federal Individual Income Tax**4 cr **UL**

This course covers the federal income tax laws and regulations impacting individuals. Topics covered include: personal and dependency exemptions, gross income, deductions, losses, tax credits property transactions and federal gifts taxes. Students gain analytical and problem-solving skills for dealing with individual income tax issues.

*Prerequisite: BUS-222*

**BUS 426 Federal Business Taxation**4 cr **UL**

Explore corporate operating rules, capital structure, distributions, reorganization, partnerships, S-Corporations, exempt entities, tax administration and practice, and multi-state and international transactions. Gain analytical and problem-solving skills for dealing with business tax issues.

*Prerequisite: BUS-222*

**BUS 431 Advanced Managerial Accounting**4 cr **UL**

This course focuses on formulating, evaluating and interpreting accounting information for problem-solving and making decisions related to advanced managerial accounting issues. Students will prepare for the role accountants have in planning and control of the organization. Special emphasis is given to the application of cost measurement concepts, variance analysis, forecasting and projection, financial valuation methods and decision models, financial statement analysis, financial risk management, and working capital.

*Prerequisite: BUS-331*

**BUS 437 Advanced Managerial Data Analytics**4 cr **UL**

This course focuses on the advanced data analytics skills needed for evaluating and interpreting data related to advanced managerial accounting issues. Students will prepare for the role accountants have in data analytics. Special emphasis is given to advanced critical thinking, logical thinking, data concepts, data mining, data analysis, data visualization, communication of results, data ethics and data management and relationships.

*Prerequisite: BUS-331*

**BUS 440 Global Strategic Management**4 cr **UL**

Coverage of all aspects of strategy with a focus on industry and corporate analysis, especially in the global environment. Emphasis on individual written and group oral presentations of case analyses. Students apply the concepts learned to actual business situations. The capstone course for Business Administration and International Business Administration majors.

*Prerequisite: BUS-222; BUS-225; BUS-309; BUS-317; BUS-323; BUS-333.*

**BUS 442 Accounting Information Systems**4 cr **UL**

Study of accounting information systems, including systems analysis, design and implementation. Emphasis on design and documentation tools and internal controls. Focuses on the needs and responsibilities of accountants as end users of systems, system designers and auditors.

*Prerequisite: BUS-321 or Permission*

**BUS 449 Auditing**4 cr **UL**

Study and evaluation of the nature, objectives, scope and theory of the audit process as applied to accounting and internal control systems. Emphasis and balance placed on standards, ethics, current developments and legal requirements as well as special topics including statistical sampling and audit of electronic data processing systems.

*Prerequisite: BUS-322 and Senior Standing*

**BUS 470 Operations Management**4 cr **UL**

This course focuses on the management of manufacturing and service operations. Topics include operations planning and strategy selection, improving productivity and quality, designing and managing operations, lean systems, and supply-chain management. This course seeks to provide students with an overview of the methods used by manufacturing and service operations to increase productivity, quality, and customer service.

*Prerequisite: Junior or Senior Standing*

**BUS 500 Senior Thesis**4 cr **UL**

Student must have a GPA of 3.5 or better calculated on all BUS courses taken.

*Prerequisite: Senior Standing and Permission*

## Chemistry (CHM)

**Major Requirements**

*Fifty-two credits, which must include:*

1. Core Courses (29 credits): CHM-115, 223, 224, 230, 320, 331, 332, and 450
2. Completion of an Area of Concentration:
  - a. Chemistry: a minimum of seven credits from CHM-251, 300 or 400 level courses, BCM-321 or 422. At least four credits must be at or above the 300 level.
  - b. American Chemical Society Certified Degree: CHM-313 and 314; BCM-321; and four credits chosen from CHM-399, 411, 499, or BCM-422.
  - c. Pre-Medicine: BCM-321 and a minimum of three credits from 300 or 400 level courses in Chemistry (see Program Considerations below); The American Chemical Society Certified Degree is also available with the pre-medicine concentration.
3. Required Cognate Courses (16 credits):
  - a. MTH-121 and MTH-122
  - b. PHY-121 and PHY-122; or PHY-112 and PHY-113

**Program Considerations**

- Potential majors are advised to schedule MTH-121 and 122 and PHY-121 and 122 (or PHY-112 and 113) in the first and second years so they may enroll in CHM-331 and 332 in the junior year.
- Completion of an independent research project normally culminating in a senior thesis is recommended. Students bound for graduate school should make careful course selections to support their particular area of emphasis; participation in research, completion of CHM-313, 314 and 411, MTH-210 and 211 should be considered.
- Experience with calculus based physics (PHY-121 and 122) is preferred over PHY-112 and 113.
- The Chemistry department strongly recommends, in order to be a competitive medical school applicant, students completing a Chemistry major also take genetics and physiology, in addition to considering upper-level electives from Biology, Biochemistry or Integrated Physiology and Health Science.
- In addition, students who plan to take the MCAT at the end of the junior year are encouraged to take CHM-115 in the fall of their first year so that BCM-321 can be completed in advance of taking the MCAT (CHM-115, 223, 224, 230 and BIO-121 are *prerequisite* to BCM-321).

## Departmental Honors

Students may achieve honors in Chemistry by:

1. Earning a 3.5 GPA in all chemistry classes.
2. Performing at a superior level in dept. Senior Seminar.
3. Preparing and presenting a senior thesis of honors caliber. See the Department Chair for details on how to fulfill the thesis requirements.

## Minor requirements

Twenty-four credits which must include: Eight credits numbered 300 or above (BCM-321 and 422 may also be applied toward this minor)

### Chemistry Specialization Teaching Major (7-12)

*Fifty-two credits, which must include:*

1. Core Courses (29 cr): CHM-115, 223, 224, 230, 320, 331, 332, and 450.
2. A minimum of seven credits from CHM-251, 300 or 400 level courses, BCM-321 or 422. At least four credits must be at or above the 300 level.
3. Required Cognate Courses (16 credits)
  - a. MTH-121 and MTH-122
  - b. PHY-121 and PHY-122; or PHY-112 and PHY-113
4. Successful completion of requirements of the Science Teaching Major (5-12) and the Secondary Education Major.
5. A grade point average of at least 2.5 in Chemistry Specialization Teaching Major (7-12) courses.

### Chemistry Specialization Teaching Minor (7-12)

*Forty credits, which must include:*

1. CHM-115, 223, 224, 230, 320, and 331.
2. MTH-121 and MTH-122
3. Either PHY-112 & 113 or PHY-121 & PHY-122
4. Successful completion of requirements of the Science Teaching Major (5-12) and the Secondary Education Major.
5. A grade point average of at least 2.5 in Chemistry Specialization Teaching Minor (7-12) courses.

## American Chemical Society Certified Degree

American Chemical Society Certified Degree Completion of CHM-115, 223, 224, 230, 313, 314, 320, 331, 332, 450, BCM-321 and four credits chosen from CHM-399, 411, 499, or BCM-422. Completion of 400 hours of laboratory work beyond CHM-115 is required. If independent study is used to satisfy the ACS-certified degree requirements, a written research report is required. Students must consult with the Chemistry Chair prior to their junior year for approval of their program.

### CHM 115 Chemical Analysis

NS2 EXP3 4 cr

Introduction to the basic principles of chemistry in a context of chemical analysis. Intended for students in the sciences. Includes the periodic table, elements, ionic and covalent compounds, stoichiometry, atomic and molecular structure, spectroscopy, gases, pH and acid-base and oxidation-reduction reactions. DR and academic credit will only be awarded to one of CHM-103 or CHM-115. Laboratory. Course fee.

### CHM 223 Organic Chemistry I

NS2 4 cr UL

Study of the chemistry of carbon-containing compounds, emphasizing the various functional groups and their transformations, reaction mechanisms and stereochemistry, and the development of synthetic schemes. Laboratory. Course fee.

*Prerequisite: CHM-115*

### CHM 224 Organic Chemistry II

NS2 4 cr UL

Study of the chemistry of carbon-containing compounds, emphasizing the various functional groups and their transformations, reaction mechanisms and stereochemistry, and the development of synthetic schemes. Laboratory. Course fee.

*Prerequisite: CHM-115, 223*

### CHM 230 Inorganic Chemistry

NS2 4 cr UL

Study of the chemistry of the metals and non-metals emphasizing periodic behavior, elementary thermodynamics, ionic and covalent structures, oxidation and reduction reactions, acid-base chemistry, equilibria, transition metal complexes and reaction kinetics. Laboratory. Course fee.

*Prerequisite: CHM-224 or Permission*

### CHM 251 Chemistry of Ordinary Things

NS2 4 cr UL

An exploration of the applications of principles of general and organic chemistry of everyday phenomena. Additional topics include an introduction to drug design and aspects of spectroscopy to probe molecular structure. Laboratory. Course fee.

*Prerequisite: CHM-223*

### CHM 280 Topics in Chemistry

4 cr UL

Chemical topics chosen by the Instructor. May be taken more than once for credit. Course fee may apply.

*Prerequisite: CHM-230*

### CHM 310 Medicinal Chemistry

NS2 2 cr UL

Study of the molecular aspects of drug function leading to an understanding of the basis for rational drug design. Discussion of physical-chemical properties and their effect on biological activity, structure-activity relationships, drug metabolism and receptor theory.

*Prerequisite: CHM-230*

### CHM 311 Environmental Chemistry

NS2 2 cr UL

Introduction to environmental chemistry, emphasizing the origins, transport, reactions, effects and fates of chemical species in the water, air, soil and living environments.

*Prerequisite: CHM-230*

### CHM 312 Fragrance and Flavor Chemistry

NS2 2 cr UL

A study of the physiological basis for smell and taste, history of fragrances and flavors, origins and analysis of natural materials and raw materials for and production of synthetic ingredients. The fragrance and flavor industry, marketing and product application will also be discussed. There is no separately assigned lab, however students will be engaged in laboratory exercises. Course fee.

*Prerequisite: CHM-230*

### CHM 313 Inorganic Structures

NS2 2 cr UL

A survey of inorganic species including symmetry, bonding models and spectroscopy. An overview of the reactions of organometallic compounds will be included.

*Prerequisite: CHM-230*

### CHM 314 Bioinorganic Chemistry

NS2 2 cr UL

The study of the use of metals by biological species emphasizing inorganic models, reaction types and reaction mechanisms.

*Prerequisite: CHM-230*

### CHM 320 Instrumental Analysis

NS2 4 cr UL

Principles and laboratory methods of chemical analysis using instrumentation: chromatography, spectroscopy, Fourier transform infrared and nuclear magnetic resonance spectroscopy, atomic absorbance and ion selective electrodes. Laboratory. Course fee.

*Prerequisite: CHM-230*



### CHM 331 Chemical Thermodynamics

 NS2 WI 4 cr **UL**

The laws of thermodynamics are applied to chemical mixtures and reactions, and the principles of statistical mechanics are used to derive these laws from the behavior of single molecules. Laboratory. Course fee.

*Prerequisite: CHM-230, MTH-122 and PHY-113 or 122*

### CHM 332 Quantum Chemistry

NS2 4 cr **UL**

The principles of quantum mechanics are used to describe the structure of atoms and molecules and their spectroscopic properties. The kinetics of chemical reactions are studied and rate laws are derived. Laboratory. Course fee.

*Prerequisite: CHM-230, MTH-122 and PHY-113 or 122*

### CHM 380 Topics in Chemistry

NS2 1-4 cr **UL**

Chemical topics chosen by the Instructor. May be taken more than once for credit.

*Prerequisite: CHM-230*

### CHM 450 Senior Seminar

NS2 1 cr **UL**

Analysis of the literature in a variety of chemical subfields. Culminates in an oral exam evaluating the ability to read and interpret the literature.

*Prerequisite: Senior Standing; BCM or CHM Major*

### CHM 480 Topics in Chemistry

NS2 1-4 cr **UL**

Chemical topics chosen by the Instructor. May be taken more than once for credit.

### CHM 500 Senior Thesis

 NS2 2 cr **UL**

Preparation of a comprehensive thesis and a public presentation on an investigation of an original problem. Required for departmental honors.

*Prerequisite: Three credits in CHM-399 or 499 or taken concurrently*

## Chinese (CHN)


Chinese courses, as designated by the three-letter prefix CHN, are offered through the World Languages and Cultures Department.

### CHN 111 Beginning Chinese I

4 cr

This introduction to Chinese places emphasis on all four basic skills: speaking, listening, reading and writing. Secondary objective provides insight through participation in Chinese culture and society.

### CHN 112 Beginning Chinese II

 AH EXP2 4 cr

This introduction to Chinese places emphasis on all four basic skills: speaking, listening, reading and writing. Secondary objective provides insight through participation in Chinese culture and society.

*Prerequisite: CHN-111 or Permission*

## Communication (COM)

### Major Requirements

Thirty-six credits which must include:

1. Core: COM-111; one of the following: COM-101, 102 or 110.
2. Context: Twenty credits in COM, 16 of which must be upper-level.
3. Capstone: COM-350, 450, and an internship (COM-385) or applied learning experience approved by the department.

**Notes:** In addition to the requirements listed above, an ethics course in the Philosophy Department is strongly encouraged. No more than 4 credits of COM-385 may be counted toward the COM major.

### Departmental Honors

Completion of all COM major requirements, 3.5 GPA in the major, and completion of a senior thesis of honors caliber (COM-500).

### Minor Requirements

Twenty-four credits which must include:

1. COM-111, 450, and one of the following: COM-101, 102 or 110.
2. Eight additional upper-level credits.

### COM 101 Human Communication

AH 4 cr

Beginning study of the nature, problems and theories of human communication. Examines issues of meaning, relationship and community within interpersonal, group and media contexts. Surveys rhetorical, pragmatic and interpretive perspectives on the communication process.

### COM 102 Group and Team Communication

AH THM 4 cr

This class helps students understand, apply, and embody principles of effective group and team communication. In a semester-long team project, students apply the principles of effective team communication to both teams observed in organizations and to their own teams through ethnographic research methods.

### COM 110 Media Systems and Influence

AH 4 cr

This course serves as an introduction to the study of the major media industries and effects of contemporary mass communication. Emphasis will be on analyzing the way media technologies affect news, advertising, and entertainment functions of media and the way media professionals and organizations use media to influence perception, behavior, and social identity.

### COM 111 Fundamentals of Speech Communication

AH 4 cr

Elements of oral communication in public contexts. Emphasis on diagnosing rhetorical situations, inventing and delivering informative and persuasive presentations, and facilitating public discussion.

### COM 123 Community-Based Communication

AH 4 cr

Explores the relationships among identity, power, and culture. Students learn how to become advocates for themselves in clinical, group, and conflicting interpersonal environments and also for those from marginalized groups. Students will engage in course discussion and activity that center around diversity, equity, and inclusion and engage in service learning in the greater Gratiot County community.

### COM 192 Introduction to Public Relations

AH 4 cr

Introduction to the principles of public relations and strategic corporate communication practices. Topics include message design, campaign planning, audience analysis, issue management, and case studies of ethical issues.

### COM 201 Interpersonal Communication

AH 4 cr **UL**

Examination of messages, roles, rules and strategies through which interpersonal relationships are initiated, maintained and changed. Emphasis on analysis of interaction and communication processes in a variety of interpersonal contexts.


**COM 211 Political Communication**

AH 4 cr **UL**  
 Explores the influence of political messages and discourse in civic life. Topics include the relationship of free speech and a free press to democracy, historical and contemporary foundations for understanding the social influence of political messages the political uses and effects of traditional and new media, and contemporary challenges to free speech, deliberative public discourse, and participatory democracy.

**COM 212 Sports Communication**

AH 4 cr **UL**  
 Explores the function of sports communication and its impact on players, organizations, fans and professionals. Issues examined include decision making, crisis communication, gender dynamics, community relations and social media presence.

**COM 220 Intercultural Communication**

 AH THM 4 cr **UL**  
 Study of interdependent relationship between communication and culture. Examines conceptual and experiential problems of communication across cultural boundaries. Focuses on perceiving, interpreting, and evaluating different cultural values, world views and patterns of communication. Course fee.

**COM 221 Intimacy and Technology**

AH 4 cr **UL**  
 Explore the way communication technologies impact and influence our relational lives. Focus on both old and new media, examining the way specific communication channels shape our romantic, platonic, familial and professional relationships. Through readings, discussion, film and scrutiny of their own technology usage, students will investigate the relationship between intimacy and technology.

**COM 223 Humor, Culture and Communication**

AH 4 cr **UL**  
 Explores humor as an important means of communicating cultural messages by considering issues such as power, identity and marginality. Focusing on a variety of media - from stand-up comedy performance to literary parody, this course examines humor as social critique and potentially subversive rhetoric. Through analysis and performance of stand-up comedy, students gain an understanding of the relationship between humor and power, and the importance of this relationship in rhetorical and cultural contexts. Course fee.

**COM 226 Voice and Diction**

AH 4 cr **UL**  
 Introduces the theory and practice in the basic techniques of developing a clear and expressive speaking voice.


**COM 227 Argument and Public Advocacy**

AH 4 cr **UL**  
 Investigates the nature and practice of argument in a democratic society. Focuses on speeches, debates, conversations, and other contexts of public argument. Emphasis on the analysis of evidence, reasoning, assumptions, and values in current policy debates.

**COM 243 Health Communication**

AH THM 4 cr **UL**  
 Examines communication practices in health care relationships and organizations. Topics include effective provider-patient interaction, communication relationships in health organizations, rhetorical and media strategies for managing health issues, and the uses of new communication technologies to promote health and manage health information.


**COM 253 Environmental Communication**

 AH THM 4 cr **UL**  
 Examines issues and controversies in conservation, ecology and environmentalism from a communication perspective. Emphasizes critical analysis of the role of mass media and public discourse in the definition, deliberation and resolution of environmental issues.

**COM 254 Clinical Communication**

AH THM 2 cr **UL**  
 Explores how clinicians and patients communicate with one another in a clinical setting. Examines current theoretical models for clinical communication. Students will gain an academic understanding of communication in clinical settings along with hands-on experience working with simulated patient/provider contexts.  
*Prerequisite: COM-243 is recommended*

**COM 291 Writing for Strategic Communications**

 AH WI 4 cr **UL**  
 Learn the basic forms, templates and styles of professional writing in strategic communication. Research, write and produce PR materials and become comfortable drafting those styles of writing yourself. Build a professional portfolio by completing writing assignments for a real client. Gain understanding the basics of writing for the field of strategic communication, including the principles of effective professional writing, understanding and reaching target audiences, finding and generating newsworthy information for print, broadcast, and social media.  
*Prerequisite: COM-192*

**COM 292 Public Relations Strategy**

AH 4 cr **UL**  
 This course introduces students to research-based planning, which is the core of public relations practice. Topics include planning in organizations and how effective communication helps the organization meet its goals; the importance of formative and evaluative research in planning; analysis of the organization's internal and external environments; identifying key/target public through audience segmentation; and choosing goals, objectives, strategies and tactics that best serve the organization.  
*Prerequisite: COM-192*


**COM 320 Gender and Communication**

AH 4 cr **UL**  
 Explores the rhetorical construction of gendered identities, focusing on cultural messages about femininity and masculinity in social, political, institutional and relational contexts. Through readings, discussions, films and presentations, the course examines the way gendered identities are created, contested and performed, emphasizing the relevance of this process to our daily lives.  
*Prerequisite: Four credits COM and Sophomore Standing, or Permission*

**COM 327 Propaganda and Persuasion**

AH 4 cr **UL**  
 Examines the mediated and rhetorical processes of social influence and the elements of propaganda. Emphasis on analysis of institutional persuasive strategies in film, television, print and oral media.

**COM 350 Seminar in Communication Inquiry**

 AH 4 cr **UL**  
 Examination of systematic methodological approaches to the formal analysis of communication processes, messages and problems. Focus on evaluation of research literature and creation of a research proposal. Requires Junior Standing.  
*Prerequisite: COM-101; Twelve credits in COM, Junior Standing*

**COM 353 Risk and Crisis Communication**

AH 4 cr **UL**  
 This course examines the communication practices and resources through which individuals, groups, agencies, media organizations, and communities recognize and respond to natural and socially created risks and crises. Topics include the nature and types of risks and crises, the functional requirements for effective risk and crisis communication, the organizational and procedural elements of risk and crisis communication systems, and the communication skills needed to design and disseminate the verbal, visual, and multi-media messages to reduce risks and manage crises.  
*Prerequisite: COM-243 or 253 or Permission*

### COM 385 Communication Internship

2-4 cr **UL**

Application of communication concepts and skills through participation in communities, institutions, agencies, schools and businesses. Supervision by faculty and sponsoring organizations. Includes interpretive journal and substantive analytic paper.

*Prerequisite: Twelve credits in COM and Junior Standing or Permission*

### COM 450 Communication Theory

 AH

4 cr **UL**

Synthesis, integration and elaboration of theoretical perspectives on communication issues, problems and practices developed through previous coursework, projects and internships. Coursework includes completion of individual senior project and compilation of portfolio.

*Prerequisite: COM Major or Minor; Senior Standing and COM-385 or Permission*

### COM 500 Senior Thesis

 AH

2-4 cr **UL**

Development and completion of original research. May be interpretive, critical, empirical, or theoretical. Required for departmental honors. Requires Senior Standing and Permission.

## Computer Science (CSC)

### Major Requirements

Forty-eight credits, which must include:

1. CSC-115, 121, 122, 230, 240, 310, 440, and 450.
2. CSC-470 or CSC-500
3. MTH-120
4. Complete eight credits from: CSC courses numbered above 310, MTH-116, 121, 223, 242, 336, or 341. Other courses may fulfill this requirement with Permission of the department.
5. The senior comprehensive examination is the successful completion of the Major Field Test.

### Minor Requirements

Twenty-four credits, which must include:

1. Complete one course from the following: CSC-115, CSC-118, CSC-119, or DAT-116.
2. CSC-121 and MTH-120
3. Complete a minimum of 12 credits in CSC numbered 200 or above, excluding courses numbered 450 and above.

Note: some advanced CSC courses have CSC prerequisite that could result in a minor larger than 24 credits.

### Program Considerations

Graduate school bound students are strongly encouraged to take CSC-420, 430, 440, and to minor in mathematics. Many graduate schools expect undergraduate research as part of entering students' background; thus, a senior thesis is also encouraged. Consult carefully with your advisor. Students seeking a technical professional position upon graduation are strongly encouraged to take CSC-410, 420, 430, 440 and MTH-116 and 117; a practicum is recommended.

### Computer Game Programming Major Requirements

Fifty-six credits, which must include:

1. NMS-130, 230, and 330
2. CSC-118, 121, 122, 230, 235, 335, 355
3. DES-101 and DES-245
4. CSC-315 or CSC-345
5. A capstone/thesis course, either NMS-450 or CSC-500.

### Department Honors for Computer Science

Completion of all major requirements with a 3.5 GPA or above; AB or above in the capstone; and presentation of the capstone project at Honors Day.

### CSC 100 Computer Systems

2 cr

Introduction to the use of modern computer systems. Basics of word-processing, graphics, spreadsheets, Internet access and Web development software. Use of computer peripherals such as printers, scanners and digital cameras. Taught in a laboratory setting.

### CSC 105 Modern Spreadsheets

2 cr

Introduction to the use of modern spreadsheets, with a particular emphasis on business applications. Taught in a laboratory setting.

*Prerequisite: MTH-100 or Placement*

### CSC 115 Algorithms and Justice

EXP4

4 cr

Social media algorithms decide what we see and what we do not see. Machine learning algorithms try to predict what we want-or what we deserve. What do we mean by "algorithms"? How do they affect our daily lives? How do algorithms reproduce, or resist, biases that exist in our society? How do humans communicate these algorithms to the computers that enact them? This course explores all these questions. No previous programming experience is expected; we will spend some time exploring algorithms with the Python programming language.

### CSC 116 Programming With Data

NS3 QR

4 cr

Introduction to programming techniques for the manipulation and analysis of digital data. Programming topics include: digital representations of data, types of data, programming decision and repetition, functions and libraries for storing and manipulation data in the language of instruction (e.g., the pandas library of Python). Data topics include: common formats (e.g., CSV, JSON, XML, database), missing data, cleaning data, exploratory data analysis. Visualizing and presenting data to support an argument. Cross-listed with DAT-116.

### CSC 117 Image and Reality

4 cr

Explores the current reality of artificial intelligence and visions of what it is and will be. Examination of current artificial intelligence systems. Particular emphasis on robotics, with projects involving robot design, creation and programming. Laboratory.

*Prerequisite: MTH-100 or Placement*

### CSC 118 Introduction to Game Programming

4 cr

Introduction to programming, focusing on fundamental knowledge and skills for creating videogames. Multiple platforms, including a popular game engine such as Unity or Unreal and the game-writing support in a popular language such as Python.

*Prerequisite: MTH-100 or Placement*

### CSC 119 Computer Science for Everyone

QR

4 cr

Introductory overview of fundamental concepts in computer science. Topics include digital representation of information (media, text, numbers), algorithms, ways of approaching programming, the relationship between software and hardware, and the limitations of computers. No previous programming experience expected.

### CSC 120 Object-Oriented Programming I

NS3

4 cr

Fundamentals of object-oriented programming in the language of instruction (e.g., Java). Topics include: basic computation, input and output, control structures, classes and object instantiation, methods and parameter passing, arrays and strings, sorting and searching. Laboratory.

*Prerequisite: MTH-100 or placement*

**CSC 121 Problem-Solving With Python**

NS3 4 cr

Intensive study of algorithm problem-solving and effective programming using the Python programming language. Use of Integrated Development Environments (IDEs). Overview of functional, imperative, and object-oriented programming techniques. Using and creating modules and libraries. Python's object model. Laboratory.  
*Prerequisite:* CSC-115 or DAT-116 or CSC-118 or CSC-119 or CSC-120

**CSC 122 Network and Web Programming**

NS3 4 cr

Introduction to the design and operation of the internet, especially the World Wide Web. Introduction to client/server applications. Presentation languages such as HTML and CSS; using the Document Object Model to navigate webpages. Implementing client and server applications in a language such as Python or JavaScript.  
*Prerequisite:* CSC-115 or DAT-116 or CSC-118 or CSC-119

**CSC 230 Object-Oriented Design and Programming**

NS3 4 cr UL

Focus on object-oriented (OO) design and programming, using a strongly object-oriented language such as Java. Defining characteristics of OO design including inheritance and class hierarchies, polymorphism, information hiding and encapsulation. OO analysis and design practices including design patterns. Design and implementation of applications with many interacting classes.  
*Prerequisite:* CSC-121

**CSC 240 Algorithms and Data Structures**

NS3 4 cr UL

Relationships between algorithms and data structures. Analyzing the time and data storage requirements of algorithms; selecting the optimal algorithm for a given application. Standard library data structures; implementing data structures.  
*Prerequisite:* MTH-120 and CSC-115 and CSC-121

**CSC 280 Topics in Computer Science**

NS3 2-4 cr UL

Topical study in computer science. While topics vary, the course usually introduces a particular computer programming language (e.g., C, C++, Prolog, etc.).  
*Prerequisite:* CSC-121 and Permission

**CSC 310 Computer Organization**

NS3 4 cr UL

Structure and organization of digital computers, including digital representation of data, digital circuit ("logic") design, and memory addressing schemes. Introduction to low-level programming languages, including assembly languages and programmatic memory management. Laboratory. Course fee.  
*Prerequisite:* CSC-121 and MTH-120

**CSC 315 Machine Learning**

NS3 4 cr UL

Principles and techniques for machine-based decision and prediction from large datasets. Algorithms for and applications of classification, regression, and unsupervised learning. Introduction to neural networks and deep learning. Use of machine learning libraries in languages such as Python and R.  
*Prerequisite:* DAT-116 or CSC-121, or Permission

**CSC 335 Computer Graphics**

NS3 4 cr UL

Introduction to techniques of computer graphics including three-dimensional representations, perspective, computer animation, computer art and applications of computer graphics to various other disciplines.  
*Prerequisite:* CSC-230

**CSC 345 Artificial Intelligence**

NS3 4 cr UL

Survey of major topics in artificial intelligence. Emphasis on fundamental concepts: search, knowledge representation, problem solving and logic. Additional topics such as expert systems, learning, natural language processing, neural networks, planning, theorem proving and vision. Programming in an AI language.  
*Prerequisite:* CSC-121

**CSC 355 Game Engine Fundamentals**

NS3 4 cr UL

Explore the capabilities and use of 3D game engines for computer game creation. Game engines combine 3D computer graphics, game physics, digital audio, 3D modeling, scene and level creation, and human-computer interaction technologies into a unified framework for game development. Design work will include using scripting languages to extend engine capabilities. Class projects will be team-based and work toward a complete game implementation.  
*Prerequisite:* CSC-235

**CSC 380 Topics in Computer Science**

NS3 2-4 cr UL

Special topics in computer science.  
*Prerequisite:* CSC-335 or Permission

**CSC 410 Database Management**

NS3 4 cr UL

In-depth study of techniques for storing, selecting and retrieving data. Topics selected from file and database organization, safety and recovery, privacy, security and commercial systems.  
*Prerequisite:* CSC-230

**CSC 420 Operating Systems**

NS3 4 cr UL

Survey of major concepts of operating systems. Investigation of relationships among the operating system, the architecture and the systems programs of a computer system. Laboratory.  
*Prerequisite:* CSC-310

**CSC 430 Theory of Computing**

NS3 4 cr UL

In-depth study of the main components of the theory of computation: finite automata and computability.  
*Prerequisite:* CSC-120 and MTH-223

**CSC 440 Programming Languages**

NS3 4 cr UL

An in-depth study of the principles of programming languages. Overview of the major programming language paradigms in historical and modern contexts. Syntactic and semantic characteristics; fundamentals of language translation. Runtime structures, including binding and scope. Focus on learning new languages quickly through an analysis of language characteristics.  
*Prerequisite:* CSC-230 and CSC-310

**CSC 450 Software Collaboration**

NS3 4 cr UL

Techniques and practices for the collaborative production and maintenance of software. Software development methodologies. Sharing and managing project assets. Testing, integration, and delivery. Project management. Focus on collaborative creation of a working prototype of a useful software application.  
*Prerequisite:* CSC-122, CSC-230 and CSC-240

**CSC 470 Computer Science Capstone**

NS3 4 cr UL

Project-based synthesis of skills and knowledge from computer science and general education courses. Most projects will emphasize team-based development of software that addresses a problem in the Alma/College community.  
*Prerequisite:* CSC-450

## CSC 500 Senior Thesis

NS3

Requires Instructor Permission.

1-4 cr UL

# Dance (DAN)

## Major Requirements

Thirty-six credits, which must include:

1. Eight credits of Dance Studio Technique chosen from: DAN-139, 147, 160, 210, 240, 244, 340, 344 (any of which may be repeated for credit but must include at least ONE ballet course and ONE modern course);
2. Fourteen credits of Dance Theory: DAN-191, 220, 347, 351.
3. Four credits from the following: DAN-295, 296, or 302
4. DAN-201 Choreography;
5. Complete either the senior capstone (DAN-495) or the honors thesis (DAN-500);
6. Four credits of selected THE or DAN electives.

## Minor Requirements

Twenty-four credits, which must include:

1. Six credits of Dance Technique chosen from DAN-139, 147, 160, 210, 240, 244, 340, and 344 (any of which may be repeated for credit but must include at least ONE ballet course and ONE modern course);
2. Eight credits of Dance Theory: DAN-191, 220, 347, and 351; four credits of Choreography I (DAN-201);
3. Two credits from the following: DAN-295, 296, or 302
4. Four credits of selected THE or DAN

**NOTE:** Only four credits of DAN-151 will count toward the Dance major or minor.

Students bound for graduate school, or the dance-teaching profession should choose courses to support their area of emphasis. Participation in research and additional coursework in choreography, pedagogy, theatre, music, business, physiology, and anatomy is recommended.

## DAN 139 Somatic Movement

AH THM 4 cr  
Introduction to Somatic Methods; e.g., Alexander Technique, Ideokinesis, Bartenieff, and Feldenkrais.

## DAN 143 Yoga I

AH 1 cr  
Yoga complements the dancer as well as the human being in many ways, particularly in the physical realm. Slow stretching and breathing increase flexibility and awareness, and restore tone and vitality. May be repeated for credit.

## DAN 146 Viewing and Doing

AH EXP1 4 cr  
Investigation of dance as an art form. Involves movement awareness, improvisation, exploratory exercises and movement games designed to build trust. Collaboration with class members to create a performance atmosphere is an integral part of the course. Students design environments dealing with the theatrical aspect of dance.

## DAN 147 Dance Fundamentals

AH EXP1 4 cr  
This course introduces basic movement concepts, aesthetics, and qualities. It also covers the beginnings of modern dance, ballet, and jazz. The course will develop movement sequences based in all three techniques and differentiate vocabulary. Short writing assignments will complement studio requirements. Offered every fall term.

## DAN 148 Highland Dance I

AH 1 cr  
Introduction to basic movements, steps and terminology of Highland Dance. Emphasis on fundamentals of footwork and introduction to history and cultural background of Scottish dances. May be repeated for credit.

## DAN 149 Pointe I Beginning

AH 1 cr  
Development of classical ballet skill techniques en pointe. Principles of beginning pointe technique are displayed and discussed. May be repeated for credit.  
*Prerequisite: DAN-144 or Permission*

## DAN 151 AC Dance Company

AH THM 1 cr  
Participation in dance concerts throughout the term. Opportunities for choreography, performance and organizational planning. May be repeated for credit. Final registration subject to audition.

## DAN 160 Afro-Brazilian Dances

🌍 AH 1 cr  
Studio course that introduces vocabulary, history, and cultural aspects of Afro-Brazilian dance.

## DAN 180 Topics in Dance

AH 4 cr  
Special topics and projects selected by Instructor in dance. Background *prerequisites* vary with selections.

## DAN 191 Dance Professions

AH 2 cr  
Survey on dance professions, including dance related careers, and guest speakers.

## DAN 201 Choreography I

AH THM 4 cr  
Analysis of choreographic styles. Principles of various choreographers examined and experienced. Development of individual skills for choreographing.

## DAN 210 Dance Improvisation

AH 1 cr  
Dance Improv introduces students to new ways to move and craft dances through imposed structures.

## DAN 220 Dance Pedagogy

AH 4 cr  
This course examines practical, pedagogical, and philosophical approaches to teaching dance in different settings, including schools (K-12), recreation, and professional dance training. Through readings, discussions, lectures, individual and group assignments, students will develop and apply lesson plans based on practical and reflexive skills. The content of this course includes the NDEO (National Dance Education Organization) and MAEIA (Michigan Arts Education Instruction and Assessment) standards. Different genres of dance may be included depending on the specialties of participants.  
*Prerequisite: 4 credits from DAN Sophomore Standing*

## DAN 240 Modern Dance II Intermediate

AH 1 cr  
Continuation of Modern Dance I. Emphasis on movement patterns and development of body alignment. May be repeated for credit.  
*Prerequisite: DAN-147*

**DAN 243 Yoga II**

AH 1 cr  
 Yoga complements the dancer as well as the human being in many ways, particularly in the physical realm. Slow stretching and breathing increase flexibility and awareness, and restore tone and vitality. May be repeated for credit.  
*Prerequisite: DAN-143 or Permission*

**DAN 244 Ballet II Intermediate**

AH 1 cr  
 Continuation of Ballet I. Development of ballet combinations and concentration on body alignment. May be repeated for credit.  
*Prerequisite: Permission*

**DAN 245 Jazz Dance**

AH 1 cr  
 This course looks at the practice of jazz dance throughout U.S. history. We will consider key styles and techniques, emphasizing rhythm, improvisation, shape, and isolations. This class is for multi-level learners. May be repeated for credit.  
*Prerequisite: DAN-147 or Permission*

**DAN 248 Highland Dance II**

AH 1 cr  
 Continuation of Highland Dance I. Technical accuracy, style and conditioning stressed. Emphasis on performance preparation. May be repeated for credit.  
*Prerequisite: DAN-148 or Permission*

**DAN 280 Topics in Dance**

AH 1-4 cr  
 Special topics and projects selected by Instructor in dance. Background prerequisites vary with selections.

**DAN 295 Dance for the Camera**

AH THM 2-4 cr  
 The course covers history, theories, and filmmaking for choreography and dancing in film.

**DAN 296 Dance and Communities**

AH THM 2 cr  
 The course will teach students about how to create dance projects that engage communities.

**DAN 302 Dance Composition**

AH THM 2 cr UL  
 Dance composition is the foundation of group choreography, which requires an examination of different theories, literacies, and examples in order to achieve an original piece of art. We will look at many examples of choreographers' group compositions as reference points. This course will require one short group composition and one paper. Offered every odd winter term.

**DAN 340 Modern Dance III Advanced**

AH 1 cr UL  
 Continuation of Modern Dance II. Emphasis on refinement of performance techniques, style and improvisation. May be repeated for credit.  
*Prerequisite: DAN-240 or Permission*

**DAN 344 Ballet III Advanced**

AH 1 cr UL  
 Continuation of Ballet II. Emphasis on further development of style and technique. May be repeated for credit.  
*Prerequisite: Permission*

**DAN 347 Dance Criticism**

AH 4 cr UL  
 Introduction to the history of dance criticism as well as philosophies of early dance critics. Review dance films, video tape recordings and actual performances and evaluate each in the various critical styles. Investigate the structure and function of historical, recreative and judicial criticism, and review dance critics of today and their influence upon the dance world.  
*Prerequisite: DAN-351*

**DAN 351 Dance History**

AH THM 4 cr UL  
 Survey of culture, styles and methods of dance from the Baroque period to the Modern period. Ethnic, concert and interpretative forms. Emphasis on theatrical ballet and 20th century contemporary dance.

**DAN 380 Topics in Dance**

AH 4 cr UL  
 Special topics and projects selected by Instructor. Background prerequisites vary with selections.

**DAN 385 Dance Practicum**

4 cr UL  
 Study-work participation in community institutions, schools or professional organizations combined with faculty supervision. Practical experience in teaching, directing or performance of dance. Culminates in written report.  
*Prerequisite: Permission*

**DAN 480 Topics in Dance**

AH 1 cr UL  
 Special topics and projects selected by Instructor. Background prerequisites vary with selections.

**DAN 495 Senior Capstone**

2 cr UL  
 This course is required for dance majors in their senior year who are not enrolled in DAN-500 (Senior Thesis). The capstone can be either a paper or a performance. The paper must evidence advanced research that explores a specific topic in dance studies chosen by students in conjunction with their capstone advisor. The performance must be one of original choreography that is accompanied by a detailed written component or portfolio. This course may not be taken Pass/Fail.  
*Prerequisite: Advanced Junior Standing or Permission*

**DAN 500 Senior Thesis**

AH 2-4 cr UL  
 Students with honors in Theatre and Dance must complete a Senior Thesis, approved and directed by the Department. Students must present their thesis on Honors Day or other approved public Forums.

## Data Analytics (DAT)

**Minor Requirements**

Twenty-six credits which must include:

1. DAT-115 and DAT-315
2. Introduction to programming: DAT-116 or CSC-120
3. Upper-level statistics: MTH-242 or MTH-342
4. Data analytics project: DAT-385 or DAT-399
5. Data intensive electives: 8 credits from the following courses, at least 4 credits completed at the upper-level: CSC-345, CSC-410, ECN-217, ECN-317, HCA-405, IPH-330, IPH-230, MTH-116, MTH-336, MTH-341, PHY-221, POL-316, PSY-220.
6. Additional electives may be approved in consultation with the math and computer science faculty.

**DAT 115 Introduction to Data Analytics**

NS3 QR 4 cr  
 Introduction to graphs, calculations, and models for summarizing data, gaining insights from data, and making predictions. Discusses variation in data and how to ensure conclusions are justified. Example data sources include business, economics, medical studies, and sports statistics. Uses both a spreadsheet program, such as Microsoft Excel, and a statistics-oriented computing platform, such as R.

**DAT 116 Programming With Data**

NS3 QR 4 cr  
 Introduction to programming techniques for the manipulation and analysis of digital data. Programming topics include: digital representations of data, types of data, programming decision and repetition, functions and libraries for storing and manipulation data in the language of instruction (e.g., the pandas library of Python). Data topics include: common formats (e.g., CSV, JSON, XML, database), missing data, cleaning data, exploratory data analysis. Visualizing and presenting data to support an argument. Cross-listed with CSC-116.

**DAT 315 Machine Learning**

NS3 4 cr UL  
 Principles and techniques for machine-based decision and prediction from large datasets. Algorithms for and applications of classification, regression, and unsupervised learning. Introduction to neural networks and deep learning. Use of machine learning libraries in languages such as Python and R.

*Prerequisite: DAT-116 or CSC-121, and MTH-242, or Permission*

**DAT 385 Data Analytics Project**

2 cr  
 Practicum in the field of Data Analytics.

## Design (DES)

**DES 101 Design Fundamentals**

EXP1 4 cr  
 Work in a hands on studio environment exploring how design principles, information hierarchy, layout and typography contribute to meaning. Learn to harness a problem solving framework to address project based challenges across a variety of media. Develop an understanding of the tools and terminology of design practice.

**DES 131 Concept, Process, and Play**

4 cr  
 Exploring the creative process and the principles of play, designed to equip students with ideation and creative thinking skills. Through a blend of theory, practical exercises, and hands-on projects, students will investigate the relationship between form and meaning, concept development and how to visually explore ideas in any medium. Open to students of any experience level and any visual medium. Course fee.

**DES 231 Branding, Authenticity & Disruption**

4 cr UL  
 Explore branding and how brands, institutions and movements use visual vocabularies to appeal to specific audiences. Work in a hands on studio environment to develop visual messages that reflect an understanding of the broader visual landscape. Develop appropriate strategies and messages across a variety of media/formats. Course fee.

*Prerequisites: DES-101*

**DES 245 UI / UX Design**

4 cr UL  
 Learn the fundamentals of user interface and user experience design. Use a design process framework to understand users needs and develop appropriate strategies for developing apps, websites, and other human-computer interactions. Develop UI or UX projects through user research, testing and feedback. Learn to use industry standard software to prototype concepts and refine ideas. Course fee.

*Prerequisites: DES-101*

**DES 284 Experimental Form Making**

4 cr UL  
 Exploring unconventional ways of producing form across diverse visual mediums. Through a mix of theory and hands-on exploration, students will discover unconventional techniques, emerging technologies, "irrelevant" technologies, and systematic approaches to form-making. The format of the class is open to 2D art, 3D art, design, photography, video or any other visual medium. Open to students of any experience level. Course fee.

*Prerequisites: DES-101*

**DES 321 Project Management**

4 cr UL  
 This course examines activities related to project management, project planning, and estimating project scope and schedule. It also examines processes for managing project resources and collaborating. Upon completion of this course, students are expected to be able to do the following: Plan and estimate project scope, resources, and schedules.

*Prerequisites: Junior or Senior Standing*

**DES 331 Design Thinking**

4 cr UL  
 Learn the principles of design thinking and innovation in a hands-on studio setting. Use the design thinking process to identify and frame challenges and create solutions that reflect an understanding of audience and context. Develop creative thinking skills in a collaborative project-based course. Course fee.

*Prerequisites: DES-101*

**DES 401 Design Entrepreneurship**

4 cr UL  
 Exploring design entrepreneurship with a focus on creativity and self-discovery. Through a blend of theory, practical exercises, and real-world projects, students develop skills needed to identify market opportunities, generate innovative ideas, and translate their vision into tangible outcomes. This course provides a platform to cultivate students' unique voices and take an idea from concept to fruition. Course fee.

*Prerequisites: DES-101*

**DES 431 Design in Context**

4 cr UL  
 Learn to plan, design, and implement solutions using a design thinking framework with community partners. Develop collaborative process skills while learning to address specific audience and contextual factors and address unframed challenges in this civically engaged studio course. Course fee.

*Prerequisites: DES-331*

**DES 450 Senior Capstone**

4 cr UL  
 Independently plan and execute a capstone project that applies their specialized skills in digital marketing to a challenging problem and with lasting impacts. Present projects to be assessed by a panel of faculty and industry judges at a public exhibition, which the class organizes and hosts. Professionalization topics such as portfolio development, resumé and cover letter writing, and interview strategies will be addressed.

*Prerequisites: Senior Standing*

# Digital Marketing (DMR)

## Digital Marketing Major Requirements

Sixty credits, which must include:

1. Fundamentals (20 credits)  
DMR-101; BUS-121; NMS-101; COM-192;
  - a. In addition, choose 4 credits from BUS-117, DAT-115, DAT-116, ECN-217, POL-210, or PSY-220
2. Marketing Strategy (choose 16 credits)  
DMR-201, DMR-202, BUS-333, COM-292, COM-353, COM-291, DMR-203 up to 4 credits from the Business Leadership concentration (see BUS major).
3. Design and Innovation (choose 16 credits)  
ART-126, DES-101, DES-331, DES-231, DES-245, NMS-242, NMS-130, NMS-140, NMS-310
4. Capstone (4 credits): DMR-385 or DMR-450

## Departmental Honors

Students may achieve honors in Digital Marketing by completing all requirements for the major; earning a 3.5 GPA in the major and earning a minimum of an "AB" grade in DMR-450; and presenting an approved project at Honors Day.

## DMR 101 Introduction to Digital Marketing

4 cr

Focuses on online advertising, search engine optimization, interactive marketing, e-commerce, social influence, mobile marketing, social media monitoring, brand positioning, crowd funding, two-sided online platforms, and integrating social media with traditional media.

## DMR 201 Consumer Behavior

4 cr UL

Explores perceptual, cognitive and emotional processes of consumers, and social influences (reference groups, competition, and tipping points) in the context of business problems.

## DMR 202 Search Engine Optimization

2 cr UL

Covers the essential SEO (search engine optimization) techniques necessary for a website to rank well on Google. Keyword research, writing optimized content, getting web pages indexed by search engines and tracking the outcomes. Discover new online tools and resources to implement successful campaigns.

## DMR 203 Marketing Analytics

2 cr UL

Learn to make intelligent use of marketing data and analytics to make business recommendations and decisions. Understand the background needed to begin working in a marketing analytics position within a corporation, a consulting firm, or a marketing research firm.

## DMR 385 Digital Marketing Internship

4 cr UL

Only four credits will count in the major. Requires Instructor Permission. Students must also successfully complete the professional skills workshop series offered by the DMR department and the Center for Student Opportunity (CSO). Pass/Fail only.

## DMR 450 Senior Capstone

4 cr UL

Independently plan and execute a capstone project that applies their specialized skills in digital marketing to a challenging problem and with lasting impacts. Present projects to be assessed by a panel of faculty and industry judges at a public exhibition, which the class organizes and hosts. Professionalization topics such as portfolio development, resumé and cover letter writing, and interview strategies will be addressed.

*Prerequisites: Senior Standing*

# Economics (ECN)

## Economics Major Requirements

Thirty-six credits which must include:

1. Eight credits from ECN-111, 112, 122, or other approved 100-level course
2. ECN-217, 311, 312, and 317
3. Twelve credits of ECN at or above the 300-level
4. Successful completion of ECN-500 or a minimum score of 150 on the Major Field Achievement Test in Economics is required for the Department's comprehensive evaluation. Students should schedule the MFAT for the Fall Term of their senior year. Students who fail the Fall MFAT will retake it in the Winter Term. Students who fail a second time will be given an oral comprehensive evaluation.
5. All 36 credits that count toward the major must be taken for letter grade. Economics courses may be taken for S/F credit but only above and beyond the 36 credits taken for letter grade for the major.
6. Prior approval is required for all transfer credit for any 300-level or above ECN coursework.

**Note:** The Department recommends that students supplement the major with courses from other areas, including (but not limited to) Business Administration, Computer Science, Mathematics, Philosophy, Political Science, and Psychology. Students interested in Economics graduate work are strongly encouraged to take at least a year of calculus or other advanced Mathematics classes. Computer Science classes are also useful as preparation for Economics graduate work.

## Financial Economics Major Requirements

Fifty-Six credits, which must include

1. Core Courses (44 credits): ECN-111, ECN-112, BUS-117, BUS-121, ECN-217, BUS-221, BUS-309, ECN-317, ECN-320, ECN-332, ECN-385.
2. Four credits from PHL-225, 227, 228, 229, or other course approved by the Economics / Business Department.
3. Complete BUS-410 and BUS-415.
4. MTH-116 is strongly recommended as a Math competency choice.

## Minor Requirements

Twenty-four credits which must include:

1. Eight credits from ECN-111, 112, 122, or other approved 100-level course
2. Sixteen additional credits of ECN coursework (which may not be taken for S/F credit)

## Departmental Honors

Honors candidates must have a minimum overall 3.3 GPA and 3.5 GPA in the Economics Department, complete ECN-500 and present that work in some forum, either internal or external.

## ECN 111 Principles of Macroeconomics

SO EXP2

4 cr

Introductory survey of macroeconomic theory and national policy. Supply and demand analysis and solutions to basic economic problem of scarcity in the American economy. Examines relationship between national income and its determinants with emphasis on role of fiscal and monetary policies in stabilizing national economic performance.

## ECN 112 Principles of Microeconomics

SO EXP2

4 cr

Introductory survey of microeconomic theory. Principles of consumer demand; production, exchange and distribution in capitalist economies; labor and resource markets; international trade and exchange rate theory and policy.



**ECN 180 Readings in Economics**

SO 1-4 cr  
 Selected introductory topics in Economics announced in advance. May be taken more than once for credit if topics are different.

**ECN 217 Quantitative Methods**

SO QR 4 cr UL  
 An introduction to a variety of the quantitative methods used in the social sciences. Students will learn the basic probability and research design theory necessary for understanding and applying quantitative methods in social sciences. Students will replicate data analyses and conduct their own with real world data. Students will learn to use statistical software, like R.  
*Prerequisite: One math class at MTH-110 level or higher, or Permission*

**ECN 311 Intermediate Macroeconomics I**

SO THM 4 cr UL  
 Models of national income determination. The monetary system and the relationship between money and financial markets. Monetary theory and policy. Explanations of inflation and unemployment. Business cycles and economic growth theory.  
*Prerequisite: ECN-100 level course or Permission*

**ECN 312 Intermediate Microeconomics**

SO 4 cr UL  
 Price mechanism and elasticity concepts. Theories of consumer behavior and producer behavior. Pricing in product and resource markets. General equilibrium theory.  
*Prerequisite: ECN-100 level or Permission*

**ECN 314 Behavioral Economics**

SO THM 4 cr UL  
 Study of economic decision-making from based on modified neo-classical assumptions. Students will explore selected themes from psychology, sociology, and neuroscience. We will also investigate the relevance of behavioral economics to the formation of good public policy. Students will engage with the material through a combination of lectures, discussion, experiments, and research projects.  
*Prerequisite: ECN-100 level or Permission*

**ECN 317 Econometrics**

SO WI 4 cr UL  
 Survey of standard forecasting techniques in business and economics. Introduces the use of econometric models with emphasis on multiple regression, simulation modeling and time-series analysis. Special attention to applying forecasting techniques to real-world data.  
*Prerequisite: ECN-100 level and ECN-217, or Permission*

**ECN 318 Mathematical Economics**

SO 4 cr UL  
 Formal application of mathematical tools to micro- and macroeconomic analysis; algebra, sets, matrix algebra, differential and integral calculus, ordinary and partial differential equations, and finite difference equations.  
*Prerequisite: ECN-111 and 112; MTH-113 or 121*

**ECN 320 Money and Capital Markets**

SO THM 4 cr UL  
 Analysis of money and capital market instruments and financial market interrelationships. Investigates role of financial intermediaries as both suppliers and users of credit. Emphasizes influences of monetary policy and regulations on functioning of U.S. and world credit markets.  
*Prerequisite: ECN-100 level or Permission.*

**ECN 326 Economic Development**

SO 4 cr UL  
 Seeks to answer the question why some countries are rich and other countries poor. The role of the economist in development will be examined.  
*Prerequisite: ECN-100 level or Permission*

**ECN 330 Sports Economics**

THM 4 cr UL  
 Develop an understanding of how economics relates to collegiate and professional sports markets. Learn how to analyze decision-making by organizations, teams, and players, and the outcomes of those decisions.  
*Prerequisite: ECN-100 level or Permission*

**ECN 331 International Trade**

SO 4 cr UL  
 Examines the exchange across international borders of goods, services and factors, and the impacts of this trade on domestic and global economies both in theory and practice. Theories of trade are compared and contrasted to both empirical studies and histories of trade. Topics include free trade, commercial policy, barriers to trade, foreign investment, imperialism and political economy of trade.  
*Prerequisite: ECN-100 level or Permission*

**ECN 332 International Finance**

SO THM 4 cr UL  
 Examine the principles and practical aspects of international finance. Theories of exchange rate determination are compared and contrasted. Topics include, but are not limited to: comparative advantage, arbitrage, international macroeconomics, foreign exchange issues, global money and capital markets, exchange rate forecasting and interest rate swaps.  
*Prerequisite: ECN-100 level or Permission*

**ECN 340 Environmental Economics**

SO 4 cr UL  
 Survey of both theories and practices of the economics of natural resources and the environment. Topics include: notions of value and property, externalities, renewable and nonrenewable resources, willingness-to-pay arguments, cost-benefit analysis, natural resource policy, hazardous waste, environmental policy, sustainable development, and environmental racism and classism.  
*Prerequisite: ECN-100 level or Permission*

**ECN 345 Labor Economics**

SO THM 4 cr UL  
 Survey the field of labor economics. Topics include the theory of allocation of time, life cycle theory, labor supply, theory of the firm, labor demand, wage determination, human capital theory, occupational wage differentials, and theories of labor market discrimination.  
*Prerequisite: ECN-100 level or Permission*


**ECN 350 Environmental Policy Analysis**

SO THM 4 cr UL  
 This course is an exploration of the science and economic foundations behind environmental issues. Current and past environmental policy is analyzed with reference to the scientific and economic realities surrounding specific problems and solutions. Students study theoretical foundations of Environmental Economics and cost-benefit analysis, and use this knowledge to practice policy analysis from the perspective of equity and equality. Students work on real-world projects that emphasize smart policy based on sound science and economic principles.  
*Prerequisite: Sophomore Standing plus any ECN 100-level class OR any 100-level ENV class or Permission*


### ECN 380 Topics in Economics

SO 4 cr **UL**  
Selected topics in economics announced in advance. May be taken more than once for credit if topics are different.  
*Prerequisite: ECN-111 or 112*

### ECN 385 Economics Practicum

 4 cr **UL**  
Practicum in the field of Economics. Requires Junior Standing or Instructor Permission.

### ECN 500 Senior Thesis

 SO 4 cr **UL**  
Requires Instructor Permission.

## Education (EDC)

The Michigan State Board of Education certifies all teachers. Alma College is authorized to recommend to the State Board those students who have completed a bachelor's degree, passed state required Subject Tests in endorsement areas, and successfully fulfilled all requirements of the Teacher Education Program. The Education Department offers majors and minors leading to teacher certification. The Department also offers a non-certification Educational Studies Major and Minor and Special Education Minor. Certification requirements are subject to change by action of the State Board of Education and may not be reflected in this catalog.

### Teaching Major and Minor Requirements:

Requirements for Teaching Majors and Minors are in the subject area department listings or in the Education Department listing. Student should consult with the Education Department about requirements. Graduation Requirements: Students who are in the Teacher Education Certification Program shall only be deemed as satisfying graduation requirements when all required courses for certification are complete.

### Departmental Honors in Education

Students may achieve honors in Education by:

1. An approved application to pursue honors in education
2. Earning a 3.5 GPA in an Education major (elementary education, secondary education, or educational studies) and a 3.3 overall cumulative GPA.
3. Performing at a superior level in the culminating departmental experience of student teaching (EDC-490 / 491) or an educational studies internship (EDC-470).
4. Preparing a senior thesis of honors caliber and presenting it at an appropriate public forum.
5. Earning a minimum grade of AB in EDC-500

### PK-6 Major Requirements

PK-6 Major allows you to teach in preschool through sixth grade classrooms. To be recommended for certification, the candidate must complete the PK-6 Major and pass the PK-3 or 3-6 certification test. Candidates are strongly encouraged to take certification tests for PK-3 and 3-6 grade bands to have multiple endorsements.

Ninety-seven credits; which must include:

1. EDC-101, 101C, 102, and 151
2. EDC-211, 202, and 209
3. EDC-314, 308, 316, 364, 364C, 366, 366C, 367, 367C, 368, 368C, and 374
4. EDC-501, 502, and 503
5. HST-104 and 206
6. ISC-201 and 301
7. MTH-204, 205, and 206
8. ENG-111, 211, and 212; or EDC-166, 266, and 466

### Secondary Education Major Requirements

The Secondary Education Major may only be completed with another valid Alma College Teaching Major or two Teaching Minors. Some certification endorsement areas require an additional Teaching Major or Teaching Minor.

The Secondary Education Major consists of at least 44 credits:

1. EDC-101, 101C, 102, and 151
2. EDC-202, and 211
3. EDC-308, 314, 316, 346, and 374. *Prerequisites include Admission to the Teacher Education Program.*
4. EDC-501, 502, and 503. *Prerequisites include successful completion of all required EDC courses including methods course(s), and Admission to Student Teaching.*
5. Must meet required student contact hours for initial and additional endorsements.
6. Must be completed with another valid Alma College Teaching Major or two Teaching Minors.
7. Students pursuing the Business Teaching Major must complete EDC-303B; students pursuing Music Education must complete EDC-303MU.

### Special Education: Mild to Moderate Disabilities Major

The Mild to Moderate Disabilities program provides a pathway to special education teacher licensure with State of Michigan teaching endorsements in Learning Disabilities, Cognitive Impairment, and Emotional Impairment.

### Major Requirements

One hundred credits, which include the following:

1. EDC-101, 102, 151, 152
2. EDC-202, 205, 211, 255, 250
3. EDC-308, 314, 316, 366, 366C, 368, 368C, 374, 376
4. EDC-256, 423, 428, 377, 378
5. MTH-204, 205, 206
6. ENG-111, 211, and 212; or EDC-166, 266, and 466
7. EDC-507 and 508
8. For certification, students must pass the MTTC Learning Disabilities test (114) for the initial endorsement.
9. Students may earn additional endorsements by passing MTTC tests in Emotional Impairment (116) and Cognitive Impairment (115).
10. Students may earn an additional endorsement in PK-6 or Secondary Education with a subject area to become a certified general education teacher.
11. Mild to Moderate majors may need to take additional non-EDC credits in order to meet the graduation requirement of 68 credits outside of EDC.

### Teacher Certification Requirements

Certification allows teaching in grade bands PK-3, 3-6, 5-9 and/or 7-12 and in subjects in which the candidate has earned an endorsement. To be recommended for certification by Alma College, the candidate must complete the following:

1. An Education Major with a 2.5 GPA.
2. No Education course may be taken Pass/Fail (except for 1 credit placement classes) or graded below a 2.0 (C).
3. For PK-6, Social Studies, and Science Teaching Majors, no course required for certification may be graded below a 2.0 (C).
4. For Secondary Education (i.e., Middle Grades (5-9) and High School (7-12)), complete at least one Teaching Major or two Teaching Minors.
5. A 2.5 GPA is required for all teaching subject endorsement areas unless otherwise noted.
6. An overall cumulative GPA of 2.75 is required for Alma College to recommend a student for certification.
7. Students must also pass the appropriate MTTC test/s for each grade band and/or subject. For initial certification or additional endorsement areas, MTTC passing scores will remain valid for five years.

## Teaching Endorsements

Alma College offers the following Teaching endorsements for students seeking certification:

- Biology (7-12 major only; must also complete Science Teaching Major (5-12))
- Business, Management, Marketing and Technology (6-12 major only)
- Chemistry (7-12 major only; must also complete Science Teaching Major (5-12))
- English (5-12 major or 5-9 minor)
- History (7-12 major only; must also complete Social Studies Teaching Major (5-12))
- Mathematics (5-12 major or 5-9 minor)
- Music (K-12 major only)
- Physics (7-12 major only; must also complete Science Teaching Major (5-12))
- Science (5-12 major or 5-9 minor)
- Social Studies (5-12 major or 5-9 minor)
- Special Education - Learning Disabilities (K-12 major only)

## Science Teaching Major (5-12)

Forty-eight credits, which must include:

1. BIO-121, 222, and 223
2. CHM-115 and 223
3. EGR-130
4. ENV-105
5. GEO-113
6. Either PHY-112 & 113, or PHY-121 & 122
7. EDC-474 and 474C
8. Cognates:
  - a. For PHY-112: MTH-112, 113, or 121
  - b. For PHY-121: MTH-113 or 121
9. Successful completion of requirements of the Secondary Education Major.
10. No course graded below 2.0 (C) may count toward a Science Teaching Major (5-12); a 2.5 grade point average in the Science Teaching Major (5-12) is required.

## Science Teaching Minor (5-9)

Thirty-two credits, which must include:

1. BIO-121 and 222
2. CHM-115
3. EGR-130
4. GEO-113
5. ISC-101 and 301
6. EDC-474 and 474C
7. Successful completion of requirements of the PK-6 or Secondary Education Major.
8. No course graded below 2.0 (C) may count toward a Science Teaching Minor (5-9); a 2.5 grade point average in the Science Teaching Minor (5-9) is required.

## Social Studies Teaching Major (5-12)

Forty-four credits, of the following:

1. ECN-111 and 112
2. GGR-200
3. POL-101 and 121
4. 16 credits of HST Courses:
  - a. HST-100 or 101
  - b. HST-104 or 105
  - c. Two additional HST courses (8 credits), with at least one being an upper-level course, from the following: 100, 101, 104, 105, 107, 140, 206, 228, 230, 253, 254, 323, 327, 328, 336, 352, 353, 425, 434.
5. One additional social science course (4 credits), from the following:
  - a. REL-100, 150, 207, 208, 209

- b. SOC-101, 141, 222, 223, 225
6. EDC-477 and 477C
7. Successful completion of requirements for Secondary Education major.
8. No course graded below 2.0 (C) may count toward a Social Studies Teaching Major; a 2.5 grade point average in the Social Studies Teaching Major (5-12) is required.
9. For certification, take and pass the MTTC 5-9 and/or 7-12 Social Studies test, and 5-9/7-12 Professional and Skill tests.

## Social Studies Teaching Minor (5-9)

Twenty-eight credits, which must include:

1. ECN-111 or 112
2. GGR-200
3. POL-101
4. HST-100, 104, and 105
5. EDC-477, 477C
6. Completion of another teaching minor or major
7. Successful completion of requirements for the Secondary or PK-6 Education major
8. No course graded below 2.0 (C) may count toward a Social Studies Teaching Minor
9. 2.5 GPA is required
10. For certification, take and pass the MTTC 5-9 Social Studies test, and Professional and Skills test.

## Special Education: Learning Disabilities Major (Secondary or PK-6)

Thirty-six credits, which must include:

1. EDC-151, 152, 205, 250, 255, 316, 374, 375, 376, 504, 505, 507;
2. For certification, take and pass the MTTC Special Education-Learning Disabilities test.
3. For Secondary Education majors, a candidate must complete the Secondary Education Program, a content endorsement area, and the Special Education Program to become endorsed in learning disabilities.
4. No course graded below 2.0 (C) may count toward a Special Education Major; 2.75 GPA is required. Mathematics and English are recommended as the content endorsements for Special Education Majors.

## Classroom Placement Students - Background Check

Michigan school districts require anyone who has contact with children in their school buildings, including staff or volunteers, to provide the district with documentation of central registry clearance. All students who have an Education course with a classroom placement must have a background check completed through an approved program. See the Education Department for more details. School Districts may require additional screenings.

## Student Teacher Fingerprinting Procedure

The Education Department requires fingerprinting of student teachers. All student teachers must have the Criminal Background Check Livescan fingerprinting procedure completed prior to beginning student teaching in their assigned district. Fingerprint records must remain valid throughout your student teaching period. Livescan must be completed at a Michigan Department of Education-approved site and is a statewide procedure. A fee is charged for this service. See the Education Department for more details.

## Admission to the Teacher Education Program (TEP)

The Education Department reviews all applicants and judges their suitability for entrance to the program during the student's sophomore year; students who decide to seek teacher certification after the sophomore year can be admitted late but may require extra time to complete the program. For full approval students must have the following:

1. A completed application (on Tk20) for admission to the TEP submitted by the deadline.

2. A cumulative GPA of at least 3.0.
3. Demonstrate proficiency in writing and mathematics as determined by Alma College.
4. Evidence that the applicant has dispositions conducive to success in the teaching profession (as indicated by disposition assessment forms, Student Life reports, the recommendation of the Education Department, and a Felony Conviction Statement confirming that the student has not been convicted of any act contributing to the delinquency of a minor or involving moral turpitude).
5. Good standing - student life.
6. All majors(s) and minor(s) must be declared through the Registrar's Office at the time of TEP application. Be aware that these requirements are subject to change in accordance with state or national accreditation mandates.

### Admission to Student Teaching

The Education Department reviews a student for admission to Student Teaching. For full approval, students must have the following:

1. Admission to the Teacher Education Program
2. A formal application for student teaching submitted by November 15 of the academic year prior to student teaching.
3. A 2.75 overall cumulative GPA
4. A 2.5 GPA in Education courses and a passing grade of C or above in all Education courses
5. For both PK-6 and Secondary Education: a GPA in all Teaching Major(s) and/or Minor(s) of 2.5; and if applicable, a C or above in all classes in Social Studies Teaching (5-9 or 5-12), Science Teaching (5-9 or 5-12), and Special Education endorsements.
6. Evidence that the applicant has dispositions conducive to success in the teaching profession (as indicated by disposition assessment forms, the recommendation of the Education Department, and a Felony Conviction Statement confirming that the student has not been convicted of any act contributing to the delinquency of a minor or involving moral turpitude).

### Additional Notes

1. Admission to the Teacher Education Program is a prerequisite for all classes at the 300 level and above for certification candidates.
2. Note on scheduling: it is expected that students attempt no more than 45 hours in placement classes in any semester.
3. Once approved for the student teaching internship, the requirements must be retained in order to begin the student teaching term.
4. Student teachers may not participate in significant non-teaching activities such as arts or sports without securing prior written approval from the Education Department.

### Educational Studies Major

The Educational Studies Major is designed for those interested in education in a variety of fields but who are not currently interested in earning teacher certification.

Thirty-six credits, which must include at least 15 upper-level credits and the following major requirements:

1. EDC-101, 101C, 102, 151, and 308
2. Complete one of the following concentrations (12 credits):
  - Special Needs: EDC-152, 250, 255, 374, or 376.
  - Pedagogy: EDC-202, 314, 316, 364, 364C, 366, 366C, 367, 367C, 368, 368C, or 374.
  - Literacy: EDC-166, 266, 366, 366C, 346 or 466.
  - Science Education in Informal Settings: ISC-201, ISC-301, EDC-364, 364C, ENV-105, ENV-110, GEO-101, GEO-113 or other courses approved by EDC.
3. EDC-470 Internship (5 credits)
4. Other EDC courses (to reach 36 credit total in the major)

### Educational Studies Minor

The Educational Studies Minor is for those interested in education in a variety of fields, but who are not currently interested in earning teacher certification.

Twenty-four credits, which must include:

1. EDC-101, 101C, 102, 151 and 308
2. Additional EDC courses to reach 24-credits in minor

### Special Education Minor

The Special Education minor is designed for those who will work with people with special needs. The Special Education minor does not lead to K-12 teacher certification. The minor is recommended for teacher candidates who are not seeking special education teaching endorsement, but seek to be more prepared to work with students with special needs.

Also designed for students not interested in earning a teaching license but plan to work with students with special needs in related professions.

Twenty-four credits, which must include:

1. Complete EDC-151, 152, 250, 255, 374, 376 and 316.
2. Choose one course from the following: EDC-102; PSY-203, 314, or 331.

### EDC 101 Introduction to Education

3 cr

Provides a foundation to PK-12 education focused on access and equity; introduces learners and learning theory, school and society, approaches to teaching, and core teaching practices. Supports the development of reflective practice with attention to diverse perspectives and responsibilities of educators.

*Taken concurrently with EDC-101C.*

### EDC 101C Intro to Education Clinical Experience

1 cr

Exploration of the teaching profession through structured observation and participation in classroom settings at grade levels and subject areas appropriate for career interests. Includes 30 hours of clinical experience. Pass/Fail only.

*Prerequisite: HS graduation or Instructor Permission, Taken concurrently with EDC-101*

### EDC 102 Child Development in Education

4 cr

Psychological theories and research of human development applied to classroom learning; includes examination of the multiple interrelated areas of child development and learning, learning processes, and motivation to learn; also examines the complex and multiple influences on development and learning.

### EDC 103 Foundations of Secondary Education

1 cr

A 40-hour field experience to provide hands-on, realistic yet transitional experience/opportunity for those interested in teaching at the high school or middle school level. Must take EDC-130 concurrently.

*Prerequisite: EDC-130 concurrently*

### EDC 130 Foundations of Secondary Education

2 cr

A beginning course that is meant to help the pre-service teacher understand the realities of teaching and the education profession in general. A foundation to assist the student in making a better, more informed career choice about becoming a secondary teacher while also providing cases that secondary teachers must effectively face every day. Required for secondary certification.

*Prerequisite: EDC-103 concurrently*

**EDC 151 Introduction to Special Education I**

EXP4 2 cr

An introduction to the historical, theoretical, and legal perspectives that guide special education services in school settings. An overview of the continuum of services for students with special needs which are designed to increase access to learning and improve educational outcomes.

**EDC 152 Introduction to Special Education II**

EXP4 2 cr

Common disabilities in young children with special needs and extending to transition related services post-secondary. Introduction to the IEP process and implementation of individualized instruction to meet the learning needs of an exceptional child.

**EDC 166 Foundations of Literacy**

4 cr

Introduction to interrelated nature of the literacy processes, developmental and culturally diverse nature of literacy, culturally responsive practices, and specific literacy constructs and how they develop.

**EDC 180 Topics in Education**

2-4 cr

Special topics in education. Possible Course fee.

**EDC 190 Field Experience in Education**

1-4 cr

Arranged assignment in an education setting intended to enhance a student's understanding of teaching and learning. Requires Instructor Permission

**EDC 202 Learning Environments**

4 cr UL

Links child development with behavior management theories to create productive learning environments and support students' development of social skills.

*Prerequisite: Sophomore Standing*

**EDC 203 Child Development and Education - Field**

1 cr UL

A 40-hour placement in classrooms concurrent with EDC-230. Provides an introduction to the professional roles and responsibilities of teaching all children. Students will be placed in a "home" classroom and work closely with that teacher to observe, assist, and work closely with students applying psychology principles and learning theories. Pass/Fail only.

*Prerequisite: Sophomore Standing*

**EDC 205 Special Education Clinical I**

1 cr UL

Work with students identified with a learning disability and collaboratively plan interventions/services including diagnosis, assessment, and specific remedial techniques. Experience the IEP process including the creation of goals and objectives which frame a student's learning. Thirty hours of clinical experience. Pass/Fail only.

*Prerequisite: EDC-151 and 152*

**EDC 209 The Arts, Health, and Movement in PK-6**

1 cr UL

Research-based instructional strategies to support the whole child's learning and development through visual and performing arts, movement, physical activities, and development of critical knowledge, skills, and behaviors that contribute to life-long health.

**EDC 211 Strategic Partnerships**
 GCA 4 cr UL

Explores the role of school-community partnerships, professional and ethical approaches for working with children and families, and an overview of the Michigan State Board of Education Code of Ethics. Focuses on developing positive relationships with families and increasing equitable access to learning opportunities.

*Prerequisites: EDC-101*

**EDC 227 Teacher Leader**
 4 cr UL

Students planning to work with children in the PK-12 setting will explore the essential leadership skills necessary for crafting learning environments that stimulate creativity, innovation, and collaboration.

**EDC 230 Child Development and Education**

3 cr UL

An overview of psychological theories and research applied to classroom learning. The course includes study of concepts in human development - cognitive, affective, physical, emotional, moral, and social; study of learning, motivation, and assessment; developmentally appropriate practice; an overview of processes of human development in childhood and adolescence with a focus on socialization and education; and study of the influences of family, community, and culture on education. Required for elementary and secondary certification.

*Prerequisite: Sophomore Standing; EDC-203 concurrently*

**EDC 240 Learning Env and Reflective Teaching**

4 cr UL

Examination of characteristics of productive classroom learning environments. Analysis of cases of teaching and learning; evaluation of instructional strategies and activities, technologies, and resources that enhance learning for all learners; planning for classroom management. Includes peer teaching. Required for elementary and secondary certification.


*Prerequisite: Sophomore Standing*

**EDC 250 Introduction to Learning Disabilities**

THM 4 cr UL

Characteristics of individuals with learning disabilities. Interventions and services including diagnosis, assessment, and specific remedial techniques. Correlating factors leading to identification. Implementation of evidence-based practices through lesson planning and hands-on experience. Ten hours of clinical experience.

*Prerequisite: EDC-151 or 152*

**EDC 255 Transition Mgmt in Special Education**
 4 cr UL

Preparation of exceptional students for transition to adulthood. Life skills and Social-Emotional Learning. Barriers and challenges which interfere with high school completion and transitioning to the post-secondary setting will be discussed. Ten hours of clinical experience.

*Prerequisite: EDC-151 or 152 or Sophomore Standing*

**EDC 256 Mild to Moderate Disabilities I**

4 cr UL

Characteristics of individuals with cognitive and behavioral challenges. Interventions and services including diagnosis, assessment, and specific remedial techniques. Correlating factors leading to identification. Implementation of evidence-based practices through lesson planning and hands-on experience.

**EDC 266 Emergent Literacy**

4 cr UL

Preparation for supporting emergent and beginning literacy development and curriculum design for diverse learners through appropriate learning environments, instructional techniques, assessments, resources and texts.

*Prerequisite: EDC-166*

**EDC 303 Secondary Ed Methods and Experience**

1 cr UL

Topics and issues in instructional planning, teaching, and assessment are explored in-depth and with particular emphasis on secondary education and specific subject areas. Students spend 30 hours in secondary classroom placements, working in their major(s) content areas, and will have specialized teaching methods support in those subjects with an emphasis on best practices. Required for secondary certification. Fall only. (Specific topics offered as EDC-303B, EDC-303E, EDC-303H, EDC-303MA, EDC-303MU, EDC-303PE, EDC-303S).

*Prerequisite: TEP Approval*

**EDC 303A Secondary Ed Methods: Add'l Endorsement**

1 cr UL

Topics in instructional planning, teaching, and assessment are explored in-depth for specific subject areas. Required for secondary certification in Teaching Minors or additional Teaching Majors.

*Prerequisite: TEP approval; completion of or concurrent enrollment in EDC-311*

**EDC 308 Diversity in Education**

THM

2 cr UL

Introduction to diversity and how it shapes teaching and learning. Preparation to work effectively with culturally and linguistically diverse populations in educational contexts. Includes instructional practices for teaching diverse learners. Attention to policy issues, language acquisition, standards, differentiation, accommodations, strategies, assessment, proficiency levels, resources, parent communication, and collaboration.

*Prerequisite: Sophomore Standing, declared Education major or minor*

**EDC 311 Topics Seminar A**

1 cr UL

Introduction to issues and topics in instructional planning, differentiation, and instructional strategies. Required for elementary and secondary certification, and EDS major and minor. Fall only.

*Prerequisite: TEP Approval or EDS Major or Minor; EDC-301, 361, and 363 concurrently for Elementary majors; EDC-303 concurrently for Secondary majors.*

**EDC 312 Topics Seminar B**

1 cr UL

Introduction to issues and topics in the historical context of schooling and current issues in education, assessment, and the professional roles of educators. Required for elementary and secondary certification, and EDS major and minor.

*Prerequisite: TEP Approval or EDS Major or Minor; EDC-302, 360, and 362 concurrently for Elementary majors.*

**EDC 314 Instructional & Assistive Technology**

2 cr UL

Understanding and implementing technology standards for educators and students to support communication, productivity, teaching and learning. Includes assistive technologies to enhance the learning of all students.

*Prerequisite: Sophomore Standing, declared Education major or minor*

**EDC 316 Educational Assessment**

2 cr UL

Developing, evaluating, and using ongoing, balanced, systematic formative and summative assessments of knowledge and dispositions. Includes ethical assessment practices and assessment literacy supports for learners and their families.

*Prerequisite: Sophomore Standing, declared Education major or minor*

**EDC 346 Teaching Reading in Middle & Senior High**

WI

4 cr UL

Survey of strategies for teaching, diagnosing and improving word recognition, comprehension and study skills. Survey of student language needs and program planning for reading instruction at the middle and senior high school levels. May include a service learning component. Required for secondary certification. Fall only.

*Prerequisite: TEP Approval*

**EDC 364 PK-6 Science Methods**

3 cr UL

Supports preservice PK-6 teachers learning to enact equitable and phenomena-based science instruction that is culturally relevant; responsive to student thinking; and engages students in disciplinary core ideas, science and engineering practices, and crosscutting concepts.

*Prerequisite: TEP Approval, ISC-301, must be taken concurrently with EDC-364C*

**EDC 364C PK-6 Science Teach Clinical Experience**

1 cr UL

Includes at least 30 hours of clinical experience, observation and direct work with students including planning, teaching, and assessment in PK-6 science. Pass/Fail only.

*Prerequisite: TEP Approval, must be taken concurrently with EDC-364*

**EDC 366 PK-6 Literacy Methods**

WI

3 cr UL

Examination of developmentally appropriate and research-based assessment and instruction for diverse literacy learners PK-6, including learning environment, curriculum, texts and resources, and development of specific literacy constructs.

*Prerequisite: TEP Approval, ENG-211 or EDC-266; EDC-366C must be taken concurrently.*

**EDC 366C Literacy Methods Clinical Experience**

1 cr UL

Classroom apprenticeship includes 30 hours with mentor teacher in classroom setting at certification level; observation and direct work with teacher and students including co-planning, teaching and assessing in literacy processes. Pass/Fail only.

*Prerequisite: TEP Approval, must be taken concurrently with EDC-366*

**EDC 367 PK-6 Social Studies Methods**

3 cr UL

Examination of developmentally appropriate methods for teaching PK-6 social studies emphasizing an inquiry approach integrating history, geography, political science, economics and civic engagement; emphasis on planning, teaching, assessment, classroom environment, and resources.

*Prerequisite: TEP Approval, HST-104 or HST-206, must be taken concurrently with EDC-367C*

**EDC 367C PK-6 Social Studies Methods Clinical Exp**

1 cr UL

At least 30 hours of clinical experience including observation and direct work with students including planning, teaching, and assessment in PK-6 social studies. Pass/Fail only.

*Prerequisite: TEP Approval, must be taken concurrently with EDC-367*

**EDC 368 PK-6 Mathematics Methods**

QR

3 cr UL

Pedagogical knowledge for teaching mathematics to diverse learners. Includes building relationships with children, caregivers, and communities to support mathematics learning, instructional planning, productive dispositions, and use of assessments.

*Prerequisite: TEP approval, MTH-204, MTH-205, MTH-206, must be taken concurrently with EDC-368C*

**EDC 368C PK-6 Mathematics Teaching Clinical Experience**1 cr **UL**

Includes at least 30 hours of clinical experience, observation and direct work with students including planning, teaching, and assessment in PK-6 mathematics. Pass/Fail only.

*Prerequisite: TEP Approval, must be taken concurrently with EDC-368*

**EDC 370 Instructional and Assistive Technology**2 cr **UL**

Builds on basic skills and knowledge demonstrated through successful completion of Technology Modules so that students are well prepared to use technology effectively and appropriately for multiple purposes in their teaching. Students learn to use technological tools, operations, and concepts to enhance learning and assessment, productivity, communication, and professional development. Students learn about the ethical, legal, physical, and psychological issues and principles of technology use in schools. Students utilize technology for curriculum planning and for instruction, including on-line learning experiences. Students learn to use assistive technologies to enhance the learning of all children in ways that best meet individual needs. Required for elementary and secondary certification.

*Prerequisite: TEP Approval or Educational Studies Major*

**EDC 373 Special Education for Classroom Teachers**3 cr **UL**

Introduction to the teaching of exceptional students. Review of historical and legal issues in special education. Characteristics of exceptional learners, birth through adolescence. Examination of materials and methodology appropriate for instructing exceptional learners in inclusive classrooms. Includes eight-hour practicum. Required for elementary and secondary certification (except Special Education major). Winter only.

*Prerequisite: TEP Approval*

**EDC 374 Inclusion and Co-Teaching**

THM

2 cr **UL**

Techniques to promote the full participation of a student with special needs in the general education classroom. Planning, collaboration, and co-teaching strategies that promote equity in access to learning.

*Prerequisite: TEP Approval or declared Education major or minor, EDC-151*

**EDC 375 Special Education Field II**1 cr **UL**

Evaluate IEP goals and objectives. Conduct assessment and plan/deliver instruction. Implemented appropriate teaching strategies. Modify instruction based on assessment data. Thirty hours of clinical experience. Pass/Fail only.

*Prerequisite: TEP Approval, EDC-205, EDC-250, EDC-255*

**EDC 376 Teaching Students W/ Learn. Disabilities**4 cr **UL**

Identification, assessment, and instructional planning for individuals with learning disabilities. Principles of instructional design, teaching methods and current practices of instructing students with learning disabilities.

*Prerequisite: TEP Approval, EDC-205, EDC-250, EDC-255*

**EDC 377 Special Education Clinical-EI**1 cr **UL**

Work with students identified with behavioral challenges and collaboratively plan interventions/services including diagnosis, assessment, and specific remedial techniques. Experience the IEP process including the creation of goals and objectives which frame a student's learning. Thirty hours of clinical experience. Pass/Fail only.

**EDC 378 Special Education Clinical-CI**1 cr **UL**

Work with students identified with cognitive challenges and collaboratively plan interventions/services including diagnosis, assessment, and specific remedial techniques. Experience the IEP process including the creation of goals and objectives which frame a student's learning. Thirty hours of clinical experience. Pass/Fail only.

**EDC 385 Education Practicum**1-4 cr **UL**

Practicum in the field of Education. Requires Instructor Permission.

**EDC 423 Mild to Moderate Disabilities II**4 cr **UL**

Identification, assessment, and instructional planning for individuals with cognitive and behavior challenges. Principles of instructional design, teaching methods and current practices of instructing students with cognitive and behavior challenges.

*Prerequisite: EDC-256*

**EDC 428 Mild to Moderate Disabilities Clinical IV**4 cr **UL**

Develop and demonstrate procedures for implementing an Individualized Education Program. Ensure learning for special education students in a pull-out setting and within the general education environment. Deliver one-to-one, small-group, and large-group lessons using evidence-based practices which foster academic, social-emotional, and behavioral success. 180 hours in the clinical setting, focusing 8 weeks in the area EI or CI.

*Prerequisite: EDC-423*

**EDC 430S Student Teaching Seminar - Secondary**3 cr **UL**

Reflection on student teaching and professional issues. Classroom inquiry and analysis; self-reflection and professional development plans; representation in portfolio, web and interviews; legal and ethical issues. Required for secondary certification.

Note: Students must be approved for student teaching and have completed all core education and teaching major/minor courses prior to beginning student teaching. See department for exceptions.

*Prerequisite: TEP Approval; ST Approval; Take EDC-490S and EDC-491S concurrently*

**EDC 445S Secondary Methods in Social Studies**4 cr **UL**

Survey of special teaching methods in student's major field of social studies. Required for secondary social studies certification.

*Prerequisite: TEP Approval*

**EDC 466 Learner-Centered Literacy Supports**4 cr **UL**

Theory and methods for targeted literacy interventions including motivation, engagement, and support for culturally and linguistically diverse learners and struggling literacy learners, with appropriate assessments, instruction, and remediation.

*Prerequisite: EDC-366 or declared Educational Studies major*

**EDC 470 Educational Studies Internship**5 cr **UL**

Application of educational concepts, skills, and theory, through participation in a work setting related to student's learning objectives and long-term goals. Supervision by faculty and sponsoring organization. Includes substantive reflection assignment.

*Prerequisite: Instructor Permission, Junior Standing, and internship application approval by the Education Department.*

**EDC 474 Secondary Science Methods**3 cr **UL**

Supports preservice 5-9 and 7-12th grade science teachers integrating pedagogy and content knowledge to plan, enact, and assess equitable and phenomena-based science instruction that is culturally relevant; responsive to student thinking; and engages students in disciplinary core ideas, science and engineering practices, and crosscutting concepts

*Prerequisite: BIO-121, PHY-112 or 121, CHM-115, TEP Approval, must be taken concurrently with EDC-474C*

**EDC 474C Secondary Science Methods: Clinical Experience**1 cr **UL**

Includes at least 30 hours of clinical experience, observation and direct work with students including planning, teaching, and assessment in grades 5-9 and 7-12 science. Pass/Fail only.

*Prerequisite: BIO-121, PHY-112 or 121, CHM-115, TEP Approval, must be taken concurrently with EDC-474*

**EDC 476 Secondary Language Arts Methods**3 cr **UL**

Pedagogical and content knowledge for teaching secondary language arts to diverse learners in grades 5 through 12. Includes topics and issues in instructional planning, teaching, and assessment.

Emphasizes the importance of building relationships with learners and their communities in ways that encourage teachers to help students see the vast uses and meanings of literacy and the importance of drawing on students' experiences and knowledge in reading and writing instruction and assessment.

*Prerequisite: ENG-220, TEP Approval, must be taken concurrently with EDC-476C*

**EDC 476C Secondary Language Arts Methods: Clinical Experience**1 cr **UL**

Includes a minimum of 30 hours of clinical experience, observation, and direct work with students including planning, teaching, and assessment in grades 5-12 language arts. Pass/Fail only.

*Prerequisite: TEP Approval, must be taken concurrently with EDC-476*

**EDC 477 Secondary Social Studies Methods**3 cr **UL**

Pedagogical and content knowledge for teaching social studies to diverse learners in grades 5 through 12. Includes examination of topics and issues related to instructional planning, teaching, and assessment. Emphasizes an interdisciplinary and inquiry-based approach to powerful and authentic social studies teaching and learning that draws on both foundational and methodological considerations.

*Prerequisite: GGR-200; HST-100, 104, or 105; ECN-111 or 112; POL-101 or 121, TEP Approval; must be taken concurrently with EDC-477C*

**EDC 477C Secondary Social Studies Methods: Clinical Experience**1 cr **UL**

Includes at least 30 hours of clinical experience, observation, and direct work with students including planning, teaching, and assessment in grades 5-12 social studies. Pass/Fail only.

*Prerequisite: GGR-200; HST-100, 104, or 105; ECN-111 or 112; POL-101 or 121, TEP Approval; must be taken concurrently with EDC-477*

**EDC 478 Secondary Mathematics Methods**3 cr **UL**

Pedagogical and content knowledge for teaching mathematics to diverse learners in grades 5 through 12. Includes building relationships with learners, families, caregivers, and communities to support mathematics thinking and reasoning. A focus on instructional planning, productive dispositions, and use of assessments.

*Prerequisite: MTH-121, TEP Approval, must be taken concurrently with EDC-478C*

**EDC 478C Secondary Math Methods: Clinical Experience**1 cr **UL**

Includes at least 30 hours of clinical experience, observation and direct work with students including planning, teaching, and assessment in grades 5-12 mathematics. Pass/Fail only.

*Prerequisite: TEP Approval, must be taken concurrently with EDC-478*

**EDC 480 Topics in Education**2-4 cr **UL**

Survey of a selected topic chosen for study. May be taken more than once for credit.

*Prerequisite: Instructor Permission*

**EDC 490S Directed Teaching - Secondary**5 cr **UL**

Teaching under the direction of a cooperating teacher in the public schools. Applications must be filed by November 15 of the academic year prior to directed teaching. Required for secondary certification.

*Prerequisite: TEP and ST Approval*

**EDC 491S Directed Teaching - Secondary**5 cr **UL**

Teaching under the direction of a cooperating teacher in the public schools. Applications must be filed by November 15 of the academic year prior to directed teaching. Required for secondary certification.

*Prerequisite: TEP and ST Approval*

**EDC 500 Senior Thesis**2-4 cr **UL**

Required for departmental honors.

*Prerequisite: Instructor Permission*

**EDC 501 Teaching Internship 1: General Education**5 cr **UL**

With the supervision and support of mentor teachers and clinical instructors, teacher candidates plan and enact authentic teaching experiences, assess student work, use data to plan subsequent lessons, and perform all duties appropriate for a teacher intern in a classroom setting appropriate to a certification level. Leads to full class responsibility. Pass/Fail only.

*Prerequisite: ST approval, all required certification courses, must be taken concurrently with EDC-503*

**EDC 502 Teaching Internship 2: General Education**5 cr **UL**

Continuation of Teaching Internship 1. With the supervision and support of mentor teachers and clinical instructors, teacher candidates plan and enact authentic teaching experiences, assess student work, use data to plan subsequent lessons, and perform all duties appropriate for a teacher intern. Includes a successful period of full class responsibility. Pass/Fail only.

*Prerequisite: EDC-501, must be taken concurrently with EDC-503*

**EDC 503 Teaching Internship Seminar**4 cr **UL**

Application and reflection of core teaching practices, education theories, and professional expectations to support professional growth.

*Prerequisite: ST approval, must be taken concurrently with EDC-501 and EDC-502*

**EDC 504 Special Education Internship Seminar**4 cr **UL**

Assessment and strategic planning for students with learning difficulties. Design and prepare to implement models of collaboration that will enhance the participation of special education students within the general education environment. Current topics in special education.

*Prerequisite: ST approval, all required special education certification courses, must be taken concurrently with EDC-505 and EDC-506*



### EDC 505 Special Education Internship I

5 cr UL

Develop and demonstrate procedures for implementing an Individualized Education Program. Ensure learning for special education students in a pull-out setting and within the general education environment. Six weeks in the clinical setting with a mentor special education teacher. Concurrent to EDC-504. Pass/Fail only.  
*Prerequisite: ST approval, all required special education certification courses, must be taken concurrently with EDC-504*

### EDC 506 Special Education Internship II

5 cr UL

Deliver one-to-one, small-group, and large-group lessons using evidence-based practices which foster academic, social-emotional, and behavioral success. Six weeks in the clinical setting with a mentor special education teacher. Concurrent to EDC-504 Pass/Fail only.  
*Prerequisite: EDC-505, must be taken concurrently with EDC-504*

### EDC 507 Leadership in Special Education

4 cr UL

Analyze legal and ethical practices in special education. Focus on collaboration to promote community and enhance the participation of students with disabilities in the general education setting.  
*Prerequisite: EDC-423; taken concurrent to EDC-508*

### EDC 508 Mild to Moderate Disabilities Internship

10 cr UL

Develop and demonstrate procedures for implementing an Individualized Education Program. Ensure learning for special education students in a pull-out setting and within the general education environment. Deliver one-to-one, small-group, and large-group lessons using evidence-based practices which foster academic, social-emotional, and behavioral success. 14 weeks in the clinical setting, focusing 8 weeks in the area of SLD and the final 6 weeks in the area EI or CI (opposite area from Mild to Moderate Clinical IV) with a mentor special education teacher.  
*Prerequisite: EDC423; taken concurrent to EDC-507*

5. EGR-250, 255, 350, 450, and 460
6. Four credits of elective EGR credits completed at the 400 level.

### Engineering Science

Sixty-five total credits, to include thirty-two credits beyond the engineering core, forming an intentional concentration on some area of applied science (such as Environmental or Biomedical Engineering) that must be approved by the department. These must include:

1. MTH-210 and 211
2. PHY-212 or EGR-250
3. Eight credits of PHY courses at the 300-level or higher (some require PHY-221)
4. Twelve credits of additional upper-level courses in EGR, CSC, or natural science disciplines other than PHY or MTH.

### Program Considerations:

Students in dual-degree engineering programs may need to complete ECN-111 or 112: check the detailed requirements for individual programs. MTH-310 is highly recommended. Due to the restrictions on double counting of credits, double majors between engineering and PHY, CSC, or MTH are usually impractical; minors in those fields may be possible but challenging.

### Departmental Honors in Engineering:

Completion of all requirements for the major, at least a 3.5 GPA in the major, and completion of a paper and oral presentation of honors quality (whose topic could be based on the capstone project (EGR-430)).

### Note on ABET accreditation:

The Computer Engineering major has been designed to meet the expectations for ABET accreditation but does not currently have that designation. The Engineering Science major is not designed to meet ABET accreditation standards. Students who intend to continue their careers as professional engineers, who plan to take the Fundamentals of Engineering Examination, or who plan to continue their education with an MSc or MSE may require additional work and/or professional experience to qualify.

### EGR 130 Digital Fabrication

NS2 4 cr

Students will learn to design 3D structures using computer-aided software (e.g., Autocad) and fabricate them using diverse manufacturing processes like additive manufacturing (3D printing), laser cutting, and CNC machining. This is a hands-on class with lab, open to students who would like to design and fabricate their own game pieces, art components, experimental equipment, to reproduce archeological artifacts or biological structures, or other possibilities. Laboratory.

### EGR 140 Machine Shop

NS2 2 cr

Introduction to machine shop tools, techniques, and safety. Student projects may include experimental apparatus, artistic work, or other items of interest. Offered every winter. Course fee.

### EGR 250 Electric Circuits

NS2 4 cr UL

Study of theory and applications of analog electronics. Includes DC and AC circuit theory, basic network analysis, filter responses, semiconductor devices, power supplies, amplifiers, and introduction to microcontrollers. Laboratory.

*Prerequisite: PHY-122*

## Engineering Science (EGR)

The engineering programs at Alma College share a common core, and students must choose a specific major that builds on that foundation, as detailed below.

### Engineering Core (range of 33 to 36 credits)

1. EGR-130 and 330
2. MTH-121 and 122
3. PHY-121 and 122
4. CSC-115
5. EGR-385 (3 to 4 credits): At least 200 hours of service learning, research, or internship in engineering or a related area. (Engineering Science majors may take the course from 1 to 4 credits)
6. EGR-430: Capstone Project

### Computer Engineering

Ninety-one total credits, to include fifty-six credits beyond the engineering core to include:

1. MTH-120, 310, 336, and 341
2. CHM-115
3. CSC-121, 230, 240, and 310
4. EGR-250, 350, 450, and 460

### Electrical Engineering

Eighty-seven total credits, to include fifty-two credits beyond the engineering core to include:

1. MTH-210, 211, and 341
2. PHY-321 and 431
3. CHM-115
4. CSC-121

### EGR 255 Electric Circuits II

4 cr UL

Continuation of EGR-250 with emphasis on alternating current (AC) circuits. Students will analyze circuits using concepts including phasors, sinusoidal steady-state analysis, AC power, RMS values, three-phase systems, and frequency response. Laboratory. Course fee.

*Prerequisite:* EGR-250

### EGR 330 Engineering Workshop

NS2

4 cr UL

Students will develop an understanding of the relationship between engineering, science, and culture. They will work on cross-disciplinary projects, creating interactive physical objects by combining mechanical, electronic, and computing systems. In the process, they will use the models and knowledge acquired from their major to understand our relationship with technology and society. Laboratory.

*Prerequisite:* EGR-130 and either PHY-212 or EGR-250

### EGR 350 Solid State Devices

4 cr UL

Students will investigate semiconductor devices and fabrication. They will study electrical transport in semiconductors and electron-hole pair recombination, and they will apply these concepts to the theory and operation of diodes and transistors (both field-effect and bipolar junction types). Laboratory.

*Prerequisite:* EGR-250, MTH-122; also, PHY-221 recommended

### EGR 385 Internship/Service Learning

NS2

1-4 cr UL

Service learning, research, or internship in engineering or related area. A capstone project cannot count towards this course.

*Prerequisite:* EGR-130 and either PHY-212 or EGR-250

### EGR 430 Engineering Capstone

NS2 WI

4 cr UL

Students will plan and develop a capstone project that applies their specialized skills in engineering and science to a complex problem. The project will demonstrate expertise in engineering practices and fundamentals.

*Prerequisite:* EGR-330

### EGR 450 Embedded Systems

4 cr UL

Students will develop low-power systems with hardware, software, sensors, actuators, and controllers. Students may explore applications in robotics, medical devices, automotive industry, instrumentation, and communications, among others. Laboratory. Course fee.

*Prerequisite:* EGR-350

### EGR 460 Systems and Signals

4 cr UL

Students will learn the foundations of Laplace transforms, Fourier series, and Fourier transforms, including the implications of poles and zeros, convolution, impulse and step responses, and frequency responses. They will apply these tools to electric signal analysis and the analysis of continuous and discrete systems. Students will explore applications from engineering and physics, including feedback and control, communications, and signal processing.

*Prerequisite:* EGR-350

3. 4 credits of creative writing workshop selected from the following courses: ENG-190, 290, 291, 292, 293, 294, or 296.
4. 20 credits of electives, which must include:
  - 12 credits of literature courses, 8 of which must be at the 300-level.
  - 4 credits emphasizing multicultural / transnational perspectives selected from an English course at the 240-level or an English course at the 340-level.
  - 4 credits emphasizing historical/ intertextual perspectives selected from an English course numbered at the 250-level, an English course at the 260-level, 353, 354, or 360.

#### Major Considerations:

1. Students may count up to 8 credits of Explore and Theme English classes toward the major.
2. Up to 4 credits of ENG-385 / 386 can count toward the major.
3. Independent studies and senior theses are supplements and extensions of the major and therefore are not counted as electives.

#### English Minor Requirements

Twenty-four credits, which must include:

1. One course selected from: ENG-190, 201, 220, 225, 270, 290, 291, 292, 293, 294, 296, or 320.
2. Two courses selected from ENG-240 through ENG-269.
3. Two 300-level English literature courses.
4. One additional English literature course numbered ENG-120 or above.

**Note:** ENG-100, 101 and 110 do not count in the English major or minor. An independent study course may not count toward the English major or minor unless it is approved as a substitute by the English Department.

#### English Language Arts (5-12) Teaching Major

Forty-credits, which must include:

1. 16-credits of ENG-190, 220, 320, and 420
2. Four credits of digital/multimodal composition selected from ENG-202 or 270
3. 16 credits of electives, which must include:
  - a. 8 credits of literature at the 300-level
  - b. 4 credits emphasizing multicultural / transnational perspectives selected from ENG-240 or 241
  - c. One course emphasizing historical / intertextual perspectives selected from ENG-250, 251, 260, and 261
4. EDC-476 and EDC-476C

#### Middle Grades (5-9) English Teaching Minor

Twenty-four credits, which must include:

1. ENG-190 and ENG-220;
2. 4 credits emphasizing multicultural / transnational perspectives selected from ENG-240 or 241
3. 4 credits of digital/multimodal composition selected from ENG-202 or 270
4. 4 credits of elective in literature
5. EDC-476 and EDC-476C

#### Writing Minor Requirements

Twenty-four credits from any of the following:

1. ENG-190, 201, 202, 203, 204, 210, 220, 270, 290, 291, 292, 293, 294, 295, 296, 370, 390, 391, 393, and 490.
2. One 4 credit writing-intensive internship experience, ENG-385, can be included in the 24-credits with prior departmental approval.
3. Minors are encouraged to explore one of the following optional writing tracks:
  - Business and Professional Writing: ENG-202, 203, 204, 270, 295, or 385

## English (ENG)

#### English Major Requirements

Forty credits, which must include:

1. 12 credits of ENG-220, 320, and 420.
2. 4 credits of digital/multimodal composition selected from ENG-202, 270, 294 or approved NMS courses, including NMS-101, 114, 130, and 310.

- Creative Writing: ENG-290, 291, 292, 293, 294, 390, 391, or 393
- Journalism and Media: ENG-201, 202, 203, 204, 270, 370, or 385
- Teaching Writing: ENG-201, 202, 203, 210, 290, or 291

**Note:** Writing minors on defined tracts may petition the department to include approved courses in COM, NMS, or BUS for one of their required writing courses. A current list of approved substitutes is maintained by the department.

### Program Considerations

- Prospective majors should plan to take ENG-120 in the first year, ENG-220 in the sophomore year, ENG-320 in the junior year, and English 420 in the senior year. Note: One foreign language course at or above the 112 level is required for the English major.
- ENG-100, 101 and 110 do not count toward the English major or minor.
- Students considering graduate school are urged to complete more than the required number of 300-level literature classes as well as ENG-500 Senior Thesis. Students interested in pursuing a Ph.D. in literature are strongly recommended to take additional modern language courses.
- English majors may also elect a writing minor. Up to eight credits may count toward both the major and minor requirements

**Prerequisites for advanced studies in literature (ENG-340 through 368) are ENG-220, 240, 241, 250, 251, 260 or 261.**

### ENG 100 Reading for Meaning

4 cr

Learn and implement strategies for reading and meaning-making in a variety of written texts and genres. Explore the different ways of knowing that students will encounter in the Alma College curriculum through readings, discussions, and short writing assignments. Emphasize the connections between reading, writing, and critical thinking. *(First year status or Instructor Permission, offered only in fall, not to be taken concurrently with ENG-101)*

### ENG 101 Writing with Purpose

4 cr

Develop rhetorical awareness and college-level writing skills, including critical use of sources. Carefully consider diverse viewpoints and skillfully articulate one's own ideas in conversation with others. Explore purposes for writing and refine the writing process. Read and compose evidence-based arguments on civic and academic issues that matter.

### ENG 108 Introduction to College Reading

2 cr

Provides a brief introduction to different types of texts that students can expect to encounter in college coursework. Readings include academic, popular, and creative writings. Students respond to readings in writing and through class discussion while developing college-level reading strategies.

### ENG 110 Studies in Literature

AH 4 cr

Thematic approach to understanding, analyzing and appreciating literature. Courses may focus on particular genres, like poetry or the short story, or focus on themes like gothic writers, environmental literature, or the Holocaust. This course is designed to be introductory and is open to students with a wide range of backgrounds and experiences with literary studies. Course does not count toward the English major.

### ENG 120 Literary Analysis

AH 4 cr

Preparation for advanced study of literature and language, including vocabulary, critical approaches, and writing strategies employed in literary analysis. This course is required for a major or minor in English, but is open to all students with a solid foundation in reading and writing.

### ENG 121 Tricksters and Troublemakers

AH EXP4 4 cr

In literature and myth, tricksters are powerful figures; they break rules and create them, crossing lines between sacred and profane, creation and destruction, human and animal, and male and female. At the edges of human cultures, trickster is always there. But because of the ways they break rules, tricksters-and other types of troublemakers-also help us understand culturally specific forms of social power, subversion, and resistance. Through explorations of tricksters and troublemakers in the Western, African American, and Native American literary traditions, this class explores questions about the revolutionary power of words and the subversive power of laughter.

### ENG 122 Bad Babes, Mad Men: Gender & Lit

AH EXP4 4 cr

Critical thinking, reading, and writing through an examination of literary texts and sociocultural constructions of gender. Examines a range of short literary pieces to discuss how power and gender intersect (with age, race, class, ethnicity, ability, age, sexual orientation and more) to shape authorship, representation, and reception in literary studies.

### ENG 131 Tall Tales, Short Stories

AH EXP1 4 cr

This class explores the art and craft of the short story using a blend of analytical and creative approaches to understanding the nature of narrative. Through reading a diverse range of genres, from folk tales to metafiction, from realism to speculative fiction, we will explore how writers construct narratives and how those choices shape interpretation. Through a range of creative exercises, we will explore what it means to imagine and write our own fictional worlds.

### ENG 132 Disturbing Worlds: The Art of Drama

AH EXP1 4 cr

This course promotes an appreciation of the literature produced for the stage. It pays particular attention to the ways that drama simultaneously reflects and reshapes the traditions it inherits and the concerns of its own time. Students will read plays from a wide range of periods and cultures and will attend multiple live performances. Finally, working in small groups, students will write and stage a brief drama that embodies their own reflections on current events.

### ENG 133 Fairy Tales

AH EXP1 4 cr

Explore the art-making of fairy tales from diverse cultures in thematic "threads" starting from the 14th-century, applying both analytical and creative approaches. Analyze not only the narrative crafting of the tales, but also the authorial and socio-cultural factors that influence designs and messages. Connect analyzing with story creating exercises to see how imagination can break or work with literary conventions and social doctrines

### ENG 180 Studies in Literature and Language

AH 2-4 cr  
Studies in Literature and Language

### ENG 181 Diversity Studies in Literature

😊 AH 4 cr

Studies of literature beyond the American and British canon: Asian American literature, Black women writers, Eastern European and non-Western world literature, and postcolonial writers. Students may register for more than one course under this number.

**ENG 182 Off-Campus: American Experience: Literary and Cultural Voices**

AH 4 cr

Special emphasis on travel to develop historical and cultural awareness as it adds to the richness of the American literary experience such as writers of the Southwest in Taos, New Mexico, New England writers in Martha's Vineyard and Key West writers in Florida. Genres, periods and authors vary.

**ENG 190 Creative Writing**

AH EXP1 4 cr

Introduce the creative writing process through an exploration of multiple genres. Foster creative experimentation, radical wordplay, observation, reflection, and an understanding of the conventions and creative possibilities of different genres, including poetry, fiction, and creative non-fiction. No prior creative writing experience is required.

**ENG 201 Advanced Rhetoric**

AH 4 cr UL

Exploration of how ancient rhetorical principles (such as invention, arrangement, and style) can help us to understand and to craft effective arguments. Emphasis on the development of rhetorical awareness and research-based writing.

**ENG 202 Digital Rhetoric**

AH THM 4 cr UL

Explore how digital writing and online media impact contemporary life. Develop an understanding of rhetorical choices in digital texts and the traditional and emerging conventions and communities that shape those choices. Compose in varied digital contexts and examine scholarly approaches for thinking critically about online and digital media.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 203 Professional and Technical Writing**

AH 4 cr UL

Introduction to the rhetorical and production practices central to various professional writing contexts. These include corporate, educational, and technical settings. This course is open to students from any major interested in a practical understanding of writing in professional and technical environments.

*Prerequisite: ENG-101, 201, 202, or 220*

**ENG 204 Design and Visual Rhetoric**

AH 4 cr UL

Exploration of rhetoric of design in composing written texts for various professional and creative contexts. This course focuses on the role visual elements play in reading and interpretation and is designed for students interested in graphic design or New Media Studies who would like to deepen their writing abilities, as well as for writers who are interested in developing practical skills in writing in ways that make intentional, rhetorically informed use of visual and design elements as tools of persuasion.

*Prerequisite: ENG-101, 201, 202, or 220*

**ENG 210 Teaching Writing**

AH 4 cr UL

Overview of the major theories and critical scholarship in the teaching of composition - as well as practical experience in designing assignments, rhetorical analysis, revision processes, and giving and receiving feedback on college-level writing.

*Prerequisite: ENG-101, 201, 202, or 220*

**ENG 220 Foundations of Literary Argument**

AH WI 4 cr UL

Develop the reading, writing, discussion, and research skills foundational to the advanced study of literature. Cultivate the critical and creative modes of thinking used in analyzing literary, cultural, historical, and critical source material and in writing literary arguments. Engage in a recursive writing process that includes prewriting, planning, drafting, revising, giving and receiving feedback, editing, and sharing writing with others. Develop information literacy skills in composing a research-based argument that requires increasingly independent levels of textual research.

*Prerequisites: ENG-101 (or writing competency) and one literature course*

**ENG 225 General Linguistics**

AH 4 cr UL

Understanding the function and structure of language through analysis of its subdivisions: phonetics and phonology, morphology, syntax, semantics and pragmatics, language usage, dialect and historical development.

*Prerequisite: ENG-101, 201, or 202 and Sophomore Standing*

**ENG 230 Shakespeare on Film**

AH 4 cr UL

Study of Shakespeare's plays from the perspective of text and film. Emphasis on understanding selected plays, comparing different interpretations, and comprehending different cinematic styles.

*Prerequisite: ENG-101, 120, 201 or 202*

**ENG 240 Children in World Literature**

AH 4 cr UL

Analyze a range of world literature written for children and young-adult audiences. Engage critically with diverse texts, genres, and canons to become empowered to understand and develop an appreciation of patterns of embedded cultural assumptions and power structures implicit in children's literature.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 241 Themes in World Literature**

AH THM GCA 4 cr UL

A study of Literature from a global perspective. The course will study universal themes such as "family," "love," and "identity" using classics of world literature from Homer to Ngugi Wa Thiong'o (in English translation where necessary.)

*Prerequisite: ENG-101, 120, 201 or 202*

**ENG 242 Environment Literature**

THM 4 cr

Students will study the human relationship to nature through literature in various genres, including natural history, fiction, film, memoir, and poetry. The course will emphasize examination of historical and current causes of environmental degradation and various forms of environmental advocacy. Students can expect to deeply explore and articulate, through ecocritical lenses, the connections among creative expression, human consciousness, and the nonhuman world.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 250 Survey of British Literature I**

AH 4 cr UL

Exploring British literature from its beginning to the end of the 18<sup>th</sup> century, from Medieval period through the Neo-Classical period.

*Prerequisite: ENG-101, 120, 201 or 202*

**ENG 251 Envisioning Nature**

 AH THM 4 cr UL

Explore British literature from the Romantic era to the present, focusing on how themes of "Nature" help shape human visions of self and society as presented in literary works. Against the backgrounds of political and technological revolutions, we examine how "Nature" functions as landscapes—realistic or fantasized—for expressing aesthetic pursuits, moral or emotional crises, spiritualized longings, and defiance toward social limits.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 260 American Legacies**

AH THM 4 cr UL

Examine the representations of the individual and natural rights from their early roots to their contemporary expression. Investigate how these ideas shaped American literature and intersected with the legacies of colonization and enslavement—and the movements that rose in resistance to both. Explore how literature has functioned as a space for erasing or establishing peoplehood, identity, and rights, as well as its role in the history of protest, revolution, and social reform.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 261 Modern American Beauties**

AH 4 cr UL

Explore how a diverse range of 20th and 21st century American writers have explored and even challenged the boundaries of literary genres. Investigate the concept of beauty in art and culture. Practice memorization and recitation of a modern poem that speaks to students' own intellectual and emotional understanding of beauty.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 270 Writing for the Media**

AH WI 4 cr UL

Gain practical writing experience developing the journalistic skills required for different mass media forms. Apply those journalistic skills in a digital environment including, but not limited to, social media and online news writing.

*Prerequisite: ENG-101 or writing proficiency*

**ENG 290 Poetry Workshop I**

AH 4 cr UL

Exploration of poetic form and language through writing and workshoping student work, as well as through critiquing the work of published poets. This course focuses on cultivating an inventive, playful relationship to language as well as foundational habits necessary for the creation of art.

**ENG 291 Fiction Workshop I**

AH EXP1 4 cr UL

Exploration of the craft of writing short fiction through writing and workshoping student work, as well as through critiquing the work of published authors. This course focuses on providing a foundational understanding of narrative forms and styles, as well as introducing students to the habits of art necessary for sustained creative writing.

**ENG 292 Playwriting**

AH 4 cr UL

Exploration of the craft of writing short plays through writing and workshoping student work, as well as through critiquing the work of published authors. This class is designed for writers with experience with theatre, or for theatre students with an interest in writing for the stage.

**ENG 293 Creative Nonfiction**

AH 4 cr UL

Exploration of the craft of writing creative nonfiction, including personal essay, memoir, and the meditative essay. Through writing and workshoping of student and professional work, this class introduces students to the observational, reflective, and aesthetic skills necessary to practicing the habit of art.

**ENG 294 Screenwriting I**

AH 4 cr UL

Exploration of the craft of writing screenplays for film. Through writing and workshoping student and professional work, students will explore techniques for developing characters and scenes, as well as crafting stories that will translate well to the screen.

**ENG 295 Grant Writing**

AH 4 cr UL

Introduction to grant writing as a genre of professional writing. This course explores grant writing from both a theoretical and a practical perspective, including the philosophy of philanthropy, the process of identifying needs, developing grant proposals, and identifying funding sources.

**ENG 296 Cross Genre Workshop**

 AH 4 cr UL

Exploration of the craft of writing creative works that cross traditional genre boundaries, including prose poems, new media essays, and other forms of radical hybridity. Through writing and workshoping of student and professional work, this class introduces students to the observational, reflective, and aesthetic skills necessary to practicing the habit of art.

**ENG 320 Critical Theory**

 AH 4 cr UL

Explore, understand, and apply literary theories to analyze and evaluate different types of texts. Investigate the different questions theories ask, the patterns and themes they reveal, and how critical thinkers use theories to deepen their understanding of literature and culture. Develop the skills to enter into critical conversations with scholars and engage with literary scholarship.

*Prerequisite: ENG-220*

**ENG 340 Women's Literature**

 AH 4 cr UL

Studies in the literature of women from its beginnings in Julian of Norwich through Bradstreet and Woolf to the present. Includes historically and internationally diverse authors in a variety of genres.

*Prerequisite: One course in literature*

**ENG 341 African American Literature**

 AH THM 4 cr UL

Study of African American Literature as a distinct tradition beginning with the experience of enslavement and influenced by African and African American oral cultural heritage.

*Prerequisite: One course in literature*

**ENG 342 Voices of Native Nations**

 AH THM GCA 4 cr UL

Explore a diverse range of writers whose roots are in the indigenous peoples of the northern hemisphere of the Americas—the U.S., Canada, and Mexico. Investigate how contemporary writers draw on oral traditions to challenge literary genres. Investigate themes that include cultural fragmentation and collective trauma; the power of language and story as agents of healing; and the intersection between place and identity, especially as it is challenged by environmental catastrophe and legalized land seizure.

*Prerequisite: One course in literature*

**ENG 351 Chaucer**

AH 4 cr UL

Study of Chaucer's major works, including the Canterbury Tales and Troilus and Criseyde, and/or selected works of Chaucer's contemporaries.

*Prerequisite: One course in literature*

**ENG 353 The English Renaissance**

 AH 4 cr **UL**

Selected study of English Renaissance texts ranging from More's Utopia to Milton's Paradise Lost. Includes works by authors such as Marlowe, Spenser, Donne, Herbert, Jonson and Marvell.

*Prerequisite: One course in literature*

**ENG 354 Shakespeare**

 AH 4 cr **UL**

Study of Shakespeare's plays offering a representative survey of the major histories, comedies and tragedies.

*Prerequisite: One course in literature*

**ENG 355 British Romantics and Victorians**

 AH 4 cr **UL**

Study of the major 19th-century British writers from Blake to Hopkins. Includes such authors as Wordsworth, Coleridge, Keats and the Brownings, and such essayists as Wollstonecraft, Hazlitt, Carlyle and Pater.

*Prerequisite: One course in literature*

**ENG 356 Modern British and Irish Literature**

 AH 4 cr **UL**

Study of major British and Irish authors since 1900, including Yeats, Joyce, Eliot, Woolf and Beckett.

*Prerequisite: One course in literature*

**ENG 360 Transatlantic 18th Century Literature**

 AH 4 cr **UL**

Study of the literature of "the long Eighteenth Century" from a transatlantic perspective. This course examines the emergence of the novel, as well as the impact of the slave trade and of the Enlightenment on the literature of Britain, the Americas and the Caribbean. Authors include Equiano, Wheatley, Behn, Swift, Defoe, Burney, Godwin, Brown and Foster.

*Prerequisite: One course in literature*

**ENG 361 Modern American Writers to 1865**

 AH 4 cr **UL**

Examines in depth selected writers from the Revolution to the Civil War, with a special focus on the struggle to define an "American" literature. Includes such authors as Brown, Irving, Poe, Douglass, Jacobs, Dickinson, Melville, Hawthorne, Whitman and Stowe.

*Prerequisite: One course in literature*


**ENG 364 Studies in Drama**

AH 4 cr **UL**

Studies of issues and developments in English language drama from the Restoration to the present. Individual sections might be organized by themes, by period (i.e., Restoration or 20th-century drama), or by focusing on multiple works by playwrights such as Dryden, Behn, Farquhar, Shaw, O'Neill, Williams, Albee, Churchill, or Fugard.

*Prerequisite: One course in literature*

**ENG 365 Studies in the Novel**

 AH 4 cr **UL**

Studies of issues and developments in English language novel. Individual sections might be organized by themes, by periods, or by focusing on multiple works by authors as diverse as Defoe and DeLillo, Richardson and Rushdie, or Melville and Morrison.

*Prerequisite: One courses in literature*

**ENG 366 Modern American Literature**

AH 4 cr **UL**

Studies of American literature from post-WWII to the present.

*Prerequisite: One course in literature*

**ENG 370 Studies in Journalism**

AH 4 cr **UL**

Advanced study of topics in journalism and writing for the media that might include a focus on particular genres like magazine article writing, literary journalism, environmental journalism, digital journalism, or investigative reporting.

*Prerequisite: ENG-270 or Instructor Permission*

**ENG 380 Studies in Literature and Language**

AH 1-4 cr **UL**

The study of various topics such as Holocaust literature, the dramas of AIDS, contemporary Scottish literature and travel literature. Students may register for more than one course under this number.

*Prerequisite: One course in literature*

**ENG 381 Diversity Studies in Literature**

 AH 4 cr **UL**

Studies of literature beyond the American and British canon: Asian American literature, Black women writers, Eastern European and non-Western world literature, and postcolonial writers. Students may register for more than one course under this number.

*Prerequisite: One course in literature*

**ENG 382 Off Campus Studies: American Experience- Literary and Cultural Voices**

AH 4 cr **UL**

Special emphasis on travel to develop historical and cultural awareness as it adds to the richness of the American literary experience such as writers of the Southwest in Taos, New Mexico, New England writers in Martha's Vineyard and Key West writers in Florida. Genres, periods and authors vary.

*Prerequisite: One course in literature*

**ENG 383 Off-Campus: British Lit and Culture**

AH 4 cr **UL**

Special emphasis on travel to develop historical and cultural awareness as it adds to the richness of the British literary experience such as Shakespeare and Company in London and Medieval Literature in England. Genres, periods and authors vary.

*Prerequisite: One course in literature*

**ENG 385 English Practicum**

2-8 cr **UL**

Application of concepts in language and writing through participation in journalistic, public relations and other work settings. Supervision by faculty and sponsoring organization. Includes interpretive journal and summarizing paper.

*Prerequisite: Instructor Permission*

**ENG 390 Poetry Workshop II**

AH 4 cr **UL**

Advanced workshop in the art and craft of writing poems. In-depth critiquing of student and professional writing.

*Prerequisite: ENG-290*

**ENG 391 Fiction Workshop II**

AH 4 cr **UL**

Advanced workshop in the art and craft of writing fiction. In-depth critiquing of student and professional writing. Creating a chapbook of fiction and giving a public reading.

*Prerequisite: ENG-190, 291 and Instructor Permission*

**ENG 392 Playwriting Workshop II**

AH 4 cr **UL**

Advanced workshop in the art and craft of playwriting. In-depth critiquing of student and professional writing.

*Prerequisite: ENG-292*


### ENG 393 Creative Nonfiction II

AH 4 cr **UL**  
Advanced workshop in writing creative nonfiction and practicing the habit of art. In-depth critiquing of student and professional writing.  
*Prerequisite: ENG-293*

### ENG 394 Screenwriting II

AH 4 cr **UL**  
Advanced workshop on the craft of writing film screenplays. In-depth critiquing of student and professional writing.  
*Prerequisite: ENG-294*

### ENG 420 Senior Seminar

 AH 4 cr **UL**  
Demonstrate expertise developed through previous English courses through a sustained investigation of a specialized topic. Topics will vary each term. Reflect on the skills and experiences developed in the major and prepare to translate those academic skills to post-graduate plans. Develop a reflective portfolio, capstone project, and presentation.  
*Prerequisite: ENG-320 and Senior Standing*

### ENG 490 Independent Writing Project

AH 2-4 cr **UL**  
Independent work on a sustained, advanced writing project that is a culminating experience of the writing minor. An emphasis on writing for publication or performance (screenplay or play) is encouraged.  
*Prerequisite: ENG-370, 390, 391, 392, 393, or 394*

### ENG 500 Senior Thesis

 AH 1-4 cr **UL**  
Requires Instructor Permission.

## Environmental Studies (ENV)

### Environmental Studies Major Requirements

Thirty-six credits, which include a 20-credit core and 16-credits of electives.

1. CORE: 20 credits from: ENV-105, 205, 291, 310, 480 and ECN-350.
2. ELECTIVES: 16 credits from: POL-141, 219, 225, 226/227; PHL-225 or REL-225; COM-253; NMS-253; ENV-280, 370, 380M.

### Other Considerations:

- Students are expected to complete an internship, research experience, or independent study appropriate for the student's academic and career goals.
- Recommended courses include: ECN-111 or 112; MTH-116 or 118

### Environmental Science Major Requirements

Fifty-six credits, which must include a 32-credit core and 24 credits of electives.

1. CORE (32 Credits): ENV-105, 205, 210, 291, 310, 370, 480; BIO-121; CHM-115
2. ELECTIVES (24 Credits): 4 credits from: ENV-360; BIO-319. 8-credits from: POL-141, 219, 225; PHL-225 or REL-225; NMS-253; ECN-350; COM-253. 12 upper-level science or mathematics courses formulated with aid from ENV faculty and students.

### Other Considerations:

- Students are expected to complete an internship, research experience, or independent study appropriate for the student's academic and career goals.
- Recommended courses may include PHY-112 or 121; MTH-116 or 118, 121
- Environmental Studies students are recommended to conduct research or take a Spring Term experience abroad

that utilizes our relationships with various institutions. MTH-116 (Statistics) and/or MTH-121 (Calculus) are strongly advised; MTH-121 is required for most graduate work.

### Minor Requirements

Twenty-four credits, which must include:

1. CORE (16 credits): ENV-105, 205, 291, 310, 480
2. ELECTIVES (8 credits) from the following: ENV-280; POL-141, 225, 219; PHL-225; COM-253; NMS-253; ECN-350; ENV-180

### ENV 105 Our Environment

NS1 EXP3 4cr  
Examination of humans and their relationship to the natural environment. Explores current status of environmental problems, controversies and solutions. Laboratory. Course fee.

### ENV 110 Environmental Geology

NS2 4 cr  
Investigation into the causes of geologic hazards such as earthquakes, mass movement, volcanoes and desertification. Includes investigation into geologic processes involved in the formation of energy and material resources, their origin, uniqueness and the impact of their use on the environment. Topics center on the interrelationships among all physical Earth processes. Laboratory.

### ENV 205 Environmental Health


THM 4 cr **UL**  
Exploration of the relationship between the environment and human health. Topics include exposure to pollution, environmental disasters, injuries, and occupational health. The following concepts will be explored: environmental justice, toxicology, public health, and risk assessment.

*Prerequisite: Sophomore Standing*

### ENV 210 Earth and the Environment

NS2 4 cr **UL**  
This course incorporates a geoscience approach to environmental issues and problems. Topics include geologic hazards and the internal earth processes that produce them; natural resource formation and exploitation including: soils, water, minerals, fossil fuels and alternative energy. The course also covers the impact climate change has on existing problems such as pollution, waste production and disposal. Environmental regulations and their connection with current and past environmental research at Alma College are covered.  
*Prerequisite: Any 100-level science course or Instructor Permission*


### ENV 291 Scientific Writing and Methods

 2 cr **UL**  
Examination of the different types of scientific writing, literature, along with practice of effective science communication within multiple formats. Brief coverage of how science writing and communication is different from everyday writing and communication. Skill development in effectively representing and understanding basic statistical analyses, graphs, diagrams and illustrations and their role in effective communication.  
*Prerequisite: Sophomore Standing*


### ENV 310 Climate & New Earth Reality

NS2 THM 4 cr **UL**  
This course engages students in the science of climate change. Specifically, the course will provide geophysical and geochemical evidence of anthropogenic climate change. Topics include simple atmospheric modeling, the nature of greenhouse gases and their relationship to the earth's energy balance. Also covered are the effects of climate change - past and present – on our biosphere and lithosphere. Attention will be paid to the issue of equity and equality - specifically investigating areas of environmental justice.  
*Prerequisite: Sophomore Standing plus ENV-105 or CHM-115 or BIO-121 or Instructor Permission OR science explore course.*

### ENV 360 Watershed Hydrology

 4 cr **UL**  
Investigation of the methods and means describing how surface water and groundwater move in the environment. Topics include the relationship between surface and groundwater, migration of contaminants in fluvial and subsurface systems, and the theoretical and practical application of mathematical expression of water movement. Real-world, local problems serve as a centerpiece for project development.  
*Prerequisite: ENV-205 and ENV-291, or Instructor Permission. CHM-115 recommended.*


### ENV 370 Risk Assessment

 **WI** 4 cr **UL**  
Systematic approach to the prediction of risks to human health and the environment. Theoretical framework of basic risk assessments is paired with application of real-world examples of known and unknown chemical and biological agents. Students learn to prepare ecological risk assessments.  
*Prerequisite: BIO-291 or ENV-291 or Sophomore Standing*

### ENV 385 Environmental Studies Practicum

1-4 cr **UL**  
Practicum in the field of Environmental Studies.  
*Prerequisite: ENV-105, 110 and one additional course from the ENV curriculum*

### ENV 480 Topics Seminar in Environmental Studies

 2 cr **UL**  
Capstone course in environmental studies. Interdisciplinary approach incorporating scientific knowledge with policy and humanistic issues that are applied to real-life environmental problems.  
*Prerequisite: Sixteen credits of ENV or Senior Standing or Instructor Permission*

## Exercise and Health Studies (EHS)

### Coaching Minor Requirements

Twenty-four credits which must include:

- 12 credits within Exercise Science; EHS-121, 140, 231, 241 and 385.
- 12 credits chosen from PSY-212 or 331, PHL-242, NMS-130 or 310, COM-102 or 212.

**Graduation Limitation: Students may only apply up to six credits of (EHS) Exercise and Health Science courses numbered 100-165 toward degree. Exception made for Coaching Minor Requirements of EHS-121 and 140.**

### EHS 110 Beginning Tennis

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 112 Beginning Golf

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 121 Introduction to Coaching

2 cr  
This course introduces students to the various responsibilities of a coach and the skills needed to successfully work with athletes in team settings. Throughout the course, students will explore various coaching models and leadership styles. Intentionally develop and apply tools to meaningfully engage with athletes from diverse backgrounds and cultural traditions. Students will also learn effective communication, problem-solving, and decision-making skills.

### EHS 130 Beginning and Adv Beginning Swimming

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 131 Adv Begin/Intermediate Swimming

4 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 140 Recruitment and PR in Athletics

2 cr  
This course is focused on the role of recruitment in building a sports program and ways to build support for a sports program in communities and organizations. Students will learn the rules that govern recruitment at different levels of play, explore the ethical and social responsibilities coaches have related to recruitment, and develop recruitment strategies that facilitate a healthy team culture. Students will also learn strategies for building relationships with fans and communities.

### EHS 150 Fitness for Life

1 cr  
Introduction to lifetime activities for physical fitness and cardiovascular health; includes fitness testing and personalized exercise prescription. Pass/Fail only.

### EHS 154 Conditioning

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 156 Strength Training

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 157 Aerobic Exercise

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 160 Individual Activity

1 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 165 Group Activity

1 cr  
Designed for a group of students to contract for a specific goal-centered learning experience. Goals, activities and means of evaluation must be detailed by the instructor. Pass/Fail only.

### EHS 180 Topics in EHS

2-8 cr  
Activity-based course. Pass/Fail only. Course fee.

### EHS 200 Lifeguarding

2 cr **UL**  
Fundamentals of lifeguarding. Satisfactory completion of this course qualifies student for American Red Cross lifeguarding certification. Course fee.

### EHS 201 Water Safety

2 cr **UL**  
Requires Advanced Life Saving Certificate.

### EHS 202 SCUBA Diving

2 cr **UL**  
SCUBA diving is a course designed to prepare students for SCUBA certification as a SCUBA schools international (SSI) open water diver. Students will complete a classroom component as well as a pool component. Course fee.



### EHS 203 Advanced Open Water SCUBA Diving

2 cr **UL**

Designed to enhance the performance skills completed in EHS-202. Students complete a classroom component as well as a pool component. Course fee.  
*Prerequisite: EHS-202*

### EHS 231 Team Leadership

2 cr **UL**

This course is designed to deepen students' understanding of the theories of coaching and athlete development. Students will develop their own coaching philosophy and leadership style that facilitates meaningful engagement with athletes from diverse backgrounds and cultural traditions. Students will also practice effective communication, problem-solving, and decision-making skills.

### EHS 241 Strength and Conditioning for Coaches

2 cr **UL**

This course presents strength and conditioning theory and practice. Designed primarily for students interested in coaching athletes, the course explores different training models and their utilization and the injury prevention effects of appropriate training.

### EHS 280 Topics in EHS

2 cr **UL**

Topics in physiology are selected by the instructor. Students expected to give a presentation.

### EHS 350D Principles of Coaching for Teachers

2 cr **UL**

Designed as a variable content course with the subject to be determined on a demand basis. Topics may include basketball, football, soccer, track, volleyball or baseball/softball.

### EHS 380 Topics in EHS

1-4 cr **UL**

Designed as a variable topic and credit course which may include adaptive and corrective physical education, injury rehabilitation, environmental physiology and sports medicine.

## Foreign Service (FOR)

Interdepartmental major. This major requires fifty-six credits of approved courses through the Program of Emphasis documentation, typically drawn from the areas of economics, history and political science.

### FOR 385 Foreign Service Practicum

1-8 cr **UL**

Practicum in the field of Foreign Service.

### FOR 400 Seminar

4 cr **UL**

Integration and application of work taken in various required courses. Problems considered will be determined by the international climate at the time the course is given.  
*Prerequisite: Instructor Permission*

### FOR 500 Senior Thesis

1-4 cr **UL**

Individual research culminating in the preparation of a major paper. Work should be initiated during the Fall Term of the senior year.

## French (FRN)

French courses, as designated by the three-letter prefix FRN, are taught in French. World Languages and Cultures courses, as designated by the three-letter prefix WLC, are taught in English. Courses taught internationally may have a different emphasis from those offered on campus.

### Advanced Credit in a second language may be earned by:

1. Scoring at the 3 level or higher on the Advanced Placement (AP) exam.
2. Successfully completing the International Baccalaureate Program (IB) or the National Foreign Language Examination.

### FRN 111 Beginning French I

4 cr

Introduction to French. The primary objective is to help students acquire necessary basic skills: speaking, listening, reading and writing. Secondary objective is to provide insight on French culture and society.

### FRN 112 Beginning French II

🌐 AH

4 cr

Acquire necessary basic skills: speaking, listening, reading and writing. Gain insight on French culture and society.

*Prerequisite: FRN-111 or Instructor Permission*

### FRN 150 Art and History and Culture

🌐 AH EXP2

4 cr

This course, taught in French at a novice-mid/high level, will use short novels, films and articles, related to French art and history, in addition to other cultural components from the Francophone world to continue developing language skills and cultural competencies.

*Prerequisites: Students must have novice-mid French proficiency background to be successful. Appropriate for students with 2 years of high school French or completion of 4 credits at the 111 level*

### FRN 153 Food, Health and Culture

🌐 AH EXP4

4 cr

This course, taught in French at a novice-mid/high level, will use short novels, films, documentaries and articles, related to French and Francophone culture, in addition to other reel events from the Francophone world to continue developing language skills and cultural competencies.

*Prerequisites: Students must have novice-mid French proficiency background to be successful. Appropriate for students with 2 years of high school French or completion of 4 credits at the 111 level.*

### FRN 392 Targeted French Language Studies

🌐

2-4 cr **UL**

Targeted study of written French, oral French, or pronunciation.

### FRN 393 Studies in History and Civilization

🌐

2-4 cr **UL**

Topics in French, Francophone, or regional history, culture, art, or film.

# General Studies

## Academic and Career Planning (ACP)

### ACP 100 Strategic Learning

1 cr

This course is designed to assist students in developing the skills necessary to be successful in college. It will help you develop a personal academic success plan, understand how to utilize the resources at Alma College, identify and leverage your individual learning style, as well as enhance both your time management and study skills. Graded Pass/Fail Only

### First Year Seminar (FYS)

As part of the General Education curriculum, first-year students entering Alma College and incoming transfer students with fewer than 25 credits awarded are required to successfully complete a minimum of two credits in a First Year Seminar course.

### FYS 101 First Year Seminar

4 cr

First Year Seminar courses focus on the interdisciplinary nature of important and timely social, scientific, and cultural issues and are designed to provide every new student with high quality student-faculty interaction that helps students develop skills in critical thinking and communication. Topics vary. Course fee.

## Honors Program (HNR)

Courses with this designation are open to students accepted into the Alma College Honors Program.

### HNR 100 Honors Seminar

1 cr

Seminar designed to identify individual strengths and foster active engagement in the Alma College community. Exploration of the liberal arts through academics, arts, athletics, guest speakers, service, special events, etc. Students will attend, discuss, and maintain a reflective journal on a variety of designated campus events.

*Prerequisite: Acceptance into the Honors Program*

### HNR 150 Honors Reading Group

1 cr

Seminar discussion of selected readings of various genres guided by the President. May be repeated for credit. Graded Pass/Fail.

*Prerequisite: Acceptance into the Honors Program*

### HNR 200 Honors Seminar

1 cr

The seminar is designed to expand student understanding of the Alma community beyond campus. Academic and practical exploration of community asset and needs assessment, stakeholder identification and management, project management, and skills required for community development.

*Prerequisite: Acceptance into the Presidential Honors Program*

### HNR 250 Honors Reading Group

1 cr

Seminar discussion of selected readings of various genres guided by campus leaders. May be repeated for credit. Graded Pass/Fail.

*Prerequisite: Acceptance into the Honors Program*

### HNR 300 Honors Workshop

1 cr

Seminar/Workshop format designed to support direct student engagement with community-based projects and initiatives identified by the Center for College and Community Engagement. Open to students accepted into the Honors Program.

*Prerequisite: HNR-200*

## HNR 400 Honors Portfolio

1 cr

Directed completion of a portfolio that includes personal reflection on the intersections of the liberal arts and the student's specific academic and community-based experiences as well as a statement of future intentions and aspirations for ongoing community engagement. Pass/Fail only.

## Interdisciplinary Seminar (IDS)

### IDS 301 Interdisciplinary Seminar

4 cr

This is a mission-themed, interdisciplinary course that focuses on applying the liberal arts to a complex and meaningful question. Students will learn to think and respond ethically, and in ways that acknowledge and respect diverse perspectives, contexts, and cultures. Each seminar, which is collaboratively designed and taught, also serves as the capstone experience for the Core Curriculum and includes a reflective portfolio assignment. Topics vary. Must be taken at Alma College. Course Fee.

*Prerequisite: Junior Standing*

# Geography (GGR)

### GGR 101 Human and Environmental Relationships

2 cr

Introduction and overview of the discipline of geography. Central themes include human environment interaction, spatial analysis, pattern and process. Study of human and natural components of the earth's surface with a focus on relationships between humans and their environments.

### GGR 102 World and Regional Cultures

2 cr

Study of various cultural attributes with a focus on the relationships between humans and their environments. Topics examined within a spatial framework that includes population, ecology, religion, politics, economics, agriculture, resources, industry, urbanization, trade, energy use and development.

*Prerequisite: GGR-101*

### GGR 200 Principles of Geography

GCA

4 cr

Exploration of the areas of geographic reasoning and inquiry, including geographic representations such as maps and geospatial technologies, as well as physical characteristics and human systems that define and shape places, regions, and the humans who live there. Develop critical and analytical skills useful in understanding and explaining patterns of human distribution and behavior as they are influenced by, and have influence on, the physical world with consideration of local, national, and global contexts.

### GGR 201 Contemporary World Geography



4 cr UL

Focus on the relationship between the elements of physical geography and human activity both spatially and through time. Develop critical and analytical skills useful in understanding and explaining the spatial patterns of human distribution and behavior as they are influenced by and have influence on the physical world. Learn how to understand and interpret patterns of human action, belief systems, institutional structures, and socio-economic practices, and how they impact the environment.

# Geology (GEO)

## GEO 101 Physical Geology

NS2 EXP3 4 cr

Overview of physical Earth processes including rock and mineral formation, weathering and erosion, volcanism, seismicity and glaciation. Topics focus on the central theme of plate tectonics. Also included are tectonic mechanisms responsible for structural change and landforms. Laboratory. Course fee.

*Prerequisite: MTH-100 or Placement*

## GEO 112 Introduction to Michigan Basin Geology

NS2 4 cr

Field-oriented course focusing on the unique geology of the Michigan Basin. Emphasis on tectonic and climatic changes in Michigan's geologic past and the rock records and fossil assemblage representing these changes. Topics include formation of the Michigan Basin's unique structure. Field trips include Wallace limestone quarry, evaporite deposits in a Grand Rapids gypsum mine, sandstone ledges at Grand Ledge, Silver Lake sand dunes and regional Pleistocene glacial features. Laboratory. Course fee.

*Prerequisite: MTH-100 or Placement*

## GEO 113 Dynamic Earth

NS2 EXP3 4 cr

Study of the earth's dynamic systems as explained by plate tectonics theory. Examination of rock and fossil records. Laboratory. Course fee.

*Prerequisite: MTH-100 or 101*

# German (GRM)

German courses, as designated by the three-letter prefix GRM, are taught in German. World Languages and Cultures courses, as designated by the three-letter prefix WLC, are taught in English.

Courses taught internationally may have a different emphasis from those offered on campus.

### Advanced Credit in a second language may be earned by:

1. Scoring at the 3 level of higher on the Advanced Placement (AP) Exam.
2. Successfully completing the International Baccalaureate (IB) Program exams, at the High Level with a minimum score of 5.

## GRM 111 Beginning German I

4 cr

Beginning level course to develop intercultural awareness and German proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Novice-low/Novice-mid levels.

## GRM 112 Beginning German II

4 cr

Acquire necessary basic skills: speaking, listening, reading and writing. Gain insight on German culture and society.

*Prerequisites: GRM-111 or Instructor Permission*

## GRM 150 Crime & Mystery

4 cr

This course, taught in German at a novice-mid/high level, will use easy reader detective stories, accompanied by music, films and other internet resources, to continue to develop both language skills and cultural competencies.

*Prerequisites: Students must have novice-mid German proficiency background to be successful. Appropriate for students with 2 years of high school German or completion of 4 credits at the 111 level or Instructor Permission.*

## GRM 151 Emil and the Detectives

4 cr

This course, taught in German at a novice-mid/high level, will use the German classic "Emil und die Detektive", accompanied by two versions of the eponymous film and other internet resources, to continue to develop both language skills and cultural competencies.

*Prerequisites: Students must have novice-mid German proficiency background to be successful. Appropriate for students with 2 years of high school German or completion of 4 credits at the 111 level or Instructor Permission*

## GRM 152 German Contemporary Issues

4 cr

This course, taught in German at a novice-mid/high level, will introduce some important contemporary political, social and cultural issues in Germany, accompanied by film, music and other internet resources, to continue to develop both language skills and cultural competencies.

*Prerequisites: Students must have novice-mid German proficiency background to be successful. Appropriate for students with 2 years of high school German or completion of 4 credits at the 111 level or Instructor Permission*

## GRM 153 Environment & Sustainability

4 cr

This course, taught in German at a novice-mid/high level, will use the German newspaper "Sprache und Zeitung", a proficiency-based approach to discuss the environmental issues in Germany, accompanied by film, music and other internet resources, to continue to develop both language skills and cultural competencies.

*Prerequisites: Students must have novice-mid German proficiency background to be successful. Appropriate for students with 2 years of high school German or completion of 4 credits at the 111 level or Instructor Permission*

## GRM 154 German Fairy Tales

4 cr

This course, taught in German at a novice-mid/high level, will discuss the Fairy Tales by the Brothers Grimm, accompanied by music, films and other internet resources, to continue to develop both language skills and cultural competencies.

*Prerequisites: Students must have novice-mid German proficiency background to be successful. Appropriate for students with 2 years of high school German or completion of 4 credits at the 111 level or Instructor Permission*

# Gerontology (GER)

Gerontology is an interdisciplinary minor drawing on our faculty's broad range of research and professional experience with aging. The minor helps students prepare for the numerous careers which are affected by the increase in the older population.

### Minor Requirements

Twenty-four credits which must include:

1. Core Courses: IPH-212, GER-385, GER-480, PHL-229, PSY-260, PSY-280, SOC-234
2. At least two elective credits from any course(s) deemed relevant by the Gerontology Advisory Committee.

## GER 385 Gerontology Practicum

1-8 cr UL

Practicum in the field of Gerontology. Requires Instructor Permission.

## GER 480 Senior Seminar

2 cr UL

Multidisciplinary capstone seminar for gerontology minors.

*Prerequisite: Instructor Permission*

# Health Studies (HSS)

## HSS 180 Topics in HSS

2-4 cr

Exploration of special topics in health studies. Topics will vary and be selected by the instructor. May be taken more than once.

## HSS 385 Health Studies Practicum

1-8 cr **UL**

Observation of communication and career opportunities in a health care setting. One example of a practicum is a hospital rotation. Written work is required. Pass/Fail only. Course fee.

# Healthcare Administration (HCA)

## Major Requirements

Fifty-six credits which must include:

1. Core Courses (40 credits): HCA-131 (may take BUS-121) BUS-221, 222; HCA-319, 328, 329, 385, 441; IPH-430, PHL-229.
2. Required Electives (16 credits) select from the following): ANT-217; HCA-280, 334, 344, 380, 405, 433, 450, 499, 500; IPH-331, 340; PSY-260; SOC-234,336; COM-243.
3. Required *Prerequisites* (16 credits): BIO-121; ECN-111 and 112; and one course from: IPH-230, MTH- 116, MTH-121, or PSY-220. Note: *prerequisites* courses required for the HCA major may not be taken Pass/Fail.
4. Program Considerations: A minimum grade of CD or above must be earned in HCA-319, 328, 329, and 441 prior to enrolling in the HCA Practicum (HCA-385).

**Note:** Students majoring in HCA are encouraged to review the HCA program handbook for full listing of requirements and considerations for the program. HCA falls under the Business Department at Alma College.

## HCA 131 Intro to Health Service Management

4 cr

This course is geared toward first and second-year students who desire a fundamental understanding of health service management. It will explore a variety of health care settings including hospitals, nursing homes and clinics. Case studies will augment student learning in leadership, motivation, organizational behavior, management thinking, performance and quality improvement, information technology, ethics and cultural competency. This is a required course for the Healthcare Administration Major

## HCA 319 Healthcare Finance

4 cr **UL**

Implements financial management, managerial management, and economic principles to analyze real-world health care issues. Emphasizes and encourages problem-solving and creative thinking through the use of texts, cases, and models of health care industry. Provides a comprehensive overview of financial structure, market forces, controls and techniques used in health care financial management and the perspectives of the various interest groups involved (providers, insurers, policy makers, patients, and the general public). Provides students with an overview of the principal financial mechanisms in place across the U.S. health care industry and specific insights into critical issues the industry currently faces.  
*Prerequisite:* BUS-121 or HCA-131; BUS-221; BUS-222; or Instructor Permission

## HCA 328 Health Law

4 cr **UL**

This course provides a legal framework for students interested in healthcare administration and managing the legal issues they will face in a healthcare organization. Students will learn the basic legal principles including: contract law, tort liability and malpractice, employment law, fraud and abuse, health planning and advocacy, HIPAA/Privacy, public health laws, and other related topics.  
*Prerequisite:* ECN-111 and 112, MTH-116 or PSY-220, and BUS-222

## HCA 329 Health Administration

4 cr **UL**

Explore relevant findings from the behavioral sciences and other disciplines to help students apply appropriate management skills in their organization. Study the basics of leadership, communication, motivation, change theories, organizational culture, problem solving, conflict and negotiations, decision-making, productivity measurement, the TQM process, resources allocation, and mission and values development.  
*Prerequisite:* BUS-121 or HCA-131; BUS-221; BUS-222; or Instructor Permission

## HCA 334 Healthcare Marketing

4 cr **UL**

This general survey class will acquaint students to the marketing discipline from the perspective of Healthcare Administration. Topics include target markets, marketing segmentation, marketing research and the marketing mix. **NOTE:** Students cannot earn credit for both BUS-333 and HCA-334.  
*Prerequisite:* BUS-222; ECN-111 and 112; MTH-116 or PSY-220; or Instructor Permission

## HCA 344 Healthcare Human Resource Management

4 cr **UL**

Explore human resources management in healthcare organizations including: recruitment and selection of employees, benefits and compensation management, privileging and credentialing of health professions, performance evaluation, staffing plans, labor relations and labor laws relevant to healthcare organizations. Discussion of other topics such as appraisal, discipline, safety, benefits and collective bargaining as related to healthcare human resources.  
*Prerequisite:* HCA-329 or Instructor Permission

## HCA 385 Healthcare Administration Practicum

4 cr **UL**

Only four credits will count in the major. Requires Instructor Permission. Students must also successfully complete the appropriate internship workshops that are sponsored by the Center for Student Opportunity (CSO) and the HCA department. Internships are typically completed in the summer. Also, students must successfully pass a background check to enroll in HCA 319, 328, 329, and 441 prior to enrolling in this course. Pass/Fail only.  
*Prerequisite:* BUS-121 or HCA-131; BUS-221; BUS-222; HCA319, 329, 441, IPH-430 and PHL-229

## HCA 405 Healthcare Informatics

4 cr **UL**

The course will give students a broad exposure to the field of Health Informatics. Topics include, but are not limited to, networking, information systems, information technology, coding, databases, HL7, security and HIPAA.  
*Prerequisite:* HCA-329 or Instructor Permission

### HCA 433 Exploring Health Disparities



4 cr UL

Introduction to global health care systems and models and their influences on health disparities and delivery of healthcare. Students will think critically about and discuss health and healthcare within a global environment. Examine vulnerable populations and how social determinants influence the health outcomes of various nations.

*Prerequisite: BUS-121 or HCA-131 and Instructor Permission*

### HCA 441 Strategic Planning in Healthcare



4 cr UL

Introduces students to strategic planning as it applies to health care organizations. Students will develop practical skills in strategic management, such as internal and external environmental assessment, competitor analysis, and methods for evaluating strategic alternatives that can be used in different types of health care settings. Explores the leadership roles of governing boards, health care managers, and clinicians.

*Prerequisite: HCA-319 and 329*

### HCA 450 Long-Term Care Management

4 cr UL

Basic overview of long-term care management in the United States. Covers the state of the field, those it serves, and the various organizations who serve them. Examines issues affecting all long-term care providers, individually or collectively (e.g., financing, regulations, integration, ethical issues). Discusses how various segments of long-term care fit together to form an overall system while looking at trends that are likely to shape the field in the future.

*Prerequisite: HCA-329 or Instructor Permission*

### HCA 500 HCA Senior Thesis



4 cr UL

Students must have a GPA of 3.5 or better calculated on all BUS courses taken.

*Prerequisite: Senior Standing and Instructor Permission*

## History (HST)

The study of history provides a historical perspective which contributes to an understanding of the economic (E), social (S), political (P), intellectual (I) and technological (T) factors which affect human behavior as well as the historical interpretation (H) which explains that behavior. Students may identify these central course themes by noting the explanatory caption, e.g. (ESPI). All lower-level courses focus on the principal economic, social, political and intellectual problems in particular historical eras. Similarly, courses which emphasize a multinational or global perspective are noted by the caption (GP).

### Major Requirements

Thirty-six credits which must include:

1. One 300-level United States history course from: HST-323, 325, 326, 327, 328, 341 or another course pre-approved by the department.
2. One 300-level European history course from: HST-330, 331, 332, 333, 336 or another course pre-approved by the department.
3. One 300-level non-Western history course from: HST-352, 353, 360, 361 or another course pre-approved by the Department.
4. One 400-level seminar (not an independent study).
5. All 36 credits that count toward the major must be taken for a letter grade. History courses may be taken for S/F credit but only above and beyond the 36 credits taken for letter grade for the major.
6. Successful completion in student's senior year of the comprehensive examination administered by the department.

7. Honors candidates must have a minimum 3.3 overall GPA and 3.5 in the History Department, complete a one-credit advanced bibliography course, submit an honors thesis, and where possible present the thesis in an external forum.

### History Minor

Twenty-four credits which must include:

1. One four-credit American history course at any level.
2. One four-credit European history course at any level.
3. One four-credit non-Western history course at any level.
4. At least two upper-level four-credit courses. Upper-level courses may be at the 300 or 400-level; a 400-level seminar is recommended as one of these, but not required. 200-level courses are particularly recommended when selecting the remaining courses for the minor.
5. All 24 credits that count toward the minor must be taken for a letter grade. History courses may be taken for S/F credit, but only above and beyond the 24 credits taken for a letter grade for the minor.
6. Successful completion of the comprehensive evaluation administered by the Department.

### Social Studies History Teaching Major Requirements:

Thirty-six credits, which must include:

1. One 300-level United States history course from: HST-323, 325, 326, 327, 328, 341 or another course pre-approved by the department.
2. One 300-level European history course from: HST-330, 331, 332, 333, 336 or another course pre-approved by the department.
3. One 300-level non-Western history course from: HST-352, 353, 360, 361 or another course pre-approved by the Department.
4. One 400-level seminar (not an independent study).
5. All 36 credits that count toward the major must be taken for a letter grade. History courses may be taken for S/F credit but only above and beyond the 36 credits taken for letter grade for the major.
6. Successful completion, in student's final year, of the comprehensive examination administered by the department.
7. Honors candidates must have a minimum 3.3 overall GPA and 3.5 in the History Department, complete a one-credit advanced bibliography course, submit an honors thesis, and where possible present the thesis in an external forum.
8. Successful completion of the Secondary Education Major
9. Successful completion of the Social Studies Teaching Major (5-12).
10. A grade point average of at least 2.5 is required in the Social Studies: History Teaching Major.

### Additional Notes

100 and 200 level courses are recommended for first-year students and sophomores. HST-300 and above are recommended for sophomores, juniors, and seniors; first-year students admitted only with Instructor Permission.

### HST 100 World History Survey I

SO EXP4

4 cr

Introductory overview of ancient world history from Paleolithic times until the sixteenth century, emphasizing how early civilizations developed and their relationships with each other. Goals include familiarizing students with the major (shared and unique) characteristics of early societies, highlighting the continuity and change as societies developed around the globe. (ESPIT/GP)

**HST 101 World History Survey II**

SO EXP2 4 cr  
 Introductory overview of modern world history since the 16<sup>th</sup> century, emphasizing developments within Europe and interaction with the rest of the world. Focuses on topics such as the origins of European expansion in the first "global age," rise of absolutism, Scientific Revolution and Enlightenment, age of revolution and industrialization, modern imperialism, origins and impact of the World Wars, and the Cold War and its aftermath. (ESPITH/GP)

**HST 104 The Making of America to 1877**

SO EXP4 4 cr  
 Examines American history from colonial times to Reconstruction; concentration on political, constitutional, social, economic, and intellectual problems. (ESPITH/GP)

**HST 105 The American Century: 1877-Present**

SO EXP2 4 cr  
 Political, economic, social, and intellectual issues from Reconstruction to the present. Focuses on 1877-1990. (ESPITH/GP)

**HST 107 American Foreign Relations**

SO EXP4 4 cr  
 Introductory survey of the rise of American power on the international stage from the 1890s to the present. Examines the expansion of its economic, political, and cultural influences in the world through trade and wars, and the spread of American values.

**HST 121 American Legal History I**

SO THM 4 cr  
 Introductory survey, 1620-1877. Indigenous and colonial law, crime and punishment, religion and the law, creation of the law of slavery, imperial conflicts and the Revolution, the Constitution, the Marshall and Taney courts, abolition and women's rights, and legal aspects of the Civil War and Reconstruction. (ESPI)

**HST 122 American Legal History II**

SO THM 4 cr  
 Introductory survey, 1877-Present. Labor and industrialization in the law, legal education and philosophies, civil rights, the New Deal and the courts, law and the economy, the growth of government and the expansion of presidential power, terrorism, and the law. (ESPI)

**HST 125 Famous Trials in American History**

SO EXP4 4 cr  
 Explore some of the most prominent and controversial criminal trials in American history from the 17<sup>th</sup> century to the present. Analyze how law and justice have been shaped by political, economic, and social factors. Learn how legal contests reveal conflicts over issues central to American identity and history: immigration and assimilation; religion and politics; civil liberties and security; race and justice.

**HST 130 Women in European History**

SO 4 cr  
 Survey of Western European history, focusing on women's (and men's) roles in the family and society from Classical Greece and Rome through the French Revolution, highlighting particular women whose contributions have been celebrated through the ages as well as discussing what kinds of lives most women led. (ESPI/GP)

**HST 138 Europe in Upheaval, 1914-45**

SO EXP2 4 cr  
 Analysis of causes and course of World War I; Russian Revolution and Stalinism; interwar diplomacy, crisis of democracy, and Great Depression; Fascism and Nazism; special focus on causes, course, and impact of World War II. (ESPITH/GP)

**HST 140 American Women's History**

SO EXP4 4 cr  
 Introductory survey and examination of problems and issues in American women's history and American feminism, colonial era to the present. Emphasizes gender, race, and class as categories of historical analysis. (ESPITH)

**HST 150 What Do Historians Do?**

SO 2 cr  
 This course is open to all students, regardless of major. Students learn about how the study of history leads to a wide range of career paths, drawing especially upon the experiences of Alma College alumni. Students learn about the development of history as a profession and how various historical figures found their vocations. They reflect on the skills fostered by the study of history and consider how to market those skills effectively in a job search. Students also search for job advertisements and produce key job search materials (e.g., cover letter, resume).

**HST 152 Modern East Asia**

SO EXP2 THM 4 cr  
 Introductory survey of the modern history and culture of Korea, Japan, and China. Examines the inter-relations of the three countries and their different experiences since the arrival of Western industrial powers in the 19<sup>th</sup> century. Major topics include imperialism and cultural interactions, science and modern political thoughts, reforms and revolutions, social transformations, and the miracles of economic growth. This new course offers new approaches to the study of regional history by making connections of shared experiences.

**HST 180 Topics and Problems in History**

SO 2-4 cr  
 Topical course in history. This course is variable credit and may have offerings from 2-4 credits.

**HST 200 Ancient Near East**

SO 4 cr  
 Ancient history from its beginnings in Mesopotamia until the 4<sup>th</sup> century B.C. Includes the kingdoms and empires of the Fertile Crescent (Sumerian, Babylon, Assyria, Israel and foundations of Judaism, Phoenicia, etc.), Egypt, Persia, and other Near Eastern societies. (ESPITH/GP)

**HST 201 Ancient Greece**

SO EXP2 4 cr UL  
 An overview of ancient Greece from Minoan through Mycenae, the Dark Age, Archaic and Classical Greece, and the Hellenistic Period. Includes an examination of Greek culture, the Persian and Peloponnesian Wars, Alexander, and his conquests and more. (ESPITH/GP)

**HST 202 Ancient Rome**

SO 4 cr UL  
 History of Rome from its legendary beginnings through the Republic, the Principate, and the Empire. Traces the rise of Christianity, the causes of Roman decline and Rome's legacy. (ESPITH/GP)

**HST 203 Medieval World**

SO THM 4 cr UL  
 From the 3<sup>rd</sup> through the 15<sup>th</sup> centuries. Uniqueness of medieval society and its legacy to the modern world. Origins of the Middle Ages, society and decline of the medieval world. (ESPI/GP)


### HST 204 Renaissance Worlds

 SO

4 cr **UL**

Between about 1300 and 1700, Europe and its wider world witnessed a transformation through revolutions that changed art, economics, politics, religion, science, and more. Beginning with the Italian Renaissance and finishing on the eve of the Enlightenment, this course offers an introduction to what historians now call the early modern period. Readings cover both Europe and its new overseas empires.

### HST 206 Approaches to Michigan History

 SO THM

4 cr **UL**

An introduction to historical methodologies, focusing on the history of Michigan from the pre-contact period to the present. Native American societies, European contact and first settlements, imperial wars and the American Revolution, territorial period and statehood, economic development and reform movements, Civil War, industrialization and urbanization, immigration, and race relations, the two World Wars and the Great Depression, the civil rights movement, suburbanization and the decline of the auto industry, contemporary Michigan. (ESPITH) Course fee.

### HST 209 Selected Problems in Historical Research

 SO

2-6 cr **UL**

Introduction to archival research. Classification and cataloging; search and retrieval methods in local, state, and federal government archives; periodical literature and research in the social sciences. Problems may be selected. Examples are literature of American history, European studies, Asian studies, Latin American studies, and Mediterranean studies. (ESPIT) This course is variable credit and may have offerings from 2-6 credits.

*Prerequisite: Instructor Permission*


### HST 221 English History

 SO

4 cr **UL**

Survey of English history from the Norman conquest to modern times. The principal emphasis is on political and constitutional issues and problems, but attention is also given to social, economic, legal, and cultural developments. (ESPI/GP)

### HST 222 Ireland's Freedom Struggle

 SO THM

4 cr **UL**

Exploration of Irish history, with particular emphasis on the long struggle for freedom from English and later British rule, from the Middle Ages through the Protestant plantation in the north, the Penal Laws, Potato Famine, and Home Rule campaign, to the Easter Rising, War of Independence, and Northern Irish "Troubles." The course includes the complex interaction between the native Irish, English, Scots, and Welsh settlers, and the English/British state, as well as between Irish Catholics and Protestants, and the impact of this history on Irish culture and society, economic development, and mass emigration, and on the changing connections between modern Irish nationalism and religion. (ESPI/GP)

### HST 228 Immigration & Ethnicity in American Hist

SO THM

4 cr **UL**

Examination of the experiences of immigrants and their transformation into ethnic Americans during the 19th and 20<sup>th</sup> centuries. Discussion of what it means to be American and the diversity of American society in a historical perspective. (ESPI/GP)

### HST 230 Europe and the Islamic World

 SO GCA

4 cr **UL**

Since 9/11, the relationship between the Islamic world and the West has become a topic of renewed interest and controversy. From one vantage point, Muslims and Christians have been at odds for centuries, engaged in what some have called a clash of civilizations. But some historians have questioned that interpretation. While Christians and Muslims have experienced much violence and tension, they have also managed to coexist for long periods of time and to engage in fruitful exchanges. This course examines how Christians and Muslims interacted with one another in the pre-Modern Mediterranean World (i.e., pre-1800). (ESPIH/GP)

*Prerequisite: Sophomore Standing and one history course or Instructor Permission*

### HST 240 Modern Germany

 SO

4 cr **UL**

Survey of German history since 1815, with emphasis on the period 1848-1945. Topics include historic characteristics of major German regions, emergence of a modern industrial economy, the failed liberal revolution in 1848, unification, politics of Imperial Germany, promise and failure of democracy in the Weimar Republic, rise and fall of Nazism, and emergence of a united, democratic Germany out of the divided society of the postwar era. Emphasis is on the struggle between liberalism and authoritarianism in shaping modern Germany, but course also explores major social, economic, and cultural developments. (ESPIT/GP)

### HST 249 Russian Studies

 SO

4 cr **UL**

Analysis of Russian economic, social, political, and intellectual development from the era of Peter the Great, with particular emphasis on the 19th and 20th centuries; origins of the Russian intelligentsia; Slavophiles and Westernizers; abolition of serfdom; Bolsheviks and the Russian Revolution; and others. (ESPI/GP)

### HST 251 Maya, Aztec, and the Inca

GCA

4 cr **UL**

Explores the cultures and societies of the Olmecs, Maya, Aztecs, and Inca from the emergence of agriculture to the arrival of the Spanish. Emphasis is placed on the cultural interconnectivity of pre-colonial indigenous peoples in the western hemisphere and changes to politics, religion, social norms, and daily life over time.

### HST 253 Asian Studies: Modern China and Japan

 SO

4 cr **UL**

Introductory study of the modern history of China and Japan. Examines the dynamic developments of political, social, economic and cultural changes, including relations with the West, from 1800 to the present. (ESPI/GP)

### HST 254 Colonial Americas

 SO

4 cr **UL**

Examines the development of European colonies in the Americas from 1492 to independence, including the comparative interaction of Native American, African and European cultures in the Spanish, Portuguese, French and English colonies. Analysis of the political, economic, social and intellectual changes from the early colonies to independence. (ESPI/GP)

### HST 255 Latin America Since 1825

 SO

4 cr **UL**

Analyzes selected countries. Caudillos and dictators, reform and revolution, neocolonialism and imperialism, economic growth and development. (ESPI/GP)

### HST 256 1492 and the Spanish Empire

 SO 4 cr UL

The year 1492 has a mixed legacy. For many, it was a triumph. But it also had a tragic side: the eventual deaths of millions of African slaves and Native Americans. This course explores the aftermath of 1492: the history of Spanish America until the start of the wars of independence in 1810. Political and religious institutions created in the "New World" are examined, and the resulting social and cultural tensions. (ESPI/GP)

### HST 260 Introduction to African History

 SO 4 cr UL

Introductory survey of African history, emphasizing the sub-Saharan region. Chief focus is on the pre-colonial peoples and cultures of the region; attention also given to the nature and impact of the trans-Atlantic trade, European colonization, and the struggle for national independence in the 20th century. (ESPIT/GP)

### HST 271 Public Health and Society

 SO THM 4 cr UL

Explore the historical development of public health and social changes since the 19th century, covering major scientific discoveries and new understanding of disease and health, and how public health promotion changed people and society.

### HST 277 Am Studies: Civil War and Reconstruction

SO 4 cr UL

Examines sectional crisis, disunion and reunion from 1845-77. Topics include significance of Civil War era for industrialization; agriculture and urbanization; emancipation of slaves and race relations; development of the Presidency; constitutional issues; and modern warfare. (ESPI)

### HST 280 Topics and Problems in History

SO 2-4 cr UL

Topical course in history. This course is variable credit and may have offerings from 2-4 credits.

### HST 323 Creating the Republic, 1763-1815

 SO THM 4 cr UL

Analysis of selected economic, social, political and intellectual issues, including the coming of the American Revolution; "state-building" during the war for Independence; the "Critical Period," ratifying the Constitution; origins and early development of political parties, ideologies of republicanism and nationalism; diplomatic problems and territorial expansion; minorities in the early republic; and the War of 1812. (ESPI/GP)

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 325 Reform and Search for Order

 SO 4 cr UL

Urban revolution; middle class reforms; response of industry, labor, and public institutions to the progressive era; World War I; the Jazz Age; the stock market crash of 1929; and the Hoover administration. (ESPITH/GP)

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 326 The Roosevelt Revolution, 1932-45

 SO 4 cr UL

Analysis of the Great Depression, the New Deal, American isolation in 1930s, and American involvement in World War II. Historical perspectives of the New Society which emerged from the Great Depression and World War II. (ESPITH/GP)

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 327 Constitutional History

 SO THM 4 cr UL

Beginning with the debates over the ratification of the Constitution in 1788-89, this remarkable document has been contested, amended, and reinterpreted through many dramatic developments in American history. As a blueprint for a national government, it has shaped government, politics, and society; in turn, it has been influenced by changes in American politics, society, culture, technology, and the economy. The interplay between, on the one hand, the Constitution and constitutional law, and on the other, major historical events and trends, is the focus of this course. (ESPIH)

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 328 Cold War America

  SO THM 4 cr UL

The Cold War dominated America and its rivalry with the Soviet Union in the world during the second half of the twentieth century. This course examines the origins, strategies, policies, and conflicts of the Cold War that shaped American domestic development and its global involvement. (ESPITH/GP)

*Prerequisite: Sophomore Standing, and one HST course or Instructor Permission*

### HST 331 Heretics, Popes, and Emperors

  SO 4 cr UL

Analysis of European political and religious institutions from the fall of the Western Roman Empire to the end of the Protestant Reformation. This course explores the power struggles between European rulers and the papacy, and distinctions between heretics and reformers.

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 332 Inquisitions

  SO 4 cr UL

Few institutions in history are as infamous as the Inquisition. It represents some of the most notorious instances of intolerance and violence produced by religious belief. Our knowledge of this institution, however, too often relies upon myth. This course, thus, explores how religious authority functioned during a time very different from our own. Readings examine inquisition documents, as well as scholarship on Spain's inquisition and other inquisitions in Europe and the Americas. (ESPIH/GP)

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 333 European Enlightenment

  SO 4 cr UL

Perhaps the key intellectual movement to signal the dawn of the modern world, the European Enlightenment is known as an "age of reason" that spanned the seventeenth and eighteenth centuries and dismantled religion as the dominant force in European societies. But by no means did the Enlightenment spell the end of belief or superstition. Through sources from the period, we examine the ideas of several famous individuals, each of whom contributed and reacted to the European Enlightenment. While this course centers on development taking place in Europe, we also will devote some attention to the interaction between Europe and the wider world. (ESPIH/GP)

*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*



### HST 336 Rethinking World War II

 SO 4 cr UL

Discussion and analysis of major debates on various facets of World War II, looking at multiple theaters and including consideration of the war on land, at sea, and in the air. Themes in the chosen case studies include planning, technology, strategy and tactics, intelligence, diplomacy, occupation policies, including the Holocaust, and resistance during World War II. The course includes a major research paper, drawing in part on extensive published primary sources and documentary collections in the College library. (ESPITH/GP)  
*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 341 Presidential Elections

SO 4 cr UL

Studies the history of presidential elections focusing on the changing role of the media, campaign fundraising, electoral strategies, the role of the media in shaping campaigns, and the impact on public policy; offered especially in national election years, where the election can serve as a laboratory to test theories.

### HST 352 China and the West

 SO THM 4 cr UL

This course examines major interactions of China and the West via exchange of trade and ideas, paying particular attention to cultural perceptions and (mis)understandings. Topics of studies include the ancient Silk Road, Marco Polo and Jesuits as cultural intermediaries, encounter with imperialism, modern thoughts and Chinese transformations, and China's rise as an economic power. (This course satisfies the requirement of Asian history.)  
*Prerequisite: One history course or Instructor Permission.*

### HST 353 China's 20th Century Revolution

 SO 4 cr UL

Examines China's 20th-century revolutionary history, including the Republican Revolution of 1911, the Nationalist Revolution of the 1920s and 1930s, and the Communist Revolution of the 1920s, 1930s and 1940s, culminating with an analysis of the Communist party's revolutionary rule, 1949 to the present. (ESPITH/GP)  
*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 360 South African History

 SO 4 cr UL

Introductory survey of main themes and problems in recent South African historiography. Focuses on early colonial roots of segregation and white supremacy, impact of British rule and mineral revolution, development of institutionalized racism through segregation and radical apartheid program, ethnic conflict, constitutional problems, industrialization and urbanization, and Afrikaner and black nationalism. Also analyzes contemporary crisis and potential for conflict resolution in this key area of confrontation between the developed and developing worlds. (ESPIH/GP)  
*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 361 Race in South Africa and USA

 SO 4 cr UL

A comparative study of South African and United States (especially Southern) history, this course examines similarities and differences in the way concepts of "race" shaped these countries' past and present, including how "race" intersected with class and ethnicity, but also gender. Topics covered include white settlement, the frontier, and subjection of indigenous peoples; racial slavery; "race mixing" and the "color line;" intra-white conflict and creation of white supremacist states; industrialization, racism, and labor relations; and Jim Crow, segregation, and apartheid. (ESPIH/GP)  
*Prerequisite: Sophomore Standing, and one history course or Instructor Permission;*

### HST 380 Topics and Problems in History

 SO 2-4 cr UL

Advanced level history problem-solving. Topics include United States and China; United States and Japan; American foreign policy and world politics, 1917-73; oral history, World War II; comparative study in 20th century revolutions; the Nazi revolution; Churchill and his times; Constitutional history. This course is variable credit and may have offerings from 2-4 credits.  
*Prerequisite: Sophomore Standing, and one history course or Instructor Permission*

### HST 385 Internship in History

4-12 cr UL

Study/work program requiring archival and/or field work in conjunction with archives, research libraries, or private or public agencies. Only eight credits may count toward the degree. This course is variable credit and may have offerings from 4-12 credits.  
*Prerequisite: Instructor Permission*

### HST 407 Foreign Policy Seminar

 SO 4 cr UL

Research seminar examining problems and issues in American foreign relations and diplomacy with emphasis on the 20th century. Frequent discussion, limited lecture, term research paper. Fulfills history major seminar requirements. (ESPITH/GP)  
*Prerequisite: Instructor Permission*

### HST 425 Riot and Rebellion in America

 SO 4 cr UL

This seminar will examine instances of civil disorder in American history, from the Pueblo Revolt of 1680, to Revolutionary-era mobs, slave revolts, and contemporary protests. Students will consider whether to classify each instance as a riot or a rebellion (and why that matters), and whether violence is a central characteristic of American history or an aberration.  
*Prerequisite: Instructor Permission*

### HST 433 World War II Seminar

 SO 4 cr UL

Focuses on the Second World War, primarily but not exclusively the European theater. Introduction to advanced historical research, including developing complex bibliographies, writing a literature review, developing a hypothesis, using different kinds of primary sources, the technicalities of referencing sources, and stylistic issues in writing history. Design a major research project, written in stages, with close feedback and group discussion in weekly meetings. Also, an introduction to important relevant aspects of interpreting the Second World War. (ESPITH/GP)  
*Prerequisite: Instructor Permission*

### HST 434 Comparative Fascism

 SO 4 cr UL

Research seminar compares the varieties of fascist and semi-fascist political movements, investigating theories of fascism and a variety of case studies. Special focus on German Nazism and Italian Fascism, using a global perspective - including other European countries, the United States, South Africa, Latin America, and Japan - to enrich comparative analysis. Includes an examination of contemporary far right movements. (ESPITH/GP)  
*Prerequisite: Instructor Permission*

### HST 435 London Research Seminar



4 cr UL

Focus on World War II, primarily in Europe, using the National Archives of the United Kingdom in London. Study various aspects of history and culture, in relation to World War II, Britain and Western civilization as a whole, by visiting selected museums, galleries, cathedrals, palaces and other historical landmarks in the greater London area and other selected British locations. Continuing archival research and development of papers written in HST-335. (ESPITH/GP) *Prerequisite: HST-238, 335 and Instructor Permission*

### HST 480 Topics and Problems in History



2-4 cr UL

Senior Honors Seminar. Analysis of business and economic history of East Asian- American relations; comparative revolutions; 20th century technology, geo-politics and global perspective. No more than 12 credits may count toward the degree. Only eight credits may count toward the History Major. This course is variable credit and may have offerings from 2-4 credits.

### HST 500 Senior Thesis



1-4 cr UL

This course is variable credit and may have offerings from 1-4 credits. *Prerequisite: Instructor Permission*

## Humanities (HUM)

### HUM 110 Fine Arts Education

AH

4 cr

A study of the knowledge, understanding and application of the content, functions, and achievements of dance, music, theatre, and the visual arts to promote one's ability to create, perform and respond in and through the arts. While the course will be of special interest to Elementary Education majors, it is designed to be accessible to all interested students. Fall only.

### HUM 180 Topics in Humanities

AH

2-10 cr

Courses in the humanities, often incorporating an interdisciplinary focus from two or more programs, do not fit within current departmental boundaries. Course content varies and can be repeated for credit unless otherwise indicated.

### HUM 385 Humanities Practicum

4 cr UL

Practicum in the field of Humanities. Requires Instructor Permission.

## Integrated Science (ISC)

### ISC 101 Integrated Science I

NS2 EXP3

4 cr

Introduction to concepts in biology, chemistry, physics, Earth, and space sciences. Topics include relationships in ecosystems; structure, function, and information processing; inheritance; forces and interactions; waves; weather and climate; processes that shape Earth; and patterns and cycles in space. Laboratory.

### ISC 301 Integrated Science II

NS1 THM

4 cr UL

This course is a continuation of Integrated Science I. Topics include matter and energy in ecosystems; interdependent relationships in organisms and ecosystems; growth, development, and reproduction; natural selection; forces and interactions; electromagnetic radiation; energy; chemical reactions; Earth history; weather and climate; human impacts; stars; solar system. Laboratory.

*Prerequisite: ISC-101*

## Integrative Physiology and Health Science (IPH)

### Major Requirements

Forty credits, minimum, which must include:

1. Core (20 credits): IPH-131, 231, 232, 301 and 327
2. Select one concentration:
  - *Clinical Exercise Physiology*: IPH-233, 328, 402, 418, 419, 420; and 2 elective credits which must be 300-level or higher (not including IPH-385, 480, or 500).
  - *Pre-Therapy*: IPH-310 or 311; IPH-345 and 444; IPH-401 or 403; and 6 credits from the following: IPH-233, 234, 235, 328, 335. The cognate for this concentration is PHY-112 or PHY-121.
  - *Pre-Medicine*: IPH-310 or 311; 401 or 402 or 403 or 404; IPH-444; IPH-264 or 331 or 430; and 6 additional credits from the previous options or the following: 170, 265, 328, 341, 418, 419, 420.
  - *Public Health*: IPH-264, 330, 331, 430; and 4 credits from the following: IPH-170, 265, 310 or 311, and 328.
3. Completion of the HAPS Comprehensive Examination (national, standardized examination) administered by the Department.
4. Completion of the IPHS Practicum (IPH-385), Senior Seminar (IPH-480), or Senior Thesis (IPH-500).

**Note:** For some concentrations, First Aid and CPR certification are required by external internship/practicum programs.

### Minor Requirements

Twenty-four credits of IPH classes that must include at least 16 credits taken at the upper level.

### IPH 110 Health Careers

2 cr

Examination of current information and practices relating to human health. Includes discussions, independent research, on-campus presentations by invited professionals, and off-campus visits to observe health practices, services, agencies and businesses. Pass/Fail only.

### IPH 111 First Aid and CPR

2 cr

Introduction to basic first aid and CPR. Satisfactory completion of this course qualifies student for American Red Cross Certificate. Course fee.

### IPH 130 Medical Terminology

2 cr

Develop fluency in the language that accurately describes the human body and associated components, conditions, processes, and procedures in a science-based manner. Emphasis is placed on the meaning, pronunciation, spelling, and application of common medical terms and phrases. Designed for students interested in medical and allied health fields.

### IPH 131 Foundations in Physiology

NS1

4 cr

This course will introduce students to core concepts underlying human function. At the end of the course students will be able to explain how these fundamental processes are essential to the viability of the human organism. Emphasis will be on general concepts, serving as preparation for the study of human physiology. The class will utilize traditional lectures together with in-class "laboratory" exercises and collaborative exercises solving clinically relevant problem sets.

**IPH 170 Health Equity Across Populations**

4 cr

Provide an overview of the major health issues and review determinants that influence health outcomes of the different population groups. Special attention will be given to socioeconomic, racial, ethnic, and gender status and their relationships with health disparities and inequities.

**IPH 212 Physiology of Aging**

NS1 4 cr UL

Study of the physiological changes accompanying the aging process. Focuses on both the natural aging process and diseases that are a consequence of aging. Emphasis on lifestyle modification and aging.  
*Prerequisite: BIO-121*

**IPH 214 Faith and Physiology**

NS1 4 cr UL

Critically evaluate the evidence suggesting a link between spirituality and health outcomes. Students are introduced to the scientific method, the current debate on science and religion, as well as basic understandings of the putative physiological basis for the observed connection. Larger questions about mind-body connections are addressed through extensive laboratory experiences. Intended for non-science majors. Laboratory.

**IPH 215 Human Structure and Function**

NS1 4 cr UL

Provides basic understanding of human anatomy and physiology with emphasis on applications to health and medicine. Intended for non-science majors and may not count toward an IPH Major or Minor. Students who have taken IPH-232, BIO-207, or BIO-307 should not take this course. Laboratory.

**IPH 224 Principles of Sports Medicine** NS1 4 cr UL

An exploration of the key tenets of sports medicine including sub-disciplines of expertise and a study of injury and pathology at the mechanistic, population, and epidemiological levels. Course fee.

**IPH 227 Human Physiology**

NS1 4 cr UL

Study of organ system function emphasizing homeostatic control in the face of constant disruption. Laboratory. Course fee.  
*Prerequisite: BIO-121*

**IPH 228 Physical Fitness Assessment**

2 cr UL

Development of hands-on assessment of health- and skill-related fitness components. Laboratory.  
*Prerequisite: IPH-220*

**IPH 229 Exercise Rx in Healthy Populations**

2 cr UL

Development of exercise prescriptions based on client health and fitness goals. Laboratory.  
*Prerequisite: IPH-228*

**IPH 230 Biostatistics**

NS3 QR 4 cr UL

Introduction to statistical methods used in biomedical science and public health research. Focuses on experimental design, descriptive methods, hypothesis tests, analysis of variance, regression, and other selected topics.  
*Prerequisite: MTH-110 or higher, or Placement*

**IPH 231 Anatomy & Physiology I**

NS1 THM 4 cr UL

An introduction to the musculoskeletal, nervous and cardiovascular organ systems. Students will learn about the structure, function and integration of the different systems while applying core concepts of physiology. This course is part one of a two semester sequence. Laboratory. Course fee.  
*Prerequisite: IPH-131 or BIO-121*

**IPH 232 Anatomy & Physiology II**

NS1 4 cr UL

An introduction into the respiratory, immune, gastrointestinal, endocrine and reproductive organ systems. Students will learn about the structure, function and integration of the different systems while applying core concepts of physiology. This course is part two of a two-semester sequence. Laboratory. Course fee.  
*Prerequisite: IPH-231*

**IPH 233 Fit & Exercise Prescription**

4 cr UL

Develop hands-on assessment of health- and skill-related fitness components. Learn and perform fundamentals of exercise prescriptions based on client health and fitness goals. Laboratory.  
*Prerequisite: IPH-231*

**IPH 264 Environmental Health**

4 cr UL

Exploration of the relationship between the environment and human health. Topics include exposure to pollution, environmental disasters, injuries, and occupational health. The following concepts will be explored: environmental justice, toxicology, public health, and risk assessment.  
*Prerequisite: Sophomore Standing*

**IPH 234 Therapeutic Modalities**

2 cr UL

Physiological principles and application of various therapeutic modalities utilized in the treatment of musculoskeletal injuries.  
*Prerequisite: IPH-227 or 231*

**IPH 235 Therapeutic Exercise**

2 cr UL

Methods and principles utilized in the rehabilitation of injuries of the physically active.  
*Prerequisite: IPH-323 or Instructor Permission*

**IPH 265 Global Health Perspectives** THM GCA 4 cr UL

This course provides an overview of the major human health issues among the global community. Topics include health education, healthcare, infectious disease, nutrition, violence, pollution and other health hazards. Review of case studies and data organization related to health disparities among different countries will be studied.  
*Prerequisite: Sophomore Standing*

**IPH 271A School Health and P.E.- Elementary**

2 cr UL

Designed to cover topical health and physical education content required for state teaching certification and methodology for teaching at the elementary level. Fall only.  
*Prerequisite: EDC-100, 120, and 160 or Instructor Permission*

**IPH 271B School Health and P.E.- Secondary**

2 cr UL

Designed to cover topical health and physical education content required for state teaching certification and methodology for teaching at the secondary level.  
*Prerequisite: EDC-103 and EDC-130, or Instructor Permission.*

**IPH 280 IPH Seminar**2 cr **UL**

Topics in physiology are selected by the instructor. Students expected to give a presentation. Course fee.

**IPH 301 Nutrition**

NS1 THM

4 cr **UL**

Introduction to human nutrition including identification, function and food sources of required nutrients. Application of principles of normal nutrition to special issues (e.g., physical performance, obesity, pathology.) Course fee.

*Prerequisite: IPH-231 or BIO-207*

**IPH 303 Stress Management**2 cr **UL**

Investigation of stressors in the work, social and self-environments. The physiology of stress and deep relaxation techniques studied as an introduction to lifestyle redesign.

*Prerequisite: Sophomore Standing*

**IPH 310 Introduction to IPH Research**2 cr **UL**

Introduction to the research process. Typically, students make a formal research proposal. Students are encouraged to pursue an individual study of a particular subject in Integrative Physiology.

*Prerequisite: Junior Standing or Instructor Permission*

**IPH 311 Introduction to Public Health Research**2 cr **UL**

This course is designed to provide students with an overview of the research process. Especially designed for research areas in public health, such as behavioral science/health education, biostatistics/epidemiology, and environmental health.

**IPH 321 Community Adult Fitness I**

NS1

1 cr **UL**

Hands-on exercise leadership of community members. Includes skill assessment, exercise prescription, and oversight of training and progress in individual and group fitness settings.

*Prerequisite: IPH-228*

**IPH 322 Community Adult Fitness II**

NS1

1 cr **UL**

Hands-on exercise leadership of community members. Includes skill assessment, exercise prescription, and oversight of training and progress in individual and group fitness settings.

*Prerequisite: Take IPH-321*

**IPH 327 Physiology of Exercise**

NS1

4 cr **UL**

Exploration of the physiological process in relation to exercise in everyday life, and to sports and recreational activities. Laboratory. Course fee.

*Prerequisite: IPH-227 or BIO-207*

**IPH 328 Pathophysiology**

NS1

4 cr **UL**

Introduction to the pathophysiologic study of disease in humans.

*Prerequisite: IPH-227 or BIO-207 or Instructor Permission*

**IPH 330 Health Data Analysis**4 cr **UL**

This course serves as an introduction to statistical computing and research data management.

**IPH 331 Health Promotion**

NS1 THM

4 cr **UL**

Provides critical information for planning, implementing, and evaluating health promotion programs in the workplace, schools, community or health care setting.

*Prerequisite: Junior Standing*

**IPH 334 Theory and Practice of Individual Sports**4 cr **UL**

Analysis of the skills of badminton, tennis and golf, and methods of instruction unique to each sport. Assume basic proficiency in each sport. Course fee.

*Prerequisite: Instructor Permission*

**IPH 335 Orthopedic Assessment I**4 cr **UL**

An exploration of the cardiovascular & respiratory systems, and their interactions with one another. Laboratory.

*Prerequisite: IPH-232*

**IPH 336 Orthopedic Assessment II**4 cr **UL**

An advanced exploration of didactic and clinical application into the examination and diagnostic assessment of upper and lower body orthopedic injuries. Laboratory.

*Prerequisite: Instructor Permission*

**IPH 340 Pharmacology**

NS1

4 cr **UL**

Overview of the major concepts of pharmaceutical sciences. Includes the study of basic pharmacodynamic and pharmacokinetic principles as related to the major classes of drugs used in the clinical setting today.

*Prerequisite: IPH-227 or BIO-207*

**IPH 341 Basic Pharmacology**

NS1

4 cr **UL**

This course will introduce students to the basic principles underlying drug action. Concepts include basic receptor theory, pharmacokinetics, and the pharmacodynamics of major classes of drugs in use today. Students will apply the principles through analysis of laboratory and clinical testing data as well as case studies. The emphasis will be on general mechanisms of drug action.

*Prerequisite: IPH-232 or BIO-207*

**IPH 342 Sport and Exercise Psychology**4 cr **UL**

This course is devoted to assisting students in learning and using theoretical and practical information related to the psychology of sport and physical activity. Effective mental training skills for successful sport and life performance are also discussed.

*Prerequisite: Junior Standing or Instructor Permission*

**IPH 344 Human Anatomy**

NS1

4 cr **UL**

In-depth study of human anatomy with laboratory experience. Course fee.

*Prerequisite: IPH-227 or BIO-207 may be taken concurrently*

**IPH 345 Biomechanics**

QR

4 cr **UL**

Introduction to the mechanical foundations of human movement with emphasis on applications to sports techniques and activities. Quantitative analysis of static equilibrium, linear and angular motion and relevant external forces.

*Prerequisite: PHY-112 or PHY-121*


**IPH 380 Topics in Integrative Phys & Health Sci**1-4 cr **UL**

Designed as a variable topic and credit course.

**IPH 385 Integrative Phys & Health Sci Practicum**1-4 cr **UL**

Designed for off- or on-campus placement combining academic orientation with practical preprofessional experience. Maximum of eight credits.

*Prerequisite: Instructor Permission*

**IPH 401 Molecular Aspect of Muscle Physiology**
 NS1 QR WI
4 cr **UL**

Detailed analysis of recent advances in our understanding of muscle function. Includes basic mechanisms of contraction, neuromuscular control and plasticity/adaptation of muscle tissue. Important comparisons between the major muscle types are made. Emphasis placed on understanding these concepts at the molecular level and how these mechanisms translate to overall tissue function. Laboratory. Course fee.

*Prerequisite: IPH-227 or BIO-207; CHM-115*

**IPH 402 Cardiorespiratory Physio**4 cr **UL**

An exploration of the cardiovascular & respiratory systems, and their interactions with one another.

*Prerequisite: IPH-227 or BIO-207 and Junior status*

**IPH 403 Neurophysiology & Motor Control**4 cr **UL**

Study of the nervous system's contributions to homeostasis and motor control.

*Prerequisite: IPH-227 or BIO-207 and Junior status*

**IPH 404 Endocrine Physiology**4 cr **UL**

Examines the critical role of the endocrine system in human viability.

*Prerequisite: IPH-227 or BIO-207 and Junior Standing*

**IPH 418 EKG Interpretation**2 cr **UL**

Assessment and interpretation of the normal and abnormal electrocardiogram. Includes analysis of EKG changes associated with disease states and pharmacological treatments. Laboratory.

*Prerequisite: IPH-227 or BIO-207*

**IPH 419 Stress Testing**2 cr **UL**

Application and interpretation of functional capacity and diagnostic stress testing. Includes analysis of normal and abnormal EKG and hemodynamic responses to graded exercise testing. Laboratory.

*Prerequisite: IPH-418*

**IPH 420 Exercise Prescription**

2 cr **UL**

Develop and implement exercise prescription principles for healthy individuals as well as individuals with various diseased states. Design a comprehensive exercise program, including health and fitness screening, goal assessment, and development of an individualized exercise prescription. Laboratory.

*Prerequisite: IPH-327 and IPH-419*

**IPH 428 Exercise Testing and Prescription**

NS1

4 cr **UL**

In-depth study of theoretical bases and applied knowledge required for graded exercise testing and individualized exercise prescription for normal and high-risk populations, with emphasis on cardiac patients. Electrocardiograph techniques and interpretation, pharmacological considerations, test data interpretations and emergency procedures are included. Laboratory. Course fee.

*Prerequisite: IPH-327*

**IPH 430 Epidemiology**

NS1

4 cr **UL**

Presents concepts, principles and methods generally used in the surveillance and investigation of health-related events.

*Prerequisite: BIO-121 and Junior Standing, or Instructor Permission*

**IPH 444 Advanced Anatomy**

NS1

4 cr **UL**

An in-depth exploration of human anatomy with an emphasis on cadaver dissection. Application of core concepts from human anatomy and physiology. Hands-on dissection conducted by students in the human cadaver laboratory. A strong focus will be placed on the ethical implications of death and dying helping to cultivate empathy, compassion, and respect for others as future healthcare professionals and citizens of the world. Laboratory. Course fee.

*Prerequisite: IPH-232 or BIO-207*

**IPH 500 Senior Thesis**

4 cr **UL**

Requires Instructor Permission.

## Latin (LAT)

Latin courses, as designated by the three-letter prefix LAT, are offered through the Modern Languages Department. The courses listed are offered periodically upon sufficient demand.

**LAT 111 Elementary Latin I**

4 cr

Phonetics, morphology, syntax and semantics preparatory to the translation of simple texts such as Caesar and Pinus.

**LAT 112 Elementary Latin II**
 AH

4 cr

Continuing study of phonetics, morphology, syntax and semantics preparatory to the translation of simple texts such as Caesar and Pinus.

*Prerequisite: LAT-111 or Instructor Permission*

## Library Research (LIB)

**LIB 110 Introduction to Library Research**

2 cr

Introduces a wide range of research and information literacy skills, including how to effectively choose a research topic, how to best use print and digital sources, and ethical information use. Most appropriate for first- and second-year students.

**LIB 310 Research and Technology**2 cr **UL**

Introduction to advanced library research using catalogs, databases, and internet sources. Students are encouraged to use mobile devices (e.g., laptops, tablets, smartphones) and to evaluate the usability of these devices. Most appropriate for juniors and seniors.

**LIB 385 Library Practicum**1-4 cr **UL**

Study-work program in the College Library or another library.

# Mathematics (MTH)

## Mathematics Major Requirements

Forty-four credits, which must include:

1. Thirty-six credits in MTH, which must include:
  - MTH-121, 122, 210, 223, 310, and 421 or 431.
  - Twelve additional upper-level MTH credits numbered above 210, with at least four credits taken at the 300- or 400-level.
2. Eight credits of cognates, to include:
  - A computer science course numbered CSC-121 or higher. For students with no previous computer science experience, this will require a prerequisite course of CSC-119 or higher.
  - One non-MTH course, approved by the Department, with a Mathematics prerequisite numbered MTH-113 or higher.
3. Successful completion of the Major Field Test in Mathematics.

## Mathematics Minor Requirements

Twenty-four credits in Mathematics, which must include:

1. MTH-121, 122, 210
2. At least eight additional upper-level credits in MTH numbered above 210.

## Mathematical Sciences Major Requirements

Fifty-two credits, which must include:

1. MTH-121, 122, 210, 223, 310, 336, 341, and 421 or 431
2. CSC-115, 118, or 119
3. CSC-121
4. Twelve additional credits in upper-level Mathematics or Computer Science courses, at least four credits of which must be Computer Science. Courses which combine applications and theory are encouraged (e.g. MTH-211, 342, 391, 399 or 499; and CSC-240, 310, 420, 430, 440, or 499).
5. Successful completion of the Major Field Test in Mathematics.

## Program Considerations

- MTH-100, 202, 203, 204, 205, and 206 do not count toward the Mathematics minor.
- At least one statistics course is recommended.
- Students interested in graduate school in mathematics should complete both MTH-421 and 431 and an honors project. Students interested in business and industrial careers should consider additional courses in Applied Mathematics, Computer Science and fields which apply mathematics in significant ways.

## Restrictions

The following combinations of double majors are not permitted: Mathematical Sciences and Mathematics; and Mathematical Sciences and Computer Science.

## Actuarial Science Major Requirements

Sixty-six credits, which must include:

2. MTH-121, 122, 210, 241, 242, 310, 341
3. ECN-111 and 112
3. BUS-121, 221, 222, 309
4. DAT-116 and 315
5. 4 credits from: MTH-342, MTH-345, ECN-317
6. 2-4 credits from: MTH-385 Actuarial Science Internship or MTH-399 Actuarial Science Independent Study

## Secondary Mathematics Teaching Major Requirements

Thirty-six credits, which must include:

1. MTH-120, 121, 122, 210, 223, 242, 310, 411 and 421.
2. Cognates:
  - Four CSC credits at the CSC-115 level or above
  - EDC-478 and EDC-478C

3. Successful completion of requirements for Secondary Education majors.

## Middle Grades Mathematics Teaching Minor Requirements (Grades 5-9):

Twenty-four credits in Mathematics, which must include:

1. MTH-110 or 111; MTH-112; MTH-116 or 242; MTH-120; MTH-121; MTH-207 or 411
2. Cognates: EDC-478 and EDC-478C
3. Successful completion of requirements for the PK-6 or Secondary Education majors.

## Requirements for Honors in Mathematics

1. A strong program of mathematics courses: at least five courses at the 300- or 400-level, including both MTH-421 (Abstract Algebra) and MTH-431 (Advanced Calculus).
2. A grade point average of at least 3.5 in Mathematics major courses
3. A project including both a paper and oral presentation of honors quality

## MTH 100 Applied Algebra

4 cr

Develops mathematical skills with an emphasis on increasing the students' ability to interpret and reason with quantitative information. Focuses on mathematical critical thinking and problem solving. Topics include variables and functions, linear, quadratic, exponential and other models, each presented in the context of applications from social and natural sciences, business, and everyday life.

## MTH 108 Introduction to College Math

2 cr

Strengthen your mathematical skills in preparation for coursework requiring quantitative reasoning. Topics include algebraic and exponential expressions, polynomial and rational equations, and graphs in the coordinate system. Emphasis will be placed on the development of critical thinking and problem-solving skills through applications.

## MTH 110 Liberal Arts Mathematics

NS3

4 cr

Exploration of the beauty, ubiquity, and power of mathematics in the context of real-world applications. Topics may include: urban planning, optimization, voting theory and social choice, game theory, coding information, and mathematics in art and nature.

## MTH 111 College Algebra with Applications

4 cr

Establishes problem-solving and critical thinking skills through applications. Topics include number systems, algebraic expressions and equations, and a variety of functions including linear, quadratic, exponential, and logarithmic. Intended for students who will take MTH-112 or will encounter quantitative reasoning in multiple courses.

## MTH 112 Pre-Calculus

NS3

4 cr

Foundational concepts for the study of calculus. Investigates polynomial, rational, exponential, logarithmic and trigonometric functions. Explores the ideas of functions and graphs, with emphasis on concepts and skills central to calculus. May not be taken for credit by students who have successfully completed MTH-121, 122 or 210.

## MTH 113 Applied Calculus

NS3

4 cr

Applications of calculus to business and the natural and social sciences. Background in trigonometry not needed. Intended as a final course in mathematics. Students planning to take MTH-122 should take MTH-121 instead.

**MTH 116 Elementary Statistics**

NS3 4 cr  
Introduction to modern elementary statistics and applications. Focuses on statistical reasoning and data analysis. Includes statistical design of experiments, estimation, hypothesis testing, regression, correlation and other selected topics.

**MTH 117 Intro to Matrices and Linear Methods**

NS3 2 cr  
Introduction to solving systems of linear equations, linear programming, elementary matrix theory, and the modeling of situations which are linear. Applications from business and natural and social sciences. Note: The content of this course is necessary background for MTH-310. Requires placement in MTH-112 or 4 years of high school math.  
*Prerequisite: MTH-112 or Pre-Calculus in High School*

**MTH 120 Discrete Mathematics**

NS3 4 cr  
Introduction to formal logic, sets, functions and relations, counting methods, graphs and trees, and recursive structures and inductive reasoning.  
*Prerequisite: MTH-112 or Pre-Calculus in High School*

**MTH 121 Calculus I**

NS3 4 cr  
Introduction to the calculus of one variable. Includes limits and continuity, the derivative and applications, the integral and applications, infinite series and sequences. (Part I of II)  
*Prerequisite: MTH-112 or Pre-Calculus in High School*

**MTH 122 Calculus II**

NS3 4 cr  
Introduction to the calculus of one variable. Includes limits and continuity, the derivative and applications, the integral and applications, infinite series and sequences. (Part II of II)  
*Prerequisite: MTH-121*

**MTH 180 Topics in Mathematics**

NS3 2-4 cr  
Selected topics of current or historic importance. *Prerequisites* vary with topics selected.

**MTH 192 Mathematical Modeling**

NS3 QR 4 cr  
Application of various mathematical topics in the context of modeling real-world phenomena. Mathematical topics include matrix arithmetic, derivatives and integrals, dynamical systems, and equilibrium and stability analysis, among others. Real-world phenomena include population growth, ecological competition and predation, and traffic flow, among others.  
*Prerequisite: MTH-112*

**MTH 204 Number Systems for PK-6 Teachers**

NS3 4 cr UL  
Introduction to number systems and operations, including early algebraic thinking, problem solving, set theory, and elementary logic. Analysis and construction of effective mathematical tasks in teaching number systems and operations at the PK-6 level.  
*Prerequisite: MTH-110 or above or satisfying of math competency*

**MTH 205 Rational Numbers for PK-6 Teachers**

NS3 4 cr UL  
Unpacking mathematical content and identifying competence for rational numbers, with a focus on representations, learning trajectories, performing and supporting mathematical explanations, and interpreting and extending mathematical thinking.  
*Prerequisite: MTH-110 or above or satisfying of math competency*

**MTH 206 Geometry for PK-6 Teachers**

NS3 4 cr UL  
An exploration of 2-D and 3-D geometry topics and spatial relations while exploring the high leverage teaching practice of assessment, noticing student thinking, and using representations.  
*Prerequisite: MTH-110 or above or satisfying of math competency*

**MTH 207 Geometry for Middle Grades Teachers**

4 cr UL  
An overview and examination of geometry and measurement topics and pedagogical approaches for teaching grades 5-9. Uses a variety of tools including dynamic geometry software. Topics include proofs, congruence, similarity, coordinate geometry, geometry learning trajectories, and connections of geometry to other content areas.  
*Prerequisite: MTH-112*

**MTH 210 Multivariable Calculus**

NS3 4 cr UL  
Continuation of MTH-122. Includes functions of several variables, vectors, vector-valued functions, three-dimensional analytic geometry, partial differentiation and multiple integration.  
*Prerequisite: MTH-122*


**MTH 211 Differential Equations**

NS3 4 cr UL  
Techniques and theory of solving ordinary differential equations. Includes series solutions, numerical methods and applications.  
*Prerequisite: MTH-210*

**MTH 221 Introduction to Cryptography**

NS3 4 cr UL  
Introduction to mathematics from several different branches of the subject including number theory, matrix algebra, probability, and statistics, all of which play a role in enciphering and deciphering secret messages.  
*Prerequisite: MTH-122*


**MTH 223 Mathematical Structures**

 NS3 4 cr UL  
Introduction to proof techniques. Theoretical analysis of discrete structures such as sets, graphs, functions, and relations.  
*Prerequisite: MTH-120 or MTH-122*

**MTH 241 Financial Mathematics**

NS3 QR 4 cr UL  
Introduction of fundamental concepts of interest theory. Applications of those concepts in calculating present and accumulated values for various streams of cash flows. Topics include reserving valuations, pricing, asset/liability management, investment income, and capital budgeting. Financial instruments such as derivatives will also be introduced.  
*Prerequisite: MTH-122*

**MTH 242 Applied Statistical Methods**

 NS3 QR 4 cr UL  
Applied study of inferential and descriptive statistics. Topics include data visualization, confidence intervals and hypothesis tests, linear regression, ANOVA, ANCOVA, categorical data analysis, resampling methods, and time series. Emphasizes written and oral communication of results. Uses statistical software, such as R.  
*Prerequisite: A MTH course numbered 112 or above, or DAT-115 or 116, or ECN-217, or PSY-220*

**MTH 280 Topics in Mathematics**

NS3 2-4 cr UL  
Selected topics of current or historic importance. *Prerequisites* vary with topics selected.  
*Prerequisite: MTH-122 or Instructor Permission.*

**MTH 310 Linear Algebra**

NS3 4 cr UL

Study of finite-dimensional real vector spaces; kernel, dimension, basis, linear transformations and their matrices, and eigenvalues.

*Prerequisite: MTH-210; MTH-117 Strongly Recommended*

**MTH 323 Complex Analysis**

NS3 4 cr UL

Introduction to the theory of functions of a single complex variable. Analytic functions, complex series, Cauchy's theorem and conformal mapping.

*Prerequisite: MTH-210*

**MTH 336 Numerical Analysis**

NS3 4 cr UL

Analysis and implementation of numerical algorithms for approximating functions, derivatives and integrals, and for solving nonlinear equations, ordinary differential equations and systems of linear equations. Exploration of implementation and application through standard libraries available in modern programming languages.

*Prerequisite: MTH-122 and one of CSC-115, DAT-116, CSC-118, CSC-119, or CSC-120*

**MTH 341 Probability and Statistics I**

NS3 4 cr UL

In-depth examination of probability and introduction to mathematical statistics. Topics include axiomatic probability, discrete and continuous random variables, transformations of random variables, moment generating functions, limit theorems, and point estimation.

*Prerequisite: MTH-122*

**MTH 342 Probability and Statistics II**

NS3 4 cr UL

Continuation of MTH-341, focusing on mathematical statistics. Selected topics may include maximum likelihood estimation, likelihood ratio tests, linear models, and Bayesian methods.

*Prerequisite: MTH-341*

**MTH 345 Stochastic Processes**

NS3 4 cr UL

Introduction to the theory and applications of stochastic processes, including Markov chains, Poisson processes, queuing theory, and Brownian motion. Example applications include models of random walks, DNA sequences, call centers, and the Black-Scholes option pricing formula.

*Prerequisite: MTH-210*

**MTH 351 Elementary Number Theory**

NS3 4 cr UL

Study of integers, including divisibility, the theory of prime numbers, congruences and solutions of equations in integers.

*Prerequisite: MTH-223*

**MTH 380 Topics in Mathematics**

NS3 4 cr UL

Selected topics of current or historic importance. *Prerequisites vary with topics selected.*

**MTH 390 Combinatorics**

NS3 4 cr UL

Introduction to combinatorial theory. Topics include enumeration, recurrence, generating functions, graph theory and optimization.

*Prerequisite: MTH-120 or 122*

**MTH 411 College Geometry**

NS3 4 cr UL

Axiomatic systems, models, finite geometries, Hilbert's axioms, independence of the parallel postulate, and introduction to non-Euclidean geometries with emphasis on hyperbolic geometry.

*Prerequisite: MTH-223*

**MTH 413 Topology**

NS3 4 cr UL

Introduction to point-set topology. Includes topological properties of Euclidean spaces, abstract spaces and metric spaces. Explores connectedness, compactness, continuity and homeomorphisms.

*Prerequisite: MTH-223*

**MTH 421 Abstract Algebra**

NS3 4 cr UL

Introduction to the theory of algebraic structures including elementary theory of groups, rings and fields.

*Prerequisite: MTH-223 and 310*

**MTH 431 Advanced Calculus**

NS3 4 cr UL

In-depth examination of the calculus of one variable, including topology of the real line, sequences and series of functions.

*Prerequisite: MTH-210 and 223*

**MTH 491 Mathematical Methods of Physics**

NS3 4 cr UL

Survey of advanced mathematical topics for application in the physical sciences. Topics selected from Fourier series, transform calculus, partial differential equations, boundary value problems, complex variables and vector calculus. Highly recommended for students planning graduate study in the physical sciences or applied mathematics.

*Prerequisite: MTH-211; MTH-310 recommended*

**MTH 500 Senior Thesis**

Requires Instructor Permission

4 cr UL

## Medieval and Renaissance Studies (MED)

**Minor Requirements**

1. Twenty-four credits which must include:
2. Core (12 credits): HST-203; ENG-250; ART-201 or 202
3. Electives (12 credits): Determined in consultation with the program director or Provost Office.

## Music (MUS)

Alma College is an accredited member of the National Association of Schools of Music, offers two-degree options: Bachelor of Music in Music Education and Bachelor of Arts with a major in Music.

**Bachelor of Arts in Music Requirements**

Forty Credits which must include:

1. MUS-111, 112, 116, 121, 122, 211, 212, 214, 345, 443, 444, 500
2. Two credits of Ensembles
3. Two credits of Applied lessons at the 290 level and above
4. MUS-500 is a senior project and may take the form of a recital research paper or other Department approved project. Requests for MUS-500 projects must be received at the end of the year preceding graduation.
5. Students are strongly advised to continue their study of voice or an instrument through studio lessons and ensembles.

**Bachelor of Arts in Music with Selected Concentration**

Fifty-eight to Sixty-two total credits, to include a thirty-six-credit core and one concentration selected from:

Music Composition	Music Technology
Music Performance	Music Business and Management:



## Bachelor of Arts in Music with Concentrations

Required Music Core Courses (36 credits):

1. MUS-111, 112, 116, 121, 122, 214, 345, 500
2. BUS-234
3. Eight credits from MUS-143, 443, or 444
4. Two credits of Music Ensembles
5. Two credits of Applied Lessons at the 290 level and above

Advising Notes:

- Students are strongly advised to continue their study of voice or an instrument through studio lessons and ensembles.
- Additionally, students are advised to take MUS-345 during the winter semester of their first year.

### Music Composition Concentration

*Twenty-six credits, to include:*

1. MUS-211, 212, 215, 225, NMS-160, 382
2. Four credits of MUS-298  
(Additional to the 2-credit required by the B.A. for a total of 6 credits of applied private lessons at the 290 level on one instrument or voice.)
3. Eight credits from MUS-398

Advising Notes: In this concentration, the MUS-500 requirement takes the form of a large-scale work and is graded by an AC Music Faculty member.

### Music Performance Concentration

*Twenty-two credits, to include:*

1. MUS-211, 212, 499(2)
2. Four credits of Applied Lessons at the 290 level and above  
(Additional to the 2 credits required by the B.A. for a total of 6 credits of applied private lessons at the 290 level on one instrument or voice.)
3. Eight credits of Applied Lessons at the 390 of one instrument or voice

Advising Notes: the MUS-500 requirement takes the form of a solo recital.

### Music Business and Arts Administration Concentration

*Twenty-six credits, to include:*

1. BUS-117, 121, NMS-101, 242
2. Twelve credits from BUS-225, 309, 323, 333

Advising Notes: In this concentration, MUS-500 will be an internship observed by an AC Music Faculty member and accompanying portfolio which will be graded with input from the cooperating professional.

### Music Technology Concentration

*Twenty-six credits, to include:*

1. NMS-101, 160, 242, 382, MUS-215
2. Twelve credits from CSC-119, EGR-130, NMS-130, 310

Advising Notes: In this concentration, the MUS-500 requirement takes the form of an internship observed by an AC Music Faculty member and accompanying portfolio which will be graded with input from the cooperating professional.

## Bachelor of Music in Music Education

Seventy-six credits which must include:

1. MUS-111, 112, 116, 121, 122, 211, 212, 214, 215, 237, 337, 344, 345, 431, 443, 444.
2. Seven credits of Ensembles, one of which must be MUS-155, 157, or 159.
3. Fourteen credits of Applied Lessons at the 290 level and above on one instrument or voice, subject to Department approval.
4. Two credits of elective coursework subject to Departmental approval.

5. Students with a vocal emphasis must complete MUS-132, MUS-138, and one term of an instrumental ensemble or instrumental pedagogy course.
6. Students with an instrumental emphasis must complete MUS-134, 135, 136, 137 and either MUS-138 or one term of a vocal ensemble.
7. All candidates must complete MUS-116 (piano proficiency) by the end of the fall term of the junior year.

### Minor Requirements

Twenty-four credits, which must include:

1. MUS-111, 112, 121 and 122
2. MUS-120 or 443 or 444
3. Two credits from MUS-140, 211, 214, 215, 237; may also complete courses not previously taken within the MUS-120, 443, or 444 sequence.
4. Six credits of Applied Lessons at the 190 level or above on one instrument or voice.

### Applied Lessons

**Applies to:** MUS-191-198, 291-298, 391-398, and 491-498.

Private lesson offerings are open to both majors and non-majors who complete an audition and receive Permission to register. The 300-level (391-398) and 400-level (491-498) represent upper-level performance skill and experience and require music faculty approval. **100-level lessons do not count toward the degree.** There is a private lesson instruction fee of \$165 per term for all levels (191-198, 291-298, 391-398, and 491-498). (Offered every term)

### Ensembles

**Applies to:** MUS-150 - 159 and 351.

Ensembles are open to all students who audition and receive Instructor Permission prior to registration. All ensembles are offered every year.

**No more than eight credits of participation in all ensembles combined may be applied toward degree requirements.**

### MUS 101 Fundamentals of Music

AH 2 cr

Music fundamentals including notation of pitch, clefs, and staff; chromatic alteration and enharmonic equivalents; accidentals; identification and notation of rhythm, meter, tempo, dynamics, and articulation; and concepts of scales and key signatures. Credits do not count toward any music degree.

### MUS 106 Piano for the Non-Major I

AH 2 cr

Introductory piano course for non-majors and students without prior piano instruction. Basics of music notation and vocabulary of music, scales, technique, repertoire and performance skills including simple pieces in various keys.

### MUS 107 Piano for the Non-Major II

AH 2 cr

Second semester introductory piano for non-majors. Continuation of study involving more advanced technique, expanded repertoire, and basic improvisational skills.

*Prerequisite: MUS-106 or Audition*

### MUS 111 Musicianship I

AH 4 cr

Study of the structure and use of intervals and chords in a basic harmonic vocabulary including diatonic triads and their inversions in major and minor keys, functional tonal principles, harmonic cadences, embellishing tones, principles of harmonization, part-writing chords, melodic relationships and periodicity, and dominant seventh chords. (Offered every year)

**MUS 112 Musicianship II**

AH 4 cr  
Continuation of MUS-111. Study of non-dominant seventh chords, secondary functions, modulation, form and dramatic shapes including binary, rounded binary, ternary, fugue, and variation. (Offered every year)

*Prerequisite: MUS-111*

**MUS 114 Piano Proficiency I**

AH 2 cr  
Fundamental skills, technique and repertoire development. Scales, simple accompaniment patterns, harmonization and improvisation. *Music majors only.*

**MUS 115 Piano Proficiency II**

AH 2 cr  
Level II piano proficiency, continuations of scale and arpeggio technique, chord progressions, solo and ensemble repertoire. *Prerequisite: MUS-114 or Audition; Music Major*


**MUS 116 Piano Proficiency III**

AH 2 cr  
Level III piano proficiency. Technique includes both black and white major and minor scales, arpeggios, chromatic scales, seventh chords, accompany a piece from the major instrument or voice; intermediate repertoire levels. (Offered every year)  
*Prerequisite: MUS-115 or Audition; Music Major*

**MUS 119 Class Guitar**

AH 2 cr  
Fundamentals for the beginning guitar player.

**MUS 120 Survey of Music Literature**

 AH 4 cr  
Introductory survey of major musical works representative of the styles and genres of the important periods of musical development. Extensive listening.

**MUS 121 Aural Skills I**

AH 2 cr  
Develops aural skills through a range of melodic, harmonic and rhythmic exercises. Introduces solfege syllables. May be taken concurrently with MUS-111 or in a subsequent term. (Offered every year)  
*Prerequisite: Take MUS-111*

**MUS 122 Aural Skills II**

AH 2 cr  
Continuation of Aural Skills I. May be taken concurrently with 112 or in a subsequent term. (Offered every year).  
*Prerequisite: MUS-121*

**MUS 131 Piano Pedagogy**

AH 1 cr  
Principles of musicianship on the piano. Designed for B.M. students. Emphasis on pedagogical methods and materials used in teaching piano to beginning and intermediate students. (Offered/Considered upon request).  
*Prerequisite: 8 credits from MUS-196 or MUS-396*

**MUS 132 Vocal Pedagogy**

AH 2 cr  
Introduction to the physiology of the vocal mechanism. Development of fundamental techniques used in private voice instruction, including vocal exercises used to establish and promote vocal health, literature for young singers, and the teaching of voice lessons. Offered Winter Term, even numbered years.

**MUS 134 Woodwind Pedagogy**

AH 1 cr  
Principles of tone production, fingering and embouchure for flute, oboe, clarinet and bassoon (or saxophone). Specialization in the instrument of the student's choice. (Offered Fall, Odd numbered years)

**MUS 135 Brass Pedagogy**

AH 1 cr  
Principles of tone production, fingering and embouchure for trumpet, French horn, trombone and tuba. Specialization in the instrument of the student's choice. (Offered Fall, Even-numbered years)

**MUS 136 String Pedagogy**

AH 1 cr  
Principles of musicianship on the violin, viola, cello and double bass. Designed for music education students. Emphasis on elementary string teaching methods and large group ensemble techniques necessary for school orchestral directing. (Offered Winter, Even-numbered years)


**MUS 137 Percussion Pedagogy**

AH 1 cr  
Principles of playing percussion instruments with emphasis on snare drum, mallet keyboard instruments and timpani. (Offered Winter, Odd numbered years)

**MUS 138 Choral Pedagogy**

AH 2 cr  
Principles of voice production, sight reading and singing. Emphasis on the election of choral literature particularly with regard to developing voice. Offered Fall Term, odd numbered years.  
*Prerequisite: 2 terms of MUS-151 and/or 157 and/or 158*

**MUS 140 Non-Western Music**

 AH 4 cr  
An introductory survey of the traditional music of non-Western countries. Examines the role of music as ritual, aesthetic experience, and mode of communication in diverse cultures. No music background necessary.

**MUS 143 Survey of Popular Music**

4 cr  
Survey popular music repertory from the early 1900s through today. Explore interactions between culture and song during the twentieth and twenty-first centuries. Reflect on historical and current trends and developments.

**MUS 150 Accompanying**

AH 1 cr

**MUS 151 College Chorale**

AH 1 cr

**MUS 152 Chamber Orchestra**

AH 1 cr

**MUS 153 Kiltie Band**

AH 1 cr

**MUS 153G Winter Guard Ensemble**

AH 1 cr  
Winter Guard Ensemble will provide students with experience or interest in the color guard arts a learning and performance-oriented course during the winter term. Students will develop requisite and advanced skills using flags, rifles, sabres and body movement. The ensemble will perform for select athletic events and at select winter guard competitions. Course fee.  
*Prerequisite: Permission*

<b>MUS 154 Scottish Arts</b>			<b>MUS 173 Songwriting</b>	
AH	1 cr		AH EXP1	4 cr
			Explore creative musicianship through songwriting and song study. Write new songs including lyrics, harmony, and melody. Learn basics of theory including harmony, key, and song structure. Record and perform songs individually and collaboratively. Present songs in a public performance at the end of the term.	
<b>MUS 155 Percussion Ensemble</b>			<b>MUS 180 Topics in Music</b>	
AH	1 cr		AH	1-4 cr
			Selected topics in music. May be taken more than once if topics differ. Only two registrations count toward Music Major.	
<b>MUS 156 Jazz Ensemble</b>			<b>MUS 191A Violin</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191A previously or Permission</i>	
<b>MUS 157 Alma Acapella</b>			<b>MUS 191B Viola</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191B previously or Permission</i>	
<b>MUS 158 Handbell Choir</b>			<b>MUS 191C Violoncello</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191C previously or Permission</i>	
<b>MUS 159 Chamber Music</b>			<b>MUS 191D Double Bass</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191D previously or Permission</i>	
<b>MUS 159A Chamber Music Strings</b>			<b>MUS 191E Electric Guitar</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191E previously or Permission</i>	
<b>MUS 159E Chamber Music Flute</b>			<b>MUS 191K Electric Bass Guitar</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191K previously or Permission</i>	
<b>MUS 159F Chamber Music Strings</b>			<b>MUS 191Y Classical Guitar</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-191Y previously or Permission</i>	
<b>MUS 159G Chamber Music Clarinet</b>			<b>MUS 192E Flute</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-192E previously or Permission</i>	
<b>MUS 159I Chamber Music Saxophone</b>			<b>MUS 192F Oboe</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-192F previously or Permission</i>	
<b>MUS 159J Chamber Music High Brass</b>			<b>MUS 192G Clarinet</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-192G previously or Permission</i>	
<b>MUS 159K Chamber Music Horn</b>			<b>MUS 192H Bassoon</b>	
AH	1 cr		AH	1 cr
			Private lessons. Course fee. <i>Prerequisite: MUS-192H previously or Permission</i>	
<b>MUS 159L Chamber Music Trombone</b>				
AH	1 cr			
<b>MUS 159M Musical THR Vocal Ensemble</b>				
AH	1 cr			
<b>MUS 159N Chamber Music Low Brass</b>				
AH	1 cr			
<b>MUS 159V Chamber Music Vocal</b>				
AH	1 cr			
<b>MUS 171 Music and Social Justice</b>				
AH EXP1	4 cr			
The intersection of the fields of Music and Social Justice has a longstanding history of advocacy and inspiring change. This course is an introduction to understanding the impact of music on various historical events. Students will study world cultures and events, identify where music can be found, and discuss why this is important. Through this course, students will learn new analytical skills, practice talking about difficult topics in a respectful way, and synthesize these skills to their own lives.				
<b>MUS 172 History of Musical Theatre</b>				
AH EXP1	4 cr			
Explore the history of Musical Theatre as it transitions from vaudeville to the early musical, Golden Age hits, musicals of the 60s and 70s, the mega musical of the 1980s, and contemporary musicals of the last two decades. Experience musicals and participate in several aspects, including being an audience member, a performer, a composer or lyricist, and a producer.				

<b>MUS 192I Saxophone</b>			<b>MUS 211 Comprehensive Musicianship III</b>	
AH	1 cr		AH	4 cr <b>UL</b>
Private lessons. Course fee.			Continuation of MUS-112. Study of advanced harmonic techniques including chromatically altered chords, mode mixture and chromatic relationships, and remote modulations. Advanced study of form including sonata, rondo, and related types. Enharmonic use of chords expanded tonicization and harmonic sequence, and linear harmonies. (Offered every year)	
<i>Prerequisite: MUS-192I previously or Permission</i>			<i>Prerequisite: MUS-112</i>	
<b>MUS 192P Bagpipes</b>			<b>MUS 212 Comprehensive Musicianship IV</b>	
AH	1 cr		AH	4 cr <b>UL</b>
Private lessons. Course fee.			Continuation of Music 211. Study of new musical resources and techniques in the twentieth and twenty-first centuries: new pitch bases, harmonic structures and methods, approaches to rhythm and meter, atonality, serial procedures, indeterminacy, sounds and textures (both acoustic and electronic), and jazz and related techniques and idioms. (Offered every year)	
<i>Prerequisite: MUS-192P previously or Permission</i>			<i>Prerequisite: MUS-211</i>	
<b>MUS 193J Trumpet</b>			<b>MUS 214 Intro to Music Technology</b>	
AH	1 cr		AH	2 cr <b>UL</b>
Private lessons. Course fee.			Designed primarily for the music major, the course examines MIDI (Musical Instrument Digital Interface) techniques and applications for recording, scoring and musical production. Covers MIDI configurations, sequencing, multi-track recording, mixing and composing/arranging techniques. Students will also be trained in the use of Finale, an industry standard application for music notation. (Offered every year)	
<i>Prerequisite: MUS-193J previously or Permission</i>			<i>Prerequisite: Music Major or Permission</i>	
<b>MUS 193K Horn</b>			<b>MUS 215 Audio Recording Workshop</b>	
AH	1 cr		AH	2 cr <b>UL</b>
Private lessons. Course fee.			Students' complete studio, field and stage recording projects. Topics and applications include digital audio recording systems and formats, sampling, critical listening, understanding acoustics, microphone techniques, EQ, compression as well as editing, final mixing and mastering. Cross-Listed with NMS-215. (Offered every year)	
<i>Prerequisite: MUS-193K previously or Permission</i>			<i>Prerequisite: MUS-214</i>	
<b>MUS 193L Trombone</b>			<b>MUS 225 Orchestration and Arranging</b>	
AH	1 cr		AH	2 cr <b>UL</b>
Private lessons. Course fee.			Provides a practical, in-depth examination of acoustic instruments, and explores methods of scoring, transcribing and arranging for a variety of instrumental ensembles. Includes a final orchestration project created using Finale or Sibelius software that will be played by the Alma College band or orchestra.	
<i>Prerequisite: MUS-193L previously or Permission</i>			<i>Prerequisite: MUS-112</i>	
<b>MUS 193M Euphonium</b>			<b>MUS 237 Conducting and Score Reading</b>	
AH	1 cr		AH	2 cr <b>UL</b>
Private lessons. Course fee.			Art of conducting, rehearsal techniques and procedures, score reading, problems of interpretation, organization and activities of choral and instrumental groups. (Offered Fall, Even-numbered years)	
<i>Prerequisite: MUS-193M previously or Permission</i>			<i>Prerequisite: MUS-112</i>	
<b>MUS 193N Tuba</b>			<b>MUS 250 Musical Theatre Techniques</b>	
AH	1 cr		AH	4 cr <b>UL</b>
Private lessons. Course fee.			The staging of and participation in the performance of a work for the musical theatre - including acting, singing and movement - is presented at the end of the term. Course may be repeated once for credit.	
<i>Prerequisite: MUS-193N previously or Permission</i>			<b>MUS 284 Music in Film</b>	
<b>MUS 194 Percussion</b>			AH	4 cr <b>UL</b>
AH	1 cr		This course examines the wide range of musical styles and aesthetic approaches used in narrative films. By analyzing examples from silent movies, Hollywood classics, foreign films, and recent releases, the class explores the functional and dramatic roles of music. No formal music theory experience is required.	
Private lessons. Course fee.			<i>Prerequisite: ENG-101</i>	
<i>Prerequisite: MUS-194 previously or Permission</i>				
<b>MUS 195 Voice</b>				
AH	1 cr			
Private lessons. Course fee.				
<i>Prerequisite: MUS-195 previously or Permission</i>				
<b>MUS 196 Piano</b>				
AH	1 cr			
Private lessons. Course fee.				
<i>Prerequisite: MUS-196 previously or Permission</i>				
<b>MUS 197A Organ</b>				
AH	1 cr			
Private lessons. Course fee.				
<i>Prerequisite: MUS-197A previously or Permission</i>				
<b>MUS 197B Harpsichord</b>				
AH	1 cr			
Private lessons. Course fee.				
<i>Prerequisite: MUS-197B previously or Permission</i>				
<b>MUS 198 Composition</b>				
AH	1 cr			
Applied composition provides individual lessons in both the craft and creative process of composing for acoustic instruments. Completed projects that develop original musical ideas for various instrumental and vocal ensembles will be required. Course fee.				
<i>Prerequisite: MUS-111 and Permission</i>				

<b>MUS 291A Violin</b>		<b>MUS 293K Horn</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191A previously or Permission</i>		<i>Prerequisite: MUS-193K previously or Permission</i>	
<b>MUS 291B Viola</b>		<b>MUS 293L Trombone</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191B previously or Permission</i>		<i>Prerequisite: MUS-193L previously or Permission</i>	
<b>MUS 291C Violoncello</b>		<b>MUS 293M Euphonium</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191C previously or Permission</i>		<i>Prerequisite: MUS-193M previously or Permission</i>	
<b>MUS 291D Double Bass</b>		<b>MUS 293N Tuba</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191D previously or Permission</i>		<i>Prerequisite: MUS-193N previously or Permission</i>	
<b>MUS 291E Electric Guitar</b>		<b>MUS 294 Percussion</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191E previously or Permission</i>		<i>Prerequisite: MUS-194 previously or Permission</i>	
<b>MUS 291K Electric Bass Guitar</b>		<b>MUS 295 Voice</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191K previously or Permission</i>		<i>Prerequisite: MUS-195 previously or Permission</i>	
<b>MUS 291Y Classical Guitar</b>		<b>MUS 296 Piano</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-191Y previously or Permission</i>		<i>Prerequisite: MUS-196 previously or Permission</i>	
<b>MUS 292E Flute</b>		<b>MUS 297A Organ</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-192E previously or Permission</i>		<i>Prerequisite: MUS-197A previously or Permission</i>	
<b>MUS 292F Oboe</b>		<b>MUS 297B Harpsichord</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Private lessons. Course fee.	
<i>Prerequisite: MUS-192F previously or Permission</i>		<i>Prerequisite: MUS-197B previously or Permission</i>	
<b>MUS 292G Clarinet</b>		<b>MUS 298 Composition</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Applied composition provides individual lessons in both the craft and creative process of composing for acoustic instruments. Completed projects that develop original musical ideas for various instrumental and vocal ensembles will be required. Course fee.	
<i>Prerequisite: MUS-192G previously or Permission</i>		<i>Prerequisite: MUS-111 and Permission</i>	
<b>MUS 292H Bassoon</b>		<b>MUS 337 Advanced Conducting</b>	
AH	2 cr <b>UL</b>	AH	2 cr <b>UL</b>
Private lessons. Course fee.		Continuation of MUS-237. Emphasis on advanced analytical, interpretive, and technical conducting skills, as well as practical aspects of successfully leading instrumental and choral ensembles. Offered Winter Term, Odd numbered years.	
<i>Prerequisite: MUS-192H previously or Permission</i>			
<b>MUS 292I Saxophone</b>		<b>MUS 344 Elementary School Music</b>	
AH	2 cr <b>UL</b>	AH	4 cr <b>UL</b>
Private lessons. Course fee.		MUS-344 Elementary School Music Examination of methods and materials in music. Required of Music Majors who wish to be certified to teach music at elementary and secondary levels. Open also to Education students with music background. (Offered Fall, Odd numbered years)	
<i>Prerequisite: MUS-192I previously or Permission</i>		<i>Prerequisite: Music Education Major; Permission</i>	
<b>MUS 292P Bagpipes</b>			
AH	2 cr <b>UL</b>		
Private lessons. Course fee.			
<i>Prerequisite: MUS-192P previously or Permission</i>			
<b>MUS 293J Trumpet</b>			
AH	2 cr <b>UL</b>		
Private lessons. Course fee.			
<i>Prerequisite: MUS-193J previously or Permission</i>			

**MUS 345 Career Skills for Musicians**

AH 2 cr **UL**  
 In today's ever-changing environment, new and creative approaches are necessary to shape a career in music. This course, a one-semester introduction to the basic principles of music entrepreneurship, is designed to help students acquire a range of practical skills necessary to succeed after graduation. Topics covered include: effectively marketing yourself, physical and mental health for musicians, copyright laws, website development, tips for interviews and auditions, and many other areas pertinent to developing a satisfying career in music. Offered Winter Term, even numbered years.

**MUS 350 Opera Workshop**

AH 1 cr **UL**  
 Basic techniques of operatic performance: role preparation, body movement related to music, acting, and techniques. May be repeated for up to a total of four credits

**MUS 351 Alma College Choir**

AH 1 cr **UL**  
 Final registration subject to audition

**MUS 380 Topics in Music**

AH 2-4 cr **UL**  
 Selected topics in music. May be taken more than once if topics differ. Only two registrations count toward a Music Major.

**MUS 391A Violin**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391A previously or Permission*

**MUS 391B Viola**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391B previously or Permission*

**MUS 391C Violoncello**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391C previously or Permission*

**MUS 391D Double Bass**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391D previously or Permission*

**MUS 391E Electric Guitar**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391E previously or Permission*

**MUS 391K Electric Bass Guitar**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391K previously or Permission*

**MUS 391Y Classical Guitar**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391Y previously or Permission*

**MUS 392E Flute**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392E previously or Permission*

**MUS 392F Oboe**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392F previously or Permission*

**MUS 392G Clarinet**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392G previously or Permission*

**MUS 392H Bassoon**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392H previously or Permission*

**MUS 392I Saxophone**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392I previously or Permission*

**MUS 392P Bagpipes**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392P previously or Permission*

**MUS 393J Trumpet**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-393J previously or Permission*

**MUS 393K Horn**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-393K previously or Permission*

**MUS 393L Trombone**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-393L previously or Permission*

**MUS 393M Euphonium**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-393M previously or Permission*

**MUS 393N Tuba**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-393N previously or Permission*

**MUS 394 Percussion**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-394 previously or Permission*

**MUS 395 Voice**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-395 previously or Permission*

**MUS 396 Piano**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-396 previously or Permission*

**MUS 397A Organ**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-397A previously or Permission*

**MUS 397B Harpsichord**

AH 2 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-397B previously or Permission*


**MUS 398 Advanced Composition**

AH 2-4 cr **UL**  
 Individual lessons are provided in both the craft and creative process of composing for acoustic instruments. This advanced course focuses on completing large-scale projects that develop original musical ideas for various instrumental and vocal ensembles. Course fee.  
*Prerequisite: MUS-111 and Permission*


**MUS 431 General Methods of Music Education**

AH 4 cr **UL**  
 Principles of group process teaching and classroom management. Accompaniment skills in piano and recorder, rehearsal techniques, teaching basic instrumental and vocal skills in grades 5-12 and a pedagogical overview of the human voice and standard band and orchestral instruments including tone production, practical ranges and related functions in an ensemble. (Offered Fall, Even-numbered years)  
*Prerequisite: Permission*


**MUS 443 Music History I**

 AH 4 cr **UL**  
 Music from Antiquity through the Baroque, Classical, and Early Romantic periods.  
*Prerequisite: MUS-112*

**MUS 444 Music History II**

 AH 4 cr **UL**  
 Music of the 19th, 20th, and 21st centuries.  
*Prerequisite: MUS-112*

**MUS 451 Alma Choir Abroad**

 AH 4 cr **UL**  
 An international concert tour for members of the Alma College Choir. Students will present concerts in sacred and secular venues, participate in music festivals when possible, and examine local musical culture, geography, history and architecture.

**MUS 491A Violin**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391A previously or Permission*

**MUS 491B Viola**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391B previously or Permission*

**MUS 491C Violoncello**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391C previously or Permission*

**MUS 491D Double Bass**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391D previously or Permission*

**MUS 491E Electric Guitar**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391E previously or Permission*

**MUS 491K Electric Bass Guitar**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391K previously or Permission*

**MUS 491Y Classical Guitar**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-391Y previously or Permission*

**MUS 492E Flute**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392E previously or Permission*

**MUS 492F Oboe**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392F previously or Permission*

**MUS 492G Clarinet**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392G previously or Permission*

**MUS 492H Bassoon**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392H previously or Permission*

**MUS 492I Saxophone**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392I previously or Permission*

**MUS 492P Bagpipes**

AH 4 cr **UL**  
 Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.  
*Prerequisite: MUS-392P previously or Permission*

**MUS 493J Trumpet**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-393J previously or Permission***MUS 493K Horn**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-393K previously or Permission***MUS 493L Trombone**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-393L previously or Permission***MUS 493M Euphonium**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-393M previously or Permission***MUS 493N Tuba**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-393N previously or Permission***MUS 494 Percussion**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-394 previously or Permission***MUS 495 Voice**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-395 previously or Permission***MUS 496 Piano**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-396 previously or Permission***MUS 497A Organ**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-397A previously or Permission***MUS 497B Harpsichord**AH 4 cr **UL**

Private lessons. Intended for upper-level performance skill. Final registration subject to departmental approval. Course fee.

*Prerequisite: MUS-397B previously or Permission***MUS 498 Advanced Composition**AH 4 cr **UL**

Individual lessons are provided in both the craft and creative process of composing for acoustic instruments. This advanced course focuses on completing large-scale projects that develop original musical ideas for various instrumental and vocal ensembles. Course fee.

*Prerequisite: MUS-111 and Permission***MUS 500 Senior Recital or Thesis**AH 2 cr **UL**

Satisfies the Department's comprehensive evaluation requirement.

*Prerequisite: Permission*

# New Media Studies (NMS)

**Major Requirements**

Thirty-six credits which must include:

1. Core: NMS-101 and eight additional credits from CSC-118 or 120, NMS-120, 130, 140, and 160
2. Context: At least twelve credits from upper-level NMS courses
3. Capstone: Complete an internship (NMS-385), taken for a total of 4 credits; Senior Seminar (NMS-449) and Senior Studio (NMS-450)

**Departmental Honors**

Completion of all NMS major requirements, 3.5 GPA in the major, an AB or above in Senior Capstone sequence (NMS-449 and NMS-450), and presentation of an NMS project at Honors Day.

**Minor Requirements**

Twenty-four credits which must include:

1. Core: NMS-101 and an additional eight credits from CSC-118 or 120, NMS-120, 130, 140, and 160
2. Context: At least eight credits of any upper-level NMS courses
3. Capstone: Senior Studio (NMS-450)

**NMS 101 Introduction to Digital Media**

4 cr

Introduction to technical, social, and cultural aspects of new media. Topics include media convergence, interactivity, social networking, and participatory culture. Includes lab work exploring basic principles of effective communication employing a variety of digital media for designing and delivering graphics, audio and video.

**NMS 114 Introduction to Web Development**

4 cr

This course provides an introductory examination of the theory and practice of communication in a digital format, including text, hypertext, visual, audio and video. Stresses application of digital media principles to authoring for the Web. Surveys the technologies underlying the World Wide Web, including Web page construction and JavaScript programming. Laboratory.

**NMS 120 Two-Dimensional Design**

4 cr

Investigation of foundational elements and principles of visual design as the basic building blocks for visual art and communication. Critical thinking skills, as they apply to studio art, are explored using traditional and digital techniques. Course fee.

**NMS 125 Introduction to Film Theory**

4 cr

In this course, we will study a wide variety of films; we will also study characteristics of the film/video medium and see how they are illustrated by the films studied in the course. Emphasis will be on the expressiveness of film techniques, fictional films, alternatives to the live-action fictional film, and how viewers understand films.

**NMS 130 Transmedia Storytelling** EXP4

4 cr

In our society, interactivity has become a key component of media. We try to make our messages compelling and memorable, whether designing ad campaigns, websites, or Facebook profiles. Interactivity is widely debated, even within a single medium, and so the various approaches to it will make up the core inquiry for this course: what makes a piece of media interactive? How does meaning get communicated in interactive media? How can we design media using interactivity to deepen communication? Students will focus on social media, transmediation, and games, and will compose digital projects and deliver presentations, both individually and collaboratively.



**NMS 140 Camera Media**

4 cr

This course addresses the importance of the camera in the twenty-first century and prepares students for advanced production and critical work with its media. Through readings, discussions, and hands-on activities, students develop fluencies in three areas: camera histories, camera techniques, and camera rhetorics (the camera's persuasive power). Course fee.

**NMS 160 Sound Design**

4 cr

This course presents an overview of digital audio and video applications and the workflows designed to produce and manipulate digital sound and moving images. This includes music and sound for video, animation, and using audio and video on the Web. Additional topics will include the basics of sound design, syncing of audio and motion video and the rudiments of audio and video production systems. Students will also be introduced to important media standards such as NTSC, HDV, MIDI, QuickTime, MPEG and various SD and HD formats. (Formerly MUS-201)

**NMS 180 Topics in New Media Studies**

1-4 cr

Selected topics in new media innovations, issues and effects. May be taken more than once for credit. Course fee.

**NMS 210 Motion Graphics and Animation**

4 cr UL

Introduction to 2D and 3D visual effects, animation and compositing. Critical study and theory of motion and animation principles; concepts of key framing, applying behaviors, tweening animations, symbols, generators and particle emission, chroma keying and rotoscoping. Course fee.

**NMS 215 Audio Recording Studio**

2 cr UL

Overview of the impact of computers and technology in the music professions. Topics include design of recording studio and lab environments, MIDI technology, fundamentals of audio technology, multimedia applications and using sound/music on the Web. Cross-listed with MUS-215.

**NMS 220 Intro to Media Programming & Computation**

NS3

4 cr UL

Write programs to manipulate images, sounds and movies, developing knowledge and skills in problem solving, data representation, data manipulation, and programming principles including recursion and object-oriented design. Introduction to basic ideas in hardware, software and computing.

**NMS 221 Intimacy and Technology**

4 cr UL

Explore the way communication technologies impact and influence our relational lives. Focus on both old and new media, examining the way specific communication channels shape our romantic, platonic, familial and professional relationships. Through readings, discussion, film and scrutiny of their own technology usage, students will investigate the relationship between intimacy and technology.

**NMS 225 Applied Film Theory**

4 cr UL

Applied Film Theory will offer students a study in the theory of film and applied filmmaking. Course topics will include the inspirations, source materials, historical context, production process, and existing critical analyses of important films from the last century. This course combines analysis of film with hands-on digital media projects and is designed to complement other courses in the New Media Studies major.

*Prerequisite: NMS-125 or Permission*

**NMS 230 Game Design I**

4 cr UL

Video game development is a burgeoning creative field that requires collaboration of experts with a variety of skill sets. Students in this course will take on the intense task of designing a video game from concept through storyboarding to prototyping and playtesting a paper model. Students will develop a game design document outlining the game's mechanics and story and will create art assets for the game. Each student will demonstrate proof of concept for their game in a presentation using the assets they developed. No coding experience is necessary for this course, and no coding will be required in the course.

**NMS 232 Digital Imaging**

4 cr UL

Exploration of aesthetic and technical relationships between still images, multiple prints and montage as they are presented in the form of the digital straight print, narratives, and/or series. Course fee.  
*Prerequisite: ART-120 / NMS-120; ART-126 recommended*

**NMS 233 Tabletop Role-Playing Games**

4 cr UL

The past several decades has seen an explosion of innovative board games, card games, miniature games, and pen-and-paper games, many of which involve role-playing (which is when players act out personas other than their own). Using theory, exposure to numerous games, and actual play, students will explore the design, mechanics, and social elements of non-digital, tabletop role-playing games. Course fee.

**NMS 240 Digital Film Production**

4 cr UL

Students are introduced to fundamentals of filmmaking and produce their own films. Elements covered include pre-production (financing, screenwriting and scheduling); production (cinematography, sound recording and directing); and post-production (editing, basic effects, marketing and distribution). Must be an NMS major or receive Instructor Permission to register for this course. Course fee.  
*Prerequisite: NMS Major or Permission*

**NMS 242 Client-Based Production**

2 cr UL

Gain hands-on experience producing media projects for real-world clients. Those enrolled join the college's student-run production company, Bitworks, and coordinate with clients to set project goals, schedules, and deliverables. Skills in project management, team coordination, and client communication are developed alongside technical proficiencies in areas like video production, photography, editing, graphic design, web development, branding, and social media management.

*Prerequisite: NMS-101*

**NMS 244 Video Editing**

4 cr UL

An intermediate course in film editing. Students analyze and practice techniques in narrative, documentary, commercial and experimental editing. All footage will be provided.

**NMS 253 Environmental Media**

THM

4 cr UL

Conflicts over water resources, petroculture, food safety, pollution, and climate change are some of the biggest challenges humans face, and environmental humanities address these concerns through analyses of representations, rhetorics, and media production. Through examination of readings, videos, documentary film, advertisements, television programs, video games, and social media, students will explore representations of environments and environmental issues from an intersectional perspective, developing textual analysis skills and building a foundation of theory from the environmental humanities. Students will also produce a piece of media with an environmental message.

**NMS 260 Visual Communication**4 cr **UL**

Focus on understanding images in culture from a psychological, photojournalistic and communication perspective. Work from a range of disciplines, including anthropology, communication, media and cultural studies, sociology, psychology and design.

**NMS 280 Topics in New Media Studies**2-4 cr **UL**

Selected topics in new media innovations, issues and effects. May be taken more than once for credit. Students may need to buy materials for their projects at a cost up to \$100.

**NMS 300 Media Theory and Culture** THM4 cr **UL**

Survey key benchmarks and texts in the history of media and new media technologies, while also introducing critical readings of 20<sup>th</sup> and 21<sup>st</sup> century media culture, both from the theoretical field of media studies and the creative works of artists, filmmakers and writers.

**NMS 310 Social Media Management** THM4 cr **UL**

Examine how businesses, organizations, and individuals use social media platforms to share their messages and stand out in a crowded media landscape. Learn how to craft social media management plans and marketing strategies with a focus on storytelling and design.

*Prerequisite: Sophomore Standing*

**NMS 330 Game Design II**4 cr **UL**

Video game development is a burgeoning creative field that requires collaboration of experts with a variety of skill sets. Students on this course will build on their experiences in Game Design I to undertake a more thorough and developed game design. Students will develop a game design document and partial game walk-through outlining the game's mechanics and story and will create art assets for the game using Adobe Illustrator. The endgame of the course is for each student to demonstrate proof of concept for their game in a studio-style pitch/presentation using the assets they developed. No coding experience is required for the course, no coding will be required on the course.

*Prerequisite: NMS-230*

**NMS 342 Client Project Management**2 cr **UL**

Gain hands-on experience managing media projects for real-world clients and learn what it takes to lead, coordinate and market a production company. Those enrolled in this advanced follow-up to Client-Based Production set goals, talk to clients, craft marketing strategies, and direct content for the college's student-run production company, Bitworks.

*Prerequisite: NMS-242*

**NMS 347 Postworlds**4 cr **UL**

An advanced course in visual effects and speculative design. VFX techniques are used to create possible and impossible worlds that critique modern culture. Students shoot original footage and make use of stock libraries.

*Prerequisite: NMS-101, NMS-140, or Permission*

**NMS 380 Topics in New Media Studies**2-4 cr **UL**

Selected topics in new media innovations, issues, and effects.

*Prerequisite: NMS-101 or Permission*

**NMS 381 Advanced Documentary**2 cr **UL**

Combines theory, history and practice, exploring documentary video production through an overview of the history and major styles, field exercises, screening, discussion and critique. Participating in collaborative work with classmates, students are exposed to a range of storytelling, production, aesthetic, and artistic issues. Hands-on demonstrations, field exercises, screenings, readings, lectures and discussion prepare students to produce short documentary videos.

**NMS 382 Advanced Mixing and Mastering**2 cr **UL**

In-depth, project-oriented class that explores the creative and technical issues involved in multitrack sound editing, mixing and mastering.

Topics include mono, stereo and multichannel audio formats, understanding mixing consoles, signal flow and busses, sound analysis and metering plug-ins, controlling levels and gain, advanced EQ, compression and "brick wall" limiting, automation and time-based effects. Tools include popular DAW applications Logic Pro, Pro Tools and Reason.

*Prerequisite: NMS-160*

**NMS 385 New Media Studies Internship**1-8 cr **UL**

Internship in the field of New Media Studies.

**NMS 449 Senior Seminar**4 cr **UL**

The first part of a two-course, senior-year capstone sequence aligned with the NMS mission to marry theory and practice. This course emphasizes conceptual and critical skills through discussion, research, writing, oral presentation, and project planning. Students engage the theoretical context of their specializations in NMS and build deeper communication fluencies in them. A thesis lays the groundwork for an applied project in the subsequent NMS-450 studio.

*Prerequisite: Senior Standing, NMS-101*

**NMS 450 Senior Studio**4 cr **UL**

This capstone studio serves as a bridge between work at Alma and a professional post-graduate career. Students will independently plan and execute a capstone project that applies their specialized skills in new media to a challenging problem. The goal is to develop projects with lasting impacts while deepening the students' own methods of design. The course also addresses how these skills might fit into post-graduate life through resume and portfolio workshops, as well as seminar discussions about the new media's role in the world. At the end of the term, capstones are assessed by a panel of faculty and industry judges at a public exhibition, which the class organizes and hosts.

*Prerequisite: Senior Standing*

**NMS 480 Topics in New Media Studies**2-4 cr **UL**

Selected topics in new media innovations, issues, and effects.

*Prerequisite: NMS-101 or Permission*

**NMS 500 Studies Senior Thesis**2-4 cr **UL**

Development and completion of original scholarly/creative work. May be applied, interpretive, critical, empirical or theoretical. Required for departmental honors. Requires Senior Standing and Permission.

*Prerequisite: Senior Standing and Permission*

# Nursing (NUR)

## Bachelor of Science in Nursing

One hundred credits, including:

1. Professional Sequence (50 credits): NUR-102, 210, 211, 220, 302, 310, 350, 351, 353, 355, 360, 402, 452, 454, and 500.
2. Integrative Science Core (42 credits): BIO-121 or IPH-131; BIO-308; CHM-115; IPH-231\*, 232\*, 301, 310 or 311, 328\*, and 340\* or 341\*; PSY-120 and 331.
3. Required Cognates (8 credits):
  - a) Four credits from: MTH-116, IPH-230 or PSY-220;
  - b) Four credits from: PHL-229 or BIO-210.

Students must earn a grade of C or higher in courses noted with an \*.

## Additional Program Requirements and Considerations for Nursing

1. All nursing students must maintain a cumulative minimum GPA of 2.5 and a minimum GPA of 3.0 in nursing (NUR) courses.
2. All nursing students must earn a minimum grade of BC in every nursing (NUR) course to progress in the program.
3. Any nursing student earning a C or below in a nursing course (NUR) must repeat the course to remain in the program and progress. The student may continue to take courses in the same tier while waiting to repeat the course.
4. A student may repeat only one nursing course (NUR) and may repeat a nursing course only one time. If a student fails to achieve a grade of BC or above in a second NUR course, or a grade of BC or above in a repeated nursing course, the student will not be allowed to remain in the Alma College nursing program.

### NUR 102 Integrative Seminar 1

2 cr

Describe the historical, and current, context of nursing as a healthcare discipline and profession. Recognize, and practice, medical terminology for future courses and healthcare delivery. Discuss nursing theory and the application to nursing care.

### NUR 210 Clinical Skills, Medical Math and EMR

2 cr UL

Provides the theoretical base for nursing therapeutics (clinical skills, medical math and EMR) to provide safe-effective patient centered care. Patient centered caring practices are expanded to include issues of privacy, confidentiality, and responses to diversity. Quality and safety standards/competencies for nursing therapeutics are introduced and practiced within a laboratory setting. Students must also enroll in NUR-211. Course fee.

*Prerequisite:* IPH-231, 232, 344, 328, and 340

### NUR 211 Physical Assessment

2 cr UL

Provides the theoretical base for a comprehensive health history and physical assessment utilizing the nursing process for a well adult patient. Incorporates spiritual, socio-cultural, psychological and physical dimensions of the patient for the health history and physical assessment. Patient centered caring practices are expanded to include issues of privacy, confidentiality, and responses to diversity. Quality and safety standards/competencies for the physical assessment are introduced and practiced within a laboratory setting. Student must also enroll in NUR-210. Course fee.

*Prerequisite:* IPH-231, 232, 344, 328, and 340

### NUR 220 Introduction to Professional Nursing

4 cr UL

Discover the variety of nursing roles: caregiver, advocate, manager, coordinator and the concepts underlying professional practice. Illustrates the philosophical, and theoretical, frameworks used in nursing practice, incorporating the concepts of social justice, ethical decision-making, and reflective practice. Identify the legal, and educational, requirements for nursing as a self-regulating profession. Discusses Healthy People 2030 and the relationship to nursing practice

*Prerequisite:* NUR-102

### NUR 280 Topics in Nursing

1-4 cr UL

Special topics in Nursing

### NUR 302 Integrative Seminar 2



2 cr UL

Examine how the healthcare delivery system, health informatics, integrative health practices and social determinants of health impact nursing practice. Employ concepts of patient-centered care, communication, collaboration, critical thinking, health promotion, evidence-based practice (EBP), and professional leadership into nursing practice.

*Prerequisite:* NUR-220

### NUR 310 Fundamentals Nursing Practice

4 cr UL

Provides the theoretical base for scientific inquiry/nursing process (assessment, diagnosis, planning, interventions and evaluation) to provide patient-centered care. Quality and safety standards/competencies of nursing practice are employed for the fundamental care of a patient within the framework of health care delivery systems. Nursing Fundamental Practicum Students practice learned assessment, fundamental and nursing skills in community and hospital settings under the supervision of clinical instructors. Leadership and system thinking concepts are expanded and practiced in the clinical setting. Laboratory/practicum. Course fee.

*Prerequisite:* NUR-211

### NUR 350 Medical Surgical Nursing I With Practicum

4 cr UL

Provides the theoretical base to prepare professional nurses to administer safe-effective, evidenced based practice care for the medical-surgical adult patient. The interrelationship of the patient, health, nursing and the environment are explored and practiced within a medical-surgical setting. Quality and safety standards/competencies of nursing practice are employed for the adult medical-surgical population within the framework of health care delivery systems. Laboratory/practicum. Course fee.

### NUR 351 Mental Health Nursing with Practicum

4 cr UL

Provides the theoretical base to prepare professional nurses to become competent to care for the mental health needs of the patient. The interrelationship of the patient, health, nursing and the environment are explored and practiced within the mental health setting. Quality and safety standards/competencies of nursing practice for the adult mental health population are explored and practiced within the framework of health care delivery systems. Laboratory/practicum. Course fee.

**NUR 353 Pediatric Nursing**3 cr **UL**

Provides the theoretical base to prepare professional nurses to become competent to care for children and their families. The interrelationship of the patient, health, nursing and the environment are explored and practiced within the critical care setting. Quality and safety competencies of nursing practice for the pediatric population are explored and practiced within the framework of health care delivery systems. Laboratory/practicum. Course fee.

*Prerequisite:* NUR-211

**NUR 355 Maternal Health Nursing**3 cr **UL**

Provides the theoretical base to prepare nursing students to become competent to care for childbearing women. The interrelationship of the patient, health, nursing and environment are explored within the maternal health setting. Quality and safety competencies of nursing practice for the maternal health population are explored within the framework of health care delivery systems. Laboratory/practicum. Course fee.

*Prerequisite:* NUR-211

**NUR 360M Community/Global Nursing Experience**4 cr **UL**

Provides the theoretical base to prepare professional nurses to become competent to care for the needs of patients from a designated community. The interrelationship of the patient, health, nursing and the environment are explored and practiced within a designated community setting. This course explores the health outcomes of a group of individuals, including the distribution of such outcomes within the group. The outcomes of mortality, quality of life and disparities will be examined through the reciprocal determinant factors of health care, individual behavior, social environment, physical environment, and genomics. The student will examine how policies and programs impact outcomes and determinants within current urban and global health care settings. Laboratory/practicum.

**NUR 380 Nursing Seminar**1-4 cr **UL**

Topics in Nursing decided by Instructor

**NUR 402 Capstone Seminar**4 cr **UL**

Identify nursing practice, management and leadership responsibilities within a changing healthcare environment. Examine organizational, leadership, and research theories in relation to strategic planning, patient care, quality management, fiscal management, and human relations skills. Discuss the necessity of continuing education and the need for a nursing role in public policy, in relation to contemporary healthcare issues. Explore professional areas of future role development and practice possibilities. Prepare for licensure and professional practice.

*Prerequisite:* NUR-302

**NUR 452 Medical Surgical Nursing II W Practicum**4 cr **UL**

Provides the theoretical base to prepare professional nurses to become competent to care for critical care needs of the adult and geriatric population. The interrelationship of the patient, health, nursing and the environment are explored and practiced within the critical care setting. Quality and safety standards/competencies of nursing practice for the adult critical care population are explored and practiced within the framework of health care delivery systems. Laboratory/practicum. Course fee.

**NUR 454 Community Health Nursing W Practicum**4 cr **UL**

Provides the theoretical base to prepare professional nurses to become competent to care for patients in the community. The interrelationship of the patient, health, nursing and the environment are explored within the community setting. Quality and safety standards/competencies of nursing practice are explored for care of the patient in the community within the framework of health care delivery systems. Laboratory/practicum. Course fee.

**NUR 480 Nursing Seminar**1-4 cr **UL**

Topics in Nursing decided by Instructor

**NUR 500 Clinical Immersion Practicum**4 cr **UL**

Provides for the transition of the student nurse to a professional baccalaureate nurse within an interdisciplinary, population-based model of care. Practicum is an immersion experience in which the student has the opportunity to practice the role of an entry-level baccalaureate nurse under the guidance of faculty and the direct supervision of an experienced clinician. Seminars are held to examine issues facing entry-level practitioners, such as ethical challenges, role transition, team building, conflict management, delegation, population-based care and community outreach, along with cost and quality outcomes in health care. Course fee.

## Philosophy (PHL)

**Major Requirements**

Thirty-six credits, which must include:

1. Sixteen PHL credits taken at the upper level (numbered 200 level or above).
2. Sixteen additional PHL credits, not already taken.
3. Four credits of PHL-500
4. Completion of the senior oral examination administered by the department.

**Minor Requirements**

Twenty-four credits taken in Philosophy (PHL), which must include 12 credits at the 200 level or above.

**PHL 102 Issues in Philosophy**

AH EXP2

4 cr

Exploration of issues in and development of individual positions in respect to basic philosophical questions.

**PHL 103 Critical Thinking**

AH EXP2

4 cr

Introduction to Logic. Elementary semantics, common fallacies in inference, the analysis of arguments, and the logic of induction and deduction. Emphasis primarily on reasoning as it occurs in everyday contexts.

**PHL 111 Ancient Philosophy**

AH EXP2 THM

4 cr

Explores ancient answers to some of the most important questions in the humanities: what does it mean to be human? What is our relationship to the natural world and to the divine? What are the ideal political arrangements? How do we become good human beings, and why should we be virtuous? What is the basic structure of reality? Focuses mostly on ancient Greek philosophy.

**PHL 112 Western Philosophy II**

AH THM

4 cr

Survey of major ideas which have helped shape the Western tradition and the thinking of contemporary people. The time period includes the Renaissance to the 20th century.

**PHL 120 Feminist Philosophy**

AH EXP4 4 cr  
 Examination of recent feminist studies in philosophy and religion. Focus on method, style, approach and arguments of the feminist critique.

**PHL 126 Introduction to Values**

AH EXP4 4 cr  
 Exploration of moral values, nature of moral judgments, and bases for moral decisions. Practice in decision making. Study of such controversial contemporary issues as capital punishment, abortion, privacy, death with dignity, racism and sexism. Focus on a person as an individual and member of society.

**PHL 127 Ethics in Social Media**

AH EXP4 4 cr  
 Apply critical analysis skills to important 21st-century issues on the internet, including privacy, polarization, misinformation, echo chambers, threats to democracy, friendships online versus offline, the attention economy, cancel culture, shaming, and caring for others online. Practice these skills on test cases.

**PHL 131 Introduction to Political Theory**

AH 4 cr  
 Introduction to normative political theory, both historical and contemporary. Includes analysis of central concepts of politics such as power, freedom, justice, democracy and equality. Explore key modern ideologies, such as liberalism, conservatism, socialism, fascism and political Islam. (Cross-listed as POL-131)

**PHL 180 Topics in Philosophy**

AH 2-6 cr  
 Selected topics in philosophy.

**PHL 215 Philosophy of Religion**

AH 4 cr UL  
 Examination of classical and contemporary issues in the philosophy of religion such as arguments for and against the existence of God, religious language, the relation between faith and reason, the evidential value of religious claims, and the relationship between morality and religion. (Cross-listed as REL-215.)

**PHL 216 Existentialism**

AH 4 cr UL  
 Examination, evaluation, and discussion of selected subjects – the individual, freedom, responsibility, anxiety, hope, death, meaning of life - as treated in both philosophical essays and works of fiction. Major authors may include Nietzsche, Kierkegaard, Jean-Paul Sartre, Simone de Beauvoir, Martin Heidegger, and Leo Tolstoy.

**PHL 217 Asian Philosophy**

AH THM 4 cr UL  
 Exploration of the history and thought of the major philosophical traditions of Asia, including Buddhism, Confucianism, and Taoism.

**PHL 224 Aesthetics**

AH THM 4 cr UL  
 Exploration of values pertaining to the arts. Study of principal aesthetic views, major issues in the philosophy of art, application to various art works and nature of aesthetic judgments, creative activity and aesthetic qualities of experience.

**PHL 225 Environmental Ethics**

AH THM 4 cr UL  
 Examination of conceptual and moral issues about nature and humans' relationship to it. Focus is on both theoretical frameworks about humans' responsibility for the environment and on contemporary environmental controversies, such as global warming, population issues, pollution, global justice and sustainability.

**PHL 227 Ethics and Business**

AH THM 4 cr UL  
 Exploration of the nature of moral values, moral judgments and ethical decisions. Analysis of selected issues in modern business. Test cases used for practice in decision making. Especially pertinent for those planning business careers but designed for all interested students.

**PHL 228 Ethics and Law**

AH THM 4 cr UL  
 Exploration of conceptual and ethical issues in the making and administration of law. Introduction to ethical theory. Study of such topics as criminals' rights, justification of punishment, death penalty, nature of legal responsibility, extent of justifiable government interference with freedom and relation between law and morality. Especially pertinent for Pre-Law students but designed for all interested students.

**PHL 229 Ethics and Medicine**

AH THM 4 cr UL  
 Exploration of the nature of moral values, moral judgments and ethical decisions. Analysis of selected issues in medicine and other health fields. Test cases used for practice in decision-making. Especially pertinent for those planning careers in health professions but designed for all interested students.

**PHL 230 Religion and Science**

AH 4 cr UL  
 Examination of the relationship between religion and science. Emphasis will be placed on the different contributions that science and religion make to an individual human life, to society, and to our knowledge of the world. The most important topic of the course is whether there is a conflict between religion and science and whether it is possible for the two to co-exist.

**PHL 232 Ancient Political Thought**

AH 4 cr UL  
 Exploration of key ideas in ancient and medieval political thought. The works of Socrates, Plato, Aristotle, the Stoics, Epicurus, Augustine and Aquinas are considered. Key questions addressed include: Is democracy superior to rule by the enlightened few? Are humans by nature political creatures? What is the proper relation between the individual and the state? Is the state a natural entity? (Cross-listed as POL-232.)

**PHL 234 Modern Political Thought**

AH THM 4 cr UL  
 Analysis of selected original works of Machiavelli, Hobbes, Locke, Rousseau, the American founders, Bentham, Mill, Marx and Nietzsche. Emphasis on relevance to contemporary political thought and issues. (Cross-listed as POL-234.)

**PHL 235 Ethics and Education**

AH 4 cr UL  
 Examination of ethical issues and education. Emphasis on the ethics of education, such as the very idea of compulsory education; and ethics in education, such as the tension between moral education and indoctrination, and issues pertaining to multiculturalism, gender and disability. Of special interest to students planning to become elementary or secondary teachers, but accessible to all interested students.

**PHL 236 Contemporary Political Thought**

AH THM 4 cr UL  
 This course explores contemporary debates in political theory regarding justice, democracy, freedom, equality, and rights. Do contemporary democracies distribute resources and opportunities fairly? Do they treat all citizens equally? Are they sufficiently democratic? Is capitalism a just economic system? Does it support or undermine democracy, freedom, and equality?  
*Prerequisite: POL-131*

**PHL 240 Love, Sex, and Gender**AH THM 4 cr **UL**

Examination of issues related to love, sex, and gender. Issues include the nature of sexual desire, love, sexual orientation, and gender. Discussions will focus on exclusivity in romantic relationships, sex without love, homosexuality, trans issues, gender identity, selling sex, pornography, and more.

**PHL 242 Philosophy of Sport**AH THM 4 cr **UL**


Examination of conceptual and moral issues that arise in sport. Conceptual issues include the relationship between play, games and sport, and the nature of competition. Moral issues include the role of sport in education, sportsmanship, performance-enhancing drugs, violence in sport, hunting and gender equity in sport.

**PHL 280 Topics in Philosophy**AH 2-4 cr **UL**

Selected topics in philosophy in such areas as historical studies, epistemology, metaphysics and values. May be taken more than once if different topic.

**PHL 303 Symbolic Logic**AH NS3 QR 4 cr **UL**

In-depth examination of symbolic logic, including propositional logic, predicate logic, and logic of identity. Study translation into notation, test validity by such methods as deduction, truth tables and truth trees. Examination of logical concepts: logical truth, consistency, equivalence, interpretations and the properties of relations.

**PHL 305 Philosophy of Science** AH THM WI 4 cr **UL**

Analysis of the nature of science. What justifies the view that science is the most objective source of human knowledge? What makes a scientific theory true? Examination of rival accounts of science and their relation to actual practice of scientists. Especially pertinent to science majors but designed for all interested students. Extensive background not required.

**PHL 325 Humanity and Nature**THM 4 cr **UL**

Exploration of the relationship between humanity and the natural world. Topics include the beauty of the natural world, the justification of conservation efforts, the divine or spiritual aspect of the natural world, whether it is more important to benefit humanity or save the environment, humanity's relationship to other animals, the nature of the Anthropocene, and more.

**PHL 326 Virtue Ethics** AH THM WI 4 cr **UL**

In-depth examination of "virtue ethics." Is virtue based on reason alone, or does it also involve feeling and sentiment? What kind of character traits should I try to cultivate? What makes my life meaningful? Why should I be virtuous? What kind of person should I try to become? Consideration of such virtues as courage, justice, and wisdom. These questions are explored from the perspectives of Aristotle, Epicurus, and various Stoic philosophers such as Marcus Aurelius.

**PHL 347 Mind and Consciousness** AH 4 cr **UL**

Exploration of the nature of mind and consciousness. Consideration of such views as whether the mind can exist independently of the body and whether the mind is dependent on or identical to the brain. Emphasis will be placed on the consequences of these views on beliefs about whether immortality or free will exist. Discussions will highlight insights from contemporary neuroscience.

**PHL 349 Marxism and Capitalism**4 cr **UL**

Exploration of the relationship between humanity and the natural world. Topics include the beauty of the natural world, the justification of conservation efforts, the divine or spiritual aspect of the natural world, whether it is more important to benefit humanity or save the environment, humanity's relationship to other animals, the nature of the Anthropocene, and more.

*Prerequisite: 4 credits of PHL-200 level or higher or Permission***PHL 380 Seminar**AH 2-4 cr **UL**

Selected topics in philosophy which arise in various fields. Generally interdisciplinary, team-taught. Reading, discussion, papers and critiques. Subjects and credits to be announced.

*Prerequisite: Permission***PHL 500 Senior Thesis** AH 1-4 cr **UL**

Individual research culminating in preparation of a major paper and departmental oral examination.

*Prerequisite: Permission*

## Physical Science (PSC)

**PSC 101 General Physical Science**

NS2 4 cr

An introduction to the basic concepts in physical science in the areas of physics, chemistry, earth science and astronomy. Meets standards for elementary certification. Laboratory.

**PSC 180 Basic Physical Science**

4 cr

An introductory course in physical science.

**PSC 380 Physical Science Concepts**4 cr **UL**

A standards-based class and laboratory experience in physics and astronomy that supports K-8 pre-service teachers in understanding the physical sciences and expanding their repertoire of teaching and assessment techniques suitable for science subject areas.

## Physics (PHY)

**Physics Major Requirements**

Fifty-two credits, which must include:

1. Core courses (32 credits): PHY-121, 122, 212, 221, 312, 321, 323, 421.
2. Elective (4 credits): any PHY course numbered 300 or above, or AST-225.
3. Required Cognates (16 credits): MTH-121, 122, 210, 211.
4. MTH-310 and a programming course (e.g. CSC-115 or 116) are highly recommended.

**Physics Specialization Teaching Major (7-12)**

Fifty-two credits, which must include:

1. PHY-121, 122, 212, 221, 312, 321, 323, and 421;
2. EGR-130;
3. Required Cognates (16 credits): MTH-121, 122, 210, and 211;
4. Successful completion of requirements of the Science Teaching Major (5-12) and the Secondary Education Major.
5. A grade point average of at least 2.5 in Physics Specialization Teaching Major (7-12) courses.

**Physics Specialization Teaching Minor (7-12)**

Thirty-six credits, which must include:

1. PHY 121, 122, 212, 221, 321 and 323;
2. Required Cognates (12 credits): MTH-121, 122, and 210;

- Successful completion of requirements of the Science Teaching Major (5-12) and the Secondary Education Major.
- A grade point average of at least 2.5 in Physics Specialization Teaching Minor (7-12) courses.

### Physics Minor Requirements

Thirty-two credits, which must include:

- PHY-121, 122, 212, and 221;
- Eight credits from Physics and Astronomy courses numbered 200 or above;
- Required Cognates (8 credits): MTH-121 and MTH-122

Note: Most upper-level PHY courses also require MTH-210.

### Departmental Honors in Physics

Completion of all requirements for the major, at least a 3.5 GPA in the major, and completion of a senior thesis (PHY-500) including a paper and oral presentation of honors quality.

### PHY 112 General Physics I

NS2 4 cr

First half of an introductory course in physics. Uses algebra and trigonometry but not calculus. Appropriate for students who plan no further study in physics. Topics include one and two-dimensional mechanics, vectors, forces, work, energy, momentum, torque, and equilibrium. Many class examples relate to human body functions such as muscles and motion. Students cannot receive credit for both PHY-112 and PHY-121. Laboratory. Course fee

*Prerequisite: Sophomore Standing and MTH-112, 113, or 121; or Permission*

### PHY 113 General Physics II

NS2 4 cr

Second half of an introductory course in physics. Uses algebra and trigonometry but not calculus. Appropriate for students who plan no further study in physics. Topics include oscillations, waves, sound, optics, electricity and magnetism. Many class examples relate to human body functions such as hearing, vision, and electric signaling. Students cannot receive credit for both PHY-113 and PHY-122. Laboratory. Course fee.

*Prerequisite: PHY-112*

### PHY 121 Introduction to Physics I

NS2 EXP3 4 cr

Calculus-based treatment of one and two-dimensional mechanics, vectors, force, work, energy, momentum, torque, and static equilibrium. Offered every Fall. Laboratory. Course fee.

*Prerequisite: MTH-113 or MTH-121 previously or concurrently*

### PHY 122 Introduction to Physics II

NS2 QR 4 cr

Continuation of PHY-121. Topics include oscillations and waves, sound, electricity and magnetism, optics, and basic thermodynamics. Offered every Winter. Laboratory. Course fee.

*Prerequisite: PHY-121*

### PHY 212 Mechanical Systems

NS2 4 cr UL

Rotational kinematics, dynamics, and advanced static equilibrium; fluids and introduction to thermal physics. Offered Winter, Even-numbered years)

*Prerequisite: PHY-121 and MTH-121*

### PHY 221 Modern Physics

 NS2 WI QR 4 cr UL

Survey of fundamentals of modern physics; special relativity, atomic physics, nuclear physics, and introductory quantum wave mechanics. Laboratory. Course fee.

*Prerequisite: PHY-121*

### PHY 225 Astrophysics

NS2 4 cr UL

Study of the physics of stellar constituents of the universe: distances, magnitudes, colors, spectra and motions of stars; multiple and variable stars; stellar structure and evolution, star clusters, structure and rotation of the Milky Way galaxy, galaxies and cosmology.

*Prerequisite: PHY-221*

### PHY 312 Dynamics

NS2 4 cr UL

Study of motion. Includes particle dynamics, central force motion, rigid body motion, Lagrange's and Hamilton's equations of motion. (Offered Fall, Even-numbered years)

*Prerequisite: PHY-122 and MTH-211*

### PHY 321 Intermediate Electromagnetism

NS2 4 cr UL

Study of electric and magnetic fields. Introduces and uses vector calculus. Includes integral and differential forms of Maxwell's equations; electric, scalar and vector potentials; radiation; and electric and magnetic properties of matter. (Offered Fall, Odd numbered years)

*Prerequisite: PHY-122, MTH-210*

### PHY 323 Thermal/Statistical Physics

NS2 4 cr UL

Study of thermodynamics as seen and derived from a quantum statistics perspective. Includes first, second and third laws of thermodynamics; kinetic theory of gases; Maxwell-Boltzman statistics; thermal equilibrium; and fluctuations and irreversibility. (Offered Winter, Odd numbered years)

*Prerequisite: PHY-122, PHY-221 and MTH-210*

### PHY 333 Optics

 NS2 4 cr UL

Study of geometric and physical optics. Includes mirror and lens systems, apertures and stops, photography, fiber optics, Fourier techniques, interference and diffraction, limits of resolution, optical image processing, electro optics, lasers and holography. Laboratory. Course fee.

*Prerequisite: PHY-122*

### PHY 380 Topics in Physics

NS2 4 cr UL

Study of topic of current or historical importance chosen by Instructor. Prerequisites vary with selections.

*Prerequisite: May require Permission*

### PHY 421 Quantum Mechanics

NS2 4 cr UL

Study of wave and matrix mechanics, the harmonic oscillator, the hydrogen atom and angular momentum and spin. (Offered Winter, Even-numbered years)

*Prerequisite: PHY-221, MTH-210; MTH-310 is recommended*

### PHY 431 Advanced Electromagnetism

NS2 4 cr UL

Study of electromagnetic waves and systems. Includes transmission lines, waveguides, antennas, and microwave networks. (Offered Winter, Even-numbered years.)

*Prerequisite: PHY-321*

### PHY 480 Topics in Physics

NS2 4 cr UL

Study of topic of current or historical importance chosen by Instructor. Prerequisites vary with selections.

*Prerequisite: May require Permission*

## PHY 500 Senior Thesis

 NS2

2-4 cr **UL**

Planned program of research performed on campus or as part of research group at major university or national laboratory. Course fee.  
*Prerequisite: Permission*

# Political Science (POL)

## Major Requirements

Thirty-six credits, which must include:

1. POL-401
2. Thirty-two credits taken in POL - a minimum of twenty must be taken at the upper level (200 or above).
3. Note: No more than eight credits from POL-226 / 227 and 328 / 329 may count toward the major.

## Minor Requirements

Twenty-four POL credits, which must include: A minimum of sixteen upper-level credits in POL. No more than eight credits from POL-226/227 and 328/329 may count toward the minor.

## Departmental Honors

Political Science departmental honors require a major GPA of 3.5 or higher and the completion and public presentation of a senior thesis.

## POL 101 The American Political System

SO 4 cr

Study of institutions and processes of politics and government. Contemporary political problems. Primary focus on federal government with some attention to state and local politics. (APP)

## POL 111 Forming More Perfect Unions

 SO EXP4 4 cr

To "Form a more perfect Union," political leaders build institutions by creating constitutions. These institutions are attempts to solve immediate problems but also give rise to new problems, and no one set of institutions is appropriate for all contexts or moments in time. In this course students will participate in simulations of the Constitutional Convention of 1787, the Mexican Revolution, and the building of post-apartheid South Africa. By examining three "constitutional moments" in depth, students will better understand the dynamics, aspirations, and limitations of constitutions, preparing them to explore the political system of any country, past or present.

## POL 121 World Conflicts and Problems

 SO EXP2 4 cr

Examines a selection of world conflicts in terms of their causes and prospects for war, control or settlement. Explores world-wide problems, needs and efforts among states to deal cooperatively. (INR)

## POL 131 Modern Ideals and Ideologies

SO EXP2 4 cr

This course examines the most influential ideologies of the modern era including liberalism, conservatism, socialism, communism, fascism, and liberation ideologies. (Cross-listed as PHL-131) (THE)

## POL 141 Intro to Public Mgt and Policy Analysis

SO 4 cr

Study of leadership and administration in public organization, including relationship between bureaucracy and the executive, judicial and legislative branches; development of organizational theory; policymaking and implementation process; bureaucratic ethics; and reconciliation of democracy and bureaucracy. Recommended for those considering careers in public service or jobs affected by public policy. (APP)

## POL 180 Topics in Political Science

SO 2-4 cr

Examines special political subjects in both the foreign/international and American realms.

## POL 210 Political Science Statistics

SO NS3 THM QR 4 cr **UL**

Statistics is the dominant methodological approach in social science, including political science. In this course, students will learn the mathematical underpinnings and software for multivariate regression analysis, the dominant methodology in the field (among others). Political Science Statistics will use some of the most prominent databases in the field as the foundation for instruction and teach students basic and advanced Microsoft Excel techniques as well.  
*Prerequisite: One POL course or transfer equivalent*

## POL 213 Politics of Remembering

SO EXP4 4 cr **UL**

The course explores public monuments as political symbols. Questions such as who decides what will be publicly memorialized, what should be memorialized, and what should be done if attitudes about the memorial change will be discussed. Students will be challenged to contemplate historical and contemporary debates on how political symbols are remembered. This course explores these topics through simulations and individual projects of contemporary efforts to change specific monuments.

## POL 214 Latin American Politics

 SO THM GCA 4 cr **UL**

Latin America has been a focus of political scientists for decades, as these 19 diverse countries share many features and yet also represent a wide array of political experiences and trajectories, including: communist revolutions; bloody civil wars; military dictatorships known for massive human rights violations; presidential autogolpes; and, yes, even stable democracy. In this course, students will explore the dynamics that shape Latin America through simulations of the Mexican Revolution and post-dictatorship Argentina and research projects highlighting particular aspects of politics in the region.

## POL 219 Who Cares About the Earth?

 SO THM QR 4 cr **UL**

In this course, students will analyze data on how countries perform on a wide range of environmental issues, including exploring economic, demographic, and political factors. Students will explore possible reasons for the wide variation of individual countries' responses to addressing climate change through the use of data analysis and in-depth case studies about why countries are addressing climate change or failing to.

## POL 221 Analysis of International Politics

 SO 4 cr **UL**

Study roles of the state, international and non-state actors in international politics; theories of conflict, conflict control and resolution; and prospects for world community.

## POL 225 International Law and Organizations

  SO THM 4 cr **UL**

Analyzes historical evolution of international law, its purposes, principles and relationship to the international arena. Study of international organizations and their impact on international legal order.

## POL 226 Model United Nations "A"

 SO 2 cr **UL**

Preparation to represent an assigned country at a Model UN competition through examination of current international issues and UN organizational structures and processes. Course fee. (INR)

## POL 227 Model United Nations "B"

 SO 2 cr **UL**

Preparation to represent an assigned country at a Model UN competition through examination of current international issues and UN organizational structures and processes.



**POL 231 American Political Thought**SO 4 cr **UL**

Explores American political thought from the founding to the present. Key themes considered include majority rule and minority rights, participatory versus elite theories of democracy, the tensions between democracy, freedom and equality, and civil disobedience.

**POL 232 Ancient Political Thought**☺ SO THM 4 cr **UL**

Exploration of key ideas in ancient and medieval political thought. The works of Socrates, Plato, Aristotle, the Stoics, Epicurus, Augustine and Aquinas are considered. Key questions addressed include: Is democracy superior to rule by the enlightened few? Are humans by nature political creatures? What is the proper relation between the individual and the state? Is the state a natural entity?

**POL 233 Current Controversies U.S. Politics**SO 4 cr **UL**

Examine the ethical and empirical dimensions of some current political controversies in the U.S., such as the death penalty, gay marriage, torture, terrorism, affirmative action and euthanasia. Introduction to relevant concepts in ethical theory, law, political philosophy and empirical inquiry in order to provide the framework to think knowledgeably and critically about these issues.

**POL 234 Modern Political Thought**☺ SO THM 4 cr **UL**

Analysis of selected original works of Machiavelli, Hobbes, Locke, Rousseau, the American founders, Bentham, Mill, Marx and Nietzsche. Emphasis on relevance to contemporary political thought and issues.

**POL 236 Contemporary Political Thought**SO THM 4 cr **UL**

This course explores contemporary debates in political theory regarding justice, democracy, freedom, equality, and rights. Do contemporary democracies distribute resources and opportunities fairly? Do they treat all citizens equally? Are they sufficiently democratic? Is capitalism a just economic system? Does it support or undermine democracy, freedom and equality?

*Prerequisite: POL-131*

**POL 241 U.S. Presidential Elections**SO 4 cr **UL**

Studies the links of elections and the media, campaign fundraising, electoral strategies, the role of the media in shaping campaigns, and the impact on public policy; offered especially in national election years, where the election can serve as a laboratory to test theories.

**POL 242 Comparative Environmental Health Policy**☺ SO 4 cr **UL**

Comparative analysis of the environmental-health policy process. Emphasis on applied research related to current government or non-governmental organization projects or concerns.

**POL 243 Public Opinion and Voting**SO THM 4 cr **UL**

The course explores how Americans form their political beliefs and values, and how those beliefs and values influence their voting behavior. The impact of ideology, economic class, ethnicity, religion, and education are considered.

**POL 245 The Political Experience**SO 4 cr **UL**

Explores nature of elective and administrative politics in state and local governments. Integrates cognitive and experiential learning. Includes field trips and interviews with state/local leaders in government, interest groups and media.

**POL 280 Topics in Political Science**SO 2-4 cr **UL**

Variable topics in political analysis.

**POL 305 Constitutional Law**SO THM 4 cr **UL**

Case law study of the Supreme Court's interpretations of U.S. Constitution in the areas of the governmental structures and processes and civil rights and liberties. Different approaches to interpreting the Constitution are also considered.

**POL 316 Democracy's Slow Death**☺ SO THM QR 4 cr **UL**

By any number of measures, democracy is slowly retreating around the world as authoritarianism increasingly succeeds in limiting the power and impact of voters. While historically these efforts were dramatic and abrupt, whether violent insurrections, sudden autogolpes, or military coup d'etats, in recent years it has become much more likely for democracies to be slowly hollowed out from within by democratically elected leaders. Students will develop a rich understanding of democratic decline through a simulation of Weimar Germany. In addition, students will develop critical analytical skills through a survey of the rapidly growing empirical literature on democratic decline. Finally, students will advance their data-analytic skills through the creation and analysis, using Microsoft Excel, of a statistical dataset exploring political, economic, demographic, sociological, and other factors connected to democratic decline. (CMP)  
*Prerequisite: POL-210; or any one POL course and one statistics course (IPH-230, MTH-116, 242; DAT-115; PSY-220); or Permission*

**POL 317 Politics of Fear and Hate**☺ SO 4 cr **UL**

Populist parties, particularly on the political right, have been increasingly successful in recent elections, particularly in Europe and the Americas. Scholars increasingly seek to explain the appeal of these anti-elite, often xenophobic, parties in recent years in so many different countries. In this course, students will build a dataset and, using linear regression analysis in Microsoft Excel, test a range of hypotheses to better understand this increasingly common political phenomenon.

*Prerequisite: POL-210; any one POL and one statistics course (IPH-230, MTH-116, 242; DAT-115; PSY-220); or Permission*

**POL 325 U.S. Foreign Policy**SO 4 cr **UL**

Study of goals of American foreign policy and U.S. role in changing world; structure, processes and politics of foreign policymaking; and U.S. foreign policy since end of WWII. Analysis of selected current U.S. foreign policy concerns.

**POL 326 U.S. National Security Policy**SO 4 cr **UL**

Analyzes emergence and evolution of post- WWII national security state. Assesses impact of changing international environment on conceptions of "national security."

**POL 328 Advanced Model UN "A"**☺ SO 2 cr **UL**

Examine in detail the functioning of the central bodies of the UN community, including the General Assembly, Security Council, ECOSOC and specialized agencies. Also address the role of nongovernmental organizations, regional and subregional organizations and individual states. Only four credits may count toward the major.

*Prerequisite: POL-226 and 227*

### **POL 329 Advanced Model UN "B"**

 SO 2 cr **UL**

Examine in detail the functioning of the central bodies of the UN community, including the General Assembly, Security Council, ECOSOC and specialized agencies. Also address the role of nongovernmental organizations, regional and subregional organizations and individual states. Only four credits may count toward the major. Course fee.

*Prerequisite: POL-226 and 227*

### **POL 341 Public Policy Analysis**

SO 4 cr **UL**

Study of policy process, particularly policy evaluation. Focuses on such policies as educational, environmental, economic and social welfare. Emphasis on learning evaluation methodologies through application to current public policy issues.

### **POL 345 Public Administration History and Theory**

 SO 4 cr **UL**

Study of the development of modern public bureaucracies and the relationship of bureaucracy and other governmental institutions, particularly through analysis of original works on public administration from Woodrow Wilson and Max Weber to more recent commentaries.

### **POL 380 Topics and Problems in Political Science**

SO 4 cr **UL**

Courses on special political subjects in both the foreign/international and American realms.

### **POL 381 Washington Semester**

SO 4 cr **UL**

Credit awarded for student participation in seminars and coursework. (American University)

### **POL 382 Washington Semester**

SO 4 cr **UL**

Credit awarded for student participation in seminars and coursework. (American University)

### **POL 385 Political Science Practicum**

1-4 cr **UL**

Placements in government, political institutions and related agencies may be made available by the Department or may be arranged by students in consultation with the Department.

### **POL 401 Senior Seminar**

 SO 4 cr **UL**

Comprehensive capstone study of politics within the context of a distinct theme in political science.

### **POL 500 Senior Thesis**

 SO 4 cr **UL**

Under supervision, the student formulates a project topic or research program, conducts research, then prepares and publicly presents a senior thesis. Required for departmental honors.

4. Students working toward post-graduate study should work with a psychology department member to do independent research, practical experiences, internships, and an empirical thesis.

### **Minor Requirements**

Twenty-four credits from Psychology courses.

### **Neuroscience Major Requirements (NSC)**

Fifty-six credits, which must include:

1. Core Content: PSY-120 or PSY-121, 201, 220, and 356; BIO-121; CHM-115; PSY-203 or BIO-319 or IPH-340; BIO-207 or IPH-231; two credits of research (PSY-399, 499, or 500, or any upper-level independent research); four additional credits from Psychology.
2. At least 18 credits (twelve consisting of upper-level courses) from the following: BIO-204, 221, 320, 360, 361, BCM-321, CHM-223, 224, CSC-120, ECN-314, IPH-403, MTH-121, PHL-229, PHY-112 or 121, or other courses approved by the program director.
3. Potential majors are strongly recommended to consult with the program director to develop a more specialized program of courses. Additional courses may be required for certain graduate schools and different courses are recommended dependent on interests in specific subfields of neuroscience (i.e. computational, behavioral, cognitive, developmental, social, and molecular).
4. Neuroscience is considered an interdisciplinary major, which requires 56 upper-level credits to graduate in accordance with the guidelines in the academic catalog

### **PSY 120 Foundations of Psychology**

NS1 EXP2 4 cr

Learn why people think, feel, and act as they do. Explore the mind, brain, and body connection. Only one of PSY-120 or PSY-121 is permitted to count toward a Psychology major and total credits earned to graduate.

### **PSY 121 Introduction to Psychology**

NS1 4 cr

Survey of major areas of psychology: learning, perception and cognition, human development, individual differences, social psychology and abnormal psychology. Only one of PSY-120 or PSY-121 is permitted to count toward a Psychology major and total credits earned to graduate. Laboratory. Course fee.

### **PSY 201 Physiological Psychology**

NS1 THM 4 cr **UL**

Study of physiological processes and structures underlying behavior and development. Laboratory techniques for investigation of electrical and chemical brain activity. Laboratory. Course fee.

*Prerequisite: PSY-120 or 121*

### **PSY 203 Psychopharmacology**

 NS1 THM 4 cr **UL**

Examination of the behavioral and biological effects of psychoactive substances with an emphasis on how drugs affect the brain. This course will explore legal and illegal substances as well as pharmaceuticals used in the treatment of mental disorders.

### **PSY 212 Personality I**

NS1 4 cr **UL**

Comparison of major conceptual and research strategies in study of personality: psychoanalytic tradition, trait and social learning theories, and humanistic, cognitive and biological approaches. Introduction to psychological testing and journal literature.

*Prerequisite: PSY-120 or 121*

## **Psychology (PSY)**

### **Major Requirements**

Thirty-six credits which must include:

1. PSY-120 or 121; 201 or 203 or 204; 212 or 276 or 336; 220; 225; 305 or 308 or 310; 314; 331; 421.
2. Two elective credits in PSY.
3. To earn Departmental Honors in Psychology, students are required to have a 3.5 or higher GPA in their psychology classes, an empirical thesis, and a successful thesis defense.

**PSY 220 Statistics**NS3 QR 4 cr **UL**

Introduction to descriptive and inferential statistics, and factorial analysis of variance. Appropriate for both life and social sciences.

*Prerequisite: PSY-120, 121 or Permission*

**PSY 225 Research Methods**
 NS1 WI 4 cr **UL**

Development of skills in conduct and assessment of experimental and field research and of sensitivity to ethical and social aspects of scientific inquiry. For students in psychology, education and business. Course fee.

*Prerequisite: PSY-220*

**PSY 234 Psychological Problems of Childhood**NS1 2 cr **UL**

The nature, consequences, causes, treatment, and prevention of problems psychologically affecting children and adolescents (such as child abuse, delinquency, depression, drug abuse, hyperactivity, and poverty). Service-learning component.

*Prerequisite: PSY-120 or 121*

**PSY 242 Sport Psychology**NS1 THM 4 cr **UL**

An exploration and application of psychological theories, techniques, and exercises that can be used to enhance performance in a wide variety of domains, mainly athletics. Students will gain hands on experience with using techniques such as goal setting, imagery, and motivational interviewing to manage performer anxiety, stress, and injury recovery. Systemic factors that can influence performer well-being such as cultures of toughness, and gender discrimination will also be explored.

*Prerequisite: PSY-120 or 121*

**PSY 244 Positive Psychology**NS1 4 cr **UL**

Positive Psychology is the scientific study of happiness, strengths, and optimal functioning. The field also involves applications to counseling, education, business, and other areas.

*Prerequisite: PSY-120 or 121*

**PSY 245 Human Sexuality**NS1 THM 4 cr **UL**

Examination of variety and origins of human sexuality from physiological, evolutionary and social-learning perspectives.

*Prerequisite: PSY-120 or 121*

**PSY 260 Psychology of Aging**NS1 2 cr **UL**

Examination of current psychological theory and research concerning physical changes, cognition, personality and psychopathology in the later years of life. Service-learning component included in the course.

*Prerequisite: PSY-120 or 121*

**PSY 275 Psychological Testing and Measurement**NS1 2 cr **UL**

Consideration of principles involved in construction, use and evaluation of tests of ability and personality. Application to such issues as personnel selection, sex differences and therapeutic practice. Emphasis on actual clinical data, ethical and value issues in test construction and use.

*Prerequisite: PSY-120 or 121*

**PSY 276 Industrial Organization**

NS1 4 cr

Students will examine human behavior in the workplace from a scientist-practitioner view and learn how applied psychology research can improve hiring, management, and development decisions in business.

**PSY 280 Topics in Psychology**NS1 2-4 cr **UL**

Exploration of areas of mutual interest to Instructor and students. Topics include depression, stress and coping, clinical interviewing and counseling, psychological problems of childhood, and neurological disorders. May be taken more than once for credit.

*Prerequisite: PSY-120 or 121*

**PSY 305 Learning**
 NS1 4 cr **UL**

In-depth study of methods of learning among human and non-human species.

*Prerequisite: PSY-120 or PSY-121*

**PSY 308 Science of Emotion**NS1 4 cr **UL**

This course integrates perspectives from a variety of sub-topics within psychology. It will examine the function, expression, and regulation of emotion. The evolutionary origins and the biological processes involved in emotion will be examined. We will discuss the interrelationship of emotion, cognition, and culture. Topics will include discrete emotions such as anger, love, and happiness.

*Prerequisite: PSY-120 or PSY-121*

**PSY 310 Cognition**NS1 4 cr **UL**

Consideration of the psychology of thinking: input, processing, storage and retrieval of information. Also explores categorization, concept formation, mental structure, language, reasoning, and problem solving.

*Prerequisite: Three courses in PSY or Permission*

**PSY 312 Personality II**
 NS1 4 cr **UL**

In-depth examination of personality theory and of major controversial issues in contemporary literature.

*Prerequisite: PSY-212*

**PSY 314 Psychopathology**NS1 4 cr **UL**

Examination of characteristics causes and treatment of such disorders as depression, schizophrenia and stress-related illness. Discussion of social and ethical issues. Application of material to actual case histories.

*Prerequisite: PSY-120 or 121*

**PSY 315 Clinical Interviewing**NS1 4 cr **UL**

Students develop skills in a mainstream approach to clinical interviewing, including applications to counseling with kids, resistant adults, couples and families, trauma survivors, and people from diverse backgrounds.

*Prerequisite: PSY-120 or 121*

**PSY 331 Developmental Psychology**
 NS1 THM 4 cr **UL**

Consideration of current theoretical perspectives and research on attachment, language acquisition, cognitive and moral development. Attention to role of ideological and philosophical commitments in study of development.

*Prerequisite: PSY-120 or 121*

**PSY 336 Social Psychology**NS1 4 cr **UL**

Consideration of current theory and research on person perception, social influence, attitude formation, intergroup relations, altruism and aggression. Emphasis on ethical and social issues in conduct and application of social psychological research.

*Prerequisite: PSY-120 or 121; SOC-101*

### PSY 356 Neuroscience Seminar

NS1 4 cr **UL**

In-depth examination of neuronal mechanisms involved in complex animal and human behaviors and of the methodology used in molecular, cognitive, clinical, behavioral, and developmental neuroscience. Course fee.

*Prerequisite: PSY-201 or PSY-203, or Permission*

### PSY 385 Psychology Practicum

2-4 cr **UL**

Participation in community institutions, agencies, schools and businesses combined with individual faculty supervision to allow students to apply concepts and locate literature relevant to their own experiences.

*Prerequisite: PSY-120 or 121*

### PSY 390 Clinical Field Experience

NS1 4 cr **UL**

Participation in programs in hospitals, agencies, schools, businesses or the judicial system. Faculty and on-site professionals provide intensive supervision. Students improve their abilities to apply concepts, principles and techniques and reflect on significant conceptual, ethical and personal aspects of the experience in written papers and oral discussions.

*Prerequisite: PSY-120 or 121; 212; 240 or 280; and 314; or Permission*

### PSY 404 Sensation and Perception

 NS1 4 cr **UL**

Study of sensory processes and their relationship to human perception. Concentrates on vision and audition with attention to recent theoretical approaches to perception. Laboratory. Course fee.

*Prerequisite: PSY-120 or 121, 220, and 225 or Permission*

### PSY 421 Senior Seminar

NS1 2 cr **UL**

Students will build knowledge and skills needed to pursue their next steps following degree completion including applying to graduate school and seeking employment. Students will work with the instructor to plan successful entry into the workforce. Professional and career development will serve as the foundation for this course.

*Prerequisite: PSY-120 or PSY-121; PSY-220; PSY-225; and at least Junior Standing*

### PSY 500 Senior Thesis

 NS1 2-4 cr **UL**

Development and conduct of original, independent, empirical investigation. Required for departmental honors.

*Prerequisite: PSY-499, Senior Standing and Permission*

## Public Affairs Institute (PAF)

Alma's Public Affairs Institute offers interdisciplinary experiences for students who, regardless of particular majors, have common academic and vocational interests in public affairs. The program includes workshops, visiting speakers, scholars-in-residence, professional consulting and advising.

### Requirements

To earn certification in the Public Affairs Program, students must earn a minimum of eighteen credits drawn from the following classes:

- PAF-150, 160, 350, 360, 385, 450 and 499; and POL-141 or comparable classes, independent studies or seminars in other disciplines pre-approved by the Director of Public Affairs as alternatives of PAF-385, 450, or 499.

- Participants are encouraged to satisfy general education requirements by completing coursework in HST-105 or 121; PHL-126, 225, 227, 228, 229, 235 or REL-210; ECN-111 and 112, POL-101, or SOC-101; and ENV-105 or PSY-121.
- Elective coursework will be recommended by the program advisor to enhance skills and broaden perspectives. Candidates who complete Alma's degree requirements and all Institute components will graduate with a bachelor's degree in the major subject and will have the following noted on their permanent record: Completed the Public Affairs Program. Candidates who satisfy the requirements prescribed above and who achieve a 3.0 overall GPA together with a 3.25 GPA in the Institute Program will have the designation Public Affairs Fellow inscribed on their permanent record. Admission to the Institute requires formal application and acceptance.

### PAF 150 Public Affairs Colloquium

1-2 cr


Introduction to selected, critical public affairs issues through multidisciplinary and case-study approaches. Presentations by visiting speakers, other resource people and students.

### PAF 160 Community Issues & Public Leadership I

1-4 cr

Investigation and implementation of projects related to economic and social development issues in local, regional and global community. Graded Pass/Fail.

### PAF 350 Public Affairs Seminar I

 2-4 cr **UL**

Provides exposure to leadership of those working currently, or historically, to secure minimum standards for protecting human rights and limiting or ending conflict. The course will study institutions created to address the need for international law and protection of rights and dignity. Students will be immersed in the reasons for and implementation of international standards and institutions to protect human rights, especially related to rules of war. A core component of this course is students developing a plan to address challenges and further build on solutions observed during the course.

### PAF 360 COM Issues and Pub Leadership II

1-4 cr **UL**

Advanced investigation and continuing implementation of projects related to economic and social development issues in local, regional and global community. Graded Pass/Fail.

*Prerequisite: PAF-150, 160 or Permission*

### PAF 380 Topics and Problems in Public Affairs

2-4 cr **UL**

Courses on special topics both substantive and procedural in public affairs and leadership in both the international and domestic realms. Objectives will vary with each offering, but in general will be at the upper level, requiring previous study of the political process, civic life and leadership. May have a *course fee*.

*Prerequisite: Permission*

### PAF 385 Public Affairs Practicum

4-12 cr **UL**

Internship with public or private agencies arranged in consultation with the Public Affairs Institute advisor. A minimum of four credits required for all Public Affairs program participants although no more than eight may count toward the degree.

*Prerequisite: PAF-450 and Permission*

## PAF 450 Public Affairs Seminar II

4 cr UL

Provides exposure to leadership of those working currently, or historically, to secure minimum standards for protecting human rights and limiting or ending conflict. The course will study institutions created to address the need for international law and the protection of rights and dignity. Students will be immersed in the reasons for and implementation of international standards and institutions to protect human rights, especially related to rules of war. A core component of this course is students developing a plan to address challenges and further build on solutions observed during the course.

*Prerequisite: PAF 350*

## PAF 500 Senior Thesis

1-4 cr UL

Development and conduct of original, independent investigation concluding with a significant research paper, which should be presented and defended publicly.

*Prerequisite: PAF-350, 360 or 450 and Permission*

# Public Health (PBH)

## Minor Requirements

Twenty-four credits which must include:

1. Core (16 credits): IPH-330, 331, 430, and ENV-205
2. Quantitative Reasoning requirement (4 credits): IPH-230
3. Four additional credits chosen from the following: IPH-265, 270; 301; ENV-265; HCA-433; HST-271; PSY-203; SOC-234; COM-243; PHL-229; POL-141.
4. Program Considerations: A research methods course or independent research (e.g. IPH-311/399/499 or PSY-225) is strongly encouraged. Enrollment in additional elective courses is also highly encouraged.

## PBH 385 Public Health Practicum

1-8 cr UL

Practicum in the field of Public Health. Requires Instructor Permission.

# Religious Studies (REL)

## Minor Requirements

Twenty-four credits in Religion (including REL-100) to complete the minor.

## REL 100 What Is Religion?

AH EXP2 4 cr

Develop an understanding of religion as a human phenomenon, focusing on three interrelated questions: What is religion? How can we study religion? And of course, Why?

## REL 150 The Good Life

AH EXP4 4 cr

Explore the classical ethical question of how we should live, including the way diverse global cultures have shaped these questions. Students will focus on visions of a "good life" offered by modern social movements that have struggled for life amidst structures of premature death, covering topics such as Black Lives Matter, Water is Life, Reproductive Justice, Disability Justice, and more.

## REL 180 Topics in Religion

AH 2-4 cr  
Special topics in religious studies. May be repeated for distinct topics.

## REL 202 Religion, Gender, and Sexuality

AH THM GCA WI 4 cr UL

Examine how gender and sexuality interact with the study of religion, centering intersectional analyses of religion as it is lived in the everyday lives of people across the gender spectrum and across religious traditions.

## REL 204 Religion and Community Engagement

AH THM 4 cr UL

Explore the complex relationships between religion and the public good, including the historical and contemporary ways faith communities have engaged in community and social responsibility.

## REL 207 Religion in America

AH GCA 4 cr UL

Examine the history of religion in the North America, including how a variety of religious traditions and movements have interacted with key themes in American studies including: race, ethnicity, gender/sexuality, nation, diaspora, imperialism, borders, indigeneity, and more.

## REL 208 Race and Religion

AH THM GCA 4 cr UL

This course will examine the complex interaction between race and religion, two critical aspects of the history and present of life in North America and globally. In this course, we will ask: What is race, racism, racialization, and religion? How have meanings about religion informed the histories of race and racism? And how has race and racism impacted religious beliefs and practices? This interdisciplinary course will also consider how race and religion overlap with other interrelated issues like gender/sexuality, migration/borders, indigeneity/ethnicity, settler colonialism, incarceration and policing, capitalism, nationalism, environmentalism, and more.

## REL 209 Religion and the Civil Rights Movement

AH THM GCA 4 cr UL

Examines the ties between religion and the long Black freedom struggle, with a focus on the United States during the 1960s and 70s as well as overlapping political movements of the era including women's rights, gay liberation, the Cold War, and global anti-colonialism. Covers major figures, events, and ideas of the era, as well as a variety of Black religious traditions from Christianity, Islam, and Buddhism to the diasporic traditions of Orisha devotion.

## REL 230 Religion and Science

AH 4 cr UL

Examination of the relationship between religion and science through both historical and contemporary issues.

## REL 232 Religion and Environmental Justice

AH THM 4 cr UL

Exploring environmental ethics with a specific focus on the diverse role of religious ideas, practices, and institutions in how humans have approached their relationship to the so-called "natural world" and have addressed the crises of anthropogenic climate change.

## REL 280 Topics in Religion

AH 2-4 cr UL

Special topics in Religious Studies.

## REL 380 Topics in Religion

AH 2-4 cr UL

Selected topics in religious studies. May be taken more than once. Only two registrations count toward a Major in Religious Studies.


*Prerequisite: One Religious Studies course or Permission*

## REL 385 Religious Studies Practicum

1-4 cr UL

Practicum in the field of Religious Studies.

## REL 400 Theory and Method in Religious Studies

 AH 4 cr **UL**  
Upper-level seminar addresses current issues in the field of religious studies (such as postmodernism, postcolonialism, disability studies, and/or queer theory), approaching these issues with a variety of disciplinary methods (such as historical, theological, phenomenological, ethical, and/or anthropological). Required for, but not limited to, majors and minors in religious studies.  
*Prerequisite: REL-100 or Junior Standing*

# Sociology (SOC)

## Sociology Major Requirements

Thirty-six credits which must include:

1. Core: SOC-301, 302, and either SOC-385 or SOC-500.
2. At least two of the following four courses:
  - SOC-222 Sociology of Gender
  - SOC-223 Sociology of Race
  - SOC-225 Conflict and Class
  - SOC-227 Sociology of Sexualities
3. An additional sixteen credits of upper-level SOC electives.

Sociology Program Notes:

- For students who are interested in sociology, it is suggested to take SOC-101 as one of their Explore courses, although SOC-101 is not required for the major.
- If scheduling allows, students should consider taking SOC-301 and 302 in their junior year particularly if they intend to pursue research (SOC-500) in their senior year. For those who are considering the sociology practicum, there is more flexibility in the timing of those courses although it is still suggested to take them when they are available.
- Department Honors are given to those who: a) successfully complete SOC-500 and b) have a minimum of a 3.5 GPA in Sociology.

## Sociology Minor Requirements

Twenty-four credits of Sociology; which must include SOC-301 and 302

### SOC 101 Principles of Sociology

SO EXP4 4 cr  
Identify sociology as a tool to widen perspective and understanding, employ basic sociological concepts in the observance of social behavior, and identify the basic social institutions and their functions.

### SOC 141 Social Problems

SO 4 cr  
Examination, evaluation and discussion of contemporary social problems providing theoretical orientations and analytical skills to understand their complexities and ramifications. For example: poverty, health issues, crime and ways of dealing with crime.


### SOC 180 Topics in Sociology

SO 1-4 cr  
Investigation of a selected topic. May be taken only once for credit toward the ANT major.

### SOC 220 Sociology of Family

SO THM 4 cr **UL**  
Examines how family life is structured by broader social, political, and economic changes. Analysis organized historically around clan, lineage, nuclear and post-nuclear family structures. Contemporary family problems are also studied. Fall Term.

### SOC 222 Sociology of Gender

 SO THM 4 cr **UL**  
Explores the social construction of gender and the myriad ways gender influences individuals, interpersonal relationships, popular culture, sexuality, race, social class, the life course, and social institutions such as work and family.

### SOC 223 Sociology of Race

SO THM 4 cr **UL**  
Examines racism in American society; dominant-subordinate group relations with particular emphasis on African Americans, Native Americans, Latinos, Asian Americans and White Ethnic; political, economic, social and cultural consequences.

### SOC 225 Conflict and Class

SO THM 4 cr **UL**  
Examination of class and its consequences. Topics may include ideology, the middle class, social movements, and social order (e.g., war and peace). Class intersects with gender and race issues. Cross-cultural settings will be examined.

### SOC 226 The Color of Justice

SO THM 4 cr **UL**  
Uses socio-historical and cultural awareness to investigate connections between the history of Jim Crow, courtroom relationships, spaces of incarceration, race, family, and community.  
*Prerequisite: SOC-101*

### SOC 227 Sociology of Sexualities

THM 4 cr **UL**  
Examine the social construction of sexualities. Learn how sexualities are shaped by broader structures such as political, religious, educational, and familial institutions. Gain insight into how sexualities are linked with power. Explore LGBTQ experiences across contexts.

### SOC 229 Population Dynamics

SO 4 cr **UL**  
Population dynamics mirror plate tectonics - they move slowly but are very powerful. They influence societies and individuals and are international in scope. One needs to understand them to better view social problems.  
*Prerequisite: SOC-101*

### SOC 234 Aging and Health Institutions

SO THM 4 cr **UL**  
Examines key concepts, main theories, and important substantive issues related to aging and health institutions from a sociological perspective. Among the central issues explored are gender and racial inequality in aging, as well as social institutions connected to aging and public policy.


### SOC 243 Crime and Deviance

SO THM 4 cr **UL**  
Exploration of how crime and deviance are socially constructed categories, vary across time and space, and are shaped by cultural norms and beliefs. By applying key sociological perspectives, this course will examine crime and deviance through lenses of social stability, conflict, power and inequality.

### SOC 280 Topics in Sociology

SO 2-4 cr **UL**  
Examines special subjects in Sociology.  
*Prerequisite: SOC-101*

### SOC 301 Methods of Social Research

 SO 4 cr **UL**  
Fundamentals of basic principles, logic, and procedures of social research. Examines survey, unobtrusive, and qualitative methodologies as well as research ethics and policy.  
*Prerequisite: 12 credits from SOC*

## SOC 302 Social Theory

 SO 4 cr UL

This course involves the posing and answering of questions about the nature of self and of social life. It investigates the fundamental issues of how social order is maintained and conversely, how social conflict and change occur. The first half of the course focuses on the work of classical social theorists such as Karl Marx, Max Weber, Emile Durkheim, W.E.B. DuBois, and Charlotte Perkins Gilman. In the second half, we examine the work of contemporary theorists and schools of thought such as Erving Goffman, Symbolic Interactionism, Critical Race Theory, Intersectionality, Feminism, and Post-Modernism.

*Prerequisite: 12 credits from SOC*

## SOC 380 Topics in Sociology

SO 2-4 cr UL

Examines special subjects in Sociology.

*Prerequisite: SOC-101*

## SOC 385 Sociology Practicum

1-8 cr UL

Participation in community institutions, agencies, schools, and business with individual faculty supervision. Applications of concepts through experience. About 11-14 hours of field work per week for each of the four credits. Includes paper report.

*Prerequisite: Permission.*

## SOC 500 Sociology-Senior Thesis

 SO 2-4 cr UL

Designed for senior Sociology majors with the consent of the Department. Program of empirical and theoretical research.

*Prerequisite: Permission.*

# Spanish (SPN)

Spanish courses, as designated by the three-letter prefix SPN, are taught in Spanish. World Languages and Cultures courses, as designated by the three-letter prefix WLC, are taught in English. Courses taught internationally may have a different emphasis from those offered on campus.

## Spanish Major Requirements

Forty credits, which must include:

1. A minimum of 32 credits of SPN, at least 16-cr must be completed at the 300 level.
2. Four credits of an introduction to cultural analysis: WLC-102, 103, 104, or WGS-102.
3. Four credits of English cognate chosen from ENG-201, ENG-202, ENG-220, or ENG-320.
4. A minimum of one semester of international study in a Spanish-speaking country approved by the department.
5. Language Proficiency must be demonstrated by taking an approved external proficiency exam. Majors are expected to perform at the American Council on the Teaching of Foreign Languages (ACTFL) Advanced-Low proficiency level as averaged across the four skills (listening, speaking, reading, writing).
6. Students will write and defend, in open forum, an acceptable paper of moderate length reflecting on their study of Spanish, study abroad experience and how the role of language and culture combines with the mission of a liberal arts education.

## Spanish Minor Requirements

Twenty-four credits, which must include:

1. Four credits selected from WLC-102, 103, or 104
2. Twenty credits taken in SPN – a minimum of eight credits must be taken at the 300-level.
3. A semester or Spring Term of study in a Spanish-speaking

country is highly recommended.

4. Language Proficiency must be demonstrated by taking an approved external proficiency exam. Spanish minors are expected to perform at the American Council on the Teaching of Foreign Languages (ACTFL) Intermediate-High proficiency level (averaged across the four skills of listening, speaking, reading, and writing).

## Department Honors may be achieved in the World Languages and Cultures Department by:

1. Having a 3.5 GPA in all classes applied to the major.
2. Performing beyond minimum requirements on the Language Exam portion of the Departmental Comprehensive Evaluation.
3. Presenting a senior thesis of honors caliber.

## Advanced Credit in a second language may be earned by:

1. Scoring at the 3 level or higher on the Advanced Placement (AP) exam.
2. Successful completion of International Baccalaureate (IB) exams taken at the Higher Level (HL) with earned scores of (5) or above or earning a minimum score of (5) for the National Foreign Language Examination.

## SPN 105 Spanish Language and Culture

2 cr

Novice level course designed to practice communication, emphasizing conversational skills at the ACTFL Novice-Mid to high proficiency levels. NOTE: Open to students who have had two to three years of high school credit, or a college SPN course at the 100 level.

## SPN 109 Spanish Reading Club

1 cr

Guided reading at the 100, 200, or 300 levels. 100 level texts are generally written for language learners at the intermediate-low level and 200 level texts at the intermediate-high level. 300 level texts are written for native speakers, be they literary works, popular novels, or peer-reviewed articles. May be repeated for credit. Pass / fail graded course.

*Prerequisite: Permission only*

## SPN 111 Beginning Spanish I

4 cr

Beginning level language acquisition course which includes an introduction to present and past tenses and high frequency vocabulary in all four skills (listening, speaking, reading, writing) at the ACTFL Novice-Mid proficiency level. Course is designed for students with limited previous Spanish language experience. **NOTE:** Students who have completed 3 or more years of high school Spanish study are not eligible to enroll at this level. Course fee.

## SPN 112 Beginning Spanish II

 AH

4 cr

Intensive course for beginners in Spanish. Primary objective: to help students begin early and meaningful communication in Spanish by acquiring necessary basic skills. Emphasizes all four language skills: reading, writing, and especially listening and speaking. Secondary objective: to provide insight into Hispanic culture and society through readings, discussions and activities. **NOTE:** Students who have earned credit for three or more years of high school Spanish may not enroll in SPN-111 or 112. (Offered by Alma Programs Abroad only)  
*Prerequisite: SPN-111 or Permission*

## SPN 150 Cultural Topics

 AH

2 cr

Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Novice-high/Intermediate-Low proficiency levels. Topics vary; may be repeated for credit. **NOTE:** Open to students who have taken up to three years of high school Spanish. Course fee.

### SPN 151 Hispanic Geography and Peoples

🌐 AH EXP2 4 cr  
Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Novice-high/Intermediate-low proficiency levels. This is a high-beginner course, appropriate for students who have completed 1-year of high school Spanish. Course fee.  
*Prerequisite: Minimum 1-year high school Spanish or SPN-111 or SPN-113*

### SPN 153 Health, Wellness, and Culture

🌐 AH EXP4 4 cr  
Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Novice-high/Intermediate-low proficiency levels. This is a high-beginner course, appropriate for students who have completed 1-year of high school Spanish. Course fee.  
*Prerequisite: Minimum 1-year high school Spanish or SPN-111 or SPN-113*

### SPN 185 Service Learning in Spanish

🌐 AH 1-4 cr  
May be repeated for credit with a maximum of four credits applied toward the major or minor. Requires Instructor Permission and placement.

### SPN 205 Language and Culture I

🌐 AH 4 cr **UL**  
Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Intermediate-low/Intermediate-mid proficiency levels. Significant focus on the past tenses, pronouns, and narrative structures. This is an intermediate-level course, appropriate for students who have completed 3 or more years of high school Spanish. Course fee.  
*Prerequisite: Four credits at SPN-150 level, or placement*

### SPN 207 Spanish for Health Care I

🌐 AH THM 2 cr **UL**  
Part I of a 2-credit, 2-course sequence that introduces basic vocabulary and cultural information specific to health care contexts in all four skills (listening, speaking, reading, writing). This sequence will not be sufficient for translation or interpretation certification, nor for practicing medicine in Spanish, but it provides basic communication skills that students could build on if they so choose. SPN-207 is not appropriate for students with no previous Spanish experience, nor for students who have the equivalent of SPN-202 or higher. Course fee.

### SPN 208 Spanish for Health Care II

🌐 AH 2 cr **UL**  
Part II of a 2-credit, 2-course sequence that introduces basic vocabulary and cultural information specific to health care contexts in all four skills (listening, speaking, reading, writing). This sequence will not be sufficient for translation or interpretation certification, nor for practicing medicine in Spanish, but it provides basic communication skills that students could build on if they so choose. SPN-208 is not appropriate for students with no previous Spanish experience, nor for students who have the equivalent of SPN-203 or higher. Course fee.

### SPN 209 Spanish Reading Club

🌐 AH 1 cr **UL**  
Guided reading at the 100, 200, or 300 levels. 100 level texts are generally written for language learners at the intermediate-low level and 200 level texts at the intermediate-high level. 300 level texts are written for native speakers, be they literary works, popular novels, or peer-reviewed articles. May be repeated for credit. Pass / fail graded course.  
*Prerequisite: Permission only*

### SPN 210 Spanish Language and Culture II

🌐 AH 4 cr **UL**  
Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Intermediate-mid/Intermediate-high proficiency levels. Significant focus on the subjunctive, advanced grammatical and rhetorical structures. This is an intermediate-level course, appropriate for students who have completed 3 or more years of high school Spanish. Course fee.  
*Prerequisite: Four credits at SPN-200 level, or placement*

### SPN 221 Intermediate Spanish Language I

🌐 AH 4 cr **UL**  
Continuing study of the Spanish language with additional emphasis on reading and writing skills. Study of Hispanic culture and close reading of selected Hispanic texts from various genres. Extensive grammar review, composition, and oral-aural practice. (Alma Programs Abroad)  
*Prerequisite: SPN-112 or Placement*

### SPN 222 Intermediate Spanish Lang II

🌐 AH 4 cr **UL**  
Continuing study of the Spanish language with additional emphasis on reading and writing skills. Study of Hispanic culture and close reading of selected Hispanic texts from various genres. Extensive grammar review, composition, and oral-aural practice. (Alma Programs Abroad)  
*Prerequisite: SPN-221*

### SPN 223 Intermediate Spanish Language III

🌐 AH 4 cr **UL**  
Intermediate level study of Spanish. Designed for students who have completed second year college Spanish but whose language skills need strengthening before they enter upper-level courses while studying abroad. Requires placement into this course. (Alma Programs Abroad)

### SPN 224 Intermediate Spanish Language IV

🌐 AH 4 cr **UL**  
Intermediate level study of Spanish. Designed for students who have completed second year college Spanish but whose language skills need strengthening before they enter upper-level courses while studying abroad. Requires placement. (Alma Programs Abroad)

### SPN 250 Cultural Topics

🌐 AH 2 cr **UL**  
Topics-based analysis of culture focused on the development of intercultural competencies and language proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Intermediate - Low/Mid proficiency levels. Topics vary; may be repeated for credit. Course fee.



### SPN 251 Art, Music, and Dance

🎨 AH THM GCA 4 cr UL

Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Intermediate-low/Intermediate-mid proficiency levels. This is an intermediate-level course, appropriate for students who have completed 3 or more years of high school Spanish. Course fee.

*Prerequisite: Four credits at SPN-150 level, or placement*

### SPN 253 Sport, Health, and Wellness

🎨 AH THM GCA 4 cr UL

Topics-based approach to developing intercultural awareness and increasing Spanish proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Intermediate-low/Intermediate-mid proficiency levels. This is an intermediate-level course, appropriate for students who have completed 3 or more years of high school Spanish. Course fee.

*Prerequisite: Four credits at SPN-150 level, or placement*

### SPN 260 Cultural Topics

🎨 AH GCA 4 cr UL

Topics-based analysis of culture focused on the development of intercultural competencies and language proficiency in all four skills (listening, speaking, reading, writing) at the ACTFL Intermediate-Mid proficiency level. Topics vary; may be repeated for credit. Course fee.

### SPN 263 Environment and Health

🎨 AH THM GCA 4 cr UL

Explore the interconnectedness of environment, health, and the Spanish-speaking world through a variety of materials (stories, films, articles, music, etc.) aimed at an Intermediate-high Spanish level. Continue to develop Spanish language skills and cultural competencies while considering how questions related to the environment intersect with socio-cultural influences and power structures. This is an intermediate-level course, appropriate for students who have completed AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish. Course fee.

*Prerequisite: Completion of AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish*

### SPN 271 Religion and Culture in Spain

🎨 AH THM GCA 4 cr UL

Explore religion and political affiliation as facets of individual and group identity within Hispanic culture. Recognize and analyze how representations of religious identity have both informed and distorted perceptions of otherness in a culture, resulting in works of art, literature, and music that often conflate religious belief and political ideology, appealing to aesthetic, emotional, intellectual, and spiritual sensibilities to persuade their audiences to embrace a particular vision of what it means to be Spanish. This is an intermediate-level course, appropriate for students who have completed AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish. Course fee.

*Prerequisite: Completion of AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish*

### SPN 275 Spanish Civil War in Film and Text

🎨 AH GCA 4 cr UL

Explore the precursors to the Second Republic and the Civil War in Spain through literary and non-literary texts, music, and film. Consider the roles and intersections of religious, political, and regional identities as determinants of alliance and conflict. Analyze cultural artifacts that provide insight into how the war was perceived by those who experienced it and how it continues to be remembered. This is an intermediate-level course, appropriate for students who have completed AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish. Course fee.

*Prerequisite: Completion of AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish*

### SPN 277 Studies in Hispanic Film

🎨 GCA 4 cr UL

Explore contemporary Hispanic cultural issues through Hispanic film. Learn to watch films critically to understand how technical aspects combine with storytelling to contribute to deeper understanding. Examine the ways films engage with history and culture while continuing to develop Spanish language skills and cultural competencies. This is an intermediate-level course, appropriate for students who have completed AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish. Course fee.

*Prerequisite: Completion of AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish*

### SPN 281 Conversation

🎨 AH 2 cr UL

Fluency in oral expression developed through extensive class discussion. May include oral reports, summaries of reading and viewing materials, phonetics and pronunciation exercises, colloquial expressions and creative dramatic performance. May be repeated for a total of four credits. (Alma, Alma Programs Abroad)

### SPN 309 Spanish Reading Club

🎨 AH 1 cr UL

Guided reading at the 100, 200, or 300 levels. 100 level texts are generally written for language learners at the intermediate-low level and 200 level texts at the intermediate-high level. 300 level texts are written for native speakers, be they literary works, popular novels, or peer-reviewed articles. May be repeated for credit. Pass / fail graded course.

### SPN 311 Spanish Grammar I

🎨 AH 4 cr UL

Intermediate level study of Spanish. Designed for students who have completed third year college Spanish but whose language skills need strengthening as they pursue upper-level courses while studying abroad. Requires placement. (Alma, Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104*

### SPN 312 Spanish Grammar II

🎨 AH 4 cr UL

Intermediate level study of Spanish. Designed for students who have completed third year college Spanish but whose language skills need strengthening as they pursue upper-level courses while studying abroad. Requires placement. (Alma, Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

### SPN 313 Spanish Grammar III

🎨 AH 4 cr UL

Advanced level study of Spanish. Designed for students who have completed third year college Spanish and who are pursuing upper-level courses while studying abroad. Requires placement. (Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 314 Spanish Grammar IV**
 AH 4 cr **UL**

Advanced level study of Spanish. Designed for students who have completed third year college Spanish and who are pursuing upper-level courses while studying abroad. Requires placement. (Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 315 Advanced Spanish Language**
 AH 4 cr **UL**


Advanced level study of Spanish. Designed for students who have completed third year college Spanish and who are pursuing upper level courses while studying abroad. Requires placement. (Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 316 Advanced Spanish Language**
 AH 4 cr **UL**

Advanced level study of Spanish. Designed for students who have completed third year college Spanish and who are pursuing upper-level courses while studying abroad. Requires placement. (Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 321 Advanced Composition in Spanish**
 AH 4 cr **UL**

Advanced composition in a variety of genres aimed at developing skills appropriate to professional as well as academic contexts. (Alma)

**SPN 322 Written Expression**
 AH 4 cr **UL**

Development of written skills and creative expression in a variety of genres. Taught in programs abroad. *Prerequisites* is placement during study abroad.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 325 Investigation of Grammar**
 AH 2-4 cr **UL**

Intensive review of Spanish grammatical theory and structures.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 329 Translation/Interpretation**
 AH 4 cr **UL**

This is a service-learning course in which students will study and practice theories and techniques of translation and interpretation. Students will apply their developing skills to Spanish translations of English-language materials submitted by a variety of community organizations.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 330 Myths, Tales and Legends**
 AH 4 cr **UL**

Reading and discussion of Hispanic folktales and traditional stories. Focus on cultural context and narrative tradition, combined with principles of orality and storytelling.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 331 Introduction to Hispanic Literature**
 AH 4 cr **UL**

Combines practical and theoretical approaches to reading and understanding literature from Spain and the Americas. Study of the attributes of various genres as well as selected works representative of the same. Provides the basic analytical foundation necessary for advanced study and interpretation of Hispanic literature required for the major. (Alma)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 334 Mexican Culture and Civilization**
 AH 4 cr **UL**

Introduction to the society and culture of Mexico from a historical perspective: political, religious and social institutions.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 335 Spanish for Business and Commerce**
 AH 4 cr **UL**

Acquisition of specific commercial concepts and vocabulary in Spanish and the study of worldwide and local economic factors. (Alma, Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 340 Survey of Hispanic American Literature**
 AH 4 cr **UL**

Reading and discussion of selections from major works of Hispanic American Literature and their relationships to contemporary and subsequent society and culture.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 343 Survey of Spanish Literature**
 AH 4 cr **UL**

Reading and discussions of selections from the major works of Spanish literature and their relationship to contemporary and subsequent society and culture. (Segovia)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 344 Survey of Regional Hispanic Literature**
 AH 4 cr **UL**

Reading and discussion of regional literature, poetry, novels and epics. Themes and authors include pre-Columbian legend, Romanticism, Modernism.

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 350 History of Spanish Civilization**
 AH 4 cr **UL**

Introduction to the history of Spanish civilization and culture. Political, religious and social institutions; art, architecture, literature and music. Readings, lectures, compositions and discussions in Spanish. (Alma, Alma Programs in Spain)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 352 Hispanic American Culture & Civilization**
 AH 4 cr **UL**

Introduction to society and culture of contemporary Hispanic-America through examination of political, social, religious and artistic forces. Emphasis on social-political problems and their effect on the United States. Readings, lectures, compositions and discussions in Spanish. (Alma, Alma Programs in Hispanic-America)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 355 History of Art and Architecture**
 AH 4 cr **UL**

Period and manner studies of the great Spanish and Hispanic American painters. Vision of aesthetic ideas through painting. Architectural concepts and styles. Site visits in Madrid and the surrounding area. (Alma Programs Abroad)

*Prerequisite: WLC-102, 103, or 104; or permission*

**SPN 360 Spanish Literature to 1700**
 AH 4 cr **UL**

Reading and discussion of the major works of the Medieval, Renaissance and Baroque periods in Spain: the Cantar del Mio Cid, La Celestina, Lazarillo de Tormes; poetry of Garcilaso, San Juan de la Cruz, Gongora and Quevedo; drama of Lope de Vega, Tirso de Molina and Calderon. (Alma)

*Prerequisite: SPN-331 and WLC-102, 103 or 104; or Permission*

### SPN 362 Hispanic-American Literature to 1888

 AH 4 cr UL

Reading and discussion of principal works in Hispanic-American literature from pre-Columbian to Modern: chronicles of the Conquest, poetry of the Colonial period, poetry and prose of Romanticism, Realism and Naturalism. (Alma)

*Prerequisite: SPN-331, WLC-102, 103, or 104; or Permission*

### SPN 363 Environment and Health

 AH THM GCA WI 4 cr UL

Explore the interconnectedness of environment, health, and the Spanish-speaking world through a variety of materials (stories, films, articles, music, etc.) aimed at an Advanced Spanish level. Continue to develop Spanish language skills and cultural competencies while considering how questions related to the environment intersect with socio-cultural influences and power structures. Course fee.

*Prerequisite: Completion of AP; IB; 5 or more years of Spanish study prior to college; or 200-level college Spanish. Recommended: WLC-101, 102, 103, or equivalent prior or concurrently*

### SPN 364 Indigenous Cultures

 AH 4 cr UL

Period, cultural, economic, and ethnic studies of the people of a specific country in Hispanic America. (Alma Programs Abroad)

*Prerequisite: WLC-101 or Permission*

### SPN 370 Spanish Literature Since 1700

AH 4 cr UL

Reading and discussion of representative works from the Romantic period to the present in Spain: Becquer, Galdos, Unamuno, Ortega y Gasset, Garcia Lorca and others. (Alma, Alma Programs in Spain)

*Prerequisite: SPN-331 and WLC-101 or Permission*

### SPN 371 Religion & Culture in Spain

 AH THM GCA WI 4 cr UL

The role of religion in Spanish culture including Roman Christianization, the splendor of Al Andalus, anti-clerical movements, and post-war secularism. Students will engage with a variety of literary and non-literary texts to explore one of the foundational pillars of Spanish culture and identity.

*Prerequisite: Completion of 4 credits at the 260 level; Placement*

### SPN 372 Hispanic-American Literature Since 1888

AH 4 cr UL

Reading and discussion of representative works in Hispanic-American literature from Modernism to the present: Dario, Marti, Borges, Neruda, Paz, Cortazar, Vargas Llosa, Fuentes, Garcia Marquez and others. (Alma, Alma Programs in Hispanic America)

*Prerequisite: SPN-331 and WLC-101 or Permission*

### SPN 373 Hispanic-American Theater

 AH GCA 4 cr UL

This course introduces students to select texts and movements of twentieth and twenty-first century Hispanic-American drama and performance. We will analyze and engage with dramatic texts, performances, and key theoretical perspectives to approach questions of theater practices and intersections with society and politics, representations of race/ethnicity, class, gender/sex/sexuality. Although the course includes all four skill areas (reading, writing, speaking, and listening), the course emphasizes oral production through class presentations, dramatic readings, performance, etc.

*Prerequisite: WLC-101; or Permission*

### SPN 374 Regional History of Hispanic America

 AH 4 cr UL

A comprehensive study of the history of specific regions of Hispanic America including pre-Columbian through contemporary issues. (Quito)

*Prerequisite: WLC-101 or Permission*

### SPN 375 Spanish Civil War in Film and Text

 AH THM GCA WI 4 cr UL

This course explores the historical background and socio-political context of the Second Republic and the Civil War in Spain. Students will engage with a variety of literary and non-literary texts, music, and film to explore how the war was reflected and is remembered through different media.

### SPN 377 Studies in Hispanic Film

 AH 4 cr UL

Explore contemporary Hispanic cultural issues through a critical analysis of Hispanic film. Learn to watch film critically to understand how technical aspects combine with story-telling to contribute to a deeper analytic interpretation. Examine the ways films engage with history and culture, analyzing them as sources of knowledge while continuing to develop Spanish language skills and cultural competencies at an Advanced Spanish level. Taking WLC-101, 102, 103, or 104 prior to or concurrently is recommended. Course fee.

*Prerequisite: Four credits of SPN-260 or higher*

### SPN 380 Topics in Spanish

 AH 2-4 cr UL

Requires Instructor Permission. Prerequisites vary by topic.

*Prerequisite: WLC-102, 103, or 104; or permission*

### SPN 381 Public Speaking in Spanish

 AH 4 cr UL

This course, taught in Spanish, focuses on developing effective oral communication skills in a variety of contexts, with emphasis on diagnosing rhetorical situations, inventing and delivering informative and persuasive presentations, and facilitating public discussion. Students will become more effective communicators through researching, outlining, writing, presenting, discussing, critiquing, and revising their own work, as well as that of their peers and of other public speakers. The structure of the course allows students to pair other majors/interests with Spanish.

*Prerequisite: WLC-102, 103, or 104; or permission SPN-321, or Permission*

### SPN 495 Thesis Preparation

 AH 1 cr UL

Requires Instructor Permission.

*Prerequisite: WLC-102, 103, or 104; or permission*

### SPN 500 Senior Thesis

 4 cr UL

Definition of a question, thesis paper and oral defense in Spanish.

Requires Senior Standing and Permission. (Alma)

*Prerequisite: WLC-102, 103, or 104; or permission*

## Theatre (THE)

Theatre courses, as designated by the three-letter prefix THE, are offered through the Theatre and Dance Department.

### Theatre Major Requirements

Thirty-six credits that include:

1. THE-125, 170, 191, 202, 232, 264;
2. THE-497 and 498;
3. Eight credits of Theatre electives; excluding THE-150 Theatre Company.
4. Required cognate course: DAN-139 Somatic Movement.

### Theatre Minor Requirements

Twenty-four credits which must include:


1. THE-125, 170, 191, 232, and 264.
2. Four credits of Theatre electives excluding THE-150, Theatre Company.

3. Recommended Cognate DAN-139 Somatic Movement.

**THE 101 Introduction to Theatre**

AH EXP1 4 cr  
An exploration of theatre as an art form and how dramatic literature becomes theatre.

**THE 120 Introduction to Dramatic Literature**

 AH 4 cr  
Preparation for advanced study of literature and language, including vocabulary, critical approaches, and writing strategies employed in literary analysis. This course is required for a major or minor in English, but open to all students with a solid foundation in reading and writing.

**THE 123 Performing Advocacy**

AH 4 cr  
Explores the relationships among identity, power and culture. Students learn how to become advocates through the use of Everyday Life Performance and other performance techniques, engaging in perspective taking and service learning with marginalized groups.

**THE 125 Acting I**

AH EXP1 4 cr  
Introduction to acting through participation in exercises which emphasize moment-to-moment acting from the actor's impulse in contact with a partner. Culminates with class performances.

**THE 150 Theatre Company**

AH THM 1 cr  
Participation in acting and technical work on departmental productions with actual rehearsal and performance. May be repeated more than once for credit.


**THE 152 Theatre Administration**

AH THM 1 cr  
Participation in business areas required to create, manage and address audience needs for all departmental productions: publicity, programs, box office and house management. May be repeated more than once for credit.

**THE 170 Stagecraft**

AH EXP1 4 cr  
Introduction to the terminology, technology and techniques of technical production in the performing arts. Laboratory sessions in the theatre, workshops and backstage assignments on department productions ensure practice of the topics discussed in class. Laboratory.

**THE 191 Design for the Theatre I**

 AH THM 4 cr  
This course introduces students to the tools and techniques needed to design for theatre. This includes learning about design elements and principles through natural media rendering and how to use this knowledge to tell a story. Included are discussions in how these techniques can be used when designing different elements of theatre. Course culminates in a design that tells a personal story.

**THE 202 Script Analysis**

AH THM 4 cr UL  
This course develops bedrock skills in "discovering meaning" by examining various analytical models.  
*Prerequisite: THE-125 or THE-170 or Permission*

**THE 225 Acting II**

AH 4 cr UL  
Continuation of THE-125 expanding to explore period styles and dialect work.  
*Prerequisite: THE-125*

**THE 226 Voice and Diction**

AH THM 4 cr UL  
Introduces the theory and practice in the basic techniques of developing a clear and expressive speaking voice.

**THE 227 Stage Combat**

AH 4 cr UL  
Study of the art of physical combat in a theatrical setting using the Society of American Fight Director's guidelines. The focus will be on performing a hand-to-hand combat scene and a rapier fight scene. Laboratory.



**THE 232 Directing**

AH 4 cr UL  
Study of basic procedures for the director: script analysis, communication and working with actors, and technical use of the stage. Students direct one or two short scenes emphasizing script analysis and the director's collaboration with actors.  
*Prerequisite: THE-125*

**THE 263 Modern Drama**

AH 4 cr UL  
Survey of major plays written and produced in last 100 years. From Isben, Shaw and Chekhov through Williams, Miller, Beckett, and Albee. Consideration given to staging.

**THE 264 Theatre History**

  AH THM 4 cr UL  
Survey of the physical structure, production methods and styles of theatre and the cultures that produced them from their beginnings to the present. Considers primitive rituals, Eastern, and Western Theatre. Includes reading representative plays and their place in the theatrical development of the period.

**THE 274 Sound Design**

AH 2 cr UL  
Exploration of sound as an expressive tool in live performance. Gives students an understanding of the science, technology and historic usage of sound in theatre. Emphasis in script analysis and design and production process.

**THE 275 Stage Management**

AH 4 cr UL  
Study of the basic procedures for the stage manager: organization skills, communication skills, supervisory skills, scheduling, budgeting, and theatre technology as they pertain to the stage manager.

**THE 276 Scene Painting**

AH 4 cr UL  
Learn basic scene painting techniques such as marble, stone work and wood grains and apply them to scene painting projects. Course culminates in a major project including multiple techniques.

**THE 277 Props Design and Construction**

AH 4 cr UL  
Learning basic props design and construction including casting, molding, sculpting and woodworking.

**THE 278 Costume Construction**

AH 4 cr UL  
Students will learn the basic skills required for sewing and building costumes for theater and dance through a series of projects geared towards the practical application of various techniques. This includes instruction in hand sewing, machine sewing, cutting, patterning, and design concerns.

**THE 280 Topics in Theatre**

AH 4 cr UL  
Special topics and projects in theatre selected by Instructor. Background prerequisite vary with selections.

**THE 291 Design for the Theatre II**AH 4 cr **UL**

Students will build on the basic principles of design, choosing a design area to focus on. Using script choices provided by the professor, students will create designs based on their chosen area and present in class. Students will provide basic script analysis, basic renderings, and general paperwork that accompanies their specific design area.

*Prerequisite: THE-191 or Permission*

**THE 292 Playwriting Workshop**AH THM 4 cr **UL**

Students write several brief etudes in addition to writing and revising a more substantial script. The course uses staged readings and feedback from actors and audience members to help students learn the craft of writing for performance. Emphasizes revision and collaboration in the production process. May be repeated once for credit.

*Prerequisite: Permission*

**THE 325 Theatre Studio: Acting**AH 2-4 cr **UL**

Advanced participation as an actor cast in a public performance of a theatre production under the direction of a faculty supervisor. The student must be cast in a major role, submit a written character analysis and journal of rehearsals and performances of that role. May be repeated for credit.

*Prerequisite: THE-125 and Permission*

**THE 332 Intermediate Directing**AH 4 cr **UL**

Continuation of THE-232. Principles and techniques of stage directing culminating in the analysis, casting and direction of a one-act play for public presentation.

*Prerequisite: THE-232*

**THE 371 Theatre Studio: Scenery**AH THM 2-4 cr **UL**

Advanced tutorial in scenic design. Students responsible for all research materials, production drawings, models, plots and schedules for a theatre or dance production working in close consultation with a faculty member. Culminates in the realization of a scenic project. May be repeated for credit.

*Prerequisite: THE-191*

**THE 372 Theatre Studio: Lighting**AH THM 2-4 cr **UL**

Advanced tutorial in lighting design. Students responsible for all research materials, production drawings, plots, and schedules for a theatre or dance production working in close consultation with a faculty member. Culminates in the realization of the lighting atmosphere for a public performance and a written analysis of the project. May be repeated for credit.

*Prerequisite: THE-191*

**THE 373 Theatre Studio: Costume**AH THM 2-4 cr **UL**

Advanced tutorial in costume design. Students responsible for all research materials, production drawings, renderings, and analysis for a theatre or dance production working in close consultation with a faculty member. Culminates in the realization of a costume project. May be repeated for credit.

*Prerequisite: THE-191 and Permission*

**THE 374 Theatre Studio: Sound**AH THM 2-4 cr **UL**

Advanced tutorial in sound design. Students responsible for all research materials, production drawings, sound acquisition, and analysis for a theatre or dance production working in close consultation with a faculty member. Culminates in the realization of a sound project. May be repeated for credit.

*Prerequisite: THE-191 and Permission*

**THE 375 Theatre Studio: Management**AH THM 2-4 cr **UL**

Advanced participation as a stage manager of a theatre production under the tutelage of a faculty supervisor. Students organize and run auditions, rehearsals, technical rehearsals and performances of a major production for public performance. May be repeated for credit.

*Prerequisite: Permission*

**THE 380 Topics in Theatre and Dance**AH 4 cr **UL**

Special topics and projects selected by Instructor. Background prerequisite vary with selections.

**THE 385 Theatre Practicum**4 cr **UL**

Study-work participation in community institutions, schools or professional organizations combined with faculty supervision. Practical experience in teaching, directing or performance of theatre. Culminates in written report. Also offered as THE-386.

*Prerequisite: Permission*

**THE 391 Design for the Theatre III**AH 4 cr **UL**

This class is a continuation of Design for the Theatre II. Students will choose a new design area of study. Additionally, students will develop their design aesthetics further. This will include studying styles, including, but not limited to modernism, surrealism, expressionism and symbolism related to theatre and including those design aesthetics into their design work. Additionally, students will include additional pieces to their design package, such as a finished model for scene design, or self-created music for sound design.

*Prerequisite: THE-291*

**THE 432 Theatre Studio: Directing**AH 2-4 cr **UL**

Advanced tutorial in the principles and techniques of stage directing culminating in the analysis, casting and directing of a full-length play.

*Prerequisite: THE-232 and Permission*

**THE 491 Design for the Theatre IV**AH 4 cr **UL**

This class is a continuation of Design for the Theatre III. Students will choose a new design area of study. Students who take this course will complete a full design package for each of their designs. This will be a professionally completed package useable within a professional portfolio. This is an advanced course required a significant amount of expertise developed through the three previous courses.

*Prerequisite: THE-391*

**THE 497 Capstone I**AH 2 cr **UL**

Focuses on the scholarly research required to prepare for the performance/practical element of the capstone experience. THE-497 usually culminates in an advanced research paper that explores and explains a specific topic in theatre studies chosen by the student in conjunction with his or her capstone advisor. The project may include designing an element of mainstage production. In such cases, the designer will provide his or her research portfolio at the end of Capstone I in lieu of the research paper.

*Prerequisite: 30 credits in THE and second semester Junior Standing*

## THE 498 Capstone II

AH 2 cr UL  
Students apply the practical skills developed while pursuing the theatre major. THE-498 usually culminates in the presentation of scenes related to the topic studied in THE-497. Depending on the student's area of interest, scenes will be directed, designed, and/or acted in by the capstone student. In some cases, special projects such as directing or designing a main stage production may provide the content of THE-497 and 498 and fulfill the capstone requirement. At the end of 498, the student will be required to complete a paper or project reflecting on their Capstone and Alma Experience.

*Prerequisite: THE-497 and Senior Standing*

## THE 500 Senior Thesis

AH 4 cr UL  
Students with honors in Theatre and Dance must complete a Senior Thesis, approved and directed by the Department. In some cases, THE-500 may replace THE-497 and 498 to fulfill the capstone requirement.

# Women's and Gender Studies (WGS)

## Minor Requirements

Twenty-four credits, which must include:

1. WGS-101 and 102
2. At least four credits from: WGS-280, 385 or 399.
3. At least twelve credits (eight of which must be at the 200 level or higher) from the following: COM-123 or 301; ENG-340; IPH-223, 301 or 303; HST-140, 228 or 253; PHL-202; POL-141, 231, or 381/382; REL-202; SOC-220, 234, 353, or additional approved course.

## WGS 101 Gender and Justice

EXP4 4 cr

Introduces women's and gender studies using interdisciplinary readings and lived experiences to examine assumptions about sex, gender, gender normativity, and sexuality. Analyzes the pervasive role gender plays in people's lives--across geographical areas and historical eras—to recognize how structures of gender create privilege for some and oppression for others.

## WGS 102 Gender and Popular Culture

EXP4 4 cr

Explores popular culture using classic and contemporary feminist theoretical approaches. Feminist analyses of sociocultural media and artifacts inform class discussions of gender enactments, representations, and performances in popular culture.

## WGS 280 Topics in Women's and Gender Studies

THM 2-4 cr UL

Specific topics concerning gender issues, choices, realities and self-expression chosen by the WGS program. This course is variable credit and may have offerings from 2-4 credits. May be repeated for credit with no more than four credits counted toward the minor.

*Prerequisite: WGS-101 or 102 or Permission*

## WGS 385 WGS Practicum

2-4 cr UL

Internship designed to provide on-site personal and service-oriented learning and experiences in a wide variety of areas related to women's studies, issues and concerns. Practicums must be taken through a relevant department, with Permission of the Women's Studies Coordinator and the Department Chair. This course is variable credit and may have offerings from 2-4 credits.

*Prerequisite: WGS-101 and Permission*

# World Languages and Cultures (WLC)

Students may pursue a traditional language major in Spanish (SPN), which requires a semester study abroad. Additional language courses are taught in Arabic (ARB), French (FRN) and German (GRM).

## WLC Single Language and Culture Major Requirements:

Thirty-six credits, which must include:

1. Declaration of a concentration in one Target Language (FRN, GRM, or SPN);
2. Successful completion of WLC-102, 104, or 104;
3. Students should be aware that a maximum of 10 credits (including WLC-101) may be taken wherein the primary language of instruction is English; courses must be pre-approved by WLC department.
4. Of the minimum 26 credits in the target language, no more than 4 credits from the 100 level may count towards the major, and a minimum of 12 credits must be upper-level coursework.
5. Study in a country where the target language is spoken is highly recommended.
6. Language Proficiency must be demonstrated by taking an approved external proficiency exam. Majors are expected to perform at the American Council on the Teaching of Foreign Languages (ACTFL) Intermediate-High proficiency level (as averaged across the four skills listening, speaking, reading, writing).
7. Students will write and defend in open forum an acceptable paper of moderate length in the target language reflecting on their language and culture study, study abroad experience (if applicable), and how the role of language and culture combines with the mission of a liberal arts education. Details and linguistic expectations will be determined in consultation with WLC faculty.

**Studying abroad is not a requirement in the WLC Single Language Major. However, study in a country where the target language is spoken is highly recommended.**

**Department Honors may be achieved in the World Languages and Cultures Department by:**

1. Having a 3.5 GPA in all classes applied to the major,
2. Performing beyond minimum requirements on the Language Exam portion of the Departmental Comprehensive Evaluation, and
3. Presenting a senior thesis of honors caliber.

**Advanced Credit in a second language may be earned by:**

1. Scoring at the 4 level or higher on the Advanced Placement (AP) exam.
2. Successful completion of the International Baccalaureate Program (IB) HL exam with a score of 5.

## WLC 101 Introduction to Cultural Analysis

AH 2 cr

An introductory course that focuses on tools for cultural analysis of a variety of genres (literature, film, art, performance, etc.) from multidisciplinary perspectives. Taught in English. This course is a pre- or co-requisite for 300 level content courses in target languages.

## WLC 102 Introduction to Cultural Analysis: The Spanish-Speaking World

AH EXP4 4 cr

An introductory course emphasizing Hispanic culture that focuses on tools for cultural analysis of a variety of genres (literature, film, art, performance, etc.) from multidisciplinary perspectives. A course in cultural analysis is recommended prior or concurrent to enrolling in a 300-level language course. Taught in English.

**WLC 103 Intro to Cultural Analysis: Beauty and Monstrosity**

4 cr

An introductory course emphasizing understandings of beauty and monstrosity that focuses on tools for cultural analysis of a variety of genres (literature, film, art, performance, etc.) from multidisciplinary perspectives. A course in cultural analysis is recommended prior or concurrent to enrolling in a 300-level language course. Taught in English.

**WLC 104 Intro to Cultural Analysis: Francophone Africa**

4 cr

An introductory course emphasizing Francophone culture in Africa that focuses on tools for cultural analysis of a variety of genres (literature, film, art, performance, etc.) from multidisciplinary perspectives. A course in cultural analysis is recommended prior or concurrent to enrolling in a 300-level language course. Taught in English.

**WLC 180 Topics in World Languages and Cultures**

☺ AH 2-4 cr

Various topics in World Languages and Cultures. Taught in English. May be repeated for credit if topic varies.

*Prerequisite: vary by topic*

**WLC 185 Service Learning**

1 cr

May be repeated for credit with a maximum of four credits applied toward the major or minor. Requires Instructor Permission and placement.

**WLC 230 German Culture Through Film**

☺ AH THM 4 cr

The course introduces students to specific issues in German culture and history (e.g., the 'golden' years of the Weimar Republic, Holocaust in Nazi Germany, the German Democratic Republic and the reunification, Turkish-German problems etc.) through representative films from different periods. As a result, students will have a better understanding of these concepts and view the films with a critical eye.

**WLC 234 Censorship in Germany**

AH THM 4 cr

Examine the ban on books and films in Germany through a study of the historical and sociopolitical conditions of censorship practices. Through comparative framework students understand the political nature of regimes of different times and places in a global world as well as the conditions and limits of censorship in cyberspace.

**WLC-240 Communication and Culture in Morocco**

☺ 4 cr

A culture immersion course designed to introduce students to the Moroccan culture through a more personalized and focused geographical area: the Maghreb. While being in Morocco, learn in a realistic view of culture, social, geographic, historical, linguistic, and artistic aspects of this North African country. Participate in local and national excursions, cultural activities, and day to day contact with locals to increase learning and to raise awareness about this part of the world.

**WLC 280 Topics in World Languages and Cultures**

☺ AH THM 2-4 cr

Various topics in World Languages and Cultures. Taught in English. May be repeated for credit if topic varies.

*Prerequisite: vary by topic*

**WLC 380 Topics in World Languages and Cultures**☺ AH 2-4 cr **UL**

Various topics in World Languages and Cultures. Taught in English. May be repeated for credit if topic varies.

*Prerequisite: vary by topic*

# Board of Trustees 2024-25

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## Officers

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- John M. Wilson '90,** Retired President, Wilson Law Office, P.C.; Midland, Michigan. (2020)

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- Gary W. Fenchuk '68,** President, East West Partners of Virginia; Midlothian, Virginia. (1990–2014)
- John C. Foster '67,** Retired Chief Judge, Sixteenth Judicial Circuit Court; Presbyterian Minister; Boulder, Colorado. (2001–2013)
- Nancy E. Gallagher '80,** Attorney, Gallagher, Everitt & Associates, PLLC; Alma, Michigan. (2000–2018)
- Glenn D. Granger '83,** Chief Executive Officer, Granger Construction Company; Lansing, Michigan. (2006–2019)
- Richard P. Heuschele '59,** Physician, Radiology — Retired; Saginaw, Michigan. (2000–2015)
- David R. Hubbard '60,** Retired Vice President of Finance, Edison Sault Electric; Cheboygan, Michigan. (2011–2014)
- James R. Jenkins,** Retired Senior Vice President and General Counsel, Deere & Company (2000–2013); Vice President, Secretary and General Counsel, Dow Corning Corporation (1976–2000); Midland, Michigan. (1985–2004)



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**Donald A. Lindow**, Senior Managing Director, Azimuth Capital Management, LLC; Bloomfield Hills, Michigan. (1987–2013)

**John McCormack**, Retired President and Chief Executive Officer, Firstbank Corporation; Retired President and Chief Executive Officer, Firstbank–Alma; Alma, Michigan. (1993–2017)

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**Roger L. Myers**, President and Chief Executive Officer, Presbyterian Villages of Michigan; Southfield, Michigan. (1994–2018)

**Antje Newhagen '67**, Los Altos, California. (2004–2013)

**Marcia J. Nunn '73**, Retired Counsel, Ford Motor Company; Naples, Florida. (2004–2019)

**Glenda D. Price**, Retired President, Marygrove College; Detroit, Michigan. (2000–2009)

**David T. Provost '76**, President and Chief Executive Officer, Talmer Partners; Troy, Michigan. (1994–2013)

**Carolyn E. Schultz '84**, Kalamazoo Quality Operations, Manager Supplier Quality, Zoetis; Kalamazoo, Michigan. (2012–2021)

**Bryan K. Segedi '81**, Retired Vice Chairman, Ernst & Young, LLP; Carlsbad, California. (2015–2023)

**Ron R. Sexton '68**, Retired Treasurer, Dow Corning Corporation; Midland, Michigan. (2004–2016)

**D. Michael Sherman '74**, Chairman and Chief Executive Officer, DMS Insurance Holdings, LLC; Brecksville, Ohio. (2008–2019)

**Matthew E. Steinmetz '84**, Partner, Kirkland & Ellis LLP; Chicago, Illinois. (2012–2019)

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## Officers of the College 2024-25

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The year of appointment is given after each name. The appointments indicated are for the academic year of 2024-25.

### President

Jeff Abernathy, B.A., Longwood College; M.A., Virginia Commonwealth University; Ph.D., University of Florida. (2010)

### Vice President for Enrollment

Vickie Alleman, B.A., Louisiana State University. (2022)

### Vice President for Communication and Marketing

Melinda L. Booth, B.A., Alma College; M.A., Oakland University. (2015)

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#### Chief Diversity Officer

Damon M. Brown, B.S., B.B.A., The Ohio University; M.A., Central Michigan University. (2020)

### Provost and Vice President for Academic Affairs

Sean D. Burke, B.A., Concordia College (New York); M.Div., Lutheran Theological Seminary; Ph.D., Graduate Theological Union. (2023)

### Chief Financial Officer and Vice President for Finance

James A. Carman, B.A., Olivet College. (2021)

### Vice President/Director of Athletics

Sarah M. Dehring, B.S., Ferris State University; M.A., Lakeland College. (2011)

### Vice President for Advancement

Robert W. Murray, B.S., Alma College; M.S., Central Michigan University; M.B.A., North Park University. (2023)

### Senior Vice President for Strategic Initiatives/Chief Operating Officer

Tim Pinnow, B.A., Luther College; M.F.A., University of Florida. (2023)

## Faculty 2024-25

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With the exception of the President and the Provost, the members of the faculty are listed alphabetically, with the year of appointment given after each name. The academic ranks indicated are for the academic year of 2024-25.

**Jeff Abernathy**, President. B.A., Longwood College; M.A., Virginia Commonwealth University; Ph.D., University of Florida. (2010)

**Sean D. Burke**, Provost and Vice President for Academic Affairs. B.A., Concordia College (New York); M.Div., Lutheran Theological Seminary; Ph.D., Graduate Theological Union. (2023)

**Takeshi Abo**, Visiting Assistant Professor of Music. B.M., Kyoto City University of Arts; M.M., D.M.A., Michigan State University. (2006)

**Victor Argueta-Diaz**, Associate Professor of Physics; Pre-Engineering Coordinator. B.S., National Autonomous University of Mexico; M.S., Ph.D., The Ohio State University. (2009)

**Karen L. Ball**, Charles A. Dana Professor of Integrative Physiology and Health Science. B.A., Alma College; Ph.D., University of Illinois at Chicago. (1995)

**Janelle L. Blazek**, Assistant Professor of Psychology. B.A., Kalamazoo College; M.A., Ph.D., University of Michigan. (2022)

**Murray C. Borrello**, Senior Instructor of Geology and Environmental Studies. B.A., Albion College; M.S., University of Massachusetts. (1987)

**Emma Bosley-Smith**, Assistant Professor of Sociology. B.A., Denison University; M.A., Ph.D., The Ohio State University. (2022)

**Zackary L. Bowers**, Assistant Professor of Psychology. B.A., Saginaw Valley State University; M.S., Ph.D., Central Michigan University. (2023)

**Elizabeth M. Boyd**, Assistant Professor of Psychology. B.A., Central Michigan University; M.A., Ph.D., Michigan State University. (2024)

**Marilee Brooks-Gillies**, Associate Professor of English. B.A., Alma College; M.A., Central Michigan University; Ph.D., Michigan State University. (2024)

**Liping Bu**, Reid-Knox Professor of American History. B.A., M.A., Beijing University; M.S., Ph.D., Carnegie Mellon University. (1999)

**Eric Calhoun**, Associate Professor of Biology. B.S., Truman State University; Ph.D., Mayo Graduate School. (2008)

**Elizabeth A. Cameron**, Professor of Business Administration. B.B.A., M.B.A., Saginaw Valley State University; J.D., Thomas M. Cooley Law School. (1988)

**Dion Campbell**, Lecturer of Sociology. B.A., M.A., Central Michigan University; Ph.D., University of Florida. (2022)

**Douglas R. Campbell**, Assistant Professor of Philosophy. B.A., McGill University; M.A., Ph.D., University of Toronto. (2023)

**Khanssaa El Alami Canning**, Lecturer in World Languages and Cultures – French. B.A., M.A., Sidi Mohamed Ben Abdellah University; Ph.D., University Michel de Montaigne Bordeaux III. (2019)

**Britt Cartrite**, Professor of Political Science. *Also Associate Provost*. B.A., M.A., University of Denver; M.A., Ph.D., University of Colorado at Boulder. (2005)

**Chih-Ping Chen**, Associate Professor of English. B.A., National Chengchi University; M.A., National Taiwan University; Ph.D., University of Massachusetts. (2000)

**Matthew A. Cicci**, Associate Professor of English. B.A., Indiana University-Purdue University Indianapolis; M.A., Central Michigan University; Ph.D., Wayne State University. (2015)

**Anthony J. Collamati**, Associate Professor of Communication and New Media Studies. B.A., St. Anselm College; M.A., Loyola University of Chicago; Ph.D., Clemson University. (2012)

**Kelli Crump**, Assistant Professor of Theatre. B.A.A., Central Michigan University; M.F.A., National Theatre Conservatory; M.A., University of Michigan. (2024)

**Robert Cunningham**, Professor of Economics. B.A., The Pennsylvania State University; M.A., Ph.D., Binghamton University. (1999)

**Zhewei Dai**, Professor of Mathematics and Computer Science. B.S., Wuhan University; M.S., Ph.D., Michigan State University. (2005)

**Jillian D. Dickson**, Associate Professor of Art and Design. B.F.A., Bradley University; M.F.A., Clemson University. (2015)

**Matthew M. Doggett**, Lecturer of Communication. B.A., B.S., M.A., Appalachian State University; Ph.D., The University of Memphis. (2023)

**Joel Dopke**, Towsley Professor of Chemistry. B.S., St. Norbert College; Ph.D., University of Wisconsin-Madison. (2007)

**Nancy Dopke**, Associate Professor of Chemistry. B.S., Millikin University; Ph.D., University of Wisconsin-Madison. (2007)

**Prathim “Maya” Dora-Laskey**, Associate Professor of English. B.A., M.A., Stella Maris College; M.Phil., University of Madras; Ph.D., University of South Carolina; D.Phil., University of Oxford. (2012)

**Deborah A. Dougherty**, Gunda Kaiser Professor of Spanish. B.A., Aquinas College; M.A., Ph.D., Michigan State University. (1996)

- Brian J. Doyle**, Associate Professor of Biology and Biotechnology. B.S., Ph.D., University of Illinois. (2010)
- Andrew Duncan**, Coordinator of Highland Arts/Instructor of Music. B.A., Alma College; M.S., Wayne State University. (2006)
- Morgan Fonley**, Associate Professor of Mathematics and Computer Science. B.A., B.S., M.S., Ph.D., University of Iowa. (2015)
- Kyle Gibson**, Assistant Professor of Chemistry. B.S., Hope College; Ph.D., University of Chicago. (2023)
- Brian Hancock**, Assistant Professor of Education. B.S., Alma College; M.S., Central Michigan University; Ph.D., Michigan State University. (2018)
- Brianna Harfmann**, Associate Professor of Integrative Physiology and Health Science. B.S., Alma College; Ph.D., University of Kentucky. (2017)
- Amanda D. Harwood**, Associate Professor of Biology and Environmental Studies. B.A., Monmouth College; M.S., Ph.D., Southern Illinois University. (2015)
- Matthew Hinkel**, Assistant Professor of Economics. B.S., Ph.D., Michigan State University. (2022)
- Derick Hulme**, Arthur L. Russell Professor of Political Science. B.A., St. Lawrence University; M.A.L.D., Ph.D., Tufts University. (1992)
- Steward Jensen**, Professor of Physics. B.S., Harvey Mudd College; Ph.D., University of Chicago. (2009)
- Haley Jerry**, Instructor of Nursing. B.S., Alma College; M.S., Western Governors University. (2024)
- Lisa Kaylor**, Assistant Professor of Mathematics. B.S., Westminster College; Ph.D., Wesleyan University. (2019)
- Timothy P. Keeton**, Associate Professor of Biology. B.A., Wittenberg University; Ph.D., University of Cincinnati College of Medicine. (1998)
- Angela Kelleher**, Associate Professor of Library Science. B.A., Michigan State University; M.L.S., Wayne State University. (2003)
- Hyun Kim**, Associate Professor of Integrative Physiology and Health Science. B.S., Indiana University; M.S., State University of New York-Buffalo State College; Ph.D., University of Illinois at Urbana-Champaign. (2016)
- Kevin Kingsland**, Instructor of Biology. B.S., Beloit College; M.S., Southern Illinois University. (2021)
- Matthew Lacouture**, Lecturer of Political Science. B.A., Florida State University; M.A., University of Denver; M.S., Portland State University; Ph.D., Wayne State University. (2024)
- Kerry Lazenby**, Lecturer of Integrative Physiology and Health Science. B.P.E., Brock University; B.S., D.C., Logan University; D.C. (2024)
- Holly Liu**, Charles A. Dana Professor of German. B.A., M.A., Peking University; M.A., Texas Tech University; Ph.D., Vanderbilt University. (2006)
- Catherine “Kayt” MacMaster**, Assistant Professor of Dance. B.F.A., Oakland University; M.S.Ed., Hunter College; M.F.A., University of Illinois Urbana-Champaign. (2022)
- Nicole Mattfeld**, Assistant Professor of Music. B.F.A., University of Wisconsin-Milwaukee; M.M., Colorado State University. (2024)
- Adam C. Matthews**, Assistant Professor of History. B.A., Wittenberg University; M.A., Western Michigan University; M.A., M. Phil., Ph.D., Columbia University. (2023)
- James Mazzuca**, Associate Professor of Chemistry. B.A., Saint Mary’s University of Minnesota; Ph.D., University of South Carolina. (2014)
- Robert R. Molina**, Professor of Mathematics and Computer Science. B.S., Southern Oregon State College; M.S., Ph.D., Colorado State University. (1993)
- Alexander H. K. Montoye**, Associate Professor of Integrative Physiology and Health Science. B.S., Alma College; Ph.D., Michigan State University. (2016)
- Bernard Moore**, Lecturer of History. B.A., Fordham University; M.A., Michigan State University. (2024)
- Antosia “Toni” Myers**, Lecturer of Music. B.A., Alma College; M.M., Oklahoma City University. (2023)
- Kristin Olbertson**, Professor of History. B.A., Carleton College; J.D., University of Michigan Law School; Ph.D., University of Michigan. (2006)
- Sangchul Park**, Assistant Professor of Business Administration. B.S., Hanyang University; M.S., Seoul National University; Ph.D., Texas A&M University. (2022)
- Benjamin Peterson**, Lecturer of History and Political Science. B.A., Willamette University; M.A., Ph.D., University of Illinois at Chicago. (2018)
- Marcus Richter**, Associate Professor of Library Science. M.Th., Seminary of the ELFK, Leipzig, Germany; M.L.S., College of St. Catherine/Dominican University. (2009)
- Justin Rito**, Assistant Professor of Music. B.M., Alma College; M.M., Central Michigan University; M.A., University of Western Ontario; D.M.A., Michigan State University. (2023)
- Julianna Robinson**, Associate Professor of Clinical Mental Health Counseling. B.A., Monmouth College; M.S., M.S., Western Illinois University; Ph.D., University of North Texas. (2024)

- Tina M. Rolling**, Associate Professor of Business Administration. B.S., M.B.A., Central Michigan University. (2012)
- John Rowe**, William R. Angell Professor of Biology. B.S., Central Michigan University; M.S., Eastern Michigan University; Ph.D., University of Nebraska–Lincoln. (2002)
- Eric Russell**, Lecturer of English. B.A., Michigan State University; M.A., Central Michigan University; Ph.D., University of Missouri. (2020)
- Alicia Ryder**, Instructor of Nursing. B.S.N., Grand Valley State University; M.S.N., Spring Arbor University. (2021)
- Jacob S. Sawyer**, Assistant Professor of Psychology. B.S., Central Michigan University; M.Phil., Ph.D., Columbia University. (2022)
- Stacy Schroeder**, Instructor of Nursing. B.S., University of Phoenix; M.S., Western Governors University. (2024)
- Eliezer Schwarz**, Assistant Professor of Biochemistry. B.A., Brandeis University; Ph.D., University of Illinois, Urbana-Champaign. (2024)
- Sophronia Scott**, Lecturer of Creative Writing. B.A., Harvard University; M.F.A., Vermont College of Fine Arts. (2021)
- Andrew Sellers**, Assistant Professor of Business Administration. B.A., The Ohio State University; M.A., Wayne State University. (2022)
- Michael L. Selmon**, Elma C. and Wesley C. Dykstra Professor of English. *Provost Emeritus and Vice President for Academic Affairs (2004–2018)*. B.A., M.S., Miami University; M.A., Ph.D., University of Maryland. (1991)
- Marc B. Setterlund**, Professor of Psychology. B.A., Gustavus Adolphus College; M.A., Ph.D., Johns Hopkins University. (1997)
- Andrew Singer**, Professor of Business Administration. B.S., Southern Illinois University; M.B.A., University of Phoenix. (2023)
- Stephany Slaughter**, Charles A. Dana Professor of Spanish. B.A., Washington College; M.A., Millersville University; Ph.D., The Ohio State University. (2009)
- Arun Sleeba**, Instructor of Business Administration. B.A., St. Stephen's College; M.A., Northern Illinois University. (2024)
- Matthew J. Smith**, Assistant Professor of Religious Studies. B.A., Anderson University; M.Div., Princeton Theological Seminary; M.A., Ph.D., Northwestern University. (2022)
- Jessie C. Store**, Professor of Education. B.E., University of Malawi; M.E., University of Botswana; Ph.D., The University of North Carolina at Greensboro. (2012)
- Katie Stumpf**, Associate Professor of Biology. B.S., University of Wisconsin-Madison; M.S., Ph.D., Northern Arizona University. (2024)
- Benjamin Taylor**, Assistant Professor of Political Science. B.A., The College of Wooster; M.A., Virginia Polytechnic Institute and State University; Ph.D., Johns Hopkins University. (2024)
- Andrew Thall**, Associate Professor of Mathematics and Computer Science. B.A., Kalamazoo College; M.S., Ph.D., University of North Carolina at Chapel Hill. (2008)
- Jeffrey A. Turk**, Associate Professor of Chemistry. B.S., Cleveland State University; M.S., Ph.D., University of Cincinnati. (2006)
- Lee Vander Kooi**, Assistant Professor of Art and Design. B.F.A., University of Akron; M.G.D., North Carolina State University. (2021)
- Vinitha R. Varghese**, Assistant Professor of Economics. B.A., University of Delhi; M.A., University of Hyderabad; M.A., Ph.D., University of Illinois–Chicago. (2023)
- Robert Vivian**, Charles A. Dana Professor of English. B.A., M.A., University of Nebraska Omaha; Ph.D., University of Nebraska–Lincoln. (2001)
- Jennifer Vranish**, Associate Professor of Integrative Physiology and Health Science; B.S., Lyman Briggs College–Michigan State University; B.S., M.S., Ph.D., University of Arizona. (2018)
- Laura von Wallmenich**, Associate Professor of English. *Also Associate Provost*. B.A., Colby College; M.A., Ph.D., University of Washington at Seattle. (2001)
- Bradford S. Westgate**, Associate Professor of Mathematics and Computer Science. B.S., Franklin W. Olin College of Engineering; M.S., Ph.D., Cornell University. (2015)
- Nicholas Wracan**, Instructor of Communication and New Media Studies. B.A., Alma College; M.A., Central Michigan University. (2023)
- Peggy A. Yates**, Associate Professor of Education. B.A., Alma College; M.A., Central Michigan University; M.A.T., Saginaw Valley State University; Ed.D., University of Michigan–Flint. (2015)
- Alex Zablocki**, Lecturer in Art and Design. B.F.A., Finlandia University International School of Art and Design; M.F.A., New York State College of Ceramics at Alfred University. (2019)
- Jessica T. Zaker**, Assistant Professor of Education. B.A., Transylvania University; M.A., University of Kentucky; Ph.D., Indiana University. (2023)
- David Zerbe**, Paul Cameron Russell Professor of Music. B.M., M.M., Central Michigan University. (2004)

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## Emeriti

**John W. Arnold**, Professor Emeritus of German. B.A., M.A., Ph.D., Michigan State University. 1977–2006.

**Julie Wegner Arnold**, Professor Emeritus of French. B.A., Alma College; M.A., University of Illinois; Ph.D., Michigan State University. 1981–2017.

**Gregory Baleja**, Professor Emeritus of Business Administration. B.A., M.B.A., Michigan State University. 1988–2020.

**Gwyneth Hill Beagley**, Professor Emeritus of Psychology. B.A., Middlebury College; M.A., Bryn Mawr College; Ph.D., Michigan State University. 1985–2016.

**Walter Beagley**, Professor Emeritus of Psychology. B.A., Middlebury College; M.A., Ph.D., University of Pennsylvania. 1976–2016.

**Joe D. Beckmann**, Professor Emeritus of Biochemistry. B.S., University of Nebraska–Lincoln; Ph.D., Medical College of Wisconsin. 1996–2017.

**Carol Bender**, Professor Emeritus of English. B.A., M.A., Central Michigan University; Ph.D., Michigan State University. 1986–2015.

**Kathryn Blanchard**, Charles A. Dana Professor Emeritus of Religious Studies. B.A., Kenyon College; M.B.A., Central Michigan University; M.Div., Princeton Theological Seminary; Ph.D., Duke University. 2006–2021.

**Mary Theresa Bonhage–Freund**, Professor Emeritus of Sociology and Anthropology. B.A., University of Pennsylvania; M.A.T., Duke University; M.B.A., University of Connecticut; M.A., Ph.D., The Pennsylvania State University. 1999–2015.

**Richard G. Bowker**, Charles A. Dana Professor Emeritus of Biology. B.S., Cornell University; M.S., Ph.D., Northern Arizona University. 1977–2001.

**David L. Clark**, Charles A. Dana Professor Emeritus of Biology. B.S., M.S., Central Michigan University; Ph.D., University of Cincinnati. 1992–2024.

**Burnet V. Davis**, Arthur L. Russell Professor Emeritus of Political Science. A.B., Dartmouth College; M.A., Ph.D., University of Chicago. 1976–2002.

**John E. Davis**, Charles A. Dana Professor Emeritus of Integrative Physiology and Health Science. B.A., Kenyon College; M.S., Ed.D., State University of New York at Buffalo. 1985–2018.

**Nicholas John Dixon**, Elma C. and Wesley C. Dykstra Professor Emeritus of Philosophy. B.A., University of Leeds; M.A., Ph.D., Michigan State University. 1986–2023.

**Carol Fike**, Professor Emeritus of Theatre and Dance. B.S., Brockport State University; M.F.A., University of North Carolina at Greensboro. 1984–2013.

**Nicola Findley**, Professor Emeritus of Education. B.Ed., University of Bristol; Ph.D., Michigan State University. 2001–2022.

**Catherine Fobes**, Professor Emeritus of Sociology. A.B., Muhlenberg College; M.Div., Yale University; M.S., Ph.D., Florida State University. 1998–2021.

**Patrick J. Furlong**, Professor Emeritus of History. B.A., M.A., University of Cape Town; Ph.D., University of California, Santa Barbara. 1993–2024.

**John Holman Gibson**, Professor Emeritus of Physics. B.S.E., Ph.D., University of Michigan. 1968–2007.

**Joanne R. Gilbert**, Charles A. Dana Professor Emeritus of Communication. B.A., M.A., University of North Carolina at Chapel Hill; Ph.D., University of Texas at Austin. 1994–2020.

**Charles A. Gray**, Professor Emeritus of Integrative Physiology and Health Science. B.S., M.S., Ithaca College; Ed.D., University of Oregon. 1965–1993.

**Philip R. Griffiths**, Professor Emeritus of Theatre and Dance. A.B., Whitman College; M.A., Stanford University; Ph.D., New York University. 1965–1993.

**Karin A. Grimnes**, Professor Emeritus of Biology. B.A., University of South Florida; Ph.D., Michigan State University. 1986–2013.

**Murray Gross**, Charles A. Dana Professor Emeritus of Music. B.A., M.M., Oberlin Conservatory of Music; D.M.A., Michigan State University. 2004–2022.

**Lawrence E. Hall**, Professor Emeritus of Library Science. B.A., M.A., M.A.L.S., University of Michigan. 1969–1999.

**Scott T. Hill**, Professor Emeritus of Chemistry. B.A., Gettysburg College; Ph.D., University of Pittsburgh. 1988–2020.

**James Robert Hutchison**, Towsley Professor Emeritus of Chemistry. B.S., Wittenberg University; Ph.D., Princeton University. 1973–2006.

**Randolph Jacques**, Professor Emeritus of Business Administration. B.A., Michigan State University; M.B.A., Wayne State University. 1977–2012.

**Joseph A. Jezewski**, Professor Emeritus of Theatre and Dance. B.A., Lycoming College; M.A., University of Kentucky; M.F.A., Rutgers University. 1993–2016.

**Margarita Krakusin**, Professor Emeritus of Spanish. B.A., Universidad Pontificia Bolivariana; M.Ed., Central Michigan University; M.A., Ph.D., Michigan State University. 1998–2008.

**Edward C. Lorenz**, Reid–Knox Professor Emeritus of American History and Professor of Political Science. B.S., Towson State University; M.A., Georgetown University; Ph.D., University of Chicago. 1989–2018.

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- Lynda R. Ludy**, Charles A. Dana Professor Emeritus of Education. B.S., Centenary College; M.A., Ph.D., University of Texas at Austin. 1976–1999.
- Maurie Luetkemeier**, Professor Emeritus of Integrative Physiology and Health Science. B.S., M.A., Ball State University; Ph.D., The Ohio State University. 2001–2018
- Scott Mackenzie**, Professor Emeritus of Theatre. B.A., University of Texas at Dallas; M.F.A., Michigan State University; Ph.D., Wayne State University. 2016–2024.
- Ronald Lee Massanari**, Charles A. Dana Professor Emeritus of Religious Studies and Philosophy. B.A., Goshen College; B.D., Garrett Theological Seminary; M.A., University of Wisconsin; Ph.D., Duke University. 1970–2006.
- Myles Frances McNally**, Professor Emeritus of Mathematics and Computer Science. B.S., Drexel University; Ph.D., Temple University. 1992–2017.
- Scott Messing**, Charles A. Dana Professor Emeritus of Music. B.A., Rutgers University; M.A., Ph.D., University of Michigan. 1982–2018.
- James V. Mueller**, Professor Emeritus of Economics. B.A., Cornell College. 1976–2008.
- William Nichols**, Secrest Professor Emeritus of Music. B.M., Western Michigan University; M.M., D.M.A., Michigan State University. 1983–2024.
- John Ottenhoff**, Professor Emeritus of English. B.A., Calvin College; M.A., Ph.D., University of Chicago. 1989–2007.
- William W. Palmer**, Charles A. Dana Professor Emeritus of English. B.A., M.A., Central Michigan University; Ph.D., Michigan State University. 1977–2017.
- Carrie Anne Parks–Kirby**, Professor Emeritus of Art and Design. B.F.A., Wesleyan College; M.F.A., Virginia Commonwealth University. 1982–2015.
- John F. Putz**, Professor Emeritus of Mathematics and Computer Science. B.S., Southeast Missouri State University; M.S., Ph.D., Saint Louis University. 1981–2013.
- B. Cameron Reed**, Charles A. Dana Professor Emeritus of Physics. B.S., University of Waterloo; M.S., Queen's University; Ph.D., University of Waterloo. 1992–2017.
- Raymond Riley**, Professor Emeritus of Music. B.M., University of Illinois; M.M., DePaul University; D.M.A., Michigan State University. 1988–2020.
- Richard Allen Roeper**, Professor Emeritus of Biology. B.A., Lawrence University; M.A.T., Miami University; Ph.D., Oregon State University. 1972–2000.
- Susan Root**, Professor Emeritus of Education. B.A., Michigan State University; M.A.T., Oakland University; Ph.D., Michigan State University. 1987–2003.
- Douglas J. Scripps**, Professor Emeritus of Music. A.B., Calvin College; M.M., University of Michigan. 1985–2002.
- Donald W. Shontz**, Professor Emeritus of Education. B.S., M.S., Ph.D., Florida State University. 1970–1987.
- Timothy A. Sipka**, Professor Emeritus of Mathematics and Computer Science. B.A., Anderson College; M.A., M.S., Western Michigan University; M.S., Central Michigan University. 1979–2019.
- Carol W. Slater**, Charles A. Dana Professor Emeritus of Psychology. B.A., University of Michigan; M.A., Ph.D., Michigan State University. 1967–2009.
- Ute Stargardt**, Charles A. Dana Professor Emeritus of English. B.A., M.A., Texas A & I University; Ph.D., University of Tennessee, Knoxville. 1982–2009.
- Melissa M. Strait**, Towsley Professor Emeritus of Chemistry. B.S., Oregon State University; Ph.D., Arizona State University. 1985–2021.
- Stanley Brian Stratton**, Professor Emeritus of Religious Studies. B.A., Pikeville College; M.Div., Ph.D., Princeton Theological Seminary. 2000–2018.
- Peggy Thelen**, Professor Emeritus of Education. B.S., M.A., Central Michigan University; Ph.D., Michigan State University. 2004–2022.
- Timm Norman Thorsen**, Professor Emeritus of Sociology. B.A., M.A.T., Beloit College; M.A., Ph.D., University of Massachusetts, Amherst; E.M.B.A., Claremont College. 1979–2019.
- Steven T. Vest**, Professor Emeritus of Library Science and Head of Reference and Instruction Services. B.F.A., Bowling Green State University; M.F.A., Indiana University; M.S.L.S., Clarion University of Pennsylvania. 1999–2020.
- Micheal R. Vickery**, Professor Emeritus of Communication. B.S., University of Alabama; Ph.D., University of Texas at Austin. 1992–2016.
- Joseph G. Walser**, Charles A. Dana Professor Emeritus of Religious Studies. B.A., University of North Carolina at Chapel Hill; B.D., Union Theological Seminary; Ph.D., Duke University. 1964–2000.
- Lawrence W. Wittle**, William R. Angell Professor Emeritus of Biology. B.S., Lebanon Valley College; Ph.D., University of Virginia. 1970–2008.
- Carol Zeile**, Professor Emeritus of Library Science. B.A., Alma College; M.A., Indiana University; M.L.S., Western Michigan University. 1998–2018.