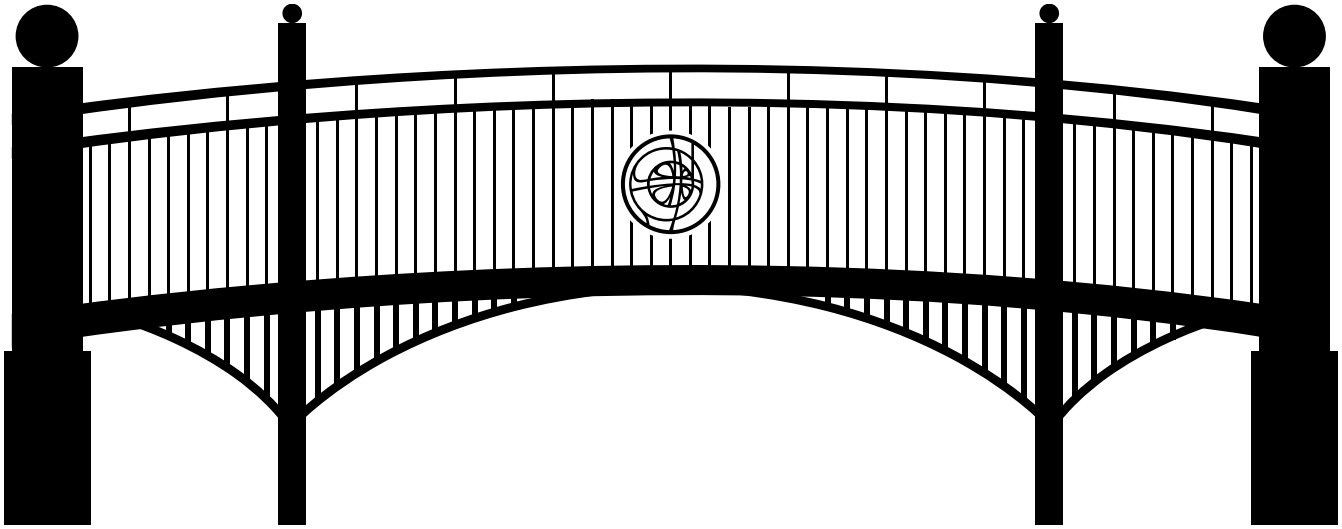

CENTRAL COLLEGE

COURSE CATALOG

2026-27

CENTRAL COLLEGE CATALOG

2026-27

Notice

The Central College Catalog contains the most accurate information available at the time of publication. Statements contained herein or on the online version are not contractual obligations, and verbal or other representations that are inconsistent with or not contained within the catalog's offerings or policies are not binding. Central College reserves the right to change, without specific notice, offerings, policies, procedures, qualifications, fees and other conditions. All such changes will be effective at times deemed appropriate by the proper institutional authorities and may apply to enrolled as well as prospective students.

For the most current information on Central College, contact:

Office of Admission
812 University
Pella, IA 50219

www.central.edu
E-mail admission@central.edu
Phone: 641-628-5285
Toll free: 877-462-3687

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2026-2027
Academic Calendar

Dates are subject to change. For current calendar information go to www.central.edu

June 2026
1 Summer 5 and 10-Week Classes Begin
3 Last Day to Drop or Add a 5-Week Class
10 Last Day to Drop or Add a 10-Week Class
10 New Student Orientation Session #1
11 New Student Orientation Session #2
11 Upward Bound & Bridge Classes Begin
12 New Student Orientation Session #3
24 Last Day to Withdraw from a 5-week Class

July
3 Summer 5 Week Classes End
4 Independence Day
8 Upward Bound & Bridge Classes End
14 New Student Orientation Session #4
15 Last Day to Withdraw from a 10-Week Class

August
7 Summer 10-Week Classes End
11 Summer Semester Grades Due (Noon)
17-18 International Students Arrive
17-18 New Faculty Workshops
19-21 New International Student Orientation
19 Chairs Workshop
20-21 All Faculty Workshops
21 New Students Arrive
21 Welcome Week Begins
23 Returning Students Arrive
24 Fall Semester Classes Begin (Mon.)
(Add/Drop Period: Aug. 24 – Sept 4)

September
4 Last Day to Drop or Add a Course
7 Labor Day (*no classes/college closed*)
30 Academic Connections Day

October
2-4 Homecoming
14 Midterm
19-20 Fall Break (Mon.- Tues.)
20 Midterm Grade Due (Noon)
21 Classes Resume
21 Spring 2027 Advising Begins
23-24 Board of Trustees Meeting
31 Central College Scholar Day

November
2 Spring 2027 Registration Begins
6 Last Day to Withdraw from a Course
7 Central College Scholar Day
23-27 Thanksgiving Break (Mon. – Fri.)
30 Classes Resume

December
11 Last Day of Fall Semester Classes (Fri.)
14 College-Wide Study Day
15-17 Final Exams
18 Residence Halls close; college holiday shutdown begins at 4:30 p.m.
21 Fall Semester Final Grades Due (Noon)

January 2027
4 Normal college operations resume
14 Department Chair Workshop
15 All Faculty Workshop
16 New Student Welcome Day/Orientation
17 Returning Students Arrive
18 Spring Semester Classes Begin
(Add/Drop Period: Jan. 18-29)
18 Martin Luther King Day (alternate day of learning)
23 Central College Scholar Day
29 Last Day to Drop or Add a Course
30 Central College Scholar Day

February

March
3 Midterm
8-12 Spring Break (Mon.-Fri.)
9 Midterm Grades Due (Noon)
15 Classes Resume
15 Fall 2027 Advising Begins
22 Fall 2027 Registration Begins
26-29 Easter Break (Fri.-Mon.)
30 Classes Resume (Tues.)

April
9 Last Day to Withdraw from a Course
13-15 New Student Registration & Orientation
22 CUI Day (Thurs., alternate day of learning)
23-24 Board of Trustees Meeting

May
6-8 Tulip Time
7 Last day of Spring Semester Courses
7 Last day to add Summer 2027 independent course work
10 College-Wide Study Day
11-13 Final Exams
14 Senior Grades Due (Noon)
14 Residence Halls Closed
15 Commencement
18 Final Grades Due (Noon)

June
1 Summer 5 and 10-Week Classes Begin
4 Last Day to Drop or Add a 5- Week Class
9 Last Day to Drop or Add a 10-Week Class
9-11 New Student Registration & Orientation
25 Last Day to Withdraw from a 5-Week Class

July
2 Summer 5- Week Classes End
13 New Student Registration & Orientation
14 Last Day to Withdraw from a 10-Week Class

CENTRAL: WHERE ACADEMIC RIGOR MEETS EMPATHY AND PERSONAL EXCELLENCE

- Located in Pella, Iowa - 40 minutes southeast of Des Moines
- Founded in 1853
- Campus includes nearly 50 major buildings on 200 acres
    - Douwstra Auditorium has been a gathering place for concerts, lectures, convocation and more.
    - The Roe Center is a platinum LEED-rated (Leadership in Energy and Environmental Design) building and houses education, political science, psychology, and sociology programs.
    - Vermeer Science Center earned Iowa's first LEED rating, a silver medal, from the U.S. Green Building Council.
    - Maytag Student Center features a fireside lounge, fitness center, Fred's café and Central College Spirit Shoppe and student support offices.
    - McKee Hall, an apartment-style residence hall, earned Central's second LEED rating, a gold medal.
    - Scholte Hall is Central's largest residence hall.
    - Weller Center for Business and International Studies features many environmentally friendly classrooms and offices.
    - Central Market is Iowa's most original dining hall with a unique European marketplace design.
    - Ron Schipper Fitness Center is a state-of-the-art fitness center available to all students. It's located in the A.N. Kuyper Athletics Complex.
    - Geisler Library holds 160,000 volumes and is home to the Global Café at Geisler, which offers coffee, and snacks.
    - Kruidenier Center hosts two performance theatres where numerous performances and productions showcase our musical theatre majors.
    - Lubbers Center for the Visual Arts includes a glassblowing studio. Central is the only four-year institution in Iowa with glassblowing as a regular course offering and is the only private school in Iowa with glassblowing.
    - The Chapel is home to Central's Campus Ministries program, which is open to all.
    - A.N. Kuyper Athletics Complex was recently transformed and includes:
        - H.S. Kuyper Fieldhouse with an indoor track and tennis, volleyball, and basketball courts
        - Ron Schipper Fitness Center
        - Ron and Joyce Schipper Stadium
        - Competition soccer field with separate men's and women's practice fields
        - Ryerson Golf Practice Range, one of the only golf practice facilities on a college campus in Iowa
        - 8,000-meter cross-country course on campus
        - P.H. Kuyper Gymnasium
        - Baseball and softball game fields
        - Poortinga Family Courts- pickleball and tennis courts
        - Wrestling Center

National Accolades and Recognition:

- #2 Best Value College in Iowa — Niche, 2026
- #4 Best Liberal Arts College in Iowa—Niche, 2026
- #4 Best College Athletics in Iowa—Niche, 2026
- #6 Best Christian College in Iowa—Niche, 2026
- One of America's Best Colleges—Money Magazine, 2025
- Top 25% of Best Colleges #54—Wallet Hub, 2026
- #131 National Liberal Arts Colleges—U.S. News and World Report, 2025
- One of the Best College Food in Iowa—Niche, 2026
- One of the Top 10 Private University in Iowa—Niche, 2026
- One of the Best Value and Most Affordable Colleges in Iowa—Research.com, 2026
- One of the Best Value Colleges in America for Accounting and Business Management—College Factual, 2024
- One of the Best Colleges for Environmental Science in Iowa—Edu/Rank, Niche, Universities.com, Appily 2024
- One of the Best colleges for Education in Iowa—Appily, Niche, 2024
- One of the Best Undergrad Engineering Programs—U.S. News and World Report, 2024
- Once of the Best Colleges or Universities in Iowa—Wallet Hub, U.S. News and World Report, 2024

- Accredited by
  Higher Learning Commission (hlcommission.org; 800-621-7440)
  - State of Iowa Board of Education
  - Engineering Accreditation Commission of ABET
  - National Association of Schools of Music
  - Council on Accreditation of Strength and Conditioning
  - Commission on Accreditation of Allied Health Education Programs
  - Certified by the American Chemical Society

Students

- Total enrollment: 1,051
- Number of states represented in student body: 22
- Foreign countries represented in student body: 5
- Average aid (including scholarships, grants, work study and federal loans) awarded to all incoming freshman in 2025-26: $20,201
- 6-year graduation rate: 64%

Faculty

- Total full-time and part-time faculty: 95
- Ph.D. degree or terminal degree: 79.7 percent
- Faculty-student ratio: 13:1
- Average class size: 16

New, first-year student admission profile (Fall 2025)

- Total applications: 1,706 total acceptances: 1;470, final enrollment: 316 (162 men; 154 women)
- Reformed Church in America students: 34
- Percent in top 10 percent of high school class: 19 percent
- ACT composite score average: 23.9
- Average HS GPA: 3.58
- Percentage entering with AP or college credit: 67 percent.

Financial aid profile, entire student body

- Receiving need-based aid: 55.43 percent
- Receiving scholarship and grant aid: 99.24 percent

Music program

- Central's music department is committed to providing both majors and non-majors a variety of musical performance opportunities: A Cappella Choir, Chamber Singers, College-Community Chorus, College-Community Orchestra, Flying Pans Steel Drum Band, Pep Band, Dutch Boom Drumline, Symphonic Wind Ensemble, and more.
- Performances are held in the Cox-Snow Recital Hall, Douwstra Auditorium, and the Chapel.

Athletics program

Central College is affiliated with the National Collegiate Athletic Association (Division III) and the American Rivers Conference for men and women. Central student-athletes have captured 11 NCAA Division III championships, 38 NCAA Division III national individual titles, 190 conference team championships, 83 national top-10 team finishes, 80 CSC Academic All-America®, 26 NCAA postgraduate scholarships and 10 NCAA Division III player of the year awards.

Central College

History and Tradition

Founded in 1853 by a determined group of pioneer settlers, Central College has, since its inception, been committed to the ideals of a liberal arts education. Central's founders immigrated to central Iowa to escape religious tyranny in the Netherlands.

Central College officially opened Oct. 8, 1854, with a class of 37, as a Baptist institution. The campus consisted of one two-story building containing three rudimentary classrooms. This fledgling institution grew both in size and mission during its first 60 years, eventually moving to a parcel of land donated by Pella's founding father, Dominie Hendrik Scholte. The college survived fires, three wars and economic depression during a period of history that saw the United States double in size. In 1916, Central became affiliated with the Reformed Church in America. As its academic reputation grew, Central attracted many more students from outside the denomination.

Today, Central College welcomes approximately 1,100 students each year from around the world.

Central's home of Pella, Iowa, is a thriving community of more than 10,000. Pella impressively appears in Oprah's 60 Charming American Towns You Haven't Heard of But Should Visit ASAP. The community is famous for its annual Tulip Time Festival, its Dutch pastries and its fully functional 1850s-style windmill. In fact, Pella has it all! Pella is located just minutes from Red Rock Lake, Iowa's largest lake, and is the corporate headquarters of several international companies, including Vermeer Corporation, Pella Corporation, Precision, Inc., and Lely North America.

Central's four-year liberal arts curriculum offers dozens of academic programs in the sciences, social sciences, arts and humanities. In Fall 2026, Central will offer a multimedia design major. In 2018, the college celebrated its first graduates from its new engineering program. In 2023, the college conferred its first Bachelor of Science degrees in chemistry and biochemistry. In 2023, Central began offering a Bachelor of Science in accounting and a minor in social justice. In 2024, Central awarded the first graduate with a musical theatre major. The college also has several professional programs and more than a dozen pre-professional tracks including dentistry, health, pharmacy, law, medicine, nursing, athletic training and more. An extensive program of art, music, theatre and cultural events are offered every semester.

Vision of Central College

Central College opens minds to knowledge, hearts to service and doors to the future.

Mission of Central College

Central College is a welcoming learning community committed to vigorous and open inquiry as the best preparation for lives of integrity, creativity, and adaptability. Our students learn collaboratively with supportive educators who share a commitment to intellectual engagement, personal growth, career readiness and civic involvement.

Shaped by its Christian heritage, Central College values inclusivity, humility, kindness, and hospitality and invites learners of all backgrounds and faiths to join us in the pursuit of knowledge, opportunity, and fulfillment.

Family Educational Rights and Privacy Act (FERPA) of 1974

The *Family Educational Rights and Privacy Act of 1974* helps protect the privacy of student education records. The *Act* provides for the right to inspect and review education records, the right to seek to amend those records and to limit disclosure of information from the records. The intent of the legislation is to protect the rights of students and to ensure the privacy and accuracy of education records. The *Act* applies to all institutions that are the recipients of federal aid administered by the Secretary of Education.

- The right to inspect and review their education records within 45 days of the day the college receives a request for access. Students should submit written requests to the registrar's office and identify the record(s) they wish to inspect. The staff of the office will make arrangements for access and notify the student of the time and place where the records may be inspected. If the requested records are not maintained by the registrar's office, the student will be notified of the correct official to whom the request should be addressed.

- The right to request an amendment to the student's education records that the student believes are inaccurate or misleading. The student should submit the request in writing to the registrar's office and clearly identify the part of the

record they want changed and specify why it is inaccurate or misleading. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing will be provided to the student when notified of the hearing.

- The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. In addition, the college may also disclose education records to another school in which a student seeks or intends to enroll. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. State and local education authorities ("Federal and State Authorities") may allow access to your records and personally identifiable information without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program, as well as to researchers performing certain types of studies.

- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the college to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

  Family Policy Compliance Office
  U.S. Department of Education
  400 Maryland Ave., SW
  Washington, D.C. 20202-5920

For a complete copy of Central's FERPA policy, contact the registrar's office, Central Hall (2nd Floor), 641.628.5442 or registrar@central.edu. Additional information is also available at: http://departments.central.edu/registrar/student-privacyferpa/.

Directory Information

At its discretion Central College may provide directory information in accordance with the provisions of the *Family Educational Rights and Privacy Act of 1974 (FERPA)*. Central College does not release lists of directory information to any person or agency making unsolicited requests. Directory information is defined as information which would not generally be considered harmful or an invasion of privacy if disclosed. At Central College this includes a student's: name, home address (city, state/country), parent name(s), parent(s) home address (city, state/country), campus mail box, Central College electronic mail address, phone number (including cell phone), major(s)/minor(s), dates of attendance, date and title of degree, honors and awards received, participation in officially recognized activities and sports, weight and height of members of athletic teams, thesis titles/topics, photograph/image, current enrollment status, (full-time/part-time), class standing (junior, senior, etc.), anticipated graduation date, previous institutions attended.
All other information (i.e., grades, course schedule, financial aid, tuition/fees owed and disciplinary records) are considered confidential and will not be released, with certain exceptions, without the student's written permission. If you wish to have non-directory information released, you need to sign Consent to Release Educational Records form and return it to the registrar's office (2nd Floor, Central Hall) to authorize the college to do so. Students may withhold directory information by completing a Request for Non-disclosure of Directory Information form which is available in the registrar's office.

Photographing and Filming of Students

Photographers and videographers employed or contracted by Central College frequently take photographs and video (including image and voice) of students to illustrate or describe various aspects of college and campus life. Photos/videos are taken at on-campus venues such as athletics events, classrooms, concerts and activities. In addition, photos and recordings may be taken at other organized campus photo/video shoots at which the subjects will have given verbal consent to be photographed or filmed. Individuals who are photographed/filmed while attending a public event or who verbally agree to participate in a photo or video shoot have given Central College the right to use their likenesses in any and all print and electronic materials used to promote and celebrate the college. Central will retain the usage rights to the photographs and videography in perpetuity.

For more information contact the registrar's office, Central Hall (2nd Floor), 641.628.5442 or registrar@central.edu.

Official Transcripts

Central College official transcripts are available through the registrar's office and are either printed on security paper with the registrar's signature and an embossed seal or electronically delivered (e-Transcript) as a digitally certified PDF. Transcripts can be ordered by submitting a transcript request online via our online vendor, Parchment. Electronic transcripts are only available through Parchment. Note the following transcript policies:

- In compliance with federal law as established by the *Family Education Rights and Privacy Act of 1974* as amended, transcripts will not be issued to third parties without the written consent of the student, as demonstrated by an original signature of the student approving the release of the transcript.
- Transcripts will be held for balances due in accordance with federal and state regulations.
- Paper/printed transcript requests are typically processed within 1-2 business days. Electronic transcripts are typically processed on the date received or the next business day.

Drug-free campus statement

Central College, in compliance with the Drug Free Workplace Act of 1988 and the federal Drug Free Schools and Communities Act of 1986 and its 1989 amendments, but also speaking to a strong philosophical belief, establishes the following policy which is applicable to all students and employees as well as volunteers acting in an official capacity for the college. *

1. **To help ensure the safety and well-being of employees, volunteers, students, and the general public, the college is committed to maintaining a campus work and educational environment that is free of the illegal use of drugs and alcohol.**
   a. The College prohibits its employees (including student workers) and volunteers from reporting to work or performing work for the college while impaired by, or under the influence of, illegal drugs, misused/abused prescription medication, or alcohol.
   b. The illegal use, possession, dispensation, distribution, manufacture or sale of alcohol, drugs and/or drug paraphernalia by an employee/volunteer in the workplace, on campus, or while the employee/volunteer is on duty or official college business; or by a student and/or a guest on campus or during any College-sponsored on-campus and off-campus activities is prohibited. This policy includes the misuse/abuse of prescription medication.

2. **No one may possess, use, manufacture, distribute, sell, trade and/or offer for sale, or auction alcoholic beverages on college property or at college-sponsored events except in accordance with the College's State of Iowa liquor license, the College's banquet permit/special event license procedure, or applicable college regulations.**
   a. The on-campus use, possession, dispensation, distribution, manufacture, or sale of alcohol by a student and/or a guest, regardless of age, is prohibited except as permitted by the Central College President for specific College-sponsored events/functions.
   b. Alcoholic beverages may not, under any circumstances, be used by, possessed by, consumed by, or distributed to any person under 21 years of age on campus or during any College-sponsored on-campus and off-campus activities.
   c. Alcohol is prohibited in any on campus or College-owned/managed residential housing unit for residents and guests.
   d. Items used for the purpose or promotion of high-risk drinking (beer pong tables, beer bongs, etc.) are prohibited on campus.

3. **Students and employees/volunteers of the college who violate the laws underlying this policy are subject to arrest and conviction under the applicable criminal laws of Pella, Marion County, the State of Iowa, and/or the United States.**
   a. Federal law contains further prohibitions against the manufacture, possession with the intent to distribute, or distribution of controlled substances, including, but not limited to narcotic drugs, marijuana, depressant or stimulant substances.
   b. Iowa law prohibits the manufacture, delivery, possession with the intent to manufacture or deliver and possession of controlled substances. Local and state laws prohibit possession of open containers of alcoholic beverages outside of a residence or licensed liquor establishment. Possession of alcoholic beverages is prohibited for persons under the age of 21. Operating a motor vehicle while intoxicated is also prohibited.

The College recognizes all these regulations in its commitment to maintaining a healthy campus and workplace. The College recognizes that chemical dependency is a major threat to wholeness of personal health. The College is therefore committed to seeing that all its students and employees understand that: (a) the use of alcohol and/or illegal drugs can interfere physically, mentally, socially and spiritually with the ability to perform important functions (i.e., work

performance, increased accidents, time lost for employees; and lower grades, reduced participation in College activities for students); (b) these drugs impair physical coordination and mental alertness and may damage the immune system, resulting in irreversible health problems and death; and (c) social behavior following use of alcohol or illegal drugs may be destructive to relationships.

Violations of the standards of conduct described in this policy may result in, among other things:

1. Disciplinary sanctions, up to and including dismissal/ termination/ suspension/ expulsion; and/or
2. A requirement to successfully complete a drug and alcohol abuse evaluation and/or rehabilitation program.

Violators of this policy can also anticipate that the College may file a formal complaint with the legal authorities resulting in the appropriate legal sanctions, including monetary fines and/or imprisonment. Although the severity of the infraction will determine the nature of the College's response, whenever possible the College will respond educationally rather than punitively to the illegal or improper use of drugs and/or alcohol by a survivor of sexual or relationship misconduct. The seriousness of sexual or relationship misconduct is a major concern and the College does not want any of the circumstances (e.g., drug or alcohol use) to inhibit the reporting of a violation of the Equal Opportunity, Harassment and Non-Discrimination Policy.

For students, the College Counseling Service provides evaluation and counseling for abuse of alcohol and drugs; see the Counseling Services webpage for information on how to schedule an appointment from on-campus or off-campus. Employees are encouraged to take advantage of the Employee Assistance Program; refer to the Human Resources page on my.central.edu for information about these services.

Students who have questions regarding this policy should contact the Dean of Students. Faculty should contact the Vice President for Academic Affairs. Staff should contact their supervisor or the Office of Human Resources.

Definitions

1. "Illegal drugs" is defined as a substance or substances defined and regulated under the provisions of the Federal Controlled Substances Act and Iowa Statutes, and includes but is not limited to CNS depressants, CNS stimulants, THC, hallucinogens, other illegal drugs such as PCP (angel dust) and cocaine or crack.
2. “Alcohol” and “alcoholic beverages” include, but are not limited to beer, “near-beer”/low-alcohol beer, and malt beverages; wine and low-alcohol wine; distilled spirits such as whiskey, vodka, rum, gin, tequila; and liqueurs or fortified alcoholic beverages, that are consumed for non-medicinal purposes.
3. "On campus" means any building, facility, grounds or other property owned, leased or controlled by Central College.
4. “Official college/campus business” is defined as activity by an employee or volunteer that occurs in the performance of, or in the course of, assigned duties of college employment or business.
5. “College-sponsored off-campus events/functions/activities” include, but are not limited to, the following categories: (a) Academic-related (e.g., class excursions, laboratory field work, service-learning, internship); (b) professional preparation and/or development (e.g., conference, training); (c) service-related (e.g., mission trip, Central Service Day); (d) social (e.g., student organization cookout at West Market Park; residence life bowling activity); (e) official representation of Central College (e.g., music, theatre, admission, athletic competition).

* The Drug Free Workplace Act (1988) applies to employees of the College and students who are Pell Grant recipients. It requires the College to certify that a federal grantee will provide a drug-free workplace. The Drug Free Schools and Communities Act (1986) and Amendments (1989) require that as a condition of receiving funds or any other form of financial assistance under any federal program, an institution must certify that it has adopted and implemented a program to prevent the unlawful possession, use, distribution of illicit drugs and alcohol by students. While these are distinct regulations, the College is stating with this single policy its intent to comply with both.

The college's alcohol and drug policy is distributed to the campus community each year in the fall through written notification via email and/or campus mail. Residence life staff and orientation workers also lead sessions for students during the year which address college policy, individual decision making and ramifications of substance use/abuse on campus. Counseling services provides a wide variety of self-help information regarding alcohol and other drugs.

Smoking, Vaping, and Nicotine Policy

Central College is a tobacco- and nicotine-free environment. The use of any tobacco, vape, or nicotine product is strictly prohibited. Prohibited tobacco, vape, and nicotine products include, but are not limited to, cigarettes, cigars, chew, other tobacco or tobacco-like products, vapes, and all nicotine products not approved by the Food and Drug Administration (FDA) for tobacco cessation.

Use of these products is prohibited on all college property and grounds; this includes, but is not limited to, parking lots, athletics fields, stadia, and within any campus building, College vehicle, or personal vehicles while on college property.

This policy is in effect at all times, including college sponsored as well as non-college sponsored events, and including college-owned/leased vehicles and buildings.

For employees and students, a violation of this policy may result in discipline or sanctions, while visitors may be asked to leave campus.

ADMISSION

Campus visit

All prospective students are invited to explore the opportunities available in and out of the classroom at Central by arranging a personal campus visit. Prospective students tour the campus with a student ambassador and visit with an admission counselor to discuss academic programming, extracurricular options, the admission process, scholarships, and financial aid. Students may also request an appointment with a faculty member or sit in on a class in their chosen field of study. Additional meetings with music or theatre staff members or coaches can also be arranged.

The office of admission is open from 8 a.m.- 4:30 p.m. Monday through Friday throughout the academic year and summer months. From September through May, the office is also open on Saturdays from 8 a.m.-noon. Please see the admission website at central.edu/admission for a list of special visit events throughout the year.

For more information, contact Central's campus visit coordinator at 641-628-7616.

Application for admission for new freshmen

To apply for admission:

1. Submit a completed application on-line at central.edu/apply/.
2. An unofficial transcript may be uploaded when you apply online or your high school can mail an official transcript to the office of admission, or email to admission@central.edu for admission purposes. A final official high school transcript will be required to be mailed to the office of admission prior to the start of enrollment. In addition, any college transcript(s) for dual-enrollment coursework.
3. ACT or SAT test scores are not required for admission. Candidates may submit standardized test results for the purpose of an admission decision if they desire but it is not required. However, eligibility for some scholarships and course placements require the submission of a standardized test score. Students interested in submitting ACT or SAT test scores may send them to the office of admission if the test results are not posted on your transcript.

Note: \For students enrolled in college or Advanced Placement courses, an official transcript from the college(s) attended and/or the College Board (for AP courses) should be sent to the admission office.

Admission guidelines

The college's admission committee reviews all applications for admission and especially seeks to admit students who demonstrate the desire, skills and potential to compete successfully at the college level. To be considered for admission as a degree-seeking student for fall or spring, candidates should:

1. Be a graduate of an accredited secondary school or its equivalent;
2. Rank in the upper half of their secondary school graduating classes;
3. Central does not require the ACT or SAT test scores for an admission decision.
4. Score a 530 on the TOEFL exam, a 197 on the computerized equivalent, or a 71 on the internet-based exam (if enrolling as an international student)

While specific courses are not required for admission, the college recommends that candidates have the following:

- English - four years, including literature.
- Mathematics - two or more years, including algebra, algebra II and geometry.
- Social studies - three or more years, including American and European history.
- Sciences - two or more years of lab science.
- Foreign languages - two or more years.

Regular admission

Candidates who meet the following criteria are typically admitted to Central without restriction or condition:

1. Have an unweighted cumulative grade point average of at least 2.700 on a 4.000 scale;
2. Have successfully met the recommended college-preparatory curriculum outlined previously.
3. Rank in the top half of their secondary school graduating classes; and
4. Present no extenuating causes for special consideration.

A limited number of candidates may be admitted who do not meet the criteria for regular admission, but who demonstrate the potential and motivation to succeed at Central. Such candidates may be asked to provide the admission committee with additional information such as a seventh semester transcript, recommendation letters or personal statements. If admitted, students in this category should expect to be placed in at least one prescribed course and are strongly encouraged to utilize additional academic support services available at the college.

Admission of home-schooled students
Prospective students seeking admission as freshmen who were home-schooled must submit appropriate documentation evidencing completion of a secondary-level program of study culminating in the equivalent of a high school diploma. Specific admission requirements and documentation may vary based upon the nature of the home-school program. Please consult the office of admission for guidance.

Equivalency diploma consideration
A prospective student seeking admission as a degree candidate who is 18 years old and holds an equivalency diploma issued by his/her state department of education will be given full consideration for admission.

To apply, candidates must submit an official transcript of all attempted course work in high school and a transcript of General Education Development (GED) assessment.

Appeals
All decisions of the admission committee may be appealed by the candidates within 30 days of notification. To appeal a decision, a candidate must submit a detailed statement in writing that addresses the following issues:

1. What is your motivation for seeking admission specifically to Central College?
2. What extenuating circumstances or conditions should the members of the admission committee consider in re-evaluating your application?
3. How do you expect your academic performance to differ from secondary school to college? What assurance can you give that the change will, indeed, take place?
4. Which of the secondary school teachers whom you have had for a college preparatory class can best speak to your potential to succeed in college (list name, department, address and telephone number)?

Notice of admission

Applications for admission and academic credentials are reviewed by the admission committee. Notification of the admission decision is made within two weeks after all required documents have been received, unless additional information is requested. Central College adheres to the National Candidate Reply Date that permits admitted students to select from all admission and financial aid award offers without penalty until May 1. All students planning to enroll full time (12 credits or more) are required to submit an enrollment deposit of $200, which is refundable until May 1.

Housing

The educational experience at Central College is intentionally designed as an active community in which everything belongs to learning. The classroom, lab and studio offer important educational opportunities, but are amplified through lively involvement in student organizations, athletics, artistic performances, as well as regularly shared dining and residential interactions. Taken together, these shape the fullness of the learning experience.

All full-time students are expected to live in college-owned housing unless married, of nontraditional age (23 years or older), a veteran, have a dependent child(ren) or enrolled part-time. Please be aware that financial aid will be adjusted for off-campus students.

Students seeking to live in off-campus settings may apply for a housing exemption. All requests will be followed up with a personal discussion with our student development professionals to understand each student's unique situation and ways to ensure active engagement in the life of our campus community. At the start of the semester following a change in residency request, students may be asked to provide documentation of a viable local housing option (i.e. lease agreement).

College/Advanced Placement Credit

Credit earned at accredited colleges or universities will be accepted in transfer if grades of at least a "C" ("C-" is not acceptable) are earned in the courses, and if the courses can be applied toward a Central College degree. A maximum of 75 semester hours of transfer credit (including AP, IB, PSEO, and dual enrollment) may be applied toward completion of a Central College degree. If you completed Advanced Placement examinations, contact the College Board, and arrange to have an official score report sent to Central College (CEEB 6087).

Transcripts are evaluated by the registrar. For more information, see the Transfer Credit Policy in the "Academic Policies" section of this catalog.

Transfer Application for Admission

To apply for admission to Central as a transfer student:

1. Submit a completed application at central.edu/apply/.
2. Have your high school send an official transcript of your high school credits to the office of admission.
3. Request that official transcripts from each college/university previously attended be sent directly to the office of

admission at Central. Attendance at each institution must be reported regardless of whether credit was earned. Failure to submit official transcripts from all colleges/universities previously attended is sufficient cause for denial or cancellation of admission and could preclude continued enrollment at Central.

4. ACT or SAT test scores are not required for transfer student admission. Candidates may submit standardized test results for the purpose of an admission decision if they desire but it is not required. However, eligibility for course placements may require the submission of a standardized test score. Students interested in submitting ACT or SAT test scores may send them to the office of admission if the test results are not posted on your transcript.
5. Transfer students who are currently enrolled at another institution must also provide a final official transcript prior to enrolling at Central.

International student admission

Students who are not United States citizens or United States permanent residents are required to complete the international student application for admission. In addition to the application, all international students are required to supply the following documents:

- Official copies of transcripts with an *original* stamp, signature, or seal is required. The transcript should be in the original language of instruction, with a certified English translation if applicable.
- Official documentation of English proficiency (see specific English language requirements below).
- A clear photocopy of identity page of passport (to ensure correct spelling of applicant's name and verification of birthdate).
- Official and original results of any standardized tests, such as SAT and ACT examinations. SAT and ACT examinations are not required for international students but are highly recommended for consideration of merit scholarship eligibility.
- Additional supporting application documents include letter(s) of recommendations and a personal statement.

English language proficiency requirement

Central College requires international student applicants to provide one of the following test scores to validate English language proficiency:

- A TOEFL score of 530 paper-based or a score of 71 on the internet-based (IBT) test.
- A band score of 6.0 on the IELTS with no sub score lower than a 5.5.
- SAT Critical Reading score of 420.

English language proficiency is also met in any of the following ways:

- Completion of 36 transferrable credits from an accredited US institution (required for transfer students).
- First-year students who have attended four years at a U.S. or international based high school where English was the primary method of instruction and grades of "C"/2.0 or better were earned in their English language courses.
- Successful completion of level 112 of the Intensive English for Academic Purposes Program from an ELS English Language Center. An official Academic Report and copy of the ELS Certificate must be sent directly from ELS to Central's office of admission.

International transfer student admission

International transfer students must complete the international student application. In addition to the above requirements transfer students are required to submit college or university credentials from all non-US institutions to a foreign credential evaluation agency for a course-by-course evaluation with a grade point average (GPA) calculation. Central College recommends that applicants use World Education Services, Inc. (WES) for their credential evaluation. The evaluation report must be sent directly from WES to Central College's office of admission.
Attendance at each post-secondary institution must be reported on the application regardless of whether you want to receive transfer credit or have it used in our admission decision.

INS requirements

International students are required to submit proof of financial resources before an I-20 or DS-2019 is issued, respectively, for the F-1 or J-1 U.S. visa.

Merit and need-based scholarships are available to international students, although the assistance offered does not cover the total cost of attendance.

Post-baccalaureate Students

There are times when individuals with a bachelor's degree, either Central College alumni or graduates of other institutions, may wish to attend Central College to pursue additional educational opportunities. There are three identified reasons to do this:

1. To complete an additional major to gain information relevant to their desired career path. In this case, the post-baccalaureate student:
    - May be part-time or full-time
    - May declare a major not previously completed
    - May not repeat previous course work, including transfer credit
    - May not alter the final GPA from their previous degree
2. To pursue additional endorsement or licensure, especially educational licensure. In this case, the post-baccalaureate student:
    - Must be accepted into the teacher education program
    - May be part-time or full-time
    - May declare a major not previously completed
    - May not repeat previous course work, including transfer credit
    - May not alter the final GPA from their previous degree
3. To utilize additional season(s) of athletic eligibility.
    - Student-athletes who graduated from Central College and have additional athletic eligibility remaining may continue as a regular full-time student and pursue a second major as defined and documented by the institution. To take advantage of this, the Central graduate:
        - Must be full-time, per the NCAA requirement. At Central College, full-time is a minimum of twelve semester hours.
        - Must declare a major not previously completed (previous coursework may apply)
        - Must take a majority of their 3 – 5 semester-hour courses (*e.g.*, 2 of 3 courses, 3 of 4 or 5 courses) in pursuit of their declared major. May not repeat any previous coursework, including transfer credit
        - May not alter the final GPA from their previous degree
    - Student-athletes who graduated from another institution and have additional athletic eligibility remaining must matriculate as a regular full-time student and pursue a second major as defined and documented by the institution. To take advantage of this, the student-athlete must:
        - Must have graduated with a bachelor's degree within four academic years at the prior institution without breaks in their education;
        - Must have had a cumulative grade point average of 3.000 at their prior institution;
        - Must have additional eligibility remaining;
        - Must have all prior transcripts on file at Central College prior to certification to participate;
        - Must be full-time, per the NCAA requirement, in each semester enrolled at Central College. At Central College, full-time is defined as a minimum of twelve semester hours.
        - Must declare a major not previously completed (prior coursework may be transferred in as prerequisites).

Financial Aid: A student with a bachelor's degree will not be eligible for further federal or state aid. Please contact the financial aid office for individual information related to cost.

The registrar's office will work with students in the registration process to ensure successful progression in their declared major. For more information, please see the Central College Registrar.

Guest/non-degree seeking students

Students not seeking to earn a bachelor's degree from Central College may be admitted and allowed to enroll in courses as guest students. Guest students may enroll on a full- or part-time basis but are not eligible for any financial aid from Central College, the State of Iowa or federal entitlement programs. Guest students, who at a later date seek to earn a degree at Central College, must apply for admission to the College as a degree-seeking student and meet the admission requirements detailed above.

No more than 15 semester hours of credit earned while a guest student will be applied to a bachelor's degree program at Central College; a guest student who might later seek degree-seeking status is therefore advised to formally apply for admission as a degree-seeking student as soon as possible.

Non-degree seeking, guest students are not required to meet the standards of satisfactory academic progress; however, Central College reserves the right to evaluate guest students' academic progress, to make recommendations for improving progress and to take progress-related actions (including but not limited to suspension or dismissal from the College). Guest student registration forms are available from the registrar's office, or online at http://departments.central.edu/registrar/registration/guest-student-registration.

Post-Secondary Enrollment Option Act (PSEO) and high school visiting program

Students currently enrolled as juniors or seniors in high school are eligible to participate in the PSEO program if they meet each of the required standards. They must rank in the top third of their class, have a GPA of 3.0 or above, and have an ISASP performance level of Proficient or Advanced. (See Table 1: Senior Year Plus Guide, page 8.) Students in the first or second year of high school (or a ninth or tenth grade student who is identified as a gifted and talented student according to the school district's criteria and procedures) must rank in the top 20 percent of their class, have a GPA of 3.0 or above and ISASP performance level of Advanced. Courses open to high school students through PSEO are limited to study above and beyond what is available in their high school curriculum.

To apply, PSEO registration forms are available in the admission office. Students must submit a completed form and an official transcript with test score results. Admitted students may take up to nine semester hours of credit per academic year.

PSEO students may register for classes on a space-available basis after August 1 for the fall semester and after December 1 for the spring semester. For more information on course availability, contact the registrar at registrar@central.edu or 641.628.5442.

Welcome Statement and Non-Discrimination Policy

Central College's Welcome Statement and Nondiscrimination Policy is designed to promote and protect safety, respect and integrity in relationships among all members of our community. Central College is committed to fostering inclusivity on campus and strives to create a community of students, faculty and staff who are dedicated to supporting and advancing the mission and goals of the college. To achieve these ends, the Central College Community establishes a safe environment for all persons, including those considered diverse by contemporary and sometimes changing standards.

As a college community, we commit to a process of actualizing our mission and goals, thereby striving to achieve congruence between our daily actions and the ideals expressed in our guiding principles. As one of our goals, we promote skills and values essential to becoming responsible citizens in local, national and international communities. Further, we seek opportunities to experience and appreciate the diversity of cultures and perspectives present on campus, in the United States and the world, recognizing the necessity to relate knowledgeably and sensitively in an increasingly complex environment where diversity is to be valued.

As an inclusive academic institution, we embrace and support students, faculty and staff from all spiritual perspectives or backgrounds who endorse the values of acceptance, mutual respect, justice, generosity, compassion, forgiveness and service to others. We aspire to be a community whose members act with consideration for the physical, intellectual, spiritual and emotional well-being of others. We seek to create mutually respectful interactions and positive meaning in relationships with persons of every ethnicity, race, national origin, ancestry, color, socio-economic class, creed, religion, philosophical belief, marital status, disability, physical appearance, sex, age, sexual orientation, gender expression and identity, and organizational affiliation.

The primary business of the college is to provide a liberal arts education with a free, open and civil exchange of ideas which do not cross the line of harassment and discrimination. The application of the college's harassment and nondiscrimination policy will be upheld. The application of this policy should always be made with consideration of how best to preserve the free, open and civil exchange of ideas to foster the education of all, while at the same time protecting the legal rights of individuals.

With due regard for the principles of freedom of expression and academic freedom, Central's expectation and policies seek to encourage attitudes of civility necessary for meaningful exchanges between people. All members of the college community are responsible for creating an atmosphere that fosters openness and mutual respect

Central College is an Equal Opportunity Employer. Discrimination in employment is specifically prohibited except in cases of a bona fide occupational qualification.

Additionally, the college prohibits discrimination against any employee, applicant for employment, student, or applicant for admission on the basis of race, color, creed, national origin, religion, disability, sex (including pregnancy), age,

sexual orientation, gender expression and identity genetic information (for employees), or any other characteristic protected by law. Central College students have equal rights, privileges and responsibilities unless specifically restricted by college disciplinary action.

Central College abides by Title IX of the Education Amendments of 1972 which prohibits sex-based discrimination in education programs or activities that receive federal financial assistance. Specifically, Title IX states that:

> *No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. More information is at: https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html*

Inquiries about Title IX, including complaints about discriminatory harassment sexual harassment, sexual assault, dating violence, domestic violence or stalking, may be directed to the Central College Title IX Coordinator and Talent, Equity and Engagement Officer and/or the Office for Civil Rights within the United States Department of Education.

Jill Anderson, Title IX Coordinator and
Chief Talent, Equity and Engagement Officer
Central Hall
Central College Box 6000
812 University Avenue
Pella, IA 50219
(641) 628-5198
andersonji@central.edu
TitleIX@central.edu

Office for Civil Rights
U.S. Department of Education
John C. Kluczynski Federal Building
230 S. Dearborn Street, 37th Floor
Chicago, IL 60604
312.730.1560
OCR.Chicago@ed.gov

COLLEGE COSTS (2026-27)

(Please visit our Web site at www.central.edu or call us toll free at 877-462-3687 to receive a copy of our current tuition, room, board and fees.)

Tuition, room, board, fees

Students entering fall semester 2026-27 will be charged tuition (based on a flat amount for 12-18 credits), room, board and fees. Students may choose the board plan that fits their needs.

The charges given in the table below are for 2026-27. Charges for 2027-28 will be determined in January 2027. For more information, call toll free 877-462-3687, and request a printed copy of Central's fees for 2026-27.

	1st semester	2nd semester	Total
Tuition (12-18 credits)	$ 11,187.00	$ 11,187.00	$22,374.00
19 meal plan	3,130.00	3,130.00	6,260.00
14 meal plan	2,980.00	2,980.00	5,960.00
10 meal plan	2,680.00	2,680.00	5,360.00
Room (normal occupancy)	2,900.00	2,900.00	5,800.00
Comprehensive Fee	250.00	250.00	500.00
Totals 19 meal plan	$ 17,467.00	$ 17,467.00	$34,934.00
14 meal plan	$ 17,317.00	$ 17,317.00	$34,634.00
10 meal plan	$ 17,017.00	$ 17,017.00	$34,034.00

Tuition

Tuition is $11,187.00 for 12 semester hours and $932.00 per semester hour for those credits outside the 12-18 semester hours that constitute the normal academic load. For example, a part-time student who elects to carry 10 semester hours of credit will be charged $9,320.00 for tuition (10 x $932.00). A full-time student who elects to carry 19 credits of non-tuition exempt credit (see overload policy below) will be charged $12,119.00 ($11,187.00 plus $932.00) for the extra semester hour of credit.

Overload

Students who wish to register for more than 18 semester hours will need permission from the registrar's office unless they are enrolled in one or more of the following overload-exempt courses: group ensembles (MUSG courses), Mock Trial (GENR 214), 1-2 credits Central teachers academy internships (EDUC 397), honors enrichment courses, interdisciplinary honors seminar, senior honors thesis courses/projects, honors seminar (HONR 191/ HONR 391), Writing 293, private music instruction (MUSL courses; instructional fee still applies), Kickstarter (GENR 104 and 105), Intro to Central for Transfers (GENR 106) and Peer Instructor for the Central College Kickstarter.

Room

The basic charge for all on-campus residence units is $2,900 per semester. The general rule is two persons per room. An additional charge of $725 per semester is assessed for a private single room and $1,000 for a private double room.

Board

Three meal plans are offered: a 19-meal plan, a 14-meal plan or a 10-meal plan. The 2026-27 rate for the 19-meal plan is $3,130 per semester; the 14-meal plan is $2,980; the 10-meal plan is $2,680. A commuter meal plan is available for students living off campus. A commuter meal plan can be purchased for $495 and includes 50 meals. The meal plan week runs from Saturday through Friday.

1) The 19 Meal Plan is $3,130 per semester for 19 swipes per week or up to 4 swipes per day. A maximum of two swipes may be used per meal period. Students will also receive $150 in Dutch Guilders per semester for meal purchases at the Market, Fred's or the Café. Any balance of Dutch Guilders remaining at the end of the semester will be lost. A swipe used at Fred's or the Café is good for value meal only during the designated mealtime.

2) The 14 Meal Plan is $2,980 per semester for 14 swipes per week or up to 4 swipes per day. A maximum of two swipes may be used per meal period. Students will also receive $150 in Dutch Guilders per semester for meal purchases at the Market, Fred's or the Café. Any balance of Dutch Guilders remaining at the end of the semester will be lost. A swipe used at Fred's or the Café is good for value meal only during the designated mealtime.

3) The 10 Meal Plan is $2,680 per semester for 10 swipes per week or up to 4 swipes per day. A maximum of two swipes may be used per meal period. Students will also receive $75 in Dutch Guilders per semester for meal purchases at the Market, Fred's or the Café. Any balance of Dutch Guilders remaining at the end of the semester will be lost. A swipe used at Fred's or the Café is good for value meal only during the designated mealtime.

Additional fees*

Additional fees include:

Monthly payment plan electronic	$20 per term
Art (ART-161, 253, 267, 270, 350, 367, 370)	$50
BIOL 118	$110
Ceramics I and II (ART- 262/362)	$75
COSC-210	$50
Education (EDUC- 183, 210, 333, 346, 352, 446)	$25
Engineering (ENGR 214, 322, 411, 487, 488)	$100
Glassblowing I and II (ART- 265/365)	$200
History 486	$25
Kinesiology (KIN 161, 215, 251, 357, 361, 461 & SC 472)	$75
Metalsmithing (ART- 267, 367)	$100
Music 151	$40
Musical Theatre (145)	$50
Psychology (PSYC- 278, 478	$25
Psychology (PSYC 348)	$100
Science lab - General	$125
Student teaching Pella campus based	$200
Student teaching (special permission off site)	$850
Audit, general (above or below block per semester hour)	$75
Book fees (BMGT- 261,362, 363; 462, ECON 312; ENGL–160,180, 214, 216, 252, 425)	$15

*Fees applied to courses are noted on the searchable schedule prior to registration. This may include fees associated with any off-campus trips or unique course materials that may change from year to year.

Textbooks

The cost of text and reference books varies, depending on the courses taken. New, rentals, or e-books are available on Central's website. The average estimated cost is $1,335 for the 2026-27 academic year. Specific courses have Inclusive Access course materials that are billed with semester tuition. Students may opt out of Inclusive Access.

Private/Group music lessons

Students who schedule a private or group music lesson will be charged the following music lesson fees.

1-credit private (weekly ½ hour private lesson; 13 lessons required):	$390.00
2 -credit private (weekly 1 hour private lesson; 13 lessons required):	$780.00
1-credit class (weekly group lesson):	$110.00
Organ Practice time/week	$ 10.00

Off-campus programs

Central has a program in Washington, D.C. as well as international locations through selected program providers. Students provide their own transportation to and from the off-campus programs and other expenses. Please contact the controller's office for costs.

Only outside scholarships, federal or state gift aid or federal student loans for which the student is eligible will be available to Central students for off-campus study programs.

Refund policy for official or administrative withdrawal from college

Students are responsible for officially withdrawing from Central if they choose to leave or stop attending. First semester Central students who drop from the College during the drop/add period will receive a full refund of tuition. Room and board will be pro-rated based on the number of days from the time of move in until verification of move out is complete.

The official date will be determined by Residence Life.
Returning Central students who withdraw from the College during the drop/add period will receive a pro-rated refund of tuition based on last date of attendance as determined by the Registrar. Room and board will be pro-rated based on

the number of days from the time of move in until verification of move out is complete. The official date will be determined by Residence Life.

Students studying on the Pella campus who officially withdraw or are administratively withdrawn prior to completing 60 percent of the fall or spring semester will receive refunds according to the following policies. No tuition refunds are granted for the summer or winter term for students who withdraw after the drop/add time frame.

A refund of institutional charges **will not** be granted to students who make a choice to stop attending without officially withdrawing from college.

Students who do not officially withdraw due to illness, accident, grievous personal loss or other circumstances beyond the student's control will have their institutional charges and financial aid adjusted based on the date determined that most accurately reflects when the student ceased academic attendance due to circumstances beyond their control.

All students who withdraw during the fall or spring semester will be charged an additional $100 administrative fee. In certain circumstances, the administrative fee may be waived.

For institutional charges for tuition:
Tuition will be refunded based on the percentage of the semester that has not been completed. After the 60 percent point in the semester, no refund will be granted, nor will financial aid be reduced. The portion of the semester completed is based on calendar days from the first day of the semester through the last scheduled day of finals, including weekends and mid-semester breaks of less than five days. For example – if the student completes 20 percent of the term, the student would only be charged for 20 percent of the tuition and would only receive 20 percent of the financial aid other than outside scholarships and work study.

Financial aid will be returned to the federal, state and Central programs based on the same percentage. Federal sources of financial aid will be returned to the programs from which the student received aid during the payment period in the following order: Unsubsidized Federal Stafford Loans, Subsidized Federal Stafford Loans, PLUS Loans, Pell Grants, and SEOG Grants. Effects on VA benefits will vary based on student program and date of withdrawal. Outside scholarships will remain on the student account unless it creates an over-award situation, or the donor specifically requests a refund. All student employment (including work-study) earned will be paid to the student.

For room and board:
Students who withdraw are required to vacate their residence hall room within 24 hours of signing the withdrawal paperwork. The student **must** verify completion of move out with Residence Life staff.

Refunds for room and board will be calculated using the same methodology as institutional charges for tuition. Students will be charged pro-rated room and board fees until verification of move out is complete. If move out date verification with Residence Life staff is not completed before the 60 percent point in term, student will not be eligible for a refund on room & board.

For Fees (*i.e.* course fees, music lessons, parking fees, comprehensive fee and other fees):
In general, fees are refundable using the same percentage as tuition unless it is otherwise communicated through registration or course specific details. For specific questions about fees, please work with the Business Office.

For Off-Campus programs:
Students studying at on an off-campus program will have their federal and state financial aid refunded based on the percentage of the term that has not been completed as stated above. Students should consult the appropriate program handbook concerning the policy for a refund of charges.

Any payments owed to the College are due within 30 days or as notified.

Return of Federal Title IV Financial Aid Funds:

If the student received Federal Title IV financial aid funds, Central College is required by law to comply with the federal programs Return of Title IV Funds Policy. Central is required to review any student who fails all courses as a possible administrative withdrawal. If we cannot document that the student was in attendance at class through the 60 percent point in the semester, the student's federal financial aid will be returned to the appropriate programs based on the midpoint of the payment (enrollment) period. This means that 50 percent of the student's federal financial aid must be returned to the federal programs in the order stated above. Effects on VA benefits will vary based on student program and date of withdrawal.

Students will very likely have a balance due on their student account resulting from financial aid refunds without a corresponding refund of institutional charges. Students will have a period of 14 calendar days after the administrative withdrawal determination is made to appeal and document their attendance in class after the 60 percent point in the term. If the appeal is granted, none of the aid will be refunded.

Any payments owed to the College are due within 30 days or as notified.

Refund policy for dismissal during the semester

Students who are dismissed must vacate their rooms within 24 hours. No tuition, room, board or fees will be refunded. In addition, an additional $100 administrative fee will be assessed for the dismissal. If a dismissed student receives Federal Title IV financial aid and is dismissed prior to completing 60 percent of the semester, the federal aid programs will be refunded in accordance with federal policies and based on the percentage of the semester not completed. Effects on VA benefits will vary based on student program and date of dismissal.

Any payments owed to the College are due within 30 days or as notified.

Refund policy for students called to active military duty

Central College is supportive of a student who is a member, or the spouse of a member if the member has a dependent child, of the Iowa National Guard or reserve forces of the United States and who is ordered to National Guard duty or federal active duty. Upon verification of orders requiring active duty, you may select from several tuition credit options.

Options available to qualified students: Upon meeting with the Registrar's office to verify orders, Central will work with you to determine the best plan for your circumstances. The college has three options to review and consider with you. No additional administrative fees will be assessed.

1. Withdraw from the student's entire registration and receive a full refund of tuition, room and board along with mandatory fees. Students using Federal Tuition assistance will have any unearned tuition assistance funds returned back to the government on a prorated basis through at least 60% (day 114 of the semester as defined by federal policy) of the term for which the funds were provided.

2. Make arrangements with the student's instructors for course grades, or for incompletes that shall be completed by the student at a later date. If such arrangements are made, the student's registration shall remain intact and tuition and mandatory fees shall be assessed for the courses in full. Room and Board may be refunded on a pro-rated basis.

3. Make arrangements with only some of the student's instructors for grades, or for incompletes that shall be completed by the student at a later date. If such arrangements are made, the registration for those courses shall remain intact and tuition and mandatory fees shall be assessed for those courses. An

4. Any course for which arrangements cannot be made for grades or incompletes shall be considered dropped and the tuition and mandatory fees for the course refunded. Room and Board may be refunded on a pro-rated basis.

These rules are in compliance with Iowa Code 261.9(1)(g)

Time Frame for Returning Title IV Funds

Title IV funds are federal student aid programs authorized by the Higher Education Act of 1965, administered by the U.S. Department of Education to help students pay for postsecondary education. These funds include grants (Pell, SEOG), loans (Direct Subsidized/Unsubsidized, PLUS), and work-study, primarily covering tuition, fees, and, with authorization, other educational expenses. Upon withdrawal from the College, calculations to determine the amount to be returned of Title IV Funds calculations will occur. Central will return funds to the appropriate Title IV program as soon as possible, but never later than 45 days from determination that a student has withdrawn from the institution.

If the refund calculation results in an amount owed back to the student, the balance will be disbursed to the student on the first Friday following the calculation AND always within 14 days of the balance occurring on the student's account.

In the event the refund calculation results in an amount to be returned to the Title IV programs that exceeds the amount Central College had originally retained on the student's account, the College will repay the Title IV program on the student's behalf and the student would then owe the College the same amount.

Any payments owed to the College are due within 30 days of notification. Interest of 1.5% per month will be assessed against unpaid balances.

Post-Withdrawal Disbursements

If it is determined the student is due a post-withdrawal disbursement of Title IV funds because the student was fully eligible to receive funds that had not yet been disbursed, Central will disburse all grant funds to the student account within 45 days. Grant funds will always disburse first to the student account if the student has a balance. Any grant funds the student is eligible to receive that are above the amount due on the student's account will be disbursed to the student NO later than 45 days after the school determines the student withdrew.

Post-withdrawal disbursements of loan funds will be OFFERED to the student via email and paper letter within 30 days of determining the student withdrew. The student will have 14 days to accept or decline loan funds (as they do have to be repaid per the master promissory note agreement). If a student accepts a post-withdrawal disbursement of loan funds, they will again be applied to any balance on the student account first and then refunded to the student with a check payment. All refunds on student accounts are released within 14 days of the credit occurring.

Housing deposit

For returning students who wish to reserve a room to live on campus the following year, his/her student account must be paid in full with a $200 nonrefundable deposit for housing. The deposit is applied to the subsequent semester bill.

Payment of accounts

Student accounts are payable on the published due date each semester. Satisfactory arrangements must be made with the controller's office if full payment cannot be made on the payment date. Students will not be admitted to class unless accounts are paid in full or they have made satisfactory payment arrangements. Students using VA education benefits will not be penalized if an expected payment from the VA has not been received

Monthly payment plans

A monthly payment plan is available to Central College students. There is a $20 fee per term. For more information contact the controller's office.

Liability waiver

The college does not carry insurance on personal property of faculty members, staff, students or other workers while on campus and is not responsible for the loss or damage of such property.

FINANCIAL AID

The cost of a quality college education is an important investment in your future. Financial aid, in the forms of scholarships, grants, employment and/or loans, is often necessary to help make a Central College education a financial possibility.

In fall 2025, 100 percent of those new Freshman who sought financial aid received aid. The average new freshman financial aid package for fall 2025 was $20,287, which included scholarships, grants, work study, and Federal loans. Financial aid is awarded on a yearly basis, and you must reapply each year. Central tries to maintain consistency in annual awarding; however, individual awards may be influenced by significant changes in your demonstrated need factor, academic achievement, and/or funding from federal, state, or institutional sources.

Applying for financial aid

To be considered for financial aid, you must be an accepted degree-seeking applicant. If you wish to be considered for need-based financial aid, you should file a Free Application for Federal Student Aid (FAFSA) as soon after Oct. 1 as accurate income information is available. Iowa residents must have a completed needs analysis form at the federal processor prior to July 1 to be considered for need-based gift assistance from the state.

Please complete the FAFSA online at www.studentaid.gov. You may sign the form electronically with an FSA user ID for the student and a separate FSA user ID for your parent if you are a dependent. Please indicate that you would like to have the results released to Central College (code 001850). You will receive an Institutional Student Aid Report (ISIR) directly from the federal processor. You should review the information for accuracy and immediately make corrections if needed. Results received at Central for accepted applicants prior to January 15 will be given first consideration for funding. Apply for aid early, even if you believe you may not qualify. Missed deadlines can challenge your ability to attend the school of your choice.

'No-need' awards

If you choose not to file a FAFSA, or the results indicate that you and your parents will be able to meet the academic year's cost of college without financial aid, you will still be considered for financial aid on an academic basis. Central has a number of scholarships and awards available to students who have demonstrated high academic achievement or outstanding ability in some special area (excluding sports).

The aid award

The financial aid director regularly reviews files to develop an aid award for accepted students who have either had the FAFSA results sent to Central or wish to be considered for aid on an academic basis only. Such an award will be made up of one or more types of aid: gift assistance that does not need to be repaid in the form of scholarships, grants or awards; loans that must eventually be repaid; or employment in an on-campus or community service position. New students who decide to attend Central should accept the aid award and return one copy to the office of financial aid at Central College. Current student awards are considered passive acceptance awards, meaning that we assume you want the award unless you tell us otherwise.

Crediting your student account

The value of the award is divided proportionately over the academic year. A portion of the gift assistance is credited to your account at the beginning of each semester. Outside scholarships and loan funds are credited to your account when the funds are received and endorsed if necessary. Employment earnings are paid to you periodically based on the hours worked or job performed. Employment earnings should be viewed as your spending money, not a reduction of the amount owed. Aid is awarded with the expectation that you will be enrolled in a sufficient number of credits to be considered full-time. If you are enrolled in less than full-time status, aid will be reduced in accordance with federal, state, and institutional policies. You must be enrolled at least at half-time status (minimum of 6 credits in a given semester) to qualify for most aid programs.

If you are selected for verification, you must complete the verification process before any federal or state aid may be credited to your account. If you have not completed verification by the end of the drop and add period of each semester, you will be charged interest on the unpaid balance of your account, including amounts that may be covered by federal or state aid after verification is complete.

Renewal/Satisfactory Academic progress

Financial aid is generally available for four academic years at Central College. Renewal is not automatic, however, and it is your responsibility to see that all requirements for renewing aid are met. Continuation of financial aid beyond the fourth year may be considered if you have previously formalized your intention to enroll as a part-time student or you

have been granted an extra semester or year based on an appeal documenting circumstances beyond your control that either prevented you from completing your degree requirements in the traditional four-year-timeframe or that require you to be enrolled for a semester beyond graduation.

Application materials are distributed late in the fall semester through your Central e-mail account. You will be notified in late spring or early summer of the aid awarded for the next academic year.

Satisfactory academic progress standards for financial aid:
Students receiving financial assistance are required to maintain satisfactory academic progress during their enrollment at Central College to receive financial assistance. Satisfactory academic progress (SAP) measures both a qualitative and quantitative component. SAP is achieved when a student maintains both the required grade point averages and the required completion rate.

Required Grades (Qualitative Measure):
At the end of each academic term (fall, spring, summer), the student's cumulative grade point average will be reviewed. Students with a grade point average lower than that required to be considered making satisfactory academic progress for financial assistance will be placed on financial aid warning for the following semester. During the warning period the student may be able to receive financial assistance, but if the student fails to achieve the required cumulative GPA at the end of the next semester the student's financial assistance will be suspended.

When academic progress is measured:	Students must achieve:
After 1 semester	1.700
After 2 semesters	1.800
After 3 semesters	1.900
After 4 semesters	2.000
After 5 semesters	2.000
After 6 semesters	2.000
After 7 semesters	2.000

Required Completion Rate (Quantitative Number):
In addition to maintaining the grades specified above, students must progress toward completion of a degree program within a specified time frame. To meet these minimum requirements, Central students must complete:

23 semester hours of credit at the end of one full academic year
47 semester hours of credit at the end of two full academic years
75 semester hours of credit at the end of three full academic years
106 semester hours of credit at the end of four full academic years

If a student falls short of any completion rule, (qualitative or quantitative) the student's financial assistance will be placed on warning for the following semester. During the warning period a student will be able to receive financial assistance. If the student fails to successfully complete 67% of the attempted credits during the next semester of enrollment (the semester of the warning period) financial aid will be suspended beginning with the next term. Suspension of aid is the loss of financial aid eligibility and will result in no aid for the term. Suspension of financial aid is not the same as academic suspension which is handled by the Vice President for Academic Affairs or designee office. Successful completion of credits means that a student completes and successfully passes said credits.

Please note that this is the satisfactory academic progress policy for determining financial aid eligibility. Academic policies that relate to academic notice and academic suspension from the college may differ. For more information, see "Academic Warning, Notice and Dismissal under Academic Policies." Students receiving tuition remission or tuition exchange employee benefits for dependent children and spouses must meet these standards to continue receiving the employee benefit.

Incomplete Grades: An incomplete or "I" grade will be treated as a failing grade in the cumulative GPA. If a grade is later given for the course, it is the student's responsibility to notify the director of financial aid so that academic progress may be reassessed.

Withdrawals: Credits from which the student has withdrawn or received a grade of "W" will be counted as attempted credits for purposes of determining satisfactory academic progress. However, credits dropped prior to the end of the add/drop period will not count as credits attempted.

Repeated Coursework: When a student repeats a course, the most recent grade received will be used in the calculation of the cumulative grade point average. Each time the course is taken, the credits for the course will count as attempted credits.

For the purpose of administering federal financial aid (i.e. Title IV funding), the following restrictions apply to all courses appearing on a student's academic transcript.

- A failed course may be repeated as many times as needed;
- Once a student passes (D- or better) a previously failed course, the student may repeat the course one more time to try and achieve a higher grade, in which case the most recent grade and credits earned will be counted toward graduation and in calculation of the student's cumulative grade point average;
- A previously passed course (grade of D- or higher) may only be repeated once, even if the student is attempting to earn a minimum grade required for a major or minor, or to raise the major or cumulative grade point average to the 2.0 minimum required for graduation;
- Courses designated as repeatable (i.e. music ensembles, private music lessons, internships, and practicums) are not restricted, and students may repeat these courses for credit an unlimited number of times.
- Central's academic repeat policy may include additional restrictions for repeating courses. For more information, see the Academic Policies section of Catalog.

Transfer Students: Transfer credits that are accepted at Central College will be counted toward the total attempted credits in determining whether the student is maintaining satisfactory academic progress.

Re-establishing Eligibility: A student who has lost financial assistance eligibility can regain eligibility by making up deficiencies while not receiving aid. It is the student's responsibility to notify the Director of Financial Aid to request aid reinstatement when this has been accomplished.

Appeals: A student that does not meet the minimum completion rules and/or GPA requirements to be considered as maintaining satisfactory academic progress, may appeal in writing to the Director of Financial Aid for extenuating circumstances, such as the death of a family member or an illness or injury to the student. All appeals MUST be made in writing and include:

- Information regarding why the student failed to make SAP, and what has changed in the student's situation that will allow the student to demonstrate SAP after the next term of enrollment.
- An academic plan that details how the student will complete his/her degree. The plan MUST demonstrate how the student will progress both in regard to GPA and cumulative credits to get back on track in seeking his/her degree. The student must be able to demonstrate that it is reasonably possible to complete the program successfully.

An appeal committee will review the student's appeal request and notify the student of their decision in writing within one calendar week of receipt of the appeal.

Scholarships-Grants-Loans-Student Employment

Scholarships

Merit scholarships and awards

Central College offers a variety of both competitive and non-competitive scholarships and awards. Most scholarship and award values are for a specific amount based on the year that you enter Central and other criteria. We set the value at a level that we hope will recognize and honor the recipients and their specific qualifications as well as helping to make Central an affordable college choice. The scholarship or award value does not increase from year to year, as an increase in aid that is not funded by annual gifts or significant increases to the endowment would create a need for further increases in tuition to cover the cost. You will be awarded the highest merit scholarship or award based on academic and/or talent criteria for which you qualify. Other Central awards may be added to academic awards provided the award value does not exceed full tuition and you will not be awarded in more than one of these areas. Heritage Awards may also be added to other academic awards provided full tuition is not exceeded. All schoalrships and grants from Central College are to be used toward tuition.

Endowed and Annual Gift Scholarships

A number of endowed and annual gift scholarships are available as a result of generous gifts to the college. Grants are also made on an annual basis by donors. The endowment income and gifts are awarded annually to deserving students and may be based on academic as well as financial considerations.

Grants

Federal Pell Grants

This federal program is designed for students who demonstrate the highest level of financial need and could not attend college without significant financial aid. Awards range in value and are based on the student aid index and the cost of attending Central College. Apply by filing a Free Application for Federal Student Aid (www.studentaid.gov)

Federal Supplemental Educational Opportunity Grants

These grants are available to a limited number of undergraduate students who demonstrate extremely high need and are eligible for the Federal Pell Grant. Application is made by filing a Free Application for Federal Student Aid.

Iowa Tuition Grant

Iowa residents attending private colleges and universities in the state may be eligible to receive an Iowa Tuition Grant under a program established by the 63rd General Assembly of the Iowa Legislature.

The program is administered by the Iowa College Student Aid Commission. The awards will be based solely on the applicant's need for financial aid, with priority given to the neediest candidates. Scholarships and grants-in-aid from other sources will be taken into consideration in determining a candidate's financial need. In the event that available state funds will be insufficient to pay the full amount of each approved grant due to the state's fiscal condition, the Iowa College Student Aid Commission will administratively reduce the maximum award to an amount less than the statutory maximum.

To apply for a State of Iowa Tuition Grant a student must file a Free Application for Federal Student Aid prior to July 1 listing Central College.

Loans

Federal Direct Stafford Loans

Federal Direct Stafford Loans are available to aid applicants who file a FAFSA and are enrolled at least half-time in college. These loans are federally funded with the federal government paying an interest subsidy, if you show financial need, and without an interest subsidy, if you do not show need. If eligible for the interest subsidy, the government will pay the interest on the loan until six months after you graduate, withdraw from college, or enroll less than half-time. If eligible for an unsubsidized loan, you are responsible for the interest while in college or no longer enrolled at least half-time as well. A loan fee of 1.057 percent will be deducted from each disbursement. No payment toward the principal is required while enrolled at least half-time. Federal Direct Stafford Loans have a fixed interest rate of 6.39 percent under current regulations. Repayment of the principal plus simple interest begins six months after you leave school at a minimum rate of $50 a month. The Federal Direct Stafford Loan is suggested only as an additional source of funds. You are not obligated to apply for a Federal Direct Stafford Loan if it is not needed.

Federal Direct Plus Loans (PLUS)

Federal Direct Parent Loans (PLUS) are available to parents who have a dependent child enrolled in college. These loans are guaranteed by the federal government. Individual eligibility is determined by subtracting any financial aid available for the year from the cost of education. Financial need is not a prerequisite. The loans are made payable to the parent and Central in multiple disbursements. A loan fee of 4.228 percent will be deducted from each disbursement. Repayment begins immediately upon disbursement with a minimum payment of $50 a month; however, a deferment option is available through a request with the direct loan servicing center. Federal Direct PLUS Loans have a fixed interest rate of 8.94 percent under current regulations. The borrower may take at least five years to repay

Federal Direct PLUS Loans and there are a variety of repayment options available. Federal Direct PLUS Loans should be sought as supplemental funds after all other federal sources of assistance have been investigated.

ACADEMIC PHILOSOPHY

ENGAGED CITIZEN CORE CURRICULUM

engaged citizenship = responsible membership in the communities to which we belong

"In Ancient Rome, the Latin term civitas, according to Cicero in the time of the late Roman Republic, was the social body of the cives, or citizens, united by law. It is the law that binds them together, giving them responsibilities on the one hand and rights of citizenship on the other." Wikipedia

Engaged citizenship has three essential features (3 Rs): relationships, reflection, and responsibility.
As engaged citizens, we are mindful of our relationships to other human beings and the world around us. These include our relationships to families and local communities as well as to diverse people across the nation and the globe. We are also mindful of our relationships to nature and to technology, the non-human elements that shape our lives.

As engaged citizens, we practice critical reflection about questions of importance to our communities and the relationships mentioned above. This reflection requires informing ourselves about the world by using rigorous methods of inquiry. It also involves entering the intellectual conversation, formulating, and critiquing arguments as part of the public discourse.

Finally, as engaged citizens, we act with responsibility, working to build a more just society and to find solutions to society's most pressing problems. Informed by ethical reflection, we are actively involved in our communities, exercising empathy in our service to others.

The Student Learning Outcomes include:

- Cultivate behaviors conducive to life-long learning.
- Develop and demonstrate essential knowledge, habits and values for ethical, engaged citizens in diverse communities.
- Develop and demonstrate essential skills for future careers.

CIVITAS 110

Required of all first-time, first-year students in the fall semester, *CIVITAS 110* is an interdisciplinary seminar designed to introduce students to the intellectual life at a liberal arts college and to academic life at Central. Small groups of students explore the intersections at which academic and intellectual disciplines, ideas, and events converge, connect, and collide. Faculty from across campus teach the seminars and select topics for their section.

This course will emphasize becoming an engaged, reflective, and responsible citizen of our campus community. The course will introduce first-year students to the liberal arts and to the Core's theme of Engaged Citizenship and serves as the foundation for Civitas 210 and other Engaged Citizen core courses. Students will develop skills in open-inquiry, respectful dialogue, and critical reading, as well as written and oral communication.

CIVITAS 210

The course will focus on a problem or question related to creating a more just society. The problem or question can apply at the national or international levels, but it could also have some connection to work we can do in our local communities. Some form of community engagement is an expectation. The course will serve as a common sophomore experience and will reinforce the student learning outcomes and written and oral skills introduced in *Civitas 110*.

Advising

Academic advising at Central College is a shared responsibility of the student and the advisor. The academic advising program empowers students to become lifelong learners through examination of life goals, participation in curricular programs and co-curricular activities, and knowledge of career opportunities. A faculty advisor is assigned to each student admitted to Central, and students may change advisors as their major interests change and develop.

Advisors' responsibilities are:

- To provide accurate information about requirements for the Core, majors, minors, and overall fulfillment of the degree;
- To provide guidance and referrals for choosing classes, and helping students map a career path;
- To be available and responsive to concerns and questions;

- To provide guidance and referrals for students to resolve academic or personal issues; and
- To maintain confidentiality regarding students' academic records.

Students' responsibilities are:

- To know the college's requirements and policies;
- To articulate and pursue personal, educational and career goals congruent with personal values and realistic self-appraisal;
- To monitor progress through their own program evaluation;
- To consult with an academic advisor several times each semester to review their academic program and progress toward their goals; and
- To accept the consequences of academic decisions, including but not limited to declaration of a major or minor, course selection or withdrawal, and follow-through with referrals.

GRADUATION REQUIREMENTS

Students must follow the graduation requirements in effect at the time of their enrollment. Students who enroll and subsequently interrupt enrollment (*e.g.* withdrawal, suspension) for more than two years must complete the requirements in effect at the time of re-entry. While academic advisors, faculty and staff provide significant academic planning and related assistance to students, completion of all degree requirements, and the process of monitoring progress to that end, is ultimately the responsibility of the student.

Students earn the Bachelor of Arts degree or Bachelor of Science degree as follows:

1) **Complete a total of 120 credit hours for the Bachelor of Arts degree *or* complete 124 credit hours for the Bachelor of Science (Biochemistry, Biology, Chemistry or Physics) or complete 136 credit hours for the Bachelor of Science (Engineering) degree or 150 credit hours for the Bachelor of Science (Accounting).**
2) **Complete no more than 20 credits of internship or practicum.**
3) **Complete no more than 60 credits of course work taken in the major discipline counting toward the total 120 credits required for the Bachelor of Arts degree *or* the 124 credit hours for the Bachelor of Science (Biochemistry, Biology, Chemistry or Physics) or the 136 credit hours for the Bachelor of Science (Engineering) degree or the 150 credit hours for the Bachelor of Science (Accounting).** This limitation applies to disciplinary/departmental majors only.
4) **Complete at least 20 credits of course work at the 300-level or above.**
5) **Earn a minimum cumulative grade point average (GPA) of 2.000.**
6) **Complete all requirements for at least one approved academic major with a minimum GPA of 2.000 in all courses applied toward the major(s).** Students are required to complete the major requirements in effect at the time the major declaration form is submitted to the registrar's office.
7) **Complete all Engaged Citizenship Core requirements as outlined below.**
8) **Satisfy the following residency requirement.** The two semesters (summer not included) just prior to graduation and a minimum of 45 credits, including 30 of the last 45 credits, must be completed in residence.* Students in good academic standing with fewer than 9 credits left to complete toward the Central College degree may be granted permission to complete their remaining hours at another accredited college or university with the permission of the academic advisor, major department chair, and the registrar. Students approved to participate in any of Central's dual degree programs must complete the two semesters (summer not included) just prior to enrollment at the dual degree granting institution and a minimum of 60 credits in residence; 30 of the last 60 credits must be completed in residence or at the dual degree granting institution.

   *"In residence" is defined as enrollment at a Central College location (the Pella campus, an approved study abroad or international program, or The Washington Center). Note: The Vice President for Academic Affairs or designee may grant exceptions to this residency requirement.

Application for Graduation. Students must submit an application for graduation at least two semesters prior to the awarding of the degree (84 completed credit hours). For more information, see "Academic Policies" in the *Academic Catalog*, or the current academic calendar.

Engaged Citizen Core Requirements

Complete all of the following core requirements: Civitas, Citizenship, Written and Oral Communication, Exploration and Modern Language. Core designations are identified throughout the academic catalog at the end of the course description, in Self-Service and on the online searchable schedule.

Civitas (7-8 credits)*. Complete I and II.

I. **CIV 110 Civitas (4 credits).** All first-time, first-year students must complete CIV 110, regardless of the number of transferable credits. Transfer students with fewer than 12 transferable credits (excluding AICE, Advanced Placement, International Baccalaureate, or CLEP) entering in the fall semester will take *CIV 110 Civitas*. Students may NOT withdraw from CIV 110. Transfer credit may not be used to satisfy this requirement. *A student who fails CIV 110 will have the option to repeat CIV 110 in an upcoming semester or take an additional EXP course at Central College prior to or concurrently with CIV 210.*

II. **CIV 210 Civitas (4 credits).** A problem or question-based interdisciplinary seminar related to creating a more just society. Each second-year student is required to take one *CIV 210* seminar either in the fall or spring semester. Transfer credit may not be used to satisfy this requirement.
*Transfer students entering with less than 12 credits, must take CIV 110. Transfer students entering with 12-58 credits must take CIV 210. Third-year transfer students (with 59+ transfer credits) or those with their Associate of Arts or Associate of Science degree are encouraged to take *CIV 210*, but it is not required.

Citizenship (6-8 credits)

Students will take two courses designated CTN at the 200-level or above; one- must be at the 300-level or above. Off-campus study for a semester on an international program may count as the equivalent of one course. One course must be from outside the academic division of the student's major. *Transfer students with 59+ credits or their AA or AS degree must take one 300-level CTN course.*

Written and Oral Communication (6-8 credits)

Successfully complete two WOC courses at the 200-level or above; one must be at the 300-level or above. One course will be within their major division, and one course will be outside of their major division. *Transfer students with 59+ credits or a student with an AA or AS degree must take one 300-level WOC course.*

Exploration (9-12 credits)

Successfully complete three courses designated EXP, one from each academic division, prior to the end of their second year. Transfer students with an Associate of Arts degree are exempt from this requirement. *This requirement is waived for transfer students with 59+ credits or a student with an AA or AS degree.*

Modern* language requirement (0-8 credits). The modern language requirement (0-8 credits) of the Engaged Citizen Core supports Central College students' (inter)cultural development through the attainment of college-level language skills. The study of modern languages opens new pathways for cultural encounters and helps students to reflect on their own cultures. *This requirement is waived for transfer students with 59+ credits or a student with an AA or AS degree.*

Complete one of the following:

a. Successfully complete two semester-long courses (or the equivalent) of college-level study of a modern second language. Students may count a one-semester intensive language course (numbered 122 or higher) as equivalent to one year (two semesters) of a second language from an approved international program.
b. Take the placement examination before beginning modern language course work at Central and earn a placement score beyond the first-year language courses.
c. Take the placement examination before beginning modern language course work at Central, earn a placement score in the second semester of the first year, and then enroll in and successfully complete the second semester course.
d. Students who wish to demonstrate proficiency in a modern language not offered at Central College may do so through an examination approved by the modern language faculty. Central College does not administer or pay for proficiency examinations in languages not offered at the college. Central will recognize the results of proficiency examinations in languages administered by the American Council on the Teaching of Foreign Languages. (See the registrar's office)
e. Special Circumstances^
    i. Students for whom English is not their first language must provide a letter from the high school principal or counselor attesting that English is not the first language for the student exempting them from the language requirement.
    ii. International students whose first language is not English are exempted from the language requirement; they may not earn academic credit by completing language courses at the 322-level or below in their primary language.

^Students may not qualify as both.

Note: Students who place beyond the first semester, complete additional language course work, and earn a grade of "C" or better are eligible for credit by proficiency (see "Credit by Proficiency" section of this catalog).

*Modern Language is defined as a language currently in use as a native language to engage others in community.

ACADEMIC POLICIES

Academic Appeals
Students who wish to appeal a curricular policy or graduation requirement must file a petition with the Curriculum Approval Committee. Forms are available from the registrar's office or the registrar's page on my.Central. Rules have been established by faculty in support of good educational practice. Neither negligence nor ignorance of rules is regarded as a good reason for granting an appeal.

Semester calendar
At Central College, the academic year is divided into two 16-week semesters and a 10- week summer term. Students normally enroll for approximately 4-5 courses each semester, enabling them to complete, on average, 30-34 credits per academic year and 120 credits – the minimum required for graduation with a BA degree– in four years.

Semester hour of credit definition
In accordance with federal regulations, Central College defines a semester hour of credit as a minimum of 45 hours of student engagement with course material, as defined by the faculty member of the course. This can include direct instruction time as well as indirect engagement, including (but not limited to) reading, assignment completion, exam preparation, writing, and presentations. This standard also applies to other academic activities, including laboratory work, internships, practicum, studio work, and other modes of academic work that lead to the awarding of academic credit.

Disabilities
Central College abides by interpretations of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 that stipulates that no student shall be denied the benefits of an education "solely by reason of a handicap." Disabilities covered by law include, but are not limited to, learning disabilities, hearing, sight, or mobility impairments, and other health related impairments.

Application for Graduation and Participation in Commencement
Students notify the registrar's office of their intent to graduate and participate in commencement by filing an application for graduation at least two semesters prior to the intended date of graduation and after completion of at least 84 credits. Applications are due as follows:

Anticipated Completion Month	Graduation Application Due
May	Due May 1, one year prior
August	Due August 1, one year prior
December	Due December 1, one year prior

Seniors who have applied for graduation will have their names listed in the commencement program and are expected to participate in the commencement ceremony.

Central College holds one commencement ceremony per year in May. August and December graduates may request permission to participate in the commencement ceremony prior to the anticipated completion date if:

- The student is enrolled during the spring semester; and
- The student is in good academic standing, and
- The student is within 17 credits of completing graduation requirements, and
- The student provides a plan to complete all remaining graduation requirements by the end of the fall semester following the commencement ceremony.

Students requesting an exception to the above policy must request from the registrar, in writing, permission to participate.

Graduation with Latin honors
Students who achieve a cumulative grade point average of at least 3.500 may be recommended by the faculty for commencement distinctions. The degree may be granted *cum laude* for those students with a cumulative GPA of 3.500-3.699, *magna cum laude* for those with a cumulative GPA of 3.700-3.899, and *summa cum laude* for those with a cumulative GPA of 3.900 or above. No student with more than one grade below C- during the last three years at the college will be considered for academic distinction.

Students who transfer to Central and complete at least 45 credits at Central are eligible for the honors, but only their GPA from credits earned at Central College will be considered.

Grading system

Central employs the following grading system:

A	4.0 grade points per semester hour	P (Pass) *not applicable, minimum grade "C" is required to receive a "P" grade*
A-	3.7 grade points per semester hour	I (Incomplete) *not applicable*
B+	3.3 grade points per semester hour	W (Withdrawal) *not applicable*
B	3.0 grade points per semester hour	NC (No Credit) not *applicable*
B-	2.7 grade points per semester hour	AUD (satisfactory audit) *not applicable*
C+	2.3 grade points per semester hour	CR (Language/ Mathematics proficiency) n*ot applicable*
C	2.0 grade points per semester hour	
C-	1.7 grade points per semester hour	
D+	1.3 grade points per semester hour	
D	1.0 grade points per semester hour	
D-	0.7 grade points per semester hour	
F(Failure)	0.0 grade points per semester hour	

Grades of P, I, W, NC, AUD and CR are not included when calculating grade point average. Only courses completed at Central College on the Pella campus, on an international study program, or Washington D.C. Semester or Acadeum courses are used to calculate a student's grade point average.

Incomplete ("I") grade

The incomplete grade "I" is a temporary grade indicating that work for the course is not complete. Instructors may assign an incomplete grade in a course that the student cannot complete on time due to extenuating circumstances, such as major illness or a death in the family, by filing an Incomplete Grade Request form with the registrar's office prior to the end of the current grading period. The date by which a student must complete a course is determined by the course instructor, but all work must be completed no later than the first day of the spring term for a fall class and the first day of the summer term for a spring class. Typically, incompletes are not offered for the summer term. At the time of the incomplete request, instructors will provide to the registrar the grade the student is currently earning in the course as the grade the student can expect to receive if the course is not completed by the agreed-upon deadline. Requests for an extension beyond the deadline should be made, in writing, to the registrar prior to the previously approved deadline. Both the instructor and student must agree to the extension.

Withdrawn ("W") grade

A grade of "W" indicates a student has either withdrawn from college or withdrawn from a particular course after the regular course drop and add period (typically the Friday of the second week of classes). The "W" grade is recorded on the transcript, but no credit is given. A student may not withdraw from a course, except for medical reasons, after the end of the 12th week of class.

Pass ("P")/No Credit ("NC") grades

With the approval of the advisor and course instructor, junior- and senior-level students may elect to attempt a maximum of 20 credits outside core, major, or minor requirements, and those courses required for certification, on a pass/no credit basis. Courses offered on a pass/no credit only basis may be used at the discretion of the department to meet major or minor requirements. Credit and a "P" (pass) grade are granted provided the student has earned the equivalent of a "C" grade or better. A "P" grade will have no effect on the student's grade point average. Students who earn a grade below a "C" will not receive credit for the course and an "NC" (no credit) grade will appear on the transcript. "NC" grades will have no effect on the student's grade point average. A student must submit an approved pass/no credit option form to the registrar's office before the end of the regular add/drop period.

Grade Appeals

A student who believes his/her final grade in a course is incorrect should first review the syllabus and collect graded assignments. The student should then contact the faculty member of the course as soon as possible to discuss the perceived problem and to request in writing that the grade be reviewed and refigured in case an error has been made.

If the student still believes the grade to be unfair or incorrect after this initial review, they should see the Chief Academic Officer or designee who will review the class requirements with the student and help them to determine whether there is a reasonable basis for an appeal.

Students who wish to appeal must submit a written letter to the Chief Academic Officer or designee within one month of the beginning of the semester following the term in which the grade was received. The letter should explain in detail the basis for the appeal. The Chief Academic Officer or designee will then discuss the case with the faculty member, and if further review is necessary, request the department chair or an appropriate designee to objectively review the

appeal. These faculty colleagues will consult with the faculty member involved to help him/her determine whether the disputed grade was fair and consistent with published expectations for grading in the course. The Chief Academic Office or designee will convey the result of these discussions to the student.

Final responsibility for grades rests with the instructor of that class. If an instructor is no longer available at the time of appeal, disposition of the case will fall to the current department chair. Only grades issued by Central College faculty may be appealed at Central College.

Students who believe the above process has been unfairly applied may further appeal in writing to the Chief Academic Officer.

Student Grievance Policy

Beginning July 1, 2011, the U.S. Department of Education regulations to improve the integrity of programs authorized under Title IV of the Higher Education Act (HEA) as amended (the *Program Integrity Rule*) took effect. The *Program Integrity Rule* requires, among other things, that each college or College authorized to offer postsecondary education in one or more states ensure access to a complaint (grievance) process that will permit student consumers to address the following:

1. Alleged violations of state consumer protection laws that include, but are not limited to, fraud and false advertising;
2. Alleged violations of state laws or rules relating to the licensure of postsecondary institutions; and
3. Complaints regarding the quality of education or other State or accreditation requirements.

Central College, as an institution authorized to provide postsecondary education in the State of Iowa, is committed to full compliance with the Program Integrity Rule. The College is accredited by the Higher Learning Commission.

Central College seeks to resolve all student concerns in a timely and effective manner. Students have the right to file a grievance against Central College. Students may file a Grievance up to 90 calendar days from the date of the incident. Students may not file anonymously.

A **Grievance** alleges that the College or one of its agents has violated institutional policies, accreditor policies, federal or state laws, or any other agreements joined by Central College. Grounds for a Grievance include failures in the provision of a program of study or related academic or administrative service, or institutional policies that negatively affect the quality of a student's learning opportunities. Grievances fall outside of standard College processes (*e.g.*, grade dispute process, conduct appeals), as outlined in the Central College Academic Catalog, Student Policies, and the Faculty Policies, and require that students have already first exhausted established Central College processes and mechanisms to address their concern.

Grievance Resolution Process

Any student who believes they have been subject to unjust actions or denied of their rights is expected to make a reasonable effort to resolve the matter before seeking formal resolution. The student should request a meeting with the parties directly involved, describing the nature of the Grievance and a desirable resolution. Both parties are encouraged to try to find a reasonable and satisfactory resolution.

The following offices and resources at Central College are available to current and prospective students for the resolution of Grievances. These offices provide specific administrative means to address and resolve most, if not all, of the questions and concerns students may have.

- Registrar's Office (academic concerns): 641.628.5442, registrar@central.edu
- Student Development (student development concerns): 641.628.5293 studentdevelopment@central.edu
- Business Services (financial/billing concerns): 641.628.5185, studentaccounts@central.edu
- Enrollment (admission concerns): 641.628.7616, admission@central.edu
- Financial Aid (financial aid concerns): 61.628.5336, finaid@central.edu
- Academic Affairs (all other concerns): 641.628.5233, centralvpaa@central.edu

If the parties involved in the Grievance are unable to find a satisfactory resolution and further action is deemed appropriate, students must follow the procedures outlined in the following process:

1. Students wishing to file a Grievance against Central College may do so by completing a Student Grievance Form and speaking with one of the following designated personnel:

- Academic concerns: Registrar
- Student development concerns: Dean of Students
- Financial/billing concerns: Director of Student Accounts
- Enrollment/Financial Aid concerns: Dean of Enrollment Management
- All other concerns: Vice President for Academic Affairs or designee

Students' confidentiality will be protected to the extent legally permitted; officials of the college may require access to students' educational records to fully investigate the Grievance. Students who are initiating a Grievance against Central College must authorize release of information necessary to investigate the grievance.

2. The student will receive, generally within 10 business days, a written response from the designated personnel relevant to their Grievance, including a determination of whether the issue or incident constitutes a Grievance according to Central College's policy and definition. If the submitted issue or incident does not constitute a Grievance according to Central College's policy and definition, the student will be informed in writing, and the college process will be considered concluded.

3. If the submitted issue or incident submitted constitutes a Grievance according to Central College's policy and definition, the designated personnel will meet with the student and any other relevant parties to discuss the issue or incident which led to the filing of the Grievance. Any meetings pertaining to the investigation of the Grievance will be conducted as quickly as possible and generally will be concluded within 10 business days of the determination of a Grievance.

4. The designated personnel, in consultation with the appropriate Vice President(s), will identify (an) appropriate resolution(s), generally within 10 business days of the close of the investigation. The designated personnel will inform the student in writing of the resolution(s). Decisions regarding resolutions are not subject to internal appeal.

5. The entire process will generally be concluded within 30 business days of the initial receipt of the Grievance.

6. Students have the right to obtain legal counsel.

Grievances Addressed to External Agencies
If a student believes that the college's administrative procedures outlined above have not adequately addressed concerns identified under the *Program Integrity Rule*, they may pursue an external process. Students may file a Grievance against the college with relevant state and federal agencies including, but not limited to, the Higher Learning Commission, the Iowa College Student Aid Commission, the Iowa Attorney General, and the Office of Civil Rights. Please note that many agencies require students to first exhaust their college's grievance procedures before filing a Grievance with the agency.

We recommend that students refer to the individual agency's policies to familiarize themselves with relevant requirements including filing deadlines and whether they must first pursue the college's grievance process.

Higher Learning Commission (HLC)
230 South LaSalle Street, Suite 7-500
Chicago, Illinois 60604-1411

Phone: 312.263.0456
Toll Free: 800.621.7440
Fax: 312.263.7462

The HLC of the North Central Association of Colleges and Schools is an independent body responsible for the accreditation of programs offered by Central College. Each year, the Commission receives a number of grievances about institutions from faculty, students, and other parties. The Commission has established a clear distinction between individual grievances and grievances that appear to involve broad institutional practices. Where a grievance does raise issues regarding the institution's ongoing ability to meet the Criteria of Accreditation, the Commission forwards the grievance to the institution and requests a formal response. Grievances may be filed with the Commission at the above link.

Iowa Department of Justice Office of the Attorney General Consumer Protection Division Hoover State Office Building
1305 E. Walnut Street
Des Moines, Iowa 50319-0106

Phone: 515.281.5926
Toll Free: 888.777.4590
Email: consumer@iowa.gov

The State of Iowa protects its citizens against consumer fraud. You may file a written grievance online or download the file, print it, complete it and mail to the Attorney General's Consumer Protection Division.

Bureau of Iowa College Aid- Iowa Department of Education
https://educate.iowa.gov/higher-ed/student-complaints

The Bureau of Iowa College Aid- Iowa Department of Education accepts concerns and grievances from any student attending an Iowa school, regardless of the student's state of residency, and from an Iowa resident attending any school, regardless of its location. Iowa College Aid will review submitted forms and determine the appropriate course of action. Actions may include, but are not limited to: contacting the constituent, contacting the institution in question and/or referral to another agency. In all cases, the constituent will receive written response to his or her request and the request from will be retained for Iowa College Aid's records

United States Department of Education
Office for Civil Rights
Regional Office #5 Office
500 West Madison St., Ste. 1475
Chicago, IL 60661
Phone: 312.730.1560

Anyone who believes that an education institution that receives federal financial assistance has discriminated against someone on the basis of race, color, national origin, sex, disability or age, may file a grievance.

Students may also file a grievance with their home state, or the state in which they are participating in a Central College program. See a list of links to state processes.

Non-Retaliation Statement
Retaliation, or attempts to retaliate, against any individual who files a complaint or Grievance is strictly prohibited, per college policy.

Final Examinations
Instructors are expected to utilize the final exam period for a conclusive, meaningful activity. Students are expected to take final exams during the assigned times. Students who have three finals on one day may request a change of examination time from instructors, but all examinations must be administered no later than the final day of the exam period. Students should check their final examination schedule prior to making any end-of-semester travel arrangements; it is not the responsibility or obligation of the instructor to give opportunities for students to take a final examination outside of the scheduled final examination time.

Dean's list
Students who complete at least 12 credits in which grades other than "P" are assigned and earn at least a 3.500 grade point average in a given semester are named to the dean's list for that semester.

Student Classification

First-year standing	1 semester completed
Second-year standing	2-3 semesters completed
Third-year standing	4-5 semesters completed
Fourth-year standing	more than 6 semesters completed

Declaring a major or minor
By the end of the second year, students must file a Declaration of Major/Minor form with the registrar's office to be eligible to register for the third year (5th semester) of study. Students are required to complete the major requirements in effect at the time the student submits the form. Minors must be declared prior to registration for the final semester of enrollment.

Registration

General information

Students register for courses online several months in advance of each semester and have several opportunities to make changes to their schedules (see below). All new students starting in the fall semester generally register for courses during Summer Orientation and Registration the preceding summer. All returning students who have not made satisfactory arrangements with the student accounts office for payment of all tuition and fees may 1) be ineligible to register for courses and/or 2) have their registration in courses cancelled.

Final official transcripts from all colleges attended need to be received and processed by the registrar's office before students may register for their second term of attendance at Central. A registration hold will be placed on the student's account until all transcripts are received.

Students are personally responsible for registration into and official withdrawal from courses. Class attendance does not constitute registration in a course; likewise, absence from a class – including never attending even one class session — does not constitute official withdrawal from a course. No credit will be awarded for courses in which a student is not properly registered, and no refunds will be given for courses from which students have not officially dropped or withdrawn. Students should refer to Self-Service Student Planning for their official class schedule.

Students who plan on being considered "full-time" (enrolled in at least 12 credits in a given semester) for financial aid, athletics, or any other purpose, must be attentive to the number of credits for which they are officially enrolled. Students enrolled in fewer than 12 credits in any semester prior to the last day to add/ drop will have their financial aid reduced according to state and federal regulations. Student athletes enrolled in fewer than 12 credits at any point in the semester will be ineligible for competition in that semester. It is each student's responsibility to know when they have dropped below full-time status and the ramifications of doing so. The registrar has the right to adjust student schedules during or after the registration period.

Changes in registration

Registration change forms are available from the registrar's office or on my.Central. Policies governing such changes are as follows:

1. Registration changes (adds, drops, withdrawals) must be approved by students' academic advisor and, at times, the course instructor.
2. Full-semester courses dropped during the official drop/add period (typically before the second Friday of classes; see the official academic calendar for drop/add dates) will not appear on the transcript.
3. Courses dropped after the official drop/add period and before the end of the 12th week of the semester will appear on transcripts with a grade of "W" (withdrawn), and no tuition or fee refunds will be made.
4. Withdrawal from any courses after the end of the 12th week of the semester is not permitted and students will receive the grade earned as determined by the instructor.
5. Under unusual circumstances, a student may appeal to the registrar for a waiver of these policies.

For courses that do **not** meet for the entire semester (*e.g.*, 1 credit courses that end at midterm):

1. Students may add or drop through the first week of class. Dropped courses will not result in transcript notation.
2. Withdrawals after the first week but before 75 percent of the regularly scheduled class sessions have been conducted will be noted with a grade of "W" on the student transcript.
3. Withdrawal after 75 percent of the regularly scheduled class sessions have been conducted is **not** permitted and students will receive the grade earned as determined by the instructor.

Attendance Policy

Because engagement is integral to learning, Central College expects students to attend all regularly-scheduled classes and laboratories.

Instructors are responsible for clearly stating expectations for student attendance in their course syllabi, including the potential for out-of-class course-related experiences during the term (e.g., evening exams, course excursions, community-based learning).

Students are responsible for consulting the course syllabus and communicating with their instructors regarding any absences. When possible, students should communicate in advance(and as early as possible) about anticipated absences. If a student fails to communicate in advance about an anticipated absence, the instructor is not obligated to provide alternate arrangements to the student because of the absence.

College-sanctioned activities typically are regarded as an excused absence from a class or laboratory. A college-sanctioned activity is an activity that the college has approved for student participation, regardless of whether the college has allocated any resources to support it. College-sanctioned activities can include (but are not limited to): college-sponsored athletic events; college-sponsored musical and theatrical performances; academic conferences and competitions; and course-related excursions. Questions about whether an activity counts as a college-sanctioned activity should be directed to the Vice President for Academic Affairs or designee.

Absences due to required, short-term military service constitute excused absences.

Prior to an excused absence, the student should complete all work necessary for the class or laboratory or make alternate arrangements with the instructor. However, in the rare case where there is no means by which the work for the class or laboratory can be completed beforehand or meaningfully made up in some alternate way, the student should discuss this absence with the instructor early enough to provide sufficient time for both parties to consider options. If the student and instructor cannot agree on an appropriate option, then they shouldconsult the coordinator of the conflicting event to seek resolution. Such a coordinator can include (but is not limited to): a faculty member proposing the conflicting activity; a coach of the student's athletic team; or the Athletic Director (or designee). If this consultation does not result in a resolution, then the student and instructor should consult the Vice President for Academic Affairs or designee to help facilitate a resolution, after hearing from all parties.

A student absent from a class or laboratory due to illness or due to a personal or family emergency normally should be considered an excused absence. If an instructor questions the legitimacy of such an absence, the instructor should discuss it with the student. If this does not resolve the question, then the instructor should contact the student's class dean for help with this determination.

Policies regarding all other absences are at the discretion of the individual instructor. In the event of an unexcused absence, the instructor is not obligated to provide opportunities for a student to make up course work. Absences due to personal travel prior to or following a mid-semester break (e.g., Thanksgiving or Spring Break) may be considered unexcused absences.

For extended or unforeseen absences (e.g., health conditions, family emergencies, post-season competition), the student is responsible for maintaining contact with their course instructor(s), academic advisor(s), and class dean to identify an appropriate plan of action. If an appropriate plan of action cannot be identified, Vice President for Academic Affairs or designee may be consulted to facilitate resolution.

Teaching and Learning Expectations on a Residential Campus (May 2021)
Because Central College is a residential campus, **the expectation is that students and faculty will be together in the classroom on campus** unless a significant disruption occurs, and a temporary adjustment is required and announced by the president. We anticipate that Central faculty and students will participate in in-person (*i.e.*, not remote, not recorded classroom) teaching and learning.

Students and staff should contact the appropriate academic success dean if there is a need for long-term accommodation (lasting 1 week or longer), and the academic success dean will contact the Registrar. Long-term accommodations for students must be approved in advance by the Registrar in consultation with the Vice President for Academic Affairs or designee and will be communicated to the student's faculty, advisor, and academic success dean by the Registrar's Office. Each faculty member will then determine what reasonable accommodation will be for their course.

The Registrar will serve as the point person for all communications to faculty regarding a student's need for long-term accommodation. Appropriate documentation for the approved accommodation will be held in the Office of Student Support Services.

Faculty will not agree to individual long-term accommodations at the request of a student without notification from the Registrar. Individual long-term accommodations for students that do not involve communication from the Registrar will not be permitted.

This policy does not pertain to short term alternate arrangements for weddings, funerals, important family events, short term illness/injury, or athletic events. These short-term matters should be handled by individual faculty with direct communication from the student.

Leave of Absence

A leave of absence (LOA) is a period when a student is not enrolled in classes at Central College but typically intends to re-enroll. It is granted to students who need to step away from their current academic experience for the remainder of the semester. This may be to focus more intensely on their physical or mental health (requires the support of a licensed medical or mental health care professional), family emergency, military service, or other specified reason.

Who needs a Leave of Absence?

Students may want to consider a leave of absence if:

- A student's physical or mental health is disrupting their ability to participate in academic and campus life (even with supports and accommodations); they feel they are in crisis or that their level of distress is becoming intolerable; they believe the stress and pressure of college is seriously disrupting their ability to focus on recovery; or an increased level of care is needed.
- A family emergency requires the student step away from their studies for the remainder of the semester.
- A student chooses to enlist in the military and leaves for basic training or is deployed on active duty.
- Other specified reason.

How long is a Leave of Absence?

A leave of absence may be a partial semester or a full semester but may not exceed two consecutive full semesters. Students who are granted a leave of absence prior to the start of classes or during the official drop/add period will be dropped from their courses without a transcript notation. Students who withdraw after the official drop/add period and before the 12th week of classes will receive a "W" (withdraw) grade on the transcript for each full-semester course they are currently registered. Students who receive financial aid will have the term counted as one of their terms of financial aid used toward the maximum financial aid eligibility.

How do I know if I qualify for a Leave of Absence?

A student seeking a leave of absence for any reason should contact their class dean to initiate a conversation about a leave of absence. The request for a LOA cannot be made after the end of the 12th week of classes. Medical requests will be considered after the 12th week on a case-by-case basis. In no case can a request for a LOA be made after the end of the term. Students seeking a leave of absence for a medical reason should talk with licensed medical provider or mental health care professional to determine if a medical leave of absence is something they would recommend and support with documentation for demonstrated need.

What happens to my student status with a Leave of Absence?

If approved by the Vice President for Academic Affairs or designee, the student will stop all courses and be granted grades of "W" in all enrolled courses and have course registration for any subsequent term cancelled if applicable. Students may seek to re-enroll in a subsequent semester by completing the application for re-entry. Students granted leave of absence will not be permitted to continue living on campus and are required to vacate their residence hall room within 24 hours of signing the withdrawal paperwork AND must verify completion of move out with Residence Life staff. Students will be charged pro-rated room and board fees until verification of move out is complete. If move out date verification with Residence Life staff is not completed before 60 percent point in term, student will not be eligible for a refund on room & board.

Students typically spend at least one full semester away from campus, though time away can be determined on a case-by-case basis.

Students are encouraged to consult with the Financial Aid Office to determine if there are other financial implications to their decision to take a leave.

If you would like to proceed with a Leave of Absence or have any additional questions, please contact:

Registrar's Office
registrar@central.edu
641-628-5442

Administrative withdrawal

When a student has missed all classes for 10 consecutive class days, or who after the end of week seven is failing all classes and is neither regularly attending classes or completing labs or assignments, the college will begin the process to administratively withdraw the student from the college. The student will be notified by the registrar via the student's Central College e-mail account. Students who are withdrawn from the college must vacate their campus residences

within 48 hours of having been withdrawn. Administrative withdrawal will be transcripted as a withdrawal and considered an unofficial withdrawal for refund purposes. (For refund policy information see "College Costs" page 17.)

A transcript notation will indicate that a student has withdrawn from the institution (*e.g.*, Withdrawn MM/DD/YYYY).

Disciplinary/academic suspension and dismissal
Students may be suspended or dismissed from college at any time during the semester. Students who are suspended or dismissed must vacate their rooms within 24 hours. Students who are suspended or dismissed after the official drop/add period and before the end of the 12th week of class will receive a "W" (withdraw) grade on the transcript for each full-semester course they are currently registered. Students who are suspended or dismissed after the 12th week of the term will receive the grade earned in the course as determined by the instructor. The courses and term for which the student enrolled may be counted for satisfactory academic progress purposes. Students who received financial aid will have the term counted as one of their terms of financial aid used toward the maximum financial aid eligibility. For refund policy information see "College Costs."

A transcript notation will indicate that a student has been suspended or dismissed from the institution (*e.g.*, academic suspension MM/DD/YYYY or disciplinary dismissal MM/DD/YYYY). Students who are suspended from the college and later wish to re-enroll should consult the policies governing re-entry.

Returning from withdrawal or suspension (Re-entry)
A student who has withdrawn (voluntary or leave of absence) or was suspended (academic or disciplinary) from Central prior to graduation may apply for re-entry and, if approved, return to the college. Applications are due no later than one week prior to the first-class day of the semester in which the student wishes to re-enroll. Students who have been away (*e.g.* withdrawn or suspended) for more than two years must complete the requirements in effect at the time of re-entry. Students approved for re-entry will be required to satisfy all prior financial obligations and to make an enrollment deposit prior to being eligible to register for classes or receive a housing assignment. For more information, contact the registrar (registrar@central.edu) or go to http://departments.central.edu/registrar/registration/re-entry/.

Overload
Students who wish to register for more than 18 semester hours of credit will need permission from the registrar unless they are enrolled in one or more of the following overload - exempt courses:

Overload Tuition Exempt (no overload fees apply)
1. Group Ensembles (MUSG courses)
2. Study abroad pre-departure and re-entry courses
3. Central Teachers Academy internships (EDUC 397)
4. Mock Trial (GENR-214)
5. Honors Enrichment courses
6. Senior Honors Thesis courses/projects
7. Honors Seminar (HONR 191 or HONR 391)
8. Private music instruction (MUSL courses)*
9. Peer Instructor for Central College Kickstarter
10. Kickstarter (GENR-104 and GENR-105)
11. Intro to Central for Transfers (GENR-106)

**Students will incur the private lesson instructional fee; however, they do not pay per-credit tuition.*
Students will be charged per-credit tuition for each non-exempt semester hour in excess of 18. See Catalog section "College Costs" for more information. The Overload Request form is available from the registrar's office or on my.Central.

Auditing a course
Students may audit courses for no credit with instructor permission and on a space available basis. There are only a few circumstances where an audit may be useful. These include:
- Exploring an area unrelated to your major and the course is outside of your primary interests;
- Review of an area you are already knowledgeable in, or;
- Requiring an extraordinary effort for you to take for a grade along with your other planned courses taken for graduation requirements.

Instructors determine the criteria needed to receive a satisfactory audit grade (AUD). Typically, examinations, labs, papers and homework are not required; however, regular attendance and class participation is expected. Satisfactory audits are recorded on the student's transcript with a grade of "AUD" but are not used in the calculation of a student's

grade point average. Unsatisfactory audits are not recorded. Students may not audit directed study, internship, independent study, practicum, co-op, music lessons (private and group), and music ensembles. Audited courses may not be used to satisfy any graduation requirements (*e.g.* majors, minors, core). Students are not allowed to repeat for letter grade a course they previously audited, and students may not repeat a regular graded course as an audit.

To register for a course as an audit, or to change a course from credit to audit or audit to credit, students must file a Registration Change Form with the registrar's office during the normal registration or add/drop periods. The instructor's signature is required. There is a fee of $75 per credit hour to audit a course.

Repeating a course
A student is permitted to repeat up to 20 semester hours of credit at Central. All course grades will appear on the transcript but only the most recent grade and credits earned will count toward graduation and in calculation of the student's cumulative grade point average. The following restrictions apply to course repeats:

- Students may not repeat a course via directed study unless the student's first attempt was itself a directed study.
- Students may not audit a course in which they have previously earned an A-F or P grade.
- Students may not receive transfer credit for any course previously completed at Central College.
- Students who fail CIV 110 will have the option to repeat CIV 110 in an upcoming semester or take an additional EXP course at Central College prior to or concurrently with CIV 210.

Policies and Procedures for Consortia Courses

Central College is a member of the Council of Independent Colleges (CIC) and has access to the CIC Online Course Sharing Consortium (CIC-OCSC), via Acadeum' s Course Share technology.

There are pre-approved courses available through the consortium for all terms: fall, winter term (our winter break), January term (our winter break), spring & summer.

- During the fall and spring terms students may choose to enroll in a consortial course only if they are currently enrolled as a full-time student in 12 or more ***on-campus*** credits. The credits will incur additional fees on top of semester tuition. (see billing information)
- Winter term, January term and summer require no additional campus enrollment. These credits will incur additional fees. (see billing information)
- Reasons for enrolling in a consortial course are varied. There may be a course not otherwise offered at Central; a student may need to repeat a course to replace a low grade; or a student may just want to pick up a few extra credits.

Circumstances may arise in which Central is obligated to provide a consortial option during the fall or spring semester because an equivalent required course is not offered on campus. Such cases will be considered on a case-by-case basis and must be initiated by the department chair in consultation with the student's faculty advisor. If approved, the fees associated with the credits will be covered by semester tuition. Graduating early (prior to 8 completed semesters) or credits to complete a second major/emphasis or minor, will NOT qualify as an eligible circumstance.

To distinguish these courses from our on-campus courses, they will be denoted for student enrollment and transcript purposes with "ACM" suffix (e.g., ECON 112ACM Principles of Microeconomics). Courses with the ACM suffix are not considered transfer courses. They are transcripted as Central courses and counted in the "attempted" and "earned" credit categories for Satisfactory Academic Progress calculations.

All courses listed on the Acadeum platform have been approved through regular curricular process or by program faculty. Please note the following:

1. Consortial credits apply toward completion of a Central degree.
2. Grades and credit earned in consortial courses are included in the calculation of a student's Central cumulative or major grade point averages.
3. Students must have satisfied the pre-requisites prior to enrolling in a consortial course.
4. Students may not use consortial courses to fulfill CIV 110 Civitas or CIV 210 Civitas requirements
5. Beginning and ending dates may vary compared to the Central academic calendar.
6. Upon completion of each ACM course, the registrar of the teaching institution submits the final grade in the ACM portal. Central's registrar then posts the final grade on the student's Central transcript.

7. Students may improve their GPA by substituting consortia course grades for D's, F's or W's or continue to make progress toward graduation. Central College's course repeat policy will apply.
8. Central will not intervene in grade dispute cases where a Central student is dissatisfied with the final grade issued by the teaching institution.
9. Students are responsible for adhering to course participation and policies of the teaching institution, which includes logging in on the course start date, submitting assignments, securing textbooks and learning materials, and following through on all required action as stated on the syllabus and by the teaching institution.
10. Central will not intervene in disputes regarding date of drop or withdrawal, nor regarding refunds in cases in which the student did not correspond with the teaching institutions per the deadlines for each ACM course.

ACM Enrollment Actions
Students must request ACM enrollment actions (add, drop, withdraw) here. The teaching institution will send one of two email communications to the student's school email address:

1. Denied, which requires finding an alternate course for the student.
2. Approved, which gives the student key information about the course. Watch your email for a message from support@acadeum.com. This will include a welcome letter and instructions for accessing course information. If you have been approved for registration and you DO NOT get this message prior to the course start date, check your spam/junk folder first, then contact support@acadeum.com or registrar@central.edu.

Billing
Students pay the Central College tuition rate per credit hour for the ACM course. Tuition rates for consortial courses are $300 per credit. Students who exceed full-time enrollment during fall or spring semester due to the addition of an ACM course(s) must seek permission for the overload in advance. Students are responsible for all learning material costs, including textbooks, as determined by the teaching institution.

*Contact Central College Financial Aid to determine if you are eligible to use financial aid for these courses.

Professional Licensure or Certification Disclosure

This policy is in accordance with federal code amendment 34 CFR 668.43(a)(5)(v) effective as of July 1, 2020.

Professional Licensure or Certification (PLC) pre-education requirements
The licensure boards in each state are responsible for establishing the requirements for licensure/certification for their state. The curriculum for programs customarily leading to licensure/certification at Central College have been designed to meet the licensure/certification requirements in Iowa and to prepare students to apply for licensure exams in the State of Iowa. Students who intend to return or move to any state other than Iowa need to review the professional licensure disclosures pertaining to their program and consult with the appropriate state professional licensing board. These boards make the ultimate decision as to whether an individual is eligible to sit for licensure based on the rules and regulations in place at the time the individual submits their application for licensure.

Completion of a Central College degree program does not guarantee employment in any profession. States vary in what professions they require to be licensed and how licensure functions. Some states require an individual to graduate from an approved or accredited program. Others require an individual to "meet [the] certification requirements of a national organization". A specific amount of training can also be required as well as passage of an exam based on a state requisite exam score. Often, licensed professionals must complete continuing education on an annual basis and that requirement lasts the duration of a health professional's career.[1] Prior to enrollment in a specific program, students are responsible for confirming all education, testing, and licensing requirements in their chosen field.

Documentation describing these accreditations and certifications are available for review upon request.

Below are the programs that customarily lead to ***licensure*** at Central College.

- **Accounting:** Central College offers a Bachelor of Science in Accounting. This program is designed to help students meet the educational requirements for CPA examination and licensure in Iowa. Click here to see additional requirements to obtain a CPA license in Iowa and other jurisdictions. All states and territories require 150 credit hours for licensure; and a B.S. in Accounting does meet the educational requirements for licensure as a CPA.

- **Education:** Central College offers a number of programs to prepare students for an Iowa teacher license and additional endorsements. Recommendations by a certifying official are for Iowa licenses and endorsements

and are based on the licensure requirements of the Iowa Board of Education Examiners. Click here to obtain the full list of requirements for certification and support for the state of Iowa. A link to other states can be found here.

Below are the programs that customarily lead to ***certification*** at Central College.

- **Actuarial Science:** Central College offers a Bachelor of Arts in Actuarial Science. This program is designed to help students prepare for the first 2-3 preliminary examinations required to achieve credentials with a professional actuarial organization. Students completing the program may also fulfill all educational requirements for the professional credential. More information on the exam process can be found here.

- **Biochemistry:** The Biochemistry program is approved by the Committee on Professional Training of the American Chemical Society (ACS) to certify graduating students in biochemistry who complete a bachelor's degree meeting the ACS guidelines.

- **Chemistry:** The Chemistry program is approved by the Committee on Professional Training of the American Chemical Society (ACS) to certify graduating students in chemistry who complete a bachelor's degree meeting the ACS guidelines.

- **Strength and Conditioning:** Central College offers a Bachelor of Arts in Strength and Conditioning. This program is designed to prepare students for the National Strength and Conditioning Association certification exam. The program is accredited by the Council on Accreditation of Strength and Condition Education (CASCE).

Programs Not Listed
If you have questions regarding any program not listed on the Professional Licensure page, please contact the Program Director where the program resides.

International Students
Prior to enrolling in any program at Central College, prospective students living and/or working outside of the United States should confirm with the appropriate certifying agency whether successful completion of any degree program at Central will meet the credentialing requirements for employment or for advanced/specialized educational programs of the country in which they intend to seek employment.

Students' Responsibility
Students should review the specific academic requirements for the program in which they are enrolling, including those related to practicum or internship as well as pre-qualifications for licensure, such as the need for a criminal background check. We highly recommend that students contact the applicable licensure board(s) in their state of residence or in the state where they intend to obtain a license before beginning an academic program that results in licensure and prior to beginning any internship or practicum. Many licensure boards have additional requirements beyond successful degree completion to obtain a license.

In addition, be advised that state laws, regulations, and policies may change at any time. Changes in requirements can impact the program's ability to meet educational requirements for licensure. It is the responsibility of the student completing the licensure program to check with the licensing board(s) in their state of residence or in the state in which they intend to obtain a license for the most recent information and requirements. Central College shall not be held liable if the student is unable to qualify for licensure or certification in any jurisdiction or cannot obtain a practicum/internship location.

General Disclosures
This information will be reviewed and updated annually; however, requirements are subject to change. All prospective and current students are responsible for contacting the appropriate agency or board in their jurisdiction to confirm licensing requirements and program compatibility prior to enrolling in an academic program.

Direct Disclosures
All direct disclosures must be made directed to the individual student in writing, which may include email or other electronic communication. Central College is required to issue direct disclosures to individual students prior to enrollment if the institution determines that a programs curriculum does not meet the educational requirements for licensure in the student's location.

Central College is required to issue direct disclosures to students who are currently enrolled if it determines that a program no longer meets the educational requirements for licensure in the student's jurisdiction. These disclosures must occur within 14 days of making this determination, which may occur because:

- The jurisdictions' requirements have changed; or
- The program's curriculum has changed; or
- The student's location has changed.

[1] Institute of Medicine (US) Committee on Planning a Continuing Health Professional Education Institute. Redesigning Continuing Education in the Health Professions. Washington (DC): National Academies Press (US); 2010. 1, Continuing Professional Development: Building and Sustaining a Quality Workforce. Available from: https://www.ncbi.nlm.nih.gov/books/NBK219809/

Professional Licensure
If you are considering an academic program that leads to a professional license in your state, it is highly recommended that you first seek guidance from the appropriate licensing agency in your home state *before* beginning the academic program located outside of your state.

It is the **student's responsibility** to contact the appropriate licensing board in his/her home state to confirm whether our program, at Central, will meet the requirements for licensure in that state.

Transfer of credit for students entering prior to August 2024

All transfer credit must be earned at a regionally accredited college or university with a grade of "C" or better. A grade of "C-" will not be counted as transfer credit. Work to be considered for transfer credit must be submitted on an official transcript mailed directly to Central College from the transferring institution, sent as an official electronic transcript from the transferring institution, or delivered in a sealed envelope with the signature or the transferring institution's registrar across the seal. Students transferring to Central must provide official transcripts for all institutions previously attended, regardless of the number of credits being transferred.

1. All official transcripts are evaluated for admitted and matriculated students by the registrar's office and determination of transfer credit is made by the registrar in consultation with the appropriate department chair. Course review may include the evaluation of the course's specific educational goals, academic content, and the level of credit earned. Vocational, remedial, continuing education and military credits are not transferrable.
2. Accepted credits may be used to satisfy course prerequisites, Core requirements or, at the discretion of departmental faculty, major and minor requirements. The registrar determines whether credits fulfill any Core curriculum requirements, in consultation with faculty as needed. Students may not use transfer credits to fulfill LAS 410 *Liberal Arts Seminar* requirements.
3. A maximum of 60 semester hours of transfer credit (including a maximum of 24 semester hours from AICE, AP, IB, PSEO and dual enrollment) may be applied toward completion of a Central College degree.
4. Grades and credit earned in transfer courses are not included in the calculation of a student's Central College cumulative or major grade point averages.
5. Students transferring to Central should consult with the chair of their prospective major/minor to determine the number of Central College courses that will be required to complete the major or minor.
6. Current Central College students who wish to take a course(s) at another institution and transfer the credit back to Central must submit a Request for Transfer Credit Pre-Approval form to the registrar's office prior to taking the course. Students may not repeat a Central course at any other college or university.

Transfer of credit for students entering after August of 2024

All transfer credit must be earned at a regionally accredited college or university with a grade of "C" or better. A grade of "C-" will not be counted as transfer credit. Work to be considered for transfer credit must be submitted on an official transcript mailed directly to Central College from the transferring institution, sent as an official electronic transcript from the transferring institution, or delivered in a sealed envelope with the signature or the transferring institution's registrar across the seal. Students transferring to Central must provide official transcripts for all institutions previously attended, regardless of the number of credits being transferred.

1. All official transcripts are evaluated for admitted and matriculated students by the registrar's office and determination of transfer credit is made by the registrar in consultation with the appropriate department chair. Course review may include the evaluation of the course's specific educational goals, academic content, and the level of credit earned. A maximum of 16 vocational/career technical credits may transfer within the maximum of 75 hours of transfer credit applied toward the completion of a Central College degree. Remedial, continuing education and military credits are not transferrable.

2. Accepted credits may be used to satisfy course prerequisites, Core requirements or, at the discretion of departmental faculty, major and minor requirements. The registrar determines whether credits fulfill any Core curriculum requirements, in consultation with faculty as needed. Students may not use transfer credits to fulfill CIV 110 or CIV 210 *Civitas* requirements.
3. A maximum of 75 semester hours of transfer credit may be applied toward completion of a Central College degree. (Thirty (30) of the last 45 credits must be taken in residence.) This may include AICE, AP, IB or dual-enrollment coursework that meets the minimum requirements.
4. Grades and credit earned in transfer courses are not included in the calculation of a student's Central College cumulative or major grade point averages.
5. Students transferring to Central should consult with the chair of their prospective major/minor to determine the number of Central College courses that will be required to complete the major or minor.
6. Current Central College students who wish to take a course(s) at another institution and transfer the credit back to Central must submit a Request for Transfer Credit Pre-Approval form to the registrar's office prior to taking the course. Students may not repeat a Central course at any other college or university.

Pre-College Credit, Advanced Placement and International Baccalaureate

Students entering prior to August 2024

A maximum of 24 semester hours of credit for Advanced Placement (AP), International Baccalaureate (IB), Post-Secondary Enrollment Option (PSEO), and dual-enrollment programs will be awarded. Pre-college credit is considered transfer credit and is included in the 60-semester hour total transfer limit. A list of approved course equivalencies is available from the registrar's office and on the admission page of the college's website.

Credit for Advanced Placement (AP)
Students who earn a score of 4 or better on AP exams will be granted a minimum of three semester hours of credit. All AP scores must be sent directly to Central College from the College Board (CEEB 6087).

Credit for Cambridge Assessment International Education (AICE)
Students who earn a grade of "C/c" or better on Cambridge Assessment International Education (AICE) will be granted four semester hours of credit for an AS Level (one-year course) and eight semester hours of credit for an A level (two-year course). AICE scores must be sent directly to Central College from the Cambridge Assessment.

Credit for International Baccalaureate (IB)
Students who earn a score of 4 or better on IB higher-level exams (subsidiary-level exams are not accepted) will be granted a minimum of three semester hours of credit for each subject area. International Baccalaureate scores must be sent directly to Central College from International Baccalaureate.

Credit for dual enrollment or PSEO
All dual enrollment or PSEO credit must be earned at a regionally accredited college or university with a grade of "C" or better. Grades and credit earned in pre-college courses are not included in the calculation of a student's Central College cumulative or major grade point average. Dual enrollment and PSEO grades must be submitted on an official transcript and mailed directly to Central College from the institution of record or delivered in a sealed envelope with the registrar's signature across the seal to be considered for credit.

Advanced Placement, Cambridge Assessment International Education (AICE) and International Baccalaureate

Students entering after August 2024

A maximum of 75 semester hours of credit for Advanced Placement (AP), International Baccalaureate (IB), Post-Secondary Enrollment Option (PSEO), and dual-enrollment programs will be awarded. Pre-college credit is considered transfer credit and is included in the 75-semester hour total transfer limit. A maximum of 16 vocational/career technical credits may transfer within the maximum of 75 hours of transfer credit applied toward the completion of a Central College degree. Remedial, continuing education and military credits are not transferrable. A list of approved course equivalencies is available from the registrar's office and on the admission page of the college's website.

Credit for Advanced Placement (AP)
Students who earn a score of 4 or better on AP exams will be granted a minimum of three semester hours of credit. All AP scores must be sent directly to Central College from the College Board (CEEB 6087).

Credit for Cambridge Assessment International Education (AICE)
Students who earn a grade of "C/c" or better on Cambridge Assessment International Education (AICE) will be granted four semester hours of credit for an AS Level (one-year course) and eight semester hours of credit for an A level (two-year course). AICE scores must be sent directly to Central College from the Cambridge Assessment.

Credit for International Baccalaureate (IB)
Students who earn a score of 4 or better on IB higher-level exams (subsidiary-level exams are not accepted) will be granted a minimum of three semester hours of credit for each subject area. International Baccalaureate scores must be sent directly to Central College from International Baccalaureate.

Credit for dual enrollment or PSEO
All dual enrollment or PSEO credit must be earned at a regionally accredited college or university with a grade of "C" or better. Grades and credit earned in pre-college courses are not included in the calculation of a student's Central College cumulative or major grade point average. Dual enrollment and PSEO grades must be submitted on an official transcript and mailed directly to Central College from the institution of record or delivered in a sealed envelope with the registrar's signature across the seal to be considered for credit.

Credit by proficiency

Central College awards credit by proficiency in the areas of foreign languages, mathematics and computer science. Credit is awarded based on enrollment in and successful completion (as defined below) of upper-level courses and predicated on sufficient scores on appropriate placement assessments. Note: Students are not charged for any awarded credit by proficiency.

Credit by proficiency in foreign languages
Credit by proficiency in foreign languages will be awarded as follows:

1. Students who place at the 122-level and subsequently complete a 122-level language course with a grade of "C" or better will be awarded 2 semester hours of 100-level language proficiency credit.
2. Students who place at the 221-level and subsequently complete a 221-level language course with a grade of "C" or better will be awarded 4 semester hours of 100-level language proficiency credit.
3. Students who place at the 222-level and subsequently complete a 222-level language course with a grade of "C" or better will be awarded 4 semester hours of 100-level language proficiency credit and 2 semester hours of 200-level language proficiency credit, for a total of 6 semester hours.
4. Students who place at the 321-level and subsequently complete a 321-level language course with a grade of "C" or better will be awarded 4 semester hours of 100-level and 4 semester hours of 200-level language proficiency credit, for a total of 8 semester hours of proficiency credit.
5. Students who place at the 322-level and subsequently complete a 322-level language course with a grade of "C" or better will be awarded 4 semester hours of 100-level, 4 semester hours of 200-level, and 2 semester hours of 300-level language proficiency credit, for a total of 10 semester hours of proficiency credit.
6. Students who place beyond the 322-level and subsequently complete an upper-level literature or civilization course with a grade of "C" or better will be awarded 4 semester hours of 100-level, 4 semester hours of 200-level, and 4 semester hours of 300-level language proficiency credit, for a total of 12 semester hours of proficiency credit.

Note: Language-based credit by proficiency may be applied to the foreign language major or minor at the appropriate level.

Credit by proficiency in mathematics
Credit by proficiency in mathematics will be awarded as follows:

1. Students who place into *MATH 132 Calculus II*, and complete that course with a grade of "C" or better will be awarded 4 semester hours of proficiency credit for *MATH 131 Calculus I*.
2. Students who place into *MATH 231 Multivariable Calculus*, and complete that course with a grade of "C" or better will be awarded 4 semester hours of proficiency credit for *MATH 132 Calculus II*, and 4 semester hours of proficiency credit for *MATH 131 Calculus I*.

Credit by proficiency in computer science
Students who place into *COSC 130 Data Structures* and complete that course with a grade of "C" or better will be awarded 3 semester hours of proficiency credit for *COSC 110 Introduction to Computer Science*.

Academic Warning, Notice and Suspension

Central College admits students who have the background, desire, and ability to be successful at Central and make adequate progress toward the degree. To graduate from Central College, a student must earn 120 semester hours of credit with a minimum grade point average of 2.000 overall and in their declared major. Full-time students are expected to complete the requirements for graduation within four years (eight semesters) by completing an average of 30 credits each academic year. The goal of the college is to ensure that students have the resources they need to succeed academically and to support the student's acquisition of skills of mind, body, and spirit. The Academic Success Deans and other resources on campus are designed to help students succeed academically, while at the same time helping them fulfill their interests in outside activities. It is with this ethos in mind that Central has developed this system of academic guidance for students.

A notice and dismissal committee shall be appointed by the VPAA. This group will include three department chairs and the registrar. The committee, in consultation with the academic success deans, determines which students are to be warned, placed on notice, continued on notice, suspended or, as a last resort, dismissed, if they are not progressing at the rates indicated below*:

	Semester 1 GPA*	Semester 2 GPA**
First Year	1.700	1.800
Second Year	1.900	2.000
Third Year	2.000	2.000
Fourth Year	2.000	2.000

*First- and second-year students are expected to achieve a minimum cumulative and major GPA that coincides with the number of semesters in college.

Academic warning
Students who meet the above minimum standards may receive a written notice of warning if one or more of the following is observed:

- A cumulative GPA less than 2.000, but greater than the minimum required for their classification;
- A semester GPA below 2.000, even though the cumulative GPA is above 2.000;
- Fewer than 12 semester hours of credit earned in any semester (summer excluded); or
- Earning credits at a pace that will put them more than one full semester behind a projected four-year graduation.

Students who receive an academic warning may choose to receive academic mentoring from an academic success dean to identify solutions to problems the student may be experiencing while at Central, or any other needs moving forward. Students who receive an academic warning for two consecutive semesters may be placed on academic notice.

Academic notice
When a student does not meet the cumulative or major grade point average expected, and/or falls more than one semester behind a projected four-year graduation, the student will be placed on academic notice for the next regular semester of enrollment, and the advisor will be notified. Students placed on academic notice should use the semester as an opportunity to focus on academic improvement. Students will have two options:

- meet with their academic success dean regularly
- enroll in and successfully complete GENR 208: Learning Lab

In either case, they should clarify goals, identify campus resources to help them succeed, develop additional mentoring relationships with faculty, and enhance their academic skills.

Students on academic notice are ineligible to participate in many co-curricular activities, including the following:

- NCAA Division III athletics practices, competitions, and related activities;
- Dance or cheer team;
- Music ensembles;

- Theatre productions, including musicals;
- Student government leadership;
- Study abroad or domestic semester away programs;
- Fraternity or sorority pledging;
- Other college-sponsored co-curricular activities.

If a non-athletic activity is required for the major for a student on notice, exceptions to this list may be granted with the approval of the student's academic success dean and academic advisor. If there is a question as to the appropriateness of an activity, students should consult with their academic success dean.

Students who improve their cumulative GPA, major GPA, and total credits earned to the minimum level expected during the fall or spring semester will be removed from academic notice; students who make such improvement after a summer or winter session will be removed from academic notice but will be required to meet with their academic success dean during the fall or spring semester. Students who are removed from academic notice as a result of summer or winter performance but fail to attend subsequent meetings with their academic success dean may be immediately returned to academic notice.

Students who make a noted improvement, but do not achieve the minimum levels outlined above, will be continued on academic notice until their grade point average (cumulative and major) and completed semester hours are at the level(s) expected for their classification. Students on academic notice who demonstrate little, or no improvement may be suspended or dismissed.

Students on academic notice for more than one semester may have their financial aid reduced. See the catalog section on Financial Aid Satisfactory Academic Progress for more information.

Academic suspension
Students who have not benefitted from academic notice or who demonstrate an abrupt decline in academic progress will be suspended. Suspension is deemed appropriate when it is apparent that the student needs a break from studies at Central to prioritize their academic goals and ultimately return and achieve a Central degree. Students are typically suspended for a minimum of two semesters, although the Vice President for Academic Affairs or designee may, with discretion, reduce the period of suspension to one term. Students who have been suspended are not eligible to enroll in summer classes at Central College until after being approved for re-entry. A transcript notation will indicate that a student has been suspended for academic reasons (e.g., academic suspension MM/DD/YYYY).

Students wishing to return to Central College following the suspension period must apply for re-entry by contacting the Vice President for Academic Affairs or designee in writing. The re-entry request will be evaluated considering interim experiences that reflect increased readiness to succeed academically. Students have a greater likelihood of being approved for re-entry if they show evidence of growth; this can be accomplished by successfully completing courses at another accredited institution, securing counseling to resolve personal issues, engaging in work opportunities that demonstrate success, or similar opportunities.

Academic dismissal
Students who consistently fail to meet satisfactory academic progress standards will be dismissed from the college. Typically, students will be placed on academic notice or suspension prior to dismissal, although a particularly unsuccessful semester may result in immediate dismissal. Students academically dismissed are not eligible to re-enroll at Central. A transcript notation will indicate that a student has been dismissed for academic reasons (e.g., academic dismissal MM/DD/YYYY).

Appeal of academic suspension or dismissal
Students who have been suspended or dismissed for academic reasons may appeal in writing to the Vice President for Academic Affairs or designee Permission to continue may be granted if there is evidence previously unavailable that identifies factors that contributed to the unsuccessful semester. Emotional appeals will not be considered. Students who successfully appeal a suspension or dismissal decision will be placed on academic notice. If the appeal is denied, the suspended student may apply for re-entry after their period of suspension has ended.

Mitigating circumstances
Central College may set aside the minimum academic standards for an individual student if it is determined that an unusual situation affected the student's progress. The registrar and the Vice President for Academic Affairs or designee will make this determination on behalf of the student. Mitigating circumstances may include, but are not limited to, a documented serious/prolonged student illness or injury, or the death of a close relative.

Amended student records
Satisfactory academic progress is based on the student's official academic records at the time of the progress review. If a record is amended to reflect appropriate changes (*e.g.*, an incomplete "I" grade is replaced by a standard letter grade), the student's academic status may be reassessed, and, accordingly, the student's academic standing may be modified. Any changes to a student's academic standing based on the amended student record will be effective immediately.

Central College Academic Integrity Policy

Academic integrity means acting in a way that is honest, fair, transparent, and ethical in one's academic work. It is about the actions of individuals: how students produce their work, how faculty design and deliver their courses, and how administrators uphold standards and promote accountability. By adhering to the responsibilities outlined in this policy, one's academic work will have greater value and maintain the credibility expected in the Central College community.

Responsibilities for maintaining standards of academic integrity.
Faculty are expected to:

- Model academic integrity in all aspects of their work;
- Abide by copyright law and principles;
- Provide in course syllabi and discuss with students general and course-specific policies regarding academic integrity;
- Create an environment conducive to authentic student work;
- Maintain vigilance of and act on instances of suspected violations, and report on discovered violations in a timely fashion; and
- Maintain confidentiality regarding instances of suspected violations.

Students are expected to:

- Approach their work ethically and honestly, submit only their own work, and properly credit the work of others;
- Become familiar with what constitutes a violation of academic integrity (see **Types of actions having negative consequences** below);
- Ask for clarification of general or course-specific policies regarding academic integrity; and
- Actively discourage and avoid facilitating violations by other students.

Administrators are expected to:

- Ensure that policies governing incidents of reported violations are followed;
- Maintain fairness in disciplinary actions; and
- Support faculty and students in their efforts to maintain academic integrity.

Types of actions having negative consequences

- Plagiarism and/or misuse of ideas from other sources, such as:
    - Deliberately representing the work of someone else as their own work;
    - Submitting one's own previous work without permission;
    - Failing to provide proper and complete citation of content incorporated into their work.
- Utilizing unauthorized resources on assigned work, such as:
    - Technological resources: AI, (online) homework services, software;
    - People: collaboration, assistance.
- Cheating. This can take many forms, such as:

  - Copying from other students and turning it in as their own work;
  - Gaining an advantage unfairly.

- Facilitating plagiarism, cheating, or use of unauthorized resources by other students.
- Falsification of credentials or grades.

Procedures for violations of academic standards of integrity
In the event of a perceived violation, the instructor will collect evidence documenting the violation and arrange to meet with the student to discuss the incident as soon as possible.

The instructor of the course will determine the course penalty in consultation with their department chair (or senior departmental colleague). Depending on the nature of the offense, the penalty in the course may take the form of additional work or reassignment, failing the assigned work, or failing the course.

For every discovered integrity violation, instructors will file an academic integrity violation report with the VPAA (or designee) along with copies of evidence collected. The report will include a description of the offense, the action taken by the instructor and confirmation that a department chair (or senior colleague) was consulted in this process.

After review by the VPAA (or designee), an institutional sanction may be imposed. Students will receive a letter restating the course penalty and, if applicable, the institution's sanction or warning, and a copy will be permanently retained in the VPAA's Office. For a first offense, in addition to the sanction(s) imposed by the instructor, the student will typically receive an institutional letter of warning. Repeated offenses may be grounds for suspension or dismissal from Central College. Serious violations may result in dismissal.

Students who wish to appeal the penalty imposed by the faculty member and/or the institutional sanction must send a letter to the Vice President for Academic Affairs. All appeals should be submitted within two weeks of being notified of a decision.

Those involved with cases of academic integrity violations will maintain strict confidentiality and follow the provisions of the Family Education Rights and Privacy Act as it applies to the release of information in student records.

Information on academic integrity
Further information about plagiarism and other violations of academic integrity is available on the Geisler Library home page under the heading "Copyright and Academic Integrity."
Policy Approved by Faculty March 28, 2024

ACADEMIC PROGRAMS

Majors
A fundamental graduation requirement for all students is the completion of an academic major with a GPA of at least 2.000 in all courses applied toward the major. By the end of their 4th semester, students must file a Declaration of Major form with the registrar's office to be eligible to register for the third year (5th semester) of study. Students are required to complete the major requirements in effect at the time the student submits the form to the registrar.

Note: For students completing an interdisciplinary major, no more than 60 semester hours of credit earned in the major discipline may be applied toward the total semester hours of credit required for graduation.

Accounting, BA or BS
Actuarial Science
Art
Biochemistry, BA or BS
Biology, BA or BS
Business Management
Chemistry, BA or BS
Communication Studies
Computer Science
Data Science
Economics
Elementary Education
Engineering, BS
English
Environmental & Sustainability Studies
History
Information Systems
Kinesiology
Mathematics
Multimedia Design
Music
Music Education
Musical Theatre
Natural Science
Philosophy
Physics, BA or BS
Political Science
Psychology
Religious Studies
Secondary Education
Self- Designed
Social Science
Sociology
Spanish
Strength & Conditioning

Pre-Professional Programs - The following programs are supported by the academic structure. While not specific majors, faculty will work with students in identifying coursework appropriate for their professional aspirations.

Pre-health
Pre-law
Pre-ministry

Minors
Academic minors are programs that require in-depth study in a discipline without the breadth of a full major. These academic minors are options for students, not required, and must be taken in conjunction with one or more majors. To earn a minor the student must attain a GPA of at least 2.000 in all courses applied toward the minor. Additional policies governing specific minors are outlined in the sections addressing the program's majors. As with majors, minors must be officially declared by students. Students must submit a Declaration of Major/Minor form to the registrar's office prior to registration for the final semester of enrollment.

Accounting
Art
Biology
Business Management
Chemistry
Communication Studies
Computer Science
Data Science
Decision Science
Economics
English
Entrepreneurship
Environmental Studies
German Studies
Global Health
History
Kinesiology
Mathematics
Multimedia Design
Music
Musical Theatre
Not-For-Profit Management
Philosophy
Physics
Political Science
Psychology Religious Studies Self-Designed
Studies Social Justice
Studies Sociology
Spanish
Writing

Teaching endorsements

Teaching endorsements at the elementary and secondary school levels are offered through Central's education department. Note that teaching endorsements and academic minors are not the same. Contact the licensure officer in the education department for information regarding teaching endorsements.

Cancellation of courses

The college reserves the right to cancel courses in which enrollment is low or as a result of staffing changes.

Curriculum changes

The college reserves the right to modify its academic programs, courses, and requirements. When changes are required, students will be informed promptly. Moreover, the college will make serious efforts to permit students to continue in their declared academic programs, although that cannot be guaranteed. When it is not possible for a student to complete the declared academic program at Central College, the college will assist the student in choosing an alternate academic program at Central and/or in transferring to another institution where the desired program is offered.

Course numbering/coding system

Course levels

Courses are numbered according to the level of difficulty at which they are taught. Course levels are:

100-199	Introductory-level courses
200-299	Intermediate-level courses
300-499	Advanced-level courses

Special course numbers

Some course numbers designate certain kinds of courses, regardless of level or discipline. These special course numbers are as follows:

x00-x09 Courses that do not count toward a major in the specific discipline

x83-x84 Field Experience or Service-Learning Module

An off-campus experience supervised by a faculty member designed to give students an opportunity to apply principles learned in academic course work in a professional/vocational setting. See *Special Programs* for more information about the Service-Learning Module option. (XXXX-283/XXXX-383)

x85-x89 Seminar

Seminars are special topics courses designed for small, highly specific groups of students (i.e., students with a certain major) in which the students are actively involved in all aspects of the course.

x90 Topics

Experimental or “one-time only” courses. The “Topics” designation enables faculty to offer timely courses of special interest to students.

x91 Topics (Honors Level)

Experimental or “one-time only” courses specifically designed for students admitted to Central’s Honors Program. The “Topics” designation enables faculty to offer timely courses of special interest to students.

x92-x95 Practicum

An on-campus, unpaid work experience, directly supervised by a Central faculty member, designed to give students an opportunity to apply principles learned in academic course work. Graded on a pass/no credit basis. Credit is arranged but not to exceed 3 credits without permission of the Vice President for Academic Affairs or designee. Examples include peer instructors or course assistants.

x96 Co-Op

A full-time work experience, carrying variable college credit, in the area of the major. The co-op is monitored by Central faculty to meet appropriate academic and professional goals. Generally, enrollment in a co-op precludes enrollment in more than 3 credits of other course work during the co-op semester.

x97 Internship

Academic internships provide an opportunity to connect learning to life. Structured as supervised learning experiences in a practical work setting, internships are directed by a professional in the field and supervised by a faculty member in a related discipline. Internships can be done during the academic year, typically replacing a standard course (1-6 credits), or in the summer as a more intensive experience. Alternatively, students can participate in one of Central College’s internship-focused off campus programs for up to 12 hours of credit. Internships are graded on a pass/no credit basis and are recorded on students’ transcripts. For more information, please see “Internships” in the current catalog or contact the center for community-based learning.

x98 Research

Supervised advanced-level research directed by faculty members. 1-3 credits

x99 Independent Study

Students work one-on-one with a professor on an agreed upon topic not addressed as such elsewhere in the Central curriculum. 1-3 credits

Note: As distinguished from Independent Study courses, directed study courses are those in which a student, working one-on-one with a professor, takes a standard, cataloged course. Directed Study courses are identical in content and rigor to their regularly offered versions.

Additional course codes

Letters following the course descriptions in the catalog provide additional information about the courses, as follows:

For students matriculating in the fall of 2023 or later:

- CTN Courses that meet the Citizenship Core requirement
- EXP Courses that meet the Exploration Core requirement
- WOC Course that meet the Written and Oral requirement

The course descriptions below apply to a student who matriculated as new first-year students prior to fall 2023 and some transfer students entering in the fall of 2023:

- ART Courses that meet the arts Core requirement
- HP Courses that meet the historical perspective Core requirement
- LP Courses that meet the literature and philosophy Core requirement
- MR Courses that meet the mathematical reasoning Core requirement
- NS Courses that meet the natural science Core requirement
- REL Courses that meet the religion Core requirement
- SB Courses the meet the social and behavioral Core requirement
- GS Courses that meet the global sustainability Core requirement
- GPC Courses that meet the global perspective: intercultural Core requirement
- GPN Courses that meet the global perspective: international Core requirement
- WRT Courses that have been approved to meet the writing intensive Core requirement. See the online searchable schedule for the most up-to-date information on which specific sections contain the WRT designation.

ACCOUNTING, BACHELOR OF ARTS

Faculty
Maggie Schlerman (chair), Erin Hannah, Courtney Hoyt, Tuan Ho-Quoc, Graham Lemke, Ann McDonald, Tuan Nguyen, Matthew Sutter

Statement of philosophy
Central's accounting curriculum begins with a solid foundation in financial and managerial accounting rooted in the theoretical bases of economics and other liberal arts, including ethics, communication, and data analysis. In upper-level courses, students grow through coverage of a variety of theoretical and applied financial accounting topics, as well as cost, tax, systems and auditing. Technology is used both within and outside the classroom as learning and professional productivity tools, emphasizing the use and preparation of spreadsheets and systems for accounting applications. Small classes facilitate interactive learning processes. The accounting seminar provides opportunities for students to polish their research and presentation skills.

The program prepares students professionally for careers in public, private, government and not-for-profit accounting. Students are encouraged to study abroad to enhance their development as global citizens, or one or more internship programs, and to become active in various student educational and/or service organizations and other co-curricular activities.

As demonstrated by recent success, Central's accounting graduates are well qualified for national standardized professional exams such as the Certified Public Accountant (CPA) and the Certified Management Accountant (CMA), or to enter graduate or professional programs. Students can choose to complete the 150 semester hours required by most states, and of other certificate-issuing bodies at Central or pursue a graduate degree.

Study abroad opportunities
Accounting majors who intend to participate in the study abroad program should discuss options with their faculty advisors early in their college careers.

Accounting Major Requirements (54-55 credits)

Note: The accounting major may not be combined with the information systems major–accounting option.

1. **Complete all of the following:**
   - ACCT 241 Introduction to Financial Accounting (3)
   - ACCT 242 Introduction to Management Accounting (3)
   - ACCT 321 Data Analytics for Accounting (3)
   - ACCT 341 Intermediate Financial Accounting I (3)
   - ACCT 342 Intermediate Financial Accounting II (4)
   - ACCT 343 Advanced Management Accounting (3)
   - ACCT 344 Principles of Taxation (3)
   - ACCT 347 Accounting Information Systems (3)
   - ACCT 348 Principles of Auditing (3)
   - ACCT 485 Accounting Research Seminar (1)
   - BMGT 281 Principles of Management (3)
   - ECON 112 Principles of Microeconomics (3)
   - ECON 113 Principles of Macroeconomics (3)

2. **Complete one of the following**
   - MATH 105 Introduction to Statistics (4)
   - MATH 215 Applied Statistics (4)

3. **Complete one of the following**
   - COSC 110 Introduction to Computer Science (3)
   - DATA 110 Data Driven Decisions (3)

4. **Complete 3 elective ACCT credits at the 400- level. ACCT 350, ACCT x96 Co-op, ACCT x97 Internship, or ACCT x83 Field Experience in Accounting does not count toward an Accounting major.**

5. **Complete one ethics-related course; consult an accounting faculty member for a list of acceptable courses.**

6. **Complete one of the following:**
   BMGT 211 Business Writing and Speaking (3)
   COMM 160 Communication in Everyday Life (3)
   COMM 272 Professional Communication (3)
   THEA 150 Acting (3)

A note about the CPA exam
Students who wish to take the CPA exam in Iowa are advised to also take BMGT 231, and BMGT 261. Other students should consult the specific requirements of the state in which they intend to take the exam. Consult with a member of the accounting faculty concerning requirements of other national exams.

Accounting Minor Requirements (18 credit minimum)

1. **Complete *all* of the following:**
   ACCT 241 Introduction to Financial Accounting (3)
   ACCT 242 Introduction to Management Accounting (3)

2. **Complete *one* of the following:**
   COSC 110 Introduction to Computer Science (3)
   DATA 110 Data Driven Decisions (3)

3. **Complete a minimum of 9 credits 300-level or higher in ACCT.**
   ACCT 350, ACCT x96 Co-op, ACCT x97 Internship, or ACCT x83 Field Experience in Accounting, does not count toward an Accounting minor.

ACCOUNTING, BACHELOR OF SCIENCE

Faculty
Maggie Schlerman (chair), Erin Hannah, Courtney Hoyt, Tuan Ho-Quoc, Graham Lemke, Ann McDonald, Tuan Nguyen, Matthew Sutter

Statement of philosophy
Central College's Bachelor of Science in accounting is an in-depth professional program focused on applied coursework in accounting and data analysis. The Bachelor of Science degree is ideal for students who intend to pursue certification and/or licensure in the accounting field. Coursework encompasses theoretical and applied financial accounting topics covered on professional certification examinations, including cost, tax, systems and auditing. Technology is used as learning and professional productivity tools, emphasizing system understanding and engagement with emerging applications. Small classes facilitate interactive learning processes. The accounting seminar provides opportunities for students to polish their research and presentation skills. The program prepares students professionally for careers in public, private, government and not-for-profit accounting.

Students are encouraged to study abroad to enhance their development as global citizens and to become active in various student educational and/or service organizations and other co-curricular activities.

Central's Bachelor of Science in accounting is designed to meet Certified Public Accountant (CPA) licensure requirements in the state of Iowa. Other students should consult the specific requirements of the state in which they intend to take the exam. Consult with a member of the accounting faculty concerning requirements of other national exams.

Study abroad opportunities
Accounting majors who intend to participate in the study abroad program should discuss options with their faculty advisors early in their college careers.

Accounting Major Requirements, BS (61-63 credits)

Note: The accounting major may not be combined with the information systems major–accounting option.

1. **Complete all of the following, in addition to all the requirements for the Bachelor of Arts in Accounting:**
   ECON 381 Research Methods in Economics (4)

   6 credits of 400- level accounting electives. ACCT 350, ACCT x96 Co-op, ACCT x97 Internship, or ACCT x83 Field Experience in Accounting, does not count toward an Accounting major.

2. **Complete a total of 150 semester hours of credit.**

ACTUARIAL SCIENCE

Faculty
Graham Lemke and Mark Mills (co-directors), Russ Goodman, Tuan Ho-Quoc, Tuan Nguyen, Maggie Schlerman, Wendy Weber

Statement of philosophy
The actuarial science major is specifically designed to prepare students for a career as an actuary. However, combined with the Central liberal arts education, students completing this major have a broad foundation that will prepare them for many different business-oriented careers.

Because an actuary must have both mathematical/technical skills and more general business skills, the major combines components from mathematics and business. Students completing the actuarial science major will have a strong foundation in the material for the actuarial industry's first two preliminary professional exams which cover calculus-based probability and financial mathematics. Ideally, students will have passed at least these two exams prior to graduation. With a grade of at least a "B-" in the appropriate course(s), students will have completed the Validation by Educational Experience (VEE) requirements for their chosen branch of insurance. (See "Validation by Educational Experience (VEE) Information" below.)

Internships are strongly recommended. They may be obtained through local or regional businesses and organizations, or potentially through study abroad or the Chicago Metropolitan Center. This experience provides the student with rich learning opportunities and puts course work into practice.

Actuarial Science majors are encouraged to consider the study abroad experience during the spring of their second year or the fall semester of their third or fourth year, depending upon their progression in the major. Some schedule adjustments will need to be made in order to accommodate a semester abroad, so it is important to plan ahead and speak with one of the major's co-directors early.

Actuarial Science Major Requirements (58- 59 credits)

1. Complete *all* of the following:

ACCT	241	Introduction to Financial Accounting (3)
ACCT	242	Introduction to Management Accounting (3)
BMGT	261	Principles of Finance (3)
BMGT	362	Principles of Investment (3)
BMGT	462	Derivative Markets (3)
COSC	110	Introduction to Computer Science (3)
DATA	210	Introduction to Data Science (3)
ECON	112	Principles of Microeconomics (3)
ECON	113	Principles of Macroeconomics (3)
ECON	381	Research Methods in Economics (4)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)
MATH	215	Applied Statistics (4)
MATH	231	Multivariable Calculus (3)
MATH	330	Mathematical Modeling (3)
MATH	341	Probability (3)
MATH	342	Statistics (3)

2. Complete one of the following courses with a grade of at least a "C":

BMGT	211	Business Writing and Speaking (3)
COMM	160	Communication in Everyday Life (3)
COMM	272	Professional Communication (3)
THEA	150	Acting (3)

Additional recommended courses
Students who want to get additional quantitative experience are encouraged to complete three additional economics courses. By completing these courses, students will also have a minor in economics.

ECON	312	Microeconomic Theory
ECON	313	Macroeconomic Theory
ECON	485	Economics Research Seminar

Students who want to get an additional background in investments and financial markets are encouraged to take BMGT 363 Advanced Financial Management.

Students are encouraged to take additional courses as their schedules allow. While the courses below are not required for the major, having them will better prepare students for future job experiences.

BMGT	231	Business Law
BMGT	281	Principles of Management
COSC	130	Data Structures
DATA	110	Data Driven Decisions
ECON	324	Monetary Theory and the Financial System
ECON	382	Economic Forecasting
ENGL	244	Professional Writing

Validation by Educational Experience (VEE) Information
Actuarial students who will be working with insurance for life events (e.g., life insurance, pension, health insurance) will fulfill the three VEE areas required by the Society of Actuaries with a grade of at least a “B-” in each of the major courses that are listed below.

- Economics VEE: ECON 112 and ECON 113
- Accounting and Finance VEE: ACCT 241, ACCT 242, BMGT 261, and BMGT 362
- Mathematical Statistics VEE: MATH 342

Actuarial students who will be working with insurance for casualty events (e.g., auto insurance, home insurance, crop insurance) will fulfill the two VEE areas required by the Casualty Actuary Society with a grade of at least a “B-” in each of the major courses that are listed below.

- Economics VEE: ECON 112 and ECON 113
- Accounting and Finance VEE: ACCT 241, ACCT 242, BMGT 261, and BMGT 362

ART

Faculty
Mathew Kelly (chair), Brian Roberts

Statement of philosophy
The Art major prepares students for careers related to art, creativity, and visual communication. The major is structured with the flexibility to combine with another program of study such as Psychology, Business Management, Theatre, Communications, and teaching licensure, providing integrated pathways for students to turn their individual interests into meaningful careers.

The visual arts are a primary mode of inquiry and an essential component of a Liberal Arts education. The Art Program prepares students to be visually literate scholars who engage in the shaping of the modern world through hands-on experiences coupled with careful study and analysis of historical developments and concepts. At all levels, the Program emphasizes critical visual analysis, idea generation, and technical facility, while cultivating effective written and oral communication skills. Students use the knowledge gained through the close study of works and history to think critically about the relationships between art and a range of human endeavors and experiences.

Students seeking teaching certification at the elementary or secondary level must fulfill the coursework requirements for teaching licensure in the state of Iowa in addition to the Art major requirements (see the "Education – K-12 Art, Music, PE" section of the catalog).

In addition to the classroom experiences, our students are active in a variety of student organizations and co-curricular activities. All these experiences contribute to the total development of our students and help prepare them to become leaders for the 21st century.

Internships and off campus opportunities
Art students are encouraged to participate in study abroad programs or the Washington, D.C. metropolitan program. Students should consult with the department faculty and the office of Career Development and Civic Engagement for learning opportunities available through internships with such organizations as galleries and museums.

Art Major Requirements (40 credits)

1. **Complete all of the following: (18 credits)**
   - ART 151 2D Problem Solving (4)
   - ART 161 3D Design Fundamentals (4)
   - ART 485 Visual Arts Capstone (4) - includes senior exhibit (minimum grade "C" required)
   - HIST 125 World History to 1500 (3)
   - MUS 312 Music History Preclassical to present (3)

2. **Complete <u>two</u> of the following:**
   - ENGL 140 Intro to Creative Writing (4)
   - ENGL 212 Caribbean Literature (3)
   - ENGL 213 Literature, Environment and Ecology (3)
   - ENGL 214 Literature by Women (3)
   - ENGL 215 African American Literature (4)
   - ENGL 216 LGBTQ+ Literature and Culture (4)
   - ENGL 217 Literature and Film of the Middle East (4)
   - ENGL 240 The Personal Essay (4)
   - ENGL 241 Short Story Writing (4)
   - ENGL 243 Writing Oral Histories (4)
   - ENGL 280 The Humanities Lab (3)
   - PHIL 270 The Philosophy of Art (4)
   - THEA 250 Musical Theatre History (3)

3. **Complete 5 courses in studio electives from any course with the ART prefix, including THEA 161. One course must be at the 300-level. (16-20 credits)**
   - ART 250 Drawing: Traditional and Digital Approaches (4)
   - ART 252 Painting: Traditional and Digital Approaches (4)

ART	253	Graphic Design (3)
ART	255	Printmaking (4)
ART	262	Ceramics I (4)
ART	265	Glassblowing I (3)
ART	267	Jewelry and Metal Arts I (4)
ART	270	Book Arts (4)
ART	353	Visual Narratives (4)
ART	362	Ceramics II (4)
ART	365	Glassblowing II (3)
ART	367	Jewelry and Metal Arts II (4)
THEA	161	Introduction to Theatrical Design (3)

Teaching Licensure – Art
Students seeking K-12 licensure in Iowa, must take two additional courses specifically labeled art history. These will count toward requirements in section 2. Please speak with art faculty and/ or the Registrar for details.

Art Minor Requirements (18 credits)

1. **Complete one of the following:**

HIST	125	World History to 1500 (3)
MUS	312	Music History Preclassical to Present (3)

2. **Complete an additional 15 credits of ART courses including at least 3 credits of studio art electives at the 300-400 level.**

BIOCHEMISTRY, BACHELOR OF ARTS

Faculty
Lee Macomber (chair), James Dunne, Ashley Garr, James Shriver, Jay Wackerly

Statement of philosophy
Housed in the Natural Sciences department, a Bachelor of Arts degree with a major in biochemistry is offered for students interested in the impact of chemistry on biological systems. Students choosing this major will obtain excellent preparation for a variety of careers including biochemistry, biotechnology, pharmacology, and agricultural chemistry. A degree in biochemistry is also an excellent precursor to pre-professional programs including medicine, dentistry, and optometry. A student cannot major in both chemistry and biochemistry.

The faculty strives to remain abreast of modern chemical techniques while being aware of the benefits and responsibilities of living in a technological society. Our department follows guidelines of the American Chemical Society (ACS), so biochemistry majors receive instruction comparable to that at larger institutions while benefiting from individualized attention that is the hallmark of Central College. In connection with our ACS certification, students in our department have on-line access to all American Chemical Society publications.

*Students interested in graduate school or an industrial career should consider the Bachelor of Science degree in Biochemistry.

Major/Minor restrictions
A student may not major in both biochemistry and chemistry.

Biochemistry Major Requirements (54-56 credits)

1. Complete all of the following (48 credits):

BIOL	131	Introduction to Cells with Lab (4)
BIOL	221	Genetics and Evolution with Lab (4)
CHEM	111	General Chemistry I with Lab (4)
CHEM	112	General Chemistry II with Lab (4)
CHEM	231	Organic Chemistry I with Lab (4)
CHEM	241	Analytical Chemistry with Lab (4)
CHEM	321	Inorganic Chemistry with Lab (4)
CHEM	331	Organic Chemistry II with Lab (4)
CHEM	351	Biochemistry with Lab (4)
CHEM	361	Physical Chemistry I (3)
CHEM	363	Physical Chemistry Lab (1)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)

2. Complete two of the following electives (6-8 credits):

BIOL	341	Human Physiology with Lab (4)
BIOL	361	Microbiology with Lab (4)
BIOL	364	Molecular Biology (3)
CHEM	451	Advanced Topics in Biochemistry (3)

BIOCHEMISTRY, BACHELOR OF SCIENCE

Faculty
Lee Macomber (chair), James Dunne, Ashley Garr, James Shriver, Jay Wackerly

Statement of philosophy
Housed in the Natural Sciences department, a Bachelor of Science degree with a major in biochemistry is offered for students looking to study the interface of chemistry and biology in more depth. In addition to core classes offered as part of the B.A. major in chemistry, students will take an array of upper-level electives to focus work on their career goals. These major elective tracks allow for additional focus in Biology (Molecular Science) or Computer Science/ Mathematics (Data Science). Students earning a B.S. major in biochemistry will automatically be eligible to graduate with an ACS-certified degree. The faculty strives to remain abreast of modern chemical techniques while being aware of the benefits and responsibilities of living in a technological society. Our department follows guidelines of the American Chemical Society (ACS), so biochemistry majors receive instruction comparable to that at larger institutions while benefiting from individualized attention that is the hallmark of Central College

American Chemical Society certification
The Bachelor of Science degree with a major in biochemistry meets the requirements for ACS- certification which offers excellent preparation for graduate school or a career in industry or government. According to the American Chemical Society, a department that follows and meets the guidelines for certification produces graduates with the background necessary to enter graduate school or employment in which a strong background in chemistry is needed. For the student, a certified degree in chemistry is a valuable personal credential that serves as a national-level recognition for successfully completing a rigorous academic chemistry curriculum in an ACS-approved department. In connection with our ACS certification, students in our department have on-line access to all American Chemical Society publications.

*Students interested in pre-health careers should consider a Bachelor of Arts degree with a major in biochemistry to support additional needed coursework appropriate to their chosen program.

Major/Minor restrictions
A student may not major in both biochemistry and chemistry.

*To facilitate flexibility in relation to additional majors, minors, or study abroad, students may request a substitution for a major requirement through the department chair.

Biochemistry Major Requirements, BS (minimum of 79 credits)

1. Complete all of the following (67-69 credits):

BIOL 131 Introduction to Cells with Lab (4)
BIOL 221 Genetics and Evolution with Lab (4)
CHEM 111 General Chemistry I with Lab (4)
CHEM 112 General Chemistry II with Lab (4)
CHEM 231 Organic Chemistry I with Lab (4)
CHEM 241 Analytical Chemistry with Lab (4)
CHEM 321 Inorganic Chemistry with Lab (4)
CHEM 331 Organic Chemistry II with Lab (4)
CHEM 351 Biochemistry with Lab (4)
CHEM 361 Physical Chemistry I (3)
CHEM 363 Physical Chemistry Lab (1)
CHEM 451 Advanced Topics in Biochemistry (3)
CHEM 461 Physical Chemistry II (3)
MATH 131 Calculus I (4)
MATH 132 Calculus II (4)
MATH 215 Applied Statistics (4)
PHYS 101 Introduction to Physics I with Lab (4)
or PHYS 111 General Physics I with Lab (5)
PHYS 102 Introduction to Physics II with Lab (4)
Or PHYS 112 General Physics II with Lab (5)

2. Complete *two* biology elective courses from the list below (7-8 credits):

BIOL 341 Human Physiology with Lab (4)
BIOL 361 Microbiology with Lab (4)
BIOL 364 Molecular Biology (3)
Other approved electives if developed.

3. Complete a significant research capstone experience by completing one of the following options (2 credits):

Research Track: Students will complete a multi-semester research experience culminating in the completion of a thesis, judged by completing one of the following. (2 credits)
CHEM 498 Senior Thesis in Chemistry (2)
CHEM 499H Senior Honors Thesis (2)

Industrial Track: Students will complete a significant internship/ work experience approved by the department. May be done for internship credit.

4. Complete an additional course (3-4 credits)

These courses can come from the list below or from courses NOT used in section 2 (courses may NOT count twice).
BIOL 210 Epidemiology (3)
CHEM 411 Advanced Topics in Chemistry with Lab (4)
CHEM 442 Instrumental Analysis with Lab (4)
CHEM 451 Advanced Topics in Biochemistry (3), 2nd topic
COSC 110 Introduction to Computer Science (3)
COSC 130 Data Structures (3)
DATA 310 Data Visualization (3)
MATH 330 Mathematical Modeling (3)
MATH 341 Probability (3)
* A program-approved abroad experience may substitute for one elective in section 4 if taken for 3+ credits with chair approval.

BIOLOGY, BACHELOR OF ARTS

Faculty
Lee Macomber (chair), Russell Benedict, Anya Butt, Nicole Palenske Ladner, Paulina Mena, Paul Weihe

Statement of philosophy
Advances in critical areas such as the environment, genetics and medicine clearly show that biology is one of the most dynamic disciplines of our time; perhaps the only certainty is that no one knows which of its many facets will become important next. It is also clear that very few undergraduates enter college with a final decision on their ultimate vocational preference. The philosophy of the biology program reflects both of these realities by offering our students a strong foundation in biology without over-specialization. We emphasize an intellectual approach rooted in the college's liberal arts tradition. The biology faculty use the framework of biology to develop the kinds of abilities that will serve students well no matter what paths their lives take: to think critically, analytically and independently; to communicate effectively; to search for an original approach; to solve problems efficiently; to achieve and maintain intellectual curiosity; and to demonstrate an understanding of human impact on the global environment. The result has been graduates who meet with success no matter where their life choices take them.

Student research in biology
The biology program is committed to fostering student research. In addition to state-of-the-art laboratories and equipment in the Vermeer Science Center, the College maintains the 80-acre Carlson-Kuyper Biology Field Station on Lake Red Rock.

Study abroad opportunities
For decades, the biology program has been at the forefront of promoting study abroad experiences and the Natural Sciences department will work with biology majors so they can obtain the benefit of an international study experience and still graduate in four years.

Biology Major Requirements (47 credits)

1. Complete all of the following:

BIOL 130 Diversity of Life with Lab (4)
BIOL 131 Introduction to Cells with Lab (4)
BIOL 221 Genetics and Evolution with Lab (4)
BIOL 229 Ecology and Evolution with Lab (4)
CHEM 111 General Chemistry I with Lab (4)
CHEM 112 General Chemistry II with Lab (4)* (* Not required if CHEM 111 was taken in Spring 2024 or earlier.)
CHEM 231 Organic Chemistry I with Lab (4)
or CHEM 203 Introduction to Organic and Biological Chemistry (4)
MATH 105 Introduction to Statistics (4)
or MATH 215 Applied Statistics (4)

2. Complete an additional 15 credits from the following:

BIOL 210 Epidemiology (3)
BIOL 310 Tropical Ecology (3-4)
BIOL 321 Comparative Vertebrate Anatomy with Lab (4)
BIOL 324 Field Botany with Lab (4)
BIOL 341 Human Physiology with Lab (4)
BIOL 342 Mammalogy with Lab (4)
BIOL 343 Ornithology with Lab (4)
BIOL 345 Limnology with Lab (4)
BIOL 350 Conservation Biology and Ecology of Iowa (4)
BIOL 360 Human Anatomy with Lab (4)
BIOL 361 Microbiology with Lab (4)
BIOL 364 Molecular Biology (3)
BIOL 420 Evolution with Discussion Lab (4)
CHEM 351 Biochemistry with Lab (4)
GEOG 320 Principles of GIS with Lab (3)

Biology Minor Requirements (19-20 credits)

1. Complete *all* of the following:

BIOL	130	Diversity of Life with Lab (4)
BIOL	131	Introduction to Cells with Lab (4)
BIOL	221	Genetics and Evolution with Lab (4)
BIOL	229	Ecology and Evolution with Lab (4)

2. Complete *one* of the following:

BIOL	310	Tropical Ecology (3-4)
BIOL	315	Aquatic Toxicology with Lab (4)
BIOL	321	Comparative Vertebrate Anatomy with Lab (4)
BIOL	324	Field Botany with Lab (4)
BIOL	341	Human Physiology with Lab (4)
BIOL	342	Mammalogy with Lab (4)
BIOL	343	Ornithology with Lab (4)
BIOL	345	Limnology with Lab (4)
BIOL	350	Conservation Biology and Ecology of Iowa (4)
BIOL	360	Human Anatomy with Lab (4)
BIOL	361	Microbiology with Lab (4)
BIOL	364	Molecular Biology (3)
BIOL	420	Evolution with Discussion Lab (4)
CHEM	351	Biochemistry with Lab (4)

BIOLOGY, BACHELOR OF SCIENCE

Faculty
Lee Macomber (chair), Russell Benedict, Anya Butt, Nicole Palenske Ladner, Paulina Mena, Paul Weihe

Statement of philosophy
Advances in critical areas such as the environment, genetics and medicine clearly show that biology is one of the most dynamic disciplines of our time; perhaps the only certainty is that no one knows which of its many facets will become important next. It is also clear that very few undergraduates enter college with a final decision on their ultimate vocational preference. The philosophy of the biology program reflects both of these realities by offering our students a strong foundation in biology without over-specialization. We emphasize an intellectual approach rooted in the college's liberal arts tradition. The biology faculty use the framework of biology to develop the kinds of abilities that will serve students well no matter what paths their lives take: to think critically, analytically and independently; to communicate effectively; to search for an original approach; to solve problems efficiently; to achieve and maintain intellectual curiosity; and to demonstrate an understanding of human impact on the global environment. The result has been graduates who meet with success no matter where their life choices take them.

Student research in biology
The biology program is committed to fostering student research. In addition to state-of-the-art laboratories and equipment in the Vermeer Science Center, the College maintains the 80-acre Carlson-Kuyper Biology Field Station on Lake Red Rock.

Study abroad opportunities
For decades, the biology program has been at the forefront of promoting study abroad experiences and the Natural Sciences department will work with biology majors so they can obtain the benefit of an international study experience and still graduate in four years.

BS Biology Major Requirements (minimum 65)

1. Complete all of the following (32 credits):

BIOL	130	Diversity of Life with Lab (4)
BIOL	131	Introduction to Cells with Lab (4)
BIOL	221	Genetics and Evolution with Lab (4)
BIOL	229	Ecology and Evolution with Lab (4)
BIOL	420	Evolution with Discussion Lab (4)
CHEM	111	General Chemistry I with Lab (4)
CHEM	112	General Chemistry II with Lab (4)* (* Not required if CHEM 111 was taken in Spring 2024 or earlier.)
MATH	215	Applied Statistics (4)

2. Complete 2 of the following (7-8 credits):

CHEM	231	Organic Chemistry I with Lab (4)
CHEM	241	Analytical Chemistry with Lab (4)
CHEM	331	Organic Chemistry II with Lab (4)
CHEM	372	Environmental Chemistry with Lab (3)
CHEM	442	Instrumental Analysis with Lab (4)

3. Complete 2 of the following (6- 10 credits):

COSC	110	Introduction to Computer Science (3)
DATA	210	Introduction to Data Science (3)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)
PHYS	101	Introduction to Physics with lab (4)
Or	PHYS 111	General Physics I with lab (5)
PHYS	102	Introduction to Physics with lab (4)
Or	PHYS 112	General Physics II with lab (5)

4. Complete an additional 6 courses from the following (20- 24 credits):

BIOL	210	Epidemiology (3)
BIOL	310	Tropical Ecology (3-4)

BIOL	321	Comparative Vertebrate Anatomy with Lab (4)
BIOL	324	Field Botany with Lab (4)
BIOL	341	Human Physiology with Lab (4)
BIOL	342	Mammalogy with Lab (4)
BIOL	343	Ornithology with Lab (4)
BIOL	345	Limnology with Lab (4)
BIOL	350	Conservation Biology and Ecology of Iowa (4)
BIOL	360	Human Anatomy with Lab (4)
BIOL	361	Microbiology with Lab (4)
BIOL	364	Molecular Biology (3)
CHEM	351	Biochemistry with Lab (4)
GEOG	320	Principles of GIS with Lab (3)

BUSINESS MANAGEMENT

Faculty
Maggie Schlerman (chair), Erin Hannah, Courtney Hoyt, Tuan Ho-Quoc, Graham Lemke, Ann McDonald, Tuan Nguyen, Matthew Sutter

Statement of philosophy
Housed in the Economics, Accounting and Management Department, the business management major offers students the opportunity to gain an understanding of business operations in the context of the liberal arts tradition. The major provides students a strong foundation in business with an opportunity to develop an emphasis in one of six business areas: business administration, international business, finance, business analytics, and marketing. The major also satisfies state of Iowa requirements for the secondary education business endorsement.

Central students benefit from multidimensional teaching approaches that facilitate active learning: computer simulations, case studies, presentations, class discussions and team projects. Each of these methodologies emphasizes written and oral communication skills. The performance of Central students on standardized examinations such as GMAT and LSAT, their acceptance into quality graduate programs and their success in careers demonstrate the strengths of the program.

Quality education must extend well beyond the classroom. Accordingly, academic advising is geared toward assisting students in making sound choices regarding courses and appropriate co-curricular learning experiences. Students are encouraged to participate in programs abroad, to explore co-op, internship opportunities, and service-learning opportunities, and to participate in student organizations. By integrating practical and theoretical experiences, students will be prepared to appreciate the global and cultural diversity of the 21st century.

Business Management Major Requirements (46-47 credits)

Note: This major may not be declared in combination with the Information Systems major

1. Complete all of the following: (24)

ACCT	241	Introduction to Financial Accounting (3)
ACCT	242	Introduction to Management Accounting (3)
BMGT	231	Business Law (3)
BMGT	261	Principles of Finance (3)
BMGT	271	Principles of Marketing (3)
BMGT	281	Principles of Management (3)
ECON	112	Principles of Microeconomics (3)
ECON	113	Principles of Macroeconomics (3)

2. Complete <u>one</u> course in statistics from the following: (4)

MATH	105	Introduction to Statistics (4)
MATH	215	Applied Statistics (4)

3. Complete <u>one</u> course in computer science from the following: (3)

COSC	110	Introduction to Computer Science (3)
DATA	110	Data Driven Decisions (3)

4. Complete <u>one</u> of the courses below.*(3)

BMGT	211	Business Speaking and Writing (3) (required for secondary education students)
COMM	160	Communication in Everyday Life (3)
COMM	272	Professional Communication (3)
THEA	150	Acting (3)

*It is recommended that students complete this before the third year.

5. Complete 9 credits at the 300-level or higher in business management, following the emphasis area guide, and/or as developed in conversation with your academic advisor and as approved by the EAM Department Chair. (9)

Students complete emphases in their upper-level coursework, typically in business administration, marketing, finance, business analytics, international management, or secondary education. Certain 300 and 400 level economics and accounting courses may count toward this requirement; consult with your academic advisor for more information.

Pre- Approved BMGT Emphasis Areas:

Business Administration
Choose one course from:
BMGT 372 Consumer Behavior (3)
BMGT 373 Marketing Management (3)
BMGT 375 Marketing Research (3)

Choose one course from:
ACCT 343 Advanced Managerial Accounting (3)
BMGT 362 Principles of Investment (3)
BMGT 363 Advanced Financial Management (3)

Choose one course from:
BMGT 335 Not For Profit Management (3)
BMGT 352 Human Resource Management (3)
BMGT 381 Operations Management (3)

Marketing
Complete all of the following;
BMGT 372 Consumer Behavior (3)
BMGT 375 Marketing Research (3)

Complete one of the following:
BMGT 373 Marketing Management (3)
BMGT 379 Sports Marketing (3)

Finance
Complete the following:
BMGT 362 Principles of Investment (3)
BMGT 363 Advanced Financial Management (3)

Choose one course from:
ACCT 341 Intermediate Financial Accounting I (3)
ACCT 344 Principles of Taxation (3)
ECON 322 International Trade and Finance (3)
ECON 324 Monetary Theory and Financial Systems (3)

Business Analytics:
Complete three of the following:
ACCT 321 Data Analytics for Accounting (3)
BMGT 362 Principles of Investment (3)
ECON 381 Research Methods in Economics (3)
ECON 382 Economic Forecasting (3)

International Business:
Complete the following:
ECON 322 International Trade and Finance (3)

Choose one course from:
POLS 326 Political Violence and Terrorism (4)
POLS 344 International Law and Human Rights (4)

Choose one course from:
BMGT 362 Principles of Investment (3)
ECON 329 Economic Development (3)
Plus: study abroad for a minimum of one semester.

Secondary Education:

Note: Emphasis available only to students admitted to the Teacher Education Program.

ACCT 344 Principles of Taxation (3)
BMGT 372 Consumer Behavior (3)
ENTR 215 The Entrepreneurial Mindset (3)

6. Complete a strategic management capstone course. (3)

BMGT 485 Strategic Management Capstone (3)
BMGT 487 Leading a Problem- Solving Organization (3)

Business Management Minor Requirements (21 credits minimum)

Note: This minor cannot be declared in conjunction with the accounting major or information systems major.

1. Complete *all* of the following:

ACCT 241 Introduction to Financial Accounting (3)
ACCT 242 Introduction to Management Accounting (3)
BMGT 281 Principles of Management (3)
ECON 112 Principles of Microeconomics (3)
ECON 113 Principles of Macroeconomics (3)

2. Complete *one* of the following:

BMGT 261 Principles of Finance (3) (Prerequisite ACCT 241)
BMGT 381 Operations Management (3) (Prerequisites: MATH 105 or MATH 215; and third-year standing)

3. Complete *one* of the following:

BMGT 231 Business Law (3)
BMGT 271 Principles of Marketing (3)

CHEMISTRY, BACHELOR OF ARTS

Faculty
Lee Macomber (chair), James Dunne, Ashley Garr, James Shriver, Jay Wackerly

Statement of philosophy
Housed in the Natural Sciences department, a Bachelor of Arts degree with a major in chemistry prepares students to operate at the interface between the sciences. Referred to as the central science, all physical and natural sciences are touched by chemistry. This major opens the door to such diverse career options as basic research, medicine, pharmacology, public health, teaching, industrial lab work, environmental testing laws and forensic science. Since chemistry is inherently experimental, the department is committed to providing students with ample laboratory experience to develop the tools necessary to become successful experimentalists. The faculty strives to remain abreast of modern chemical techniques while being aware of the benefits and responsibilities of living in a technological society. Our department follows guidelines of the American Chemical Society (ACS), so biochemistry majors receive instruction comparable to that at larger institutions while benefiting from individualized attention that is the hallmark of Central College.

*Students interested in graduate school or an industrial career should consider the Bachelor of Science degree in Chemistry.

Chemistry Major Requirements (53-54 credits)

1. **Complete *all* of the following: (46 credits)**
   - CHEM 111 General Chemistry I with Lab (4)
   - CHEM 112 General Chemistry II with Lab (4)
   - CHEM 231 Organic Chemistry I with Lab (4)
   - CHEM 241 Analytical Chemistry with Lab (4)
   - CHEM 321 Inorganic Chemistry with Lab (4)
   - CHEM 331 Organic Chemistry II with Lab (4)
   - CHEM 361 Physical Chemistry I (3)
   - CHEM 363 Physical Chemistry Lab (1)
   - MATH 131 Calculus I (4)
   - MATH 132 Calculus II (4)
   - PHYS 111 General Physics I with Lab (5)
   - PHYS 112 General Physics II with Lab (5)

2. **Complete *two* from the following: (7-8 credits)**
   - CHEM 351 Biochemistry with Lab (4)
   - CHEM 372 Environmental Chemistry with Lab (3)
   - CHEM 411 Advanced Topics in Chemistry with Lab (4)
   - CHEM 442 Instrumental Analysis with Lab (4)
   - CHEM 461 Physical Chemistry II (3)

Chemistry Minor Requirements (minimum of 19 credits)

1. **Complete *all* of the following:**
   - CHEM 111 General Chemistry I with Lab (4)
   - CHEM 112 General Chemistry II with Lab (4)
   - CHEM 231 Organic Chemistry I with Lab (4)
   - CHEM 241 Analytical Chemistry with Lab (4)

2. **Complete an additional two Chemistry courses (3-4 credits) at the 300-level or higher.**

CHEMISTRY, BACHELOR OF SCIENCE

Faculty
Lee Macomber (chair), James Dunne, Ashley Garr, James Shriver, Jay Wackerly

Statement of philosophy
Housed in the Natural Sciences department, a Bachelor of Science degree with a major in chemistry prepares students for an in-depth study of chemistry with significant study of connected areas. Referred to as the central science, all physical and natural sciences are touched by chemistry. With its in-depth focus, this major opens is targeted for students looking towards in array of career choices including basic research, pharmacology, industrial lab work, and forensic science. Since chemistry is inherently experimental, the department is committed to providing students with ample laboratory experience to develop the tools necessary to become successful experimentalists. Using personalized advising, students will design major elective tracks that allow for additional focus in Engineering, Physics, Mathematics or Computer Science (programming).

American Chemical Society certification
The Bachelor of Science degree with a major in Chemistry meets the requirements for ACS-certification which offers excellent preparation for graduate school or a career in industry or government. According to the American Chemical Society, a department that follows and meets the guidelines for certification produces graduates with the background necessary to enter graduate school or employment in which a strong background in chemistry is needed. For the student, a certified degree in chemistry is a valuable personal credential that serves as a national-level recognition for successfully completing a rigorous academic chemistry curriculum in an ACS-approved department. In connection with our ACS certification, students in our department have on-line access to all American Chemical Society publications.

*Students interested in pre-health careers should consider a Bachelors of Arts degree with a major in chemistry to support additional needed coursework appropriate to their chosen program.

*To facilitate flexibility in relation to additional majors, minors, or study abroad, students may request a substitution for a major requirement through the department chair.

Chemistry Major Requirements, BS (minimum 78 credits)

Note: For other ACS course options and updates to the requirements for ACS certification, please see the department chair.

1. Complete *all* of the following (61 credits):

BIOL	131	Introduction to Cells with Lab (4)
CHEM	111	General Chemistry I with Lab (4)
CHEM	112	General Chemistry II with Lab (4)
CHEM	231	Organic Chemistry I with Lab (4)
CHEM	241	Analytical Chemistry with Lab (4)
CHEM	321	Inorganic Chemistry with Lab (4)
CHEM	331	Organic Chemistry II with Lab (4)
CHEM	351	Biochemistry with Lab (4)
CHEM	361	Physical Chemistry I (3)
CHEM	363	Physical Chemistry Lab (1)
CHEM	442	Instrumental Analysis with Lab (4)
CHEM	461	Physical Chemistry II (3)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)
PHYS	111	General Physics I with Lab (5)
PHYS	112	General Physics II with Lab (5)

2. Complete *one* chemistry elective courses from the following (3-4 credits):

CHEM	372	Environmental Chemistry with Lab (3)
CHEM	411	Advanced Topics in Chemistry with Lab (4)
CHEM	451	Advanced Topics in Biochemistry (3)

3. Complete a significant research capstone experience by completing one of the following options:

Research Track: Students will complete a multi-semester research experience culminating in the completion of a thesis, judged by completing one of the following. (2 credits)

CHEM 498 Senior Thesis in Chemistry (2)
CHEM 499H Senior Honors Thesis (2)

Industrial Track: Students will complete a significant internship/ work experience approved by the department. May be done for internship credit.

4. Complete an additional 4 courses (12-16 credits) *

These courses can come from the list below or from courses NOT used in section 2 (courses may NOT count twice).

COSC 110 Introduction to Computer Science (3)
COSC 130 Data Structures (3)
ENGR 211 Statics (3)
ENGR 212 Dynamics (3)
ENGR 311 Thermodynamics (3)
ENGR 312 Fluid Mechanics (3)
MATH 231 Multivariable Calculus (3)
MATH 240 Linear Algebra (4)
MATH 250 Differential Equations (3)
PHYS 225 Modern Physics I (3)
PHYS 322 Optics (3)
PHYS 412 Quantum Mechanics (4)

*A program-approved abroad experience may substitute for one elective in section 4 if taken for 3+ credits with department chair approval.

COMMUNICATION STUDIES

Faculty
Maggie Schlerman (chair), Shelley Bradfield, Mary Donato, Linda Laine, Stavros Papakonstantinidis

Statement of philosophy
The Communication Studies program provides students with broad-based exposure to the academic discipline that examines the process of creating messages, meaning, and relationships in a broad array of contexts. To cultivate critical thinking, clear writing, articulate speaking, and proficiency with technology, our students study communication in a variety of contexts, particularly those related to professional engagement, interpersonal relationships, and media citizenship. Through a combination of theoretical grounding and applied experience, we prepare our majors for a range of careers, enable them to participate productively in a democratic culture, and instill in them a desire for lifelong learning. Coursework is supplemented by internships, and community engagement experiences.

Communication Studies Major Requirements (Minimum of 37 credits)

1. **Complete all of the following:**
   COMM 160 Communication in Everyday Life (3)
   COMM 180 Introduction to Communication Theory (3)
   COMM 280 Communication Research Methods (4)
   COMM 397 Internship in Communication Studies (1)
   Internships completed as part of off campus programs may count if pre-approved by the department.

2. **Complete 8 elective courses in communication studies, including a minimum of 3 upper-level courses at the 300-level or above.** Students are encouraged to take a diverse range of upper-level courses representative of the communication discipline. *An additional 3-4 credits of COMM 397 may be used in place of one elective course if pre-approved by the department.*

Communication Studies Minor Requirements (19-22 credits)
Students interested in pursuing a minor in Communication Studies should meet with a faculty member in the department for advisement early in their program.

1. **Complete the following:**
   COMM 160 Communication in Everyday Life (3)
   COMM 180 Introduction to Communication Theory (3)

2. **Complete 4 elective courses in communication studies, including a minimum of 2 courses at the 300 level or above.**

COMPUTER SCIENCE

Faculty
Wendy Weber (chair), Stephen Fyfe, Erik Insko, Michael Thompson

Statement of philosophy
Are you interested in learning to write software to solve problems or administer computer systems for an organization? Central College offers a broad range of computer science courses where students gain experience working with programming languages such as Python, Java, SQL and PHP, to become application developers, system administrators, web programmers and software engineers. No previous computing experience is required before beginning the computer science program. The major is designed to be flexible, facilitating study abroad, internships, minors, and second majors. Introductory courses in Python and Java lay the foundation for a software design course. After taking these courses, students are prepared for a variety of upper-level courses on a range of computer science topics from databases to cybersecurity. The senior year culminates in a project of the student's choice.

Major Communication Skills
Students majoring in computer science will develop their ability to speak, listen, read, and write technical material throughout the major curriculum. Final development of communication skills will occur in the capstone senior project course, COSC-420.

Major/Minor Restrictions
Students who declare computer science as their major or minor may not declare an information systems major with an emphasis in computer information systems. Students seeking a teaching endorsement should consult the education department.

Computer Science Major Requirements (42 credits)

1. Complete *all* of the following (25 credits):
COSC 110 Introduction to Computer Science (3)
COSC 130 Data Structures (3)
COSC 220 Software Design (4)
COSC 245 Computer Organization and Architecture (4)
COSC 330 Algorithms (3)
COSC 345 Computer Systems (4)
OR
COSC 346 Cybersecurity (4)
COSC 420 Senior Project (4)
MATH 220 Discrete Mathematics (3)
MATH 131 Calculus I (4)
Or MATH 160 Introductory Investigations in Mathematics (3)

2. Complete 7 hours of elective COSC courses numbered 200 or above, may include DATA 440.
Excludes internships or practicum.
At least 3 additional credits of MATH courses at the 132-level or above.

Note: Students who also major in data science or mathematics may consider, with department approval, taking MATH 420 or DATA 420 in lieu of COSC 420.

Computer Science Minor Requirements (20 credits)

1. Complete *all* of the following:
COSC 110 Introduction to Computer Science (3)
COSC 130 Data Structures (3)
COSC 220 Software Design (4)

2. Complete *10 credits* of additional COSC courses numbered 120 and above, including MATH 220, but excluding service learning, internships, and practica, with at least 3 credits at the 300 or 400 level.

DATA SCIENCE

Faculty
Wendy Weber (chair), Stephen Fyfe, Russ Goodman, Erik Insko, Mark Mills, Alexey Pronin, Michael Thompson.

Statement of Philosophy
Data is everywhere in today's society. A major or minor in data science is a valuable way for students to learn a variety of concepts, tools, and modern technologies connected to data analysis. Further, students studying data science will have enhanced abilities to visualize, interpret, and communicate the results of analyses involving data. These are all essential skills for students to apply in the context of a variety of disciplines, including their chosen field of study.

Minor Restriction
Students declaring a computer science major or mathematics major may not also declare a data science minor. Students declaring an economics major or an actuarial science major must take an elective outside of their major.

Data Science Major Requirements (minimum 48 credits)

1. **Complete *all* of the following:**
   - DATA 110 Data-Driven Decisions (3)
   - DATA 210 Introduction to Data Science (3) Data
   - DATA 310 Visualization (3)
   - DATA 340 Applied Machine Learning (3) Senior
   - DATA 420 Project (4)
   - COSC 110 Introduction to Computer Science (3)
   - COSC 130 Data Structures (3)
   - COSC 250 Databases and Big Data (3)
   - COSC 330 Algorithms (3)
   - MATH 131 Calculus I (4)
   - MATH 215 Applied Statistics (4)

2. **Take four related elective courses (minimum 12 credits) with at least one course at the 300-level or higher, in consultation with the advisor.**

Data Science Minor Requirements (23-24 credits)

1. **Complete *all* of the following:**
   - COSC 110 Introduction to Computer Science (3)
   - DATA 110 Data-Driven Decisions (3)
   - DATA 210 Introduction to Data Science (3)
   - DATA 310 Data Visualization (3)
   - MATH 131 Calculus I (4)
   - MATH 105 Introduction to Statistics (4)
     - Or MATH 215 Applied Statistics (4)
     - Or approved disciplinary applied statistics course

2. **Complete *one* of the following:**
   - COSC 250 Databases and Big Data(4)
   - DATA 340 Applied Machine Learning (3)
   - ECON 381 Research Methods in Economics (4)
   - ECON 382 Economic Forecasting (3)
   - ECON 485 Economics Research Seminar (3)
   - GEOG 320 Principles of GIS with Lab (3)
   - MATH 240 Linear Algebra (4)
   - POLS 489 Capstone Seminar (4)
   - SOC 350 Applied Quantitative Methods (4)

Notes regarding prerequisites
COSC 110 is a prerequisite for DATA 210
DATA 310 requires second-year standing
COSC 110 and MATH 131 are prerequisites for DATA 340

DECISION SCIENCE

Faculty
Anya Butt, Anna Christensen, Russ Goodman, Erik Insko, Keith Jones, Mark Thomas, Katelin Valster

Statement of philosophy
Effective decision-making is essential for personal success, leadership, and civic engagement. Decision Science is an interdisciplinary field focused on understanding, improving, and implementing decision-making by individuals, groups, and organizations in order to achieve solutions that are informed, transparent, and defensible. This field includes investigating how decision-makers define, accept, and solve problems, along with how they learn from the results of their actions. The field incorporates domain-specific concepts along with specific ideas from areas such as ethics, data analysis, risk assessment, critical thinking, and communication skills. The Decision Science minor at Central College provides a strong foundation in decision theory, data literacy, problem-solving, and communication. It integrates key frameworks, cognitive biases, and quantitative tools, encouraging students to apply these principles across disciplines.

Decision Science Minor Requirements (Minimum 19 credits)

1. **Complete all of the following Decision Science courses: (4 credits)**
   DESC 110 Introduction to Decision Science (1)
   DESC 310 Applied Decision Making (3)

2. **Complete one of the following courses in data literacy: (3- 4 credits)**
   DATA 110 Data-driven Decisions (3)
   MATH 105 Introduction to Statistics (4)
   MATH 215 Applied Statistics (4)
   PSYC 335 Fundamentals of Statistics (4)
   SOC 248 Statistics for Sociologists (4)

3. **Complete one of the following courses in ethics of philosophy: (3-4 credits)**
   COMM 380 Communication Ethics (4)
   PHIL 121 Ethics (3)
   PHIL 125 Logic (3)
   PHIL 345 Environmental Ethics (4)
   PHIL 346 Biomedical Ethics (4)

4. **Complete at least 9 credit hours of interdisciplinary elective courses that address making and communicating quality decisions.** Elective courses must be selected in consultation with your advisor and approved ahead of time by a decision science faculty member.

   At least 3 credits of these electives must be at or above the 300-level.

   Due to the interdisciplinary nature of the minor, no elective course can count toward both the decision science minor and other major(s)/ minor(s), and they must come from three different disciplines.

ECONOMICS

Faculty
Maggie Schlerman (chair), Erin Hannah, Courtney Hoyt, Tuan Ho-Quoc, Graham Lemke, Ann McDonald, Tuan Nguyen, Matthew Sutter

Statement of philosophy
The study of economics is part of the traditional liberal arts and offers the student a knowledge of and appreciation for the complexities of the human experience. Economics studies the decision-making behavior of individuals, firms, national economies and other economic groups. It is an important field of study for those who wish to be educated citizens in today's world.

The purpose of Central's economics program is to provide students with a comprehensive understanding of economic theory and a mastery of the important methodologies. Students apply economic theory to contemporary issues and to utilize its tools in the search for solutions to daily problems. The faculty seek to actively involve students in the learning process by placing them in situations in which they must make economic decisions.

Majors in economics take courses in microeconomics, macroeconomics and research methods, plus a minimum of five additional courses at the 300-400 level. Students are strongly encouraged to study abroad and to extend their education beyond the classroom through internships, involvement in the EAM Club, Omicron Delta Epsilon and other co-curricular activities on campus.

Many Central economics majors enter the business world upon graduation; others begin careers in the government sector, working with such agencies as the Department of Labor or the Federal Reserve. In addition, a number go on to acquire graduate degrees in business, economics, law and public administration.

Economics Major Requirements (Minimum 50 credits)

1. **Complete all of the following:**
   - ECON 112 Principles of Microeconomics (3)
   - ECON 113 Principles of Macroeconomics (3)
   - ECON 312 Microeconomic Theory (4)
   - ECON 313 Macroeconomic Theory (4)
   - ECON 381 Research Methods in Economics (4)
   - ECON 485 Economics Research Seminar (3)
   - MATH 131 Calculus I (4)
   - MATH 215 Applied Statistics (4)

2. **Complete one of the following:**
   - COSC 110 Introduction to Computer Science (3)
   - DATA 110 Data Driven Decisions (3)

3. **Complete one of the following:**
   - BMGT 211 Business Speaking and Writing (3)
   - COMM 160 Communication in Everyday Life (3)
   - COMM 272 Professional Communication (3)

4. **Complete 15 credits from 300- and 400-level courses in ECON.**
   - MATH 330 Mathematical Modeling may also count.
   - ECON 397 does not count toward the economics major

Economics Minor Requirements (18 credit minimum)

1. **Complete the following:**
   - ECON 112 Principles of Microeconomics (3)
   - ECON 113 Principles of Macroeconomics (3)

2. **Complete a <u>minimum of 12 credits</u> of additional ECON courses, chosen in consultation with an economics faculty member; 6 of these additional hours must be taken at the 300-level or higher.**

EDUCATION (ELEMENTARY)

Faculty
Melissa McAninch (chair), Tamala Strawser, Julianne Taylor, Papae Wymore, Sarah Zimmerman

Statement of philosophy
The philosophical foundation of teacher education at Central College is the liberal arts tradition. Central College teacher preparation candidates exhibit knowledge, skills, and dispositions that are aligned with national and state teaching standards and are grounded in our program's focus on developmental, authentic learning experiences. Through the completion of coursework and embedded field/clinical experiences, our graduates are prepared to exhibit the following skills and dispositions of effective teachers:

- Plan instruction by using knowledge of the content, cross disciplinary skills, individual learner differences, the community, and best practice to meet rigorous learning goals
- Use differentiated strategies and connect concepts to encourage learners to develop deep understanding of the content
- Utilize strategies, resources and technology to enhance critical/creative thinking and problem solving
- Apply classroom management and motivational strategies to create positive, productive learning environments
- Make instructional decisions based on multiple methods of assessment
- Collaborate as a professional, self-directed, and committed learner
- Reflect upon and facilitate student learning
- Advocate for students

The achievement of these program standards is based on a commitment to the personal and professional fulfillment of each student. Students receive individualized attention through advising, instruction and supervision of clinical/field experiences. Field experiences are extensive and developmentally appropriate. Continuous contact with teachers and students in clinical settings enables prospective teachers to successfully transfer educational theory into effective practice. Programs at Central College combine the best of traditional educational practice with the latest in innovative contemporary theory.

Education students may be eligible to enroll in the Central Teacher Academy (CTA), which is a three-year program that pairs a teacher education candidate with a preschool-12 mentor teacher. Students in CTA complete additional clinical/field experiences and professional development sessions. All education students are encouraged to consider the numerous off-campus internship opportunities available at domestic and international sites.

Program approval
The Central College teacher education program is approved by the Iowa Department of Education. Students successfully completing one of the prescribed endorsement programs may be considered candidates for an Iowa teaching license and is endorsed according to the type of program completed.

The credentials of Central College are respected outside Iowa, but students desiring to teach in any other state should be acquainted with the professional requirements of the state in question as early as possible in their college career. Any student who is seeking Iowa licensure with the intent of also meeting the licensure requirements of another state should consult with the Department of Education in that state.

Admission and retention requirements
Application for the teacher education program is expected after completing EDUC 110, 135, 181 and 183. Candidates are continually evaluated throughout the program to ensure appropriate progression in departmental standards and are formally reviewed by the full department at the point of admission to the teacher education program, at individual conferences at the end of each block, prior to student teaching, and before application for licensure.

Admission and retention in the teacher education program includes the following criteria:

1. Maintenance of a cumulative grade point average of 2.7;
2. Attainment of a minimum grade of "C" in all courses with the EDUC prefix;
3. Successful completion of all observations and field experience assignments;
4. Successful completion of departmental benchmark assignments;
5. Demonstration of Central College teacher candidate dispositions;
6. Demonstration of expertise in content and effective oral and written communication;

Study abroad opportunities
The education department encourages students to consider the advantages of study abroad. Internships and programs of study in teacher education can be explored as growth opportunities.

Major Communication Skills
Graduates of Central College must exhibit proficiency in communication skills. The communication skills expectations addressing reading, writing, and speaking for Central College are replicated in the Education Department's InTASC Standards and dispositions. Ongoing evaluation of communication skills takes place in EDUC prefix courses and core courses with a college WRT designation. Writing skills are evaluated through writing assignments that are assessed for content, style, and mechanics. Writing assignments include term papers, journals, position papers, lesson plans, and research papers. Reading skills are assessed for literal, inferential, and evaluative comprehension of a variety of educational materials. Speaking and listening skills are evaluated in assignments including small group discussions, leading large groups, teaching classes, oral presentations, and debates. Students who are deficient in any of the skills areas are required to remediate the deficiencies through the campus support services or in consultation with a member of the department faculty.

A final evaluation is made during the student teaching semester when students have established that they are able to communicate effectively in the school classroom and complete written and oral projects for the Senior/Professional Seminar (EDUC 485/486) course. As a culminating experience, students' communication skills are evaluated as they present their program portfolio to faculty members and peers during the department's Senior Showcase event. Attainment of "Meets Standard" in all assessed areas on the Senior Showcase rubric (see appendix) is required and includes the assessment of communication skills required for graduation by the college.

Endorsements and special programs for Iowa licensure

Elementary education
Program completion is not final and a recommendation for a teaching license with the endorsement for teaching kindergarten through grade six will not be granted until the teaching candidate has met the following requirements:

1. Completion of a B.A. or B.S.
2. Attainment of a minimum grade of "C" in all courses with an EDUC prefix
3. Attainment of final ratings of "Meets Standard" in at least eight of the ten overall ratings of InTASC standards. An overall rating of "unsatisfactory" in any standard or disposition will disqualify the teaching candidate from the recommendation for licensure.
4. Demonstrate "Meets Standard" in six of the seven teaching dispositions. An overall rating of "unsatisfactory" in any standard or disposition will disqualify the teaching candidate from the recommendation for licensure.
5. Attainment of "Meets Standard" in all assessed areas on the Senior Showcase rubric
6. Completion of all requirements in the education, including student teaching
7. Completion of all support courses from various departments as advised by the Education Department to meet licensure & endorsement requirements, individual interest, and/or need
8. Attainment of "Meets Standard" in all assessed areas on the Senior Showcase rubric
9. Recommendation for licensure from the Education Department voting faculty members
10. Completion of the Foundations of Reading Test and required remediation if applicable

Upon successful completion of these requirements, the graduate is recommended to the Iowa Board of Educational Examiners for a teaching license.

Elementary Education Major Requirements (48 credits)
Note: Students seeking teacher licensure must, in addition to these major requirements, complete all Teacher Licensure Requirements, listed following these major requirements.

1. Complete all of the following:

EDUC	110	Foundations of Education (3)
EDUC	135	Children with Exceptionalities (3)
EDUC	181	Developmental Psychology (3)
EDUC	237	Foundations of Literacy (3)
EDUC	240	Teaching, Learning and Assessment (3)
EDUC	333	Science and Technology Curriculum and Methods (3)
EDUC	334	Social Studies Curriculum and Methods (3)
EDUC	345	Human Relations (3)
EDUC	352	Vocabulary, Comprehension and Writing Instruction (3)
EDUC	354	Teaching of Mathematics (3)
EDUC	374	Behavior and Classroom Management (3)

EDUC 453 Advanced Integration of Technology in Education – Elementary (1)
EDUC 485 Senior Seminar in Elementary Education (2)

2. Complete one of the following two options:
EDUC 460 Elementary Student Teaching (12)
OR
Complete both of the following:
EDUC 462 Elementary Student Teaching (6)
EDUC 468 K-6 Mild and Moderate Disabilities Student Teaching (6)

Teacher licensure requirements
(in addition to 48 credits education major requirements)

1. Complete *all* elementary education major requirements (48 credits -- see above) with a "C" or better in each course

2. Complete the following:
EDUC 210 Methods of Teaching Physical Education, Visual Arts, and Performing Arts in the Elementary Classroom (3)
ENGL 208 Literature for Children (3)
GEOG 110 Introduction to Geography (3)
Or GEOG 210 Human Geography (4)
HIST 130 United States to 1877 (3)
Or HIST 131 United States since 1877 (3)
Or HIST 132 Issues in American History (3)
MATH 115 Mathematical Concepts I (3) and MATH 116 Mathematical Concepts II (3)
Or MATH 131 Calculus I (4) and either MATH 115 Mathematical Concepts I (3) or MATH 116 Mathematical Concepts II (3)
Or MATH 132 Calculus II (4) and either MATH 115 Mathematical Concepts I (3) or MATH 116 Mathematical Concepts II (3)
NASC 110 Concepts in Natural Science with Lab (3)
One additional science course (3)

3. Complete the following literacy requirements:
EDUC 220 Phonological Awareness and Phonics (3)
EDUC 231 Teaching English Language Learners (3)
EDUC 343 Foundations of Reading Test Prep (1)
EDUC 438 Literacy Assessment & Intervention (6)
ENGL 320 Teaching Writing (2)

All teacher education candidates will complete the licensure endorsement program for K-8 Reading. Other endorsement areas are available for additional licensure options as summarized in the table below.

Elementary (K-6 & K-8)	
101	K-12 Athletic Coach
102	K-6 Elem Classroom Teacher
104	K-12 ESL Teacher
113	K-8 Art
119	K-8 English/Lang. Arts
133	K-8 Spanish
137	K-8 Health
142	K-8 Mathematics
144	K-8 Music
146	K-8 Physical Education
148	K-8 Reading
150	K-8 Science – Basic
164	K-8 Social Studies
167	K-8 Speech Comm/Theater
260	K-8 Instructional Strat I
421	5-8 Algebra for H.S. Cr.
975	K-8 STEM

1001	Birth- 3rd grade Early Childhood Inclusive
1821	5-8 M.S. Language Arts
1822	5-8 M.S. Mathematics
1823	5-8 M.S. Science
1824	5-8 M.S. Social Studies

EDUCATION- TEACHER LICENSURE
K-12 ART, MUSIC, PE/HEALTH

Faculty
Melissa McAninch (chair), Tamala Strawser, Julianne Taylor, Papae Wymore, Sarah Zimmerman

Statement of philosophy
For general information about Central's Education Department and teacher education programs, please consult the "Education – Elementary" section of this catalog.

Program approval
The Central College teacher education program is approved by the Iowa Department of Education. Students successfully completing one of the prescribed endorsement programs may be considered candidates for an Iowa Teaching License and is endorsed according to the type of program completed.

The credentials of Central College are respected outside Iowa, but students desiring to teach in any other state should be acquainted with the professional requirements of the state in question as early as possible in their college career. Any student who is seeking Iowa licensure with the intent of also meeting the licensure requirements of another state should consult with the Department of Education in that state.

Admission and retention requirements
Application for the teacher education program is expected after completing EDUC 110, 135, 181 and 183. Candidates are continually evaluated throughout the program to ensure appropriate progression on departmental standards and are formally reviewed by the full department at the point of admission, prior to student teaching and before application for licensure.

Admission and retention in the teacher education program includes the following criteria:
1. Maintenance of a cumulative grade point average of 2.7;
2. Attainment of a minimum grade of "C" in all courses with the EDUC prefix;
3. Achievement of major program grade point average requirements or proficiencies (based on content area);
4. Successful completion of field experience assignments;
5. Successful completion of departmental benchmark assignments;
6. Demonstration of Central College teacher candidate dispositions;
7. Demonstration of expertise in content and effective oral and written communication;
8. Recommendation of the major department;

Study abroad opportunities
The education department encourages students to consider the advantages of study abroad. Internships and programs of study in teacher education can be explored as growth opportunities.

Endorsements and special programs for Iowa licensure
Licensure for grades K-12 is granted for three areas at Central College: art, music, and health/PE. Teachers in these areas must complete teaching licensure and education program requirements for K-12 as well as completion of a major in one of the three areas above.

Program completion is not final and a recommendation for a K-12 teaching license will not be granted until the teaching candidate has met the following requirements:

1. Completion of a B.A. or B.S.
2. Attainment of a minimum grade of "C" in all courses with an EDUC prefix
3. Attainment of final ratings of "Meets Standard" in at least eight of the ten overall ratings of InTASC standards. An overall rating of "unsatisfactory" in any standard or disposition will disqualify the teaching candidate from the recommendation for licensure.
4. Demonstrate "Meets Standard" in six of the seven teaching dispositions. An overall rating of "unsatisfactory" in any standard or disposition will disqualify the teaching candidate from the recommendation for licensure.
5. Attainment of "Meets Standard" in all assessed areas on the Senior Showcase rubric
6. Completion of all requirements in education, including student teaching
7. Completion of all support courses from various departments as advised by the Education Department to meet licensure & endorsement requirements, individual interest, and/or need

8. Recommendation for licensure from the Education Department voting faculty members

Upon successful completion of these requirements, the graduate is recommended to the Iowa Board of Educational Examiners for a teaching license.

K-12 Education Licensure Program

1. Complete *all* of the following (41 credits) with a "C" or better in each course:

EDUC 110 Foundations of Education (3)
EDUC 135 Children with Exceptionalities (3)
EDUC 181 Developmental Psychology (3)
EDUC 240 Teaching, Learning and Assessment (3)
EDUC 342 Reading in the Content Area – Secondary (1)
EDUC 345 Human Relations (3)
EDUC 346 Secondary General Methods I (2)
EDUC 374 Behavior and Classroom Management (3)
EDUC 446 Secondary General Methods II (1)
EDUC 455 Advanced Integration of Technology in Education – Secondary (1)
EDUC 466 Elementary Student Teaching in Subject Area (6)
EDUC 476 Secondary Student Teaching in Subject Area (6)
EDUC 486 Professional Development Seminar-Secondary (2)
AND
EDUC 312 Methods of Teaching Art in Elementary Schools (2) AND EDUC 315 Methods of Teaching Art in Secondary Schools (2)
OR
EDUC 313 Methods of Teaching Music in Elementary Schools (3) AND EDUC 316 Teaching Choral and Instrumental Music in Secondary Schools (2)
OR
EDUC 311 Methods of Teaching Health, PE and Adaptive PE in the Elementary School (3) AND EDUC 314 Methods of Teaching Health and Physical Education in Secondary Schools (2)

2. (Complete BOTH the elementary methods course and the secondary methods course associated with the desired endorsement--4-5 credits)

K-12 Endorsements
Complete all requirements of one of the following Central academic majors (shown below, right) leading to a corresponding teaching endorsement (shown below, left):

Teaching Endorsement(s)	Corresponding Central Major
K-8 and 5-12 Health and Physical Education	Kinesiology
K-8 and 5-12 Music	Instrumental Music Education
K-8 and 5-12 Music	Vocal Music Education
K-8 and 5-12 Art	Art

EDUCATION- SECONDARY
TEACHER LICENSURE

Faculty
Melissa McAninch (chair), Tamala Strawser, Julianne Taylor, Papae Wymore, Sarah Zimmerman

Statement of philosophy
For general information about Central's Education Department and teacher education programs, please consult the "Education – Elementary" section of this catalog.

Program approval
The Central College teacher education program is approved by the Iowa Department of Education. Students successfully completing one of the prescribed endorsement programs may be considered candidates for an Iowa Teaching License and is endorsed according to the type of program completed.

The credentials of Central College are respected outside Iowa, but students desiring to teach in any other state should be acquainted with the professional requirements of the state in question as early as possible in their college career. Any student who is seeking Iowa licensure with the intent of also meeting the licensure requirements of another state should consult with the Department of Education in that state.

Admission and retention requirements
Application for the teacher education program is expected after completing EDUC 110, 135, 181, and 183. Candidates are continually evaluated throughout the program to ensure appropriate progression on departmental standards and are formally reviewed by the full department at the point of admission, prior to student teaching and before application for licensure.

Admission and retention in the teacher education program includes the following criteria:
1. Maintenance of a cumulative grade point average of 2.7;
2. Attainment of a minimum grade of "C" in all courses with the EDUC prefix;
3. Successful completion of all observations and field experiences;
4. Successful completion of departmental benchmark assignments;
5. Demonstration of Central College teacher candidate dispositions;
6. Demonstration of expertise in content and effective oral and written communication;
7. Achievement of major program grade point average requirements or proficiencies (based on content area)
8. Recommendation of the major department

Study abroad opportunities
The education department encourages students to consider the advantages of study abroad. Internships and programs of study in teacher education can be explored as growth opportunities.

Endorsements and special programs for Iowa licensure

Teachers at the secondary level may teach in their endorsement area(s) in grades 5-12.

Program completion is not final and a recommendation for a 5-12 teaching license will not be granted until the teaching candidate has met the following requirements:

1. Completion of a B.A. or B.S.
2. Attainment of a minimum grade of "C" in all courses with an EDUC prefix
3. Attainment of final ratings of "Meets Standard" in at least eight of the ten overall ratings of InTASC standards. An overall rating of "unsatisfactory" in any standard or disposition will disqualify the teaching candidate from the recommendation for licensure.
4. Demonstrate "Meets Standard" in six of the seven teaching dispositions. An overall rating of "unsatisfactory" in any standard or disposition will disqualify the teaching candidate from the recommendation for licensure.
5. Attainment of "Meets Standard" in all assessed areas on the Senior Showcase rubric
6. Completion of all requirements in the education, including student teaching
7. Completion of all support courses from various departments as advised by the Education Department to meet licensure & endorsement requirements, individual interest, and/or need
8. Recommendation for licensure from the Education Department voting faculty members

Upon successful completion of these requirements, the graduate is recommended to the Iowa Board of Educational Examiners for a teaching license.

Secondary Education Licensure Program (5-12)

Note: THIS MAY NOT BE DECLARED AS A STAND-ALONE MAJOR. Students seeking teacher licensure must, in addition to these major requirements, complete all Teacher Licensure Requirements, listed following these major requirements.

1. **Complete a major leading to a secondary endorsement.**

2. **Complete *all* of the following:**
   EDUC 110 Foundations of Education (3)
   EDUC 135 Children with Exceptionalities (3)
   EDUC 181 Developmental Psychology (3)
   EDUC 240 Teaching, Learning and Assessment (3)
   EDUC 342 Reading in the Content Area – Secondary (1)
   EDUC 345 Human Relations (3)
   EDUC 346 Secondary General Methods I (2)
   EDUC 374 Behavior and Classroom Management (3)
   EDUC 446 Secondary General Methods II (1)
   EDUC 453 Advanced Integration of Technology in Education- Elementary (1)
   EDUC 485 Senior Seminar in Secondary Education (2)

3. **Complete one of the following two options:**
   EDUC 470 Secondary Student Teaching (12)
   OR
   Complete both of the following:
   EDUC 466 Elementary Student Teaching- Subject Area (6)
   EDUC 476 Secondary Student Teaching- Subject Area (6)

Teacher Licensure Requirements

In addition to 37 credits for education major requirements.

1. **Complete all secondary education major requirements (37 credits- see above) with a "C" or better in each course.**

2. **Complete the following:**
   Special Methods Coursework: Complete one of the following, depending on endorsement
   EDUC 384 Secondary Field Experience (1)
   EDUC 451 Secondary Special Methods (1)
   OR
   EDUC 312 Methods of Teaching Art in Elementary Schools (2)
   EDUC 315 Methods of Teaching Art in Secondary Schools (2)
   OR
   EDUC 313 Methods of Teaching Music in Elementary Schools (3)
   EDUC 316 Teaching Choral and Instrumental Music in Secondary Education (2)
   OR
   EDUC 311 Methods of Teaching Health, PE, and Adaptive PE in Elementary Schools (3)
   EDUC 314 Methods of Teaching Health, PE, and Adaptive PE in Secondary Schools (3)

3. **Complete a teacher licensure endorsement program in one of the following areas (please see the education department program guides for specific courses in each endorsement program):**

Secondary Endorsement Areas (5-12)
Possible Secondary endorsement areas are listed below, but students should communicate with the Education Department as to their intent in obtaining such endorsement.

Teaching Endorsement(s)	**Corresponding Central Major**
K-8 and 5-12 Health and Physical Education	Kinesiology
K-8 and 5-12 Music	Instrumental Music Education
K-8 and 5-12 Music	Vocal Music Education
K-8 and 5-12 Art	Art

Secondary (5-12 & K-12)	
101	K-12 Athletic Coach
114	5-12 Art
120	5-12 English/Lang Arts
134	5-12 Spanish
138	5-12 Health
143	5-12 Mathematics
145	5-12 Music
147	5-12 Physical Education
151	5-12 Biological Science
152	5-12 Chemistry
153	5-12 Earth Science
154	5-12 Basic Science
156	5-12 Physics
157	5-12 American Government
158	5-12 American History
160	5-12 Economics
161	5-12 Geography
163	5-12 Psychology
165	5-12 Sociology
166	5-12 World History
261	5-12 Instructional Strat I
975	5-8 STEM
1171	5-12 Business – All

ENGINEERING

Faculty
Wendy Weber (chair), Elizabeth Golovatski, Viktor Martisovits, Alexey Pronin, Kristen Thompson, Anudeep Vedire

Statement of philosophy
Students can earn a Bachelor of Science degree in Engineering which broadly prepares them for a career at the interface of mechanical and electrical engineering. Building on the liberal arts ethos of the institution, this degree incorporates substantial course work in physics and other sciences with the application of engineering principles. This education provides each student with the fundamentals to enter the workforce immediately after graduation or attend graduate school and the skills to quickly adapt and learn for a quickly evolving society. In addition to the requirements below, students are strongly encouraged and supported to complete internships in engineering at local, national and international locations. Through the completion of this work students will achieve the following general outcomes in alignment with the Accreditation Board for Engineering and Technology (ABET).:

Students in Central's engineering program gain an ability to:

1. Identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

Study abroad opportunities
Students majoring in engineering are able to study abroad around the globe with careful planning, especially during the summer. International internships might be available at some study abroad sites. Students are encouraged to consult with an academic advisor while planning to go abroad.

Major Communication Skills
The department believes that it is important that students in engineering are able to listen, speak, read, and write within the discipline. Many courses throughout the major include activities evaluating students' communication skills. The final evaluation will occur in ENGR 487 Engineering Project Management and Design and ENGR 488 Engineering Capstone Design.

Technology Skills
Students must achieve competency in Matlab and engineering graphics prior to the second semester of their sophomore year and the first semester of their junior year, respectively. This work can be completed external to Central College or completed via the following two courses: ENGR 111 Engineering Graphics and ENGR 112 Matlab for Engineers.

Engineering Major Requirements (98 s.h.)

1. Complete all of the following:

ENGR	108	Introduction to the Engineering Profession (1)
ENGR	111	Engineering Graphics (2)
ENGR	112	Matlab for Engineers (2)
ENGR	211	Statics (3)
ENGR	212	Dynamics (3)
ENGR	213	Strength of Materials (3)
ENGR	214	Engineering Materials with Lab (3)
ENGR	221	Electric Circuits (3)
ENGR	222	Electronic Devices with Lab (4)
ENGR	311	Thermodynamics (3)
ENGR	312	Fluid Mechanics (3)

ENGR	313	Theory of Machines (3)
ENGR	314	Heat Transfer with Lab (4)
ENGR	321	Electromagnetism (3)
ENGR	322	Signals and Systems with Lab (4)
ENGR	411	Dynamic Systems and Control with Lab (3)
ENGR	421	Digital Control Systems (3)
ENGR	487	Engineering Project Management and Design (3)
ENGR	488	Engineering Capstone Design (1)
PHYS	111	General Physics I with Lab (5)
PHYS	112	General Physics II with Lab (5)
PHYS	215	Theoretical and Experimental Methods (2)
PHYS	216	Waves (2)
PHYS	225	Modern Physics I (3)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)
MATH	231	Multivariable Calculus (3)
MATH	250	Differential Equations (3)
CHEM	111	General Chemistry I with Lab (4)

2. **Complete an additional 6 s.h. of ENGR 430.**

3. **Complete an additional 3 s.h. of PHYS courses numbered 211 or above.**

ENGLISH

Faculty
Timothy Olin (chair), Valerie Billing, Kate Nesbit, Mary Stark

Statement of philosophy
The English program enriches academic quality at Central College through traditional literary studies and innovative teaching and research across disciplines. We foster close reading, critical thinking, strong writing, and intellectual and artistic creativity in all of our courses. In English courses at Central College, students explore the self, learn about others, and seek social change–while also developing a diverse and practical skill set applicable to a wide range of careers.

Here at Central, we offer a distinctive approach to the study and craft of literature, an approach informed by four overarching commitments:

1. We believe in civic engagement in global and local contexts. Our classes develop strong commitments to sustainability, social justice, and service-learning.
2. Second, we believe the study of literature and creative writing produces agile professionals. Central College graduates in English have thrived in fields as diverse as journalism, architecture, business management, education, law, medicine, public administration, and library science.
3. Third, we are committed to deepening intercultural and international learning, through courses that cover a broad range of geographical and cultural territories. We prioritize global and postcolonial literature, as well as literatures from minoritized communities in the US.
4. Finally, we see literature as the nexus of interdisciplinary learning. We explore connections between literature, science, aesthetics, history, gender studies, and cultural studies. Also, through supporting Central College's Core Curriculum, the English program supports students across the college as they seek to become strong critical thinkers, thoughtful readers, and compelling writers.

Major Communication Skills
The English program guarantees personal mentorship of student writing both in the classroom and in a distinctive portfolio review process. When students declare their intent to major in English, the department requests a portfolio of at least three papers that demonstrate developing close reading and argumentation. Majors must submit a second portfolio of at least five papers that demonstrate mastery of critical reading, engagement with research, and style in their senior year for the final portfolio review. English faculty meet as a department to discuss portfolios and return detailed feedback to each student on communication strengths and areas for improvement. The combination of individual attention from professors and the collective opinion of the English faculty on student writing helps our majors understand their writing process and grow increasingly reflective about the ways they might continue to improve.

English Major Requirements (40 credit minimum)

1. **Take <u>all</u> of the following required courses:**
   - ENGL 160 The Literary Imagination (4)
     Or an additional survey course or course from genre and issue studies (3-4)
   - ENGL 180 The Reader's Toolbox (3)
   - ENGL 346 Discovering Shakespeare (3)
   - ENGL 425 Seminar in Literary Studies (4)

2. **Take <u>two</u> of the following surveys in British and American Literature:**
   - ENGL 236 The American Experiment, Origins-1890 (3)
   - ENGL 237 The American Experiment, 1890- Present (3)
   - ENGL 251 Monsters and Monstrosity in English Literature, 800-1785 (3)
   - ENGL 252 The Haunted House of British Literature, 1785- Present (3)

3. **Take <u>six</u> of the following courses, at least 2 at the 300-level:**
   - ENGL 140 Introduction to Creative Writing (4)
   - ENGL 212 Caribbean Literature (3)
   - ENGL 213 Literature, Environment, and Ecology (3)
   - ENGL 214 Literature by Women (3)
   - ENGL 215 African-American Literature (4)
   - ENGL 216 LGBTQ+ Literature and Culture (3)
   - ENGL 217 Literature and Film of the Middle East (4)

ENGL 240 The Personal Essay (4)
ENGL 241 Short Story Writing (4)
ENGL 243 Writing Oral Histories (4)
ENGL 246 Writing for Non-Profit Organizations (4)
ENGL 270 Illness and Health in Literature (4)
ENGL 361 World Literature (4)
ENGL 378 Literary Topics (4)

English Major with Additional Emphasis in Writing (54 credit minimum)

Note: Students must declare their intention to major in English with Writing Emphasis no later than the end of their third year.

1. **Complete *all* requirements for the English major listed above (40 credits)**

2. **Complete *three* of the following (in addition to those taken for the English major):**
   ENGL 140 Introduction to Creative Writing (4)
   ENGL 240 The Personal Essay (4)
   ENGL 241 Short Story Writing (4)
   ENGL 243 Writing Oral Histories (4)
   ENGL 244 Professional Writing (3)
   ENGL 246 Writing for Non-Profit Organizations (4)

3. **Complete** ENGL 497 Internship in Writing (3)

English Minor Requirements (19 credit minimum)

1. **Take *one* of the following historical surveys:**
   ENGL 236 The American Experiment, Origins- 1890 (3)
   ENGL 237 The American Experiment, 1890- Present (3)
   ENGL 251 Monsters and Monstrosity in English Literature, 800-1785 (3)
   ENGL 252 The Haunted House of British Literature, 1785- Present (3)

2. **Take four of the following electives, at least one at the 300-level:**
   ENGL 140 Introduction to Creative Writing (4)
   ENGL 160 The Literary Imagination (4)
   ENGL 180 The Reader's Toolbox (3)
   ENGL 212 Caribbean Literature (3)
   ENGL 213 Literature, Environment, and Ecology (3)
   ENGL 214 Literature by Women (3)
   ENGL 215 African-American Literature (4)
   ENGL 216 LGBTQ+ Literature and Culture (3)
   ENGL 217 Literature and Film of the Middle East (4)
   ENGL 240 The Personal Essay (4)
   ENGL 241 Short Story Writing (4)
   ENGL 243 Writing Oral Histories (4)
   ENGL 246 Writing for Non-Profit Organizations (4)
   ENGL 270 Illness and Health in Literature (4)
   ENGL 361 World Literature (4)
   ENGL 378 Literary Topics (4)

3. **Take *one* of the following:**
   ENGL 346 Discovering Shakespeare (3)
   ENGL 425 Seminar in Literary Studies (4)

Note: Students seeking teaching licensure should consult with the Education Department regarding additional required courses.

Writing Minor Requirements (17 credit minimum)

1. Complete *five* of the following:

ENGL 240 The Personal Essay (4)
ENGL 241 Short Story Writing (4)
ENGL 243 Writing Oral Histories (4)
ENGL 244 Professional Writing (3)
ENGL 246 Writing for Non-Profit Organizations (4)
ENGL 497 Internship in Writing (3)

English courses for licensure in secondary education

Take all of the following:

ENGL 222 Literature for Young Adults (1)
ENGL 320 Teaching Writing (2)
EDUC 231 Teaching English Language Learners (3)
EDUC 451 Secondary Special Methods (1)
COMM 160 Communication in Everyday Life (3) or COMM 272 Professional Communication (3)
Plus 12 credits of Secondary Student Teaching

The English department will not recommend for teacher licensure students whose grade average within their English courses is below 3.00. The department has advised the teacher education committee that such students should be denied admission to or be dropped from the certification process until grades in English have been brought up to 3.00.

Please check with the education department for any other specific requirements.

ENTREPRENEURSHIP

Faculty
Matthew Sutter (director), Ann McDonald

Statement of Philosophy
The entrepreneurship minor allows students of all academic disciplines to develop an entrepreneurial mindset. This enables students to envision things that don't currently exist, identify problems worth solving, and develop an ability to affect change in a positive manner. This may include the creation of a new business venture, serving as an intrapreneur in a corporate setting or solving a community problem as a social entrepreneur. In each setting, the solution to any problem calls for specific skills, which we have defined as our entrepreneurship program outcomes:

- The ability to recognize opportunities.
- The ability to capitalize on these opportunities by generating new ideas and marshaling resources.
- The ability to think in a creative and critical manner.
- The ability to create and operate a new venture.

Students will gain these skills through a highly experiential, hands-on approach coupled with the guidance of mentors.

Minor Restriction
A student cannot declare both the Entrepreneurship Minor and the Not-for-Profit Minor.

Entrepreneurship Minor Requirements (20 credit minimum)

1. Complete *all* of the following:

ENTR	111	Survey of Entrepreneurship (1)
ENTR	215	The Entrepreneurial Mindset (3)
ENTR	225	Social Entrepreneurship (3)
ENTR	311	Professional Sales (3)
ENTR	315	Advanced Entrepreneurship: Startup Semester (3)

2. Complete *two* of the following electives (one at the 300-level or above):

BMGT	271	Principles of Marketing (3)
BMGT	281	Principles of Management (3)
BMGT	335	Not-For-Profit Management (3)
ENGL	246	Writing for Non-Profit Organizations (4)
ENTR	387	Project Management and Product Design (3)
GEOG	320	Principles of GIS with Lab (3)

3. Complete an internship or experiential opportunity pre-approved by the entrepreneurship director (1-3 credits)

ENTR	384	Field Experience in Entrepreneurship

ENVIRONMENTAL AND SUSTAINABILITY STUDIES

Faculty
Anya Butt (director), Russ Benedict, Ashley Garr, Lee Macomber, Tuan Nguyen, Paul Weihe

Statement of Philosophy
Environmental studies examines the relationship of science, society and nature in a world with a focus on sustainability. Properly addressing environmental problems requires the ability to analyze complex systems and explore solutions within the socio-cultural, economic and political decision-making process. This major provides students with a strong grounding in the three legs of sustainability: an understanding of economics, politics, and the relevant scientific aspects for constructively solving problems through an interdisciplinary approach.

Students shape their major by selecting a focus either on a more science oriented or a more socio-political oriented major and supplement it with diverse electives. A focus on the socio-economic and political aspects in environmental studies enables students to properly define sustainable resource use through an understanding of the science and the environmental relationships within the debates at the global, national and local levels. A focus on the science involved in environmental issues enables students to gain a comprehensive ability to address these issues within an applied context. Course work is enriched by supervised independent research, career-focused internships, experiential and service-learning opportunities. Central's extensive network of internship opportunities provide students with invaluable hands-on experience. Strongly recommended is at least one semester of study abroad.

The Environmental Studies major is one component of Central's commitment to becoming a leader in sustainability education, along with the Global Sustainability program. Both programs focus on addressing global issues that arise due to the scarcity of resources on our earth and efforts by humanity to balance our needs with those of future generations. Due to the commonalities in courses and focus between the Environmental Studies program and the Global Sustainability minor, students are not allowed to declare major/minors simultaneously in these programs.

Career opportunities in environmental science are varied and increasing. Due to their strong backgrounds in the sciences, the social sciences and GIS, environmental studies and sustainability graduates have career opportunities in sustainability focused careers, as well as a diverse variety of positions in environmental protection and policy. This includes companies looking for entry level individuals with strong analytical skills for water, air, biological or soil analyses, or federal, local or state agencies focused on habitat monitoring, restoration, and delineation; as well as careers focused on environmental education and technical writing about environmental issues.

Major Communication Skills
It is essential for majors to be able to effectively speak, read, write and think critically within the context of their ENVS course work. For this reason, many required courses and electives include assignments and activities that evaluate students' communication skills proficiency. Evaluation of students' communication skills formally occurs in ENVS 380 Project Proposal Development and ENVS 480 Environmental Capstone Project. Two requirements of these capstone courses are a major paper and an oral public presentation.

Major/Minor restrictions
Students planning to major or minor in Environmental Studies may not minor in Global Sustainability.

Environmental and Sustainability Studies Major Requirements (minimum 57 credits)

1. Complete *all* of the following:

BIOL	130	Diversity of Life with Lab (4)
CHEM	111	General Chemistry with Lab (4)
ECON	112	Principles of Microeconomics (3)
ENVS	120	Introduction to Environmental Science with Lab (4)
ENVS	380	Project Proposal Development (3)
ENVS	480	Environmental Capstone Project (1)
GEOG	320	Principles of GIS with Lab (3)

2. Complete either Block A or Block B:

Block A Socio-economic focus

ECON	113	Principles of Macroeconomics (3)

GEOG 237/337 Physical Geography: Weather and Climate with Lab (4)
HIST 237 American Environmental History (4)
PHIL 345 Environmental Ethics (4)

Block B Science focus
BIOL 131 Introduction to Cells with Lab (4)
BIOL 229 Ecology and Evolution with Lab (4)
CHEM 112 General Chemistry II with Lab (4)
CHEM 241 Analytical Chemistry with Lab (4)
** certain courses from one block can serve as electives for students choosing the other block: BIOL 229, CHEM 241, GEOG 237 HIST 237 PHIL 345

3. Complete one of the following:
BIOL 210 Epidemiology (3)
COSC 110 Introduction to Computer Science (3)
MATH 215 Applied Statistics (4)*
**MATH 105 may be substituted for MATH 215, but MATH 215 is the recommended statistics course for the major*

4. Complete one of the following:
POLS 215 The Politics of State and Local Government (4)
SJST 220 Environmental Justice (3)
Or one POLS, ECON or SOC course approved by the program director

5. Complete one of the following:
COMM 250 Evaluating Contemporary Media (4)
ENGL 246 Writing for Non-profit Organizations (4)
Or one COMM course approved by the program director

6. Complete at least 10 s.h. of elective credit from the following (with at least 6 s.h. at the 200-level or above)
BEHS 285 Not-for-Profit Seminar (1)
BEHS 397 Internship in Not-for-Profit Management (3)
BIOL 310 Tropical Ecology (1-4)
BIOL 324 Field Botany with Lab (4)
BIOL 333 Climate Change and Human Health (4)
BIOL 342 Mammalogy with Lab (4)
BIOL 343 Ornithology with Lab (4)
BIOL 345 Limnology with Lab (4)
BIOL 350 Conservation Biology and Ecology of Iowa (4)
BIOL 361 Microbiology with Lab (4)
CHEM 203 Introduction to Organic and Biological Chemistry (4)
CHEM 231 Organic Chemistry I with Lab (4)
CHEM 321 Inorganic Chemistry with Lab (4)
CHEM 351 Biochemistry with Lab (4)
CHEM 372 Environmental Chemistry with Lab (3) (not regularly offered)
CHEM 442 Instrumental Analysis with Lab (4)
ECON 321 Environmental Economics (3)
ECON 329 Economic Development (3)
ENGL 213 Literature, Environment and Ecology (3)
ENVS 125 Geology and the Environment with Lab (3)
ENVS 240/340 Agriculture and Sustainability (3)
ENVS 270 Iceland: Stories of Fire and Ice (1-4)
GEOG 110 Introduction to Geography (3)
GEOG 338 Geomorphology with Lab (4)
GEOG 420 Advanced GIS with Lab (2)
GERM 362 Germany and the Environment (3) (not regularly offered)
KIN 261 Community, Consumer and Global Health (3)
POLS 140 Introduction to International Politics (4)
POLS 344 International Law and Human Rights (4)
POLS 397 State and Local Environmental Project Review Internship (3)

PHYS 101 Introductory Physics I (4)
PHYS 102 Introductory Physics II with Lab (4)
or PHYS 111 General Physics I with Lab (5)
PHYS 112 General Physics II with Lab (5)
PHYS 204 Energy and Environment (3)
REL 238 Taoism and Confucianism (4)
REL 320 Nature, Science, Theology and Political Philosophy (4)
SUST 125 Introduction to Global Sustainability (4)
300/400-level internship by arrangement and approval by the program director
Note: Study abroad courses may also apply as electives pending approval by the program director.

Environmental and Sustainability Studies Minor Requirements (minimum 23 credits)

1. **Complete *all* of the following:**
   ENVS 120 Introduction to Environmental Science with Lab (4)
   GEOG 320 Principles of GIS with Lab (3)

2. **Complete *one* of the following:**
   BIOL 130 Diversity of Life with Lab (4)
   CHEM 107 Introduction to Environmental Chemistry (3)
   GEOG 237/ 337 Physical Geography; Weather and Climate with Lab (4)

3. **Complete *one* of the following:**
   HIST 237 American Environmental History (4)
   PHIL 345 Environmental Ethics (4)
   POLS 215 The Politics of State and Local Government (4)
   SJST 220 Environmental Justice (3)
   Or one POLS, ECON, or SOC course approved by the program director.

4. **Complete *at least 10 credits* of additional electives with the approval of the Environmental Science director (with 6 credits at or above the 200 level).**

GERMAN STUDIES

Faculty
Timothy Olin (chair), Amy Young

Departmental statement of philosophy
The German Studies program faculty believes that the ability to communicate (listen, speak, read and write) in another language is fundamental for attaining an understanding of the many cultures that make up the world. For significant intercultural understanding, students must also learn what members of other cultures consider worth talking about: their historical, artistic and literary heritage; their contemporary political, social and economic problems; and their basic customs and values.

Modern language course offerings are intended to build basic communication skills and insight into important topics in literature and culture.

Study abroad opportunities
Students seeking a minor in the department are encouraged to study abroad.

Teaching licensure
Students may only add German as a second endorsement to their teaching license. Communicate directly with the Education department about state requirements for this endorsement. Requirements for students seeking teaching licensure are not necessarily identical to those of the general minor.

Foreign language credit by proficiency
For information on earning credit by proficiency in a foreign language, please see the “Credit by Proficiency” section of this catalog.

German Studies Minor Requirements (20 credits)

1. **Complete all of the following (8 credits)**
   GERM 121 Beginning German I (or equivalent) (4)
   GERM 122 Beginning German II (or equivalent) (4)

2. **Complete at least two of the following (6 credits)**
   GERM 240 The German Imagination (3)
   HIST 210 History of Modern Europe (4)
   HIST 212 World War I and II (4)
   HIST 216 German and Central Europe (4)
   HIST 217 Contemporary Europe (4)

3. **Complete at least 6 credits from the following courses or other courses as approved by German Studies faculty (6 credits)**
   Any 300/400 level GERM course
   Any 300/400 level HIST course with a focus on one of more German- Speaking countries

GLOBAL HEALTH

Faculty
Anya Butt (director)

Statement of philosophy
This minor enables students to be global citizens, aware of the interconnections between health, development, andt the environment. Health issues often have global impacts, as diseases can cross borders and the global economy can drive both health care policy and environmental conditions. This interdisciplinary minor program is designed to prepare students to understand and appreciate that health issues require solutions grounded in a holistic combination of human development, policy, sustainability, and cultural and personal awareness. The required courses provide students with a perspective on society and epidemiology as well as tools to help analyze spatial ecology of diseases.

Students choosing careers in all pre-health programs as well as public policy, planning, international studies, social work, anthropology, environmental studies, and health communications are well-served by this minor.

Global Health Minor Requirements (18-22 credits):

1. **Complete all of the following (6 credits)**
   BIOL 210 Epidemiology (3)
   GEOG 320 Principles of GIS with Lab (3)

2. **Complete one of the following (3-4 credits)**
   PHIL 121 Ethics (3)
   PHIL 346 Biomedical Ethics (4)

3. **Complete one of the following (Lifespan & Development focus, 3-4 credits)**
   EDUC 181 Developmental Psychology (3)
   KIN 220 Personal Wellness (3)
   KIN 233 Lifespan Nutrition (3)
   PSYC 240 Psychology of Gender (3)
   PSYC 277/477 Clinical Neuroscience (4)
   PSYC 279/479 Social, Affective, and Developmental Neuroscience (4)

4. **Complete one of the following (Policy & Sustainability focus, 3-4 credits)**
   BIOL 333 Climate Change and Human Health (4)
   ENVS 233 Environmental Health (3)
   GERM 362 Germany and the Environment (3) (not offered regularly)
   KIN 261 Community, Consumer, and Global Health (3)
   PHYS 204 Energy and Environment (not offered regularly) (3)
   POLS 140 Introduction of International Politics (4)
   SJST 220 Environmental Justice (3)
   SOC 275 Sociology or Health, Illness & Healthcare (4)
   SOC 335 Globalization and Development (4)

5. **Complete one of the following (Cultural and Personal Awareness focus, (3-4 credits)**
   COMM 268 Intercultural Communication (3)
   COMM 376 Communicating Health & Illness (4)
   ENGL 270 Illness and Health in Literature (4)
   ENVS 240 Agriculture and Sustainability (3)
   PSYC 330 Multicultural Issues in Psychology (3)
   SOC 225 Social Problems (3)

Experiential Learning and Internship Opportunities

As part of the minor, students are encouraged to engage in experiential learning through research, service-learning or internships in Iowa and elsewhere. This experience will help students better understand the various fields within global health they might pursue after graduation through career or graduate study. Students are encouraged to begin to work with faculty members who conduct research related to global health and to contact the Office of Career Development and Civic Engagement early in their college career.

GLOBAL SUSTAINABILITY

Faculty
Anya Butt, Paul Weihe

Statement of Philosophy:
Global sustainability focuses on meeting the needs of Earth's living generations without compromising the ability of future generations to meet theirs. Sustainability education emphasizes the interconnectedness of ecological, political, economic, socio-cultural, and moral-ethical systems. Global sustainability education promotes active learning, trans-disciplinary integration, and synthesis of concepts, theories, and methods of inquiry, along with development of practical problem-solving skills.

Sustainability helps students acquire heightened knowledge of significant intergenerational issues and possible solutions by raising awareness and understanding of how personal and collective actions affect the sustainability of local and global systems. Many problems are global in scope, transcending national boundaries and requiring global solutions. Complex underlying local, national, and international political and economic institutions and processes structure and manage the research, policy debates, and international negotiations aimed at reaching agreements and finding ways to implement solutions for the problems themselves.

This integrative program is designed to offer all students, regardless of major or career aspirations, a means of acquiring some of the tools and practical experience they will need when they enter the work force, assume leadership positions in their communities, and deal with complex, interconnected problems on a scale never faced by humans.

The Global Sustainability minor is one component of Central's commitment in becoming a leader in sustainability education, along with the Environmental Studies program. Both programs focus on addressing global issues that arise due to the scarcity of resources on our earth and the subsequent efforts by humanity to balance our needs with those of the future generations, and thus work in concert with one another.

Minor restrictions
Due to the commonalities in courses and focus between the Global Sustainability minor and the Environmental Studies program, students are not allowed to declare major/minors in both programs.

Global Sustainability Minor Requirements (21-23 credits)

1. **Complete *both* of the following: (8 credits)**
   ENVS 120 Introduction to Environmental Science with Lab (4)
   POLS 242 Global Sustainability Politics (4)

4. **Complete an approved 283 or 383 Service-Learning Module course, approved campus or community-based sustainability service project, internship, or supervised independent research project (1-3 credits)**

5. **Complete *at least 12 credits* from the approved lists of electives with at least 3 credits from each category and a minimum of 3 credits at the 300 level or above:**

   Ecological Systems Integrity (Complete at least **3 credits** of the following):
   BIOL 118 Environmental Problems and Midwest Ecosystems with Lab (4)
   BIOL 229 Ecology and Evolution with Lab (4)
   BIOL 310 Tropical Ecology (1-4)
   BIOL 315 Aquatic Toxicology with Lab (4)
   BIOL 345 Limnology with Lab (4)
   CHEM 107 Introduction to Environmental Chemistry (3)
   CHEM 372 Environmental Chemistry with Lab (3)
   EDUC 275 Health, Safety and Nutrition (3)
   ENVS 125 Geology and the Environment with Lab (3)
   KIN 215 Introduction to Angling (3)
   KIN 261 Community, Consumer and Global Health (3)
   GEOG 210 Human Geography (4)
   GEOG 320 Principles of GIS with Lab (3)
   LAS 410 HIV and the AIDS Pandemic (4)

NASC 105 Science, Technology and Literature (3)
PHYS 204 Energy and Environment (3) (not offered regularly)

Ethical, Social and Cultural Integrity (Complete at least **3 credits.** of the following):
COMM 268 Intercultural Communication (3)
GEOG 215 Introduction to International Studies (3)
ENGL 213 Literature, Environment, and Ecology (3)
ENGL 246 Writing for Non-Profit Organizations (4)
ENGL 270 Illness and Health in Literature (4)
SOC 325 Social Movements (3)

Political and Economic Systems Equity (Complete at least **3 credits** of the following):
BEHS 285 Not-for-Profit Seminar (1)
BMGT 335 Not-for-Profit Management (3)
ECON 321 Environmental Economics (3)
ECON 329 Economic Development (3)
GERM 362 Germany and the Environment (3)
POLS 140 Introduction to International Politics (4)
POLS 233 American Environmental Politics and Policy (4)
POLS 241 International Political Economy (4)
POLS 344 International Law and Human Rights (4)
POLS 397 State and Local Environmental Project Review Internship (3)
SOC 335 Globalization & Development (4)

Notes:

- Students planning to major or minor in Environmental Studies may not minor in Global Sustainability
- Students interested in Global Sustainability are encouraged to explore Environmental Studies
- Students completing this minor are strongly encouraged to choose an LAS capstone course related to their particular areas of interest within the minor
- Study abroad courses may apply as electives with permission from the director(s)

HISTORY

Faculty
Timothy Olin (chair), Mark Barloon, Lori Witt

Statement of philosophy
One of the most important paths to understanding ourselves and our current world is through exploring the past. History tells us where we came from and who we are. It illuminates the people, forces and structures which have shaped us, both as global and national citizens and as individuals living and working in communities.

The history major is structured to provide students with a strong foundation in historical knowledge and interpretation, which are essential for informed citizenship in global, national and local communities, and for understanding ourselves. The required courses provide students with an opportunity to dig into the past, surveying the history of the world and doing their own historical research, reasoning, and writing. The major allows students to combine their historical interests with courses in other disciplines, enabling them to pursue careers of their choice or to undertake graduate study in history. For students desiring to teach at the junior high or high school level, a distinguishing feature of the Central History major is that it offers certification for students in both American History and World History, as well as American Government.

Study abroad opportunities
All history courses taken abroad can be used for the major. Study abroad is strongly encouraged for history majors.

Major Communication Skills
Evaluation of communication skills is based on each student's performance in HIST 485 and 486. This two-course sequence requires extensive writing and reading in addition to the development of research skills, and the student must successfully complete each course to obtain departmental recommendation for graduation with a history major. Preliminary evaluations of communication skills are made when evaluating each student's performance in the 100-level courses. Each student's skills will be continually monitored through subsequent course work in the major.

History Major Requirements (38-42 credits)

1. Complete *one* of the following courses:
HIST 125 World History to 1500 (3)
HIST 126 World History since 1500 (3)

Note: The following courses may count with permission of the History program. Those seeking teacher licensure should get EDUC department approval in advance.
HIST 100T TE Western Civilization: Ancient to Early Modern (3-4)
Or HIST 100T TE Western Civilization: Early Modern to Present (3-4)
Or HIST 100AP AP European History (3)

2. Complete *one* of the following courses:
HIST 130 United States to 1877 (3)
HIST 131 United States since 1877 (3)
HIST 132 Issues in American History (3) (topic varies)

3. Complete 8 credits of world history:
HIST 210 History of Modern Europe (4)
HIST 212 World War I and II (4)
HIST 213 Russia and the USSR (4)
HIST 215 The Balkans: Between East and West (4)
HIST 216 Germany and Central Europe (4)
HIST 217 Contemporary Europe (4)
HIST 220 Middle Eastern Civilization (4)
HIST 250 Latin American Civilization (4)
HIST 280 Modern African Civilization (4)

Students may count 1 of the following towards their History major. Students seeking Secondary Education endorsements should consult with their advisor.
REL 252 The Reformation (3)
REL 254 The Early Church (4)

4. Complete 8 credits of American History:

HIST 230 Colonization and American Revolution: 1607-1787 (4)
HIST 231 American Expansion and Civil War: 1787-1877 (4)
HIST 232 America's Rise to Power: 1877-1945 (4)
HIST 233 The Fifties & Sixties: US History: 1945-1975 (4)
HIST 234 Recent United States: 1975- Present (4)
HIST 235 The Immigrant Experience (4)
HIST 237 American Environmental History (4)

Students may count 1 of the following towards their History major. Students seeking Secondary Education endorsements should consult with their advisor.

POLS 210 American Political Institutions (4)
POLS 235 The U.S. in World Affairs (4)
POLS 361 American Political Philosophy (4)

5. Choose either Track A or Track B

A. History Majors not seeking Secondary Education endorsement.
Complete 8 credits of the following:

HIST 310 Studies in World History (4) (topic varies)
HIST 330 Studies in American History (4) (topic varies)

Note: Each of these courses may be repeated for credit with different topics. With advisor approval, students seeking secondary endorsement are encouraged to take these classes and substitute them for a class in section 3 or 4.

B. History Majors seeking Secondary Education endorsements. (Students must be admitted to the Teacher Education Program.) Students following this track will achieve the Social Science Basic Endorsement.
Complete 3 classes in American government:

POLS 110 Introduction to American Politics (4)
POLS 210 American Political Institutions (4)
POLS 215 The Politics of State and Local Governments (4)
POLS 216 Don't Look Up From Your Phone: Voting in the Age of Doomscrolling (4)
POLS 287 Presidential Inauguration Seminar (3)
POLS 316 Presidential Elections (4)
POLS 361 American Political Philosophy (4)
Or other approved American government course

6. Complete all of the following:

HIST 485 Historiography Seminar (4)
HIST 486 History Research Seminar (4)

Note: HIST 397/497 Internship: *For History majors not seeking Secondary Education endorsements, a maximum of 4 credits of internship will be allowed to count in sections 3 or 4, at the discretion of the Department Chair.*

Note 1: History majors seeking the Social Science Basic Endorsement can also gain courses toward additional endorsements beyond World History, American History, and American Government in Economics, Geography, Psychology, and Sociology. Students should consult with their advisor.

Note 2: The History department will not recommend for teacher licensure students whose grade average within their History major courses is below 3.00 at the time they are ready to begin their student teaching. If students have not achieved a 3.00 grade point average by the time they are ready to begin student teaching, they will not be allowed to student-teach.

History Minor Requirements (18 credits)

1. **Complete a minimum of 18 credits** including seven credits each of American and world history distributed as follows:
   - Two HIST courses at the 100-level or above (6-8 credits)
   - Two to three (8 credits required) HIST courses 200-level or above. Up to 4 credits of HIST-397/497 may count.
   - One HIST course at the 300-level or above (excluding HIST-397/497) (4 credits)

   *Note: The history minor will **not** meet the State of Iowa requirements for teaching certification in history as a minor field.*

INFORMATION SYSTEMS

Faculty
Stephen Fyfe (director), Erik Insko, Graham Lemke, Tuan Nguyen, Maggie Schlerman, Michael Thompson

Statement of philosophy
Are you interested in developing software systems or managing the information structure for an organization? Would you like to be a chief information officer someday? The information systems major at Central allows students to choose from an emphasis in accounting information systems (AIS), computer information systems (CIS), or management information systems (MIS). Graduates have entered graduate school and immediate employment as IT managers, software developers, and business analysts.

Introductory courses for the information systems major introduce students to the fields of computer science and business management, which are the building blocks for the interdisciplinary field of information systems. The course, Data-Driven Decisions, provides a foundation to the field. Upper-level courses allow students to select an area of focus (accounting information systems, computer information systems, or management information systems) and take courses related to that area.

Internships are strongly recommended. They may be obtained through locally or regionally located businesses and organizations. This experience provides the student with rich learning opportunities and puts course work into practice.

Major Communication Skills
Students majoring in Information Systems develop their communications skills in different ways depending on their emphasis. Accounting and management information systems majors take either COMM-160, COMM 272 or BMGT 211; computer information systems majors develop their communication skills within the various computer science classes taken to complete the emphasis.

Major/minor restrictions
Information systems majors cannot also declare a minor in either business management or computer science. Information systems majors with the AIS emphasis cannot also declare a major or minor in accounting. Information systems majors with the CIS emphasis cannot also declare a computer science major. Information systems majors with the MIS emphasis cannot also declare a business management major.

Information Systems Major Requirements (48-54 credits)

1. **Complete all of the following:**
   - ACCT 241 Introduction to Financial Accounting (3)
   - ACCT 242 Introduction to Management Accounting (3)
   - BMGT 281 Principles of Management (3)
   - COSC 110 Introduction to Computer Science (3)
   - COSC 130 Data Structures (3)
   - COSC 250 Databases and Big Data (3)
   - DATA 110 Data Driven Decisions (3)
   - ECON 112 Principles of Microeconomics (3)
   - ECON 113 Principles of Macroeconomics (3)

2. **Complete one of the following:**
   - COSC 255 Programming: “Language” (2)
   - COSC 283/383 Service Learning Module (2)
   - DATA 210 Introduction to Data Science (3)

3. **Complete one of the following**
   - MATH 105 Introduction to Statistics (4)
   - MATH 215 Applied Statistics (4)

4. **Complete all requirements for one of the following emphases:**
   ** Accounting information systems (AIS) emphasis:*
   - ACCT 341 Intermediate Financial Accounting I (3)
   - ACCT 342 Intermediate Financial Accounting II (4)

ACCT 343 Advanced Management Accounting (3)
ACCT 347 Accounting Information Systems (3)
ACCT 442 Fraud Examination and Auditing (4)

Take one:
BMGT 211 Business Writing and Speaking (3)
COMM 160 Communication in Everyday Life (3) OR
COMM 272 Professional Communication (3)

** Computer information systems (CIS) emphasis:*
COSC 345 Computer Systems (4)
COSC 346 Cybersecurity (4)
7 credits of elective COSC courses at the 200-level or higher, GEOG 320 Principles of GIS with Lab or DATA 340 Applied Machine Learning

** Management information systems (MIS) emphasis:*
BMGT 261 Principles of Finance (3)
BMGT 271 Principles of Marketing (3)
ECON 381 Research Methods in Economics (4)
3 credits of elective BMGT courses at the 300- level or higher

Take one:
BMGT 211 Business Writing and Speaking (3)
COMM 160 Communication in Everyday Life (3) OR
COMM 272 Professional Communication (3)

KINESIOLOGY

Faculty
Lee Macomber (chair), Adam Bradley, Jim Fuller, Shelli Green, Kyle Johnson, David Pavlat (Strength and Conditioning program director, Personal Training program director and CoAES program director), Monica Ruiz, Matt Sagar, Sara Shuger Fox, Katelin Valster

Statement of philosophy
Majors in Kinesiology at Central College will learn and apply the science of human movement utilized in educational, fitness/wellness, sport/performance and therapeutic settings. Students become active learners and acquire the knowledge and skills necessary to meet the challenges of a dynamic world. Existing assessment tools, a comprehensive body of knowledge and communication skills are developed and utilized in a problem-solving environment.

Graduates will know how to respond, adjust and adapt to human movement; analyze and evaluate individual physiology performance; design and assess exercise programs in the psychomotor domain; read, interpret and conduct research and have developed an ethic of accountability to improve oneself, interest others and the profession at large.

The Central College Kinesiology major is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Council on Accreditation of Exercise Science (CoAES).

The Kinesiology major's Personal Training program is a National Strength and Conditioning Association (NSCA) Education Recognition Program (ERP) School. The ERP is a commitment by the Kinesiology department to help students grow as personal training professionals.

Major Restrictions
- Students may not declare majors in both Kinesiology and Strength and Conditioning.

Kinesiology Major Requirements (47 credits)

1. **Complete all of the following: (29 credits)**
   KIN 149 Introduction to Kinesiology (3)
   KIN 161 Human Anatomy and Physiology I with Lab (4)
   KIN 162 Human Anatomy and Physiology II with Lab (4)
   KIN 233 Lifespan Nutrition (3)
   KIN 251 First Aid and Sports Injuries (3)
   KIN 254 Human Anatomy and Kinesiology with Lab (4)
   KIN 340 Exercise Physiology with Lab (4)
   KIN 357 Fitness Assessment and Exercise Prescription with Lab (4)

2. **Choose 18 s.h. of electives beyond the 100- level with minimum of nine credits at the 300-level or above in KIN or the following: BIOL 210, BIOL 221, BIOL 341, BIOL 360, CHEM 203, CHEM 231, CHEM 331, CHEM 351, EDUC 311, EDUC 314, MATH 215 or SC 472.**
   - **A maximum of 12 credits from outside Kinesiology may count for the major.**
   - **A maximum of 3 credits of 397 or 497 may count for the major.**

Committee on Accreditation for the Exercise Sciences (CoAES) accredited Kinesiology Major Requirements (50 credits)

Note: For other CoAES course options and updates to the requirements for CoAES accredited major, please see the program director David Pavlat.

1. **Complete all the above courses listed in part 1 and part 2 of the Central College Kinesiology major (47 credits)**

2. **Complete an internship (3 credits)**
   KIN 397 or KIN 497 Internship (3)

   Note: to enroll in KIN 397 or KIN 497 Internship, students must have a major GPA of 2.7 or above.

Teaching Licensure- Physical Education and Health
Students seeking licensure must complete all requirements for the Secondary Education major and Kinesiology major, plus the following Kinesiology elective courses. Students must also apply and be accepted into the Teacher Education Program Combined, these courses meet the endorsement content requirements for K-8 Physical Education (#146), 5-12 Physical Education (#147), K-8 Health (#137), and 5-12 Health (#138).

KIN	220	Personal Wellness (3)
KIN	261	Community, Consumer, & Global Health (3)
KIN	333	Sports Nutrition (3)
KIN	462	Motor Learning (3)

Coaching Endorsement (#101: K-12 Athletic Coach)
A coaching endorsement is for students who are completing the requirement to be a licensed teacher.

Iowa Board of Educational Examiners (BOEE) Content Requirements:
Structure and Function of the Human Body
KIN 161 Essentials of Human Anatomy and Physiology I with Lab (4)—OR--
KIN 162 Essentials of Human Anatomy and Physiology II with lab (4) —OR—
BIOL 201 Introduction to Human Anatomy and Physiology I with Lab (4)
Human Growth and Development of Children and Youth
EDUC 181 Developmental Psychology (3)
Theory of Coaching Interscholastic Athletics
KIN 213 Principles of Coaching (3)
Athletic Conditioning, Care and Prevention of Injuries, and First Aid
KIN 251 First Aid and Sports Injuries (3*)*
Completion of concussion training approved by the IHSAA or IGHSAU
KIN 251 First Aid and Sports Injuries (3)

Recommended courses:
KIN 254 Human Anatomy and Kinesiology with Lab (4)
KIN 462 Motor Learning (3)

Coaching Authorization
Students interested in coaching, who do not plan to obtain a teaching license, may receive a coaching authorization. These students are encouraged to visit the Iowa Board of Educational Examiners (BOEE) for current coaching information at http://www.state.ia.us/boee.

Kinesiology Minor Requirements (29 credits)

1. Complete all of the following:

KIN	149	Introduction to Kinesiology (3)
KIN	161	Human Anatomy and Physiology I with Lab (4)
KIN	162	Human Anatomy and Physiology II with Lab (4)
KIN	233	Lifespan Nutrition (3)
KIN	251	First Aid and Sports Injuries (3)
KIN	254	Human Anatomy and Kinesiology with Lab (4)
KIN	340	Exercise Physiology with Lab (4)
KIN	357	Fitness Assessment and Exercise Prescription with Lab (4)

MATHEMATICS

Faculty
Wendy Weber (chair), Russell Goodman, Erik Insko, Mark Mills, Abby Rocha

Department information
Mathematics, one of the keystones of the liberal arts, combines the study of patterns and abstract structures with the art of problem-solving. The ability to reason with quantitative information and solve intricate problems is, and will continue to be, a highly-valued skill. No less important is the ability to communicate technical material. The mathematics faculty is committed to developing these skills in all students.

All majors will study contemporary and classic branches of mathematics. In addition, faculty encourage students to gain breadth in the major by taking both theoretical and applied courses. Other course requirements are flexible, allowing students to obtain teacher certification, gain practical experience in an internship, or study abroad. Whether in teaching, in graduate school, or in the workplace, graduates with a liberal arts major in mathematics have the tools they need for success.

We offer a mathematics major and a mathematics major with secondary education emphasis.

Study abroad
Majors are encouraged to study abroad and should consult mathematics faculty about when to go abroad.

Mathematics credit by proficiency
For information on earning credit by proficiency in mathematics, please see the "Credit by Proficiency" section of this catalog.

Major communication skills
The department believes it is essential that majors in mathematics are able to speak, read, write, and listen within the discipline. As such, many courses throughout the major include activities that evaluate students' ability to communicate.

Major/minor restrictions
Students interested in combining business and mathematics may want to consider the actuarial science major. Students seeking a mathematics teaching endorsement should consult the education department.

Mathematics Major Requirements (43 credits)

1. **Complete *all* of the following:**
   - MATH 160 Introductory Investigations in Mathematics (3)
   - MATH 131 Calculus I (4)
   - MATH 132 Calculus II (4)
   - MATH 220 Discrete Mathematics (3)
   - MATH 240 Linear Algebra (4)
   - MATH 420 Senior Project (4)
   - COSC 110 Introduction to Computer Science (3)

2. **Complete one of the following:**
   - MATH 310 Geometry (3)
   - MATH 450 Studies in Theoretical Mathematics: topics (3)

3. **Complete *15 credits* of additional MATH courses numbered 215 and above, including DATA 210, with at least 9 credits at the 300- or 400- level.**

   Note: Students who also major in Data Science or Computer Science may consider, with department approval, taking COSC 420 or DATA 420 in lieu of MATH 420.

Mathematics Minor Requirements (21 credits)

1. **Complete *all* of the following:**
   MATH 131 Calculus I (4)
   MATH 132 Calculus II (4)
   MATH 240 Linear Algebra (4)

2. **Complete an additional *9 credits*** of MATH courses numbered 160 and above, with at least 3 credits at the 300- or 400- level.

Mathematics Major/Secondary Education Emphasis Requirements (44 credits)

The Analytical and Physical Science Department will not recommend for teacher licensure students whose grade point average within their mathematics and computer science courses is below 2.5. The department has advised the Education Department that such students should be denied admission to or be dropped from the teacher education program until their grade point average within the mathematics and computer science courses has been brought up to at least 2.5. Students pursuing this emphasis must also declare a secondary education major.

1. **Complete *all* of the following:**
   MATH 131 Calculus I (4)
   MATH 132 Calculus II (4)
   MATH 160 Introductory Investigations in Mathematics (3)
   MATH 215 Applied Statistics (4)
   MATH 220 Discrete Mathematics (3)
   MATH 240 Linear Algebra (4)
   MATH 310 Geometry (3)
   MATH 420 Senior Project (4)
   COSC 110 Introduction to Computer Science (3)

2. **Complete 12 credits of additional MATH courses numbered 231 and above, including DATA 210, with at least 6 credits at the 300- or 400- level.**

   Note: Students who also major in Data Science or Computer Science may consider, with department approval, taking COSC 420 or DATA 420 in lieu of MATH 420.

MULTIMEDIA DESIGN

Faculty
Mathew Kelly, Brian Roberts, Kate Nesbit, Kate Kanne Smith, Shelley Bradfield, Stavros Papakonstantinidis, Ron Rybkowski

Statement of philosophy
The Multimedia Design Major enables students to design, develop, and critically evaluate a variety of media from logo design through video production. Student learning focuses on the design and development of media from two-dimensional and three-dimensional perspectives in both traditional and digital methodologies. In addition, students develop an understanding of the fundamentals of digital communication regulation, policy and emerging trends in digital technologies. Students will develop these skills through course work in traditional and contemporary media, including industry standard software. This multifaceted approach is designed to provide students with adaptive skills applicable to a wide range of careers in the design industry. Coursework is supplemented by internships.

In the course Visual Arts Capstone, ART 485, students will design and implement a project of their own design in consultation with faculty. This semester long project will highlight the student's own creative vision and long-term project management skills.

Multimedia Design Major Requirements (Minimum 44 credits)

1. Comple all of the following courses (26-28 credits)
- ART 253 Graphic Design (3)
- ART 353 Visual Narratives (4)
- ART 485 Visual Arts Capstone (4)
- COMM 180 Introduction to Communication Theory (3)
- COMM 240 Multimedia Writing Strategies (3)
- COMM 280 Communication Research and Writing (4)
- THEA 362 Theatrical Design II: Projections, Lighting, and Sound (3)
- Multimedia Design Practicum/ Internship (2-4)

2. Complete one of the following courses in critical theory (3-4 credits)
- COMM 250 Evaluating Contemporary Media (4)
- ENGL 180 Reader's Toolbox (3)
- ENGL 280 The Humanities Lab: Digital Tools for Creative Thinkers (3)

3. Complete four courses from the following electives. One course must be at the 300-400 level (15-16 credits)
- ART 151 2D Problem Solving (4)
- ART 161 3D Problem Solving (4)
- ART 351 The Artist's Cauldron: Mixed Media (4)
- PHIL 270 Philosophy of Art (4)
- THEA 163 Stagecraft (4)
- THEA 361 Theatrical Design I: Costumes and Scenic Design (3)

Multimedia Design Minor Requirements (Minimum 19 credits)

1. Complete all of the following courses (12 credits):
- ART 253 Graphic Design (3)
- COMM 180 Introduction to Communication Theory (3)
- COMM 240 Multimedia Writing Strategies (3)
- THEA 362 Theatrical Design II: Projections, Lighting and Sound (3)

2. Complete one of the following courses in critical theory (3-4 credits):
- COMM 250 Evaluating Contemporary Media (4)
- ENGL 180 Reader's Toolbox (3)

ENGL 280 The Humanities Lab: Digital Tools for Creative Thinkers (3)

3. Complete one of the following courses in studio workshop (4 credits):

ART 151 2D Problem Solving (4)
ART 161 3D Problem Solving (4)
THEA 163 Stagecraft (4)

MUSIC

Faculty
Mathew Kelly (chair), Mark Babcock, Stan Dahl, Brad Lampe, Sean Stephenson, Sarah Van Waardhuizen

Statement of philosophy
The Bachelor of Arts in Music is designed to provide students with a broad introduction to music in the context of a comprehensive liberal arts program. It can serve as a foundation for further study for students desiring careers as performers, music scholars, music teachers, church musicians or other music professionals. Through a balanced emphasis on the analytical, historical, cultural and creative aspects of music, it also provides excellent preparation for any endeavor for which a solid liberal-arts background is valuable. Recognizing the value of study in other cultures, the department is committed to encouraging music majors' participation in study abroad programs.

The department seeks to assist non-music majors and members of the broader community to achieve competence in an artistic discipline and to gain an appreciation of the fine arts. The department serves the campus and community by providing a rich and varied cultural life on campus and in the community at large.

The Visual and Performing Arts Department stresses academic integrity in all aspects of the music curriculum. The department is committed to the development of students and to the recruitment of students with strong academic potential.

Music Major Requirements (35 credits)

1. **Complete all of the following:**
   - MUS 114 World Music (3)
   - MUS 120 Theory and Aural Skills I (4)
   - MUS 211 History of Western Music: Antiquity to 1750 (3)
   - MUS 215 Piano for Proficiency I (1)
   - MUS 216 Piano for Proficiency II (1)
   - MUS 220 Theory and Aural Skills II (4)
   - MUS 231 Conducting (2)
   - MUS 312 History of Western Music: Pre-Classical to 1940 (3)
   - MUS 320 Theory & Aural Skills III (4)
   - MUS 488 Senior Recital (0)

2. **Complete 10 credits of applied lessons (MUSL) in the primary area of music study.**

3. **Maintain continuous enrollment in a primary ensemble (MUSG).**
   Note: Primary ensembles are MUSG 222 (vocal), 223 (instrumental), 224 (string players only). Piano majors: any of the above, with approval from the department.

4. **Present a senior recital of a minimum of one-half hour in the student's primary area of music study (or other approved significant senior project)**

Music Minor Requirements (21-22 credits)

1. Complete *two* of the following:

MUS 105 Music Apps (3)
MUS 120 Theory and Aural Skills I (4)
MUS 220 Theory and Aural Skills II (4)

2. Complete *one* of the following:

MUS 211 History of Western Music: Antiquity to 1750 (3)
MUS 312 History of Western Music: Pre-Classical to 1940 (3)

3. Complete 4 credits of applied lessons (MUSL)

4. Complete 4 credits of music ensembles (MUSG)

5. Complete 3 credits of music electives (MUS/MUSG/MUSL)

MUSIC EDUCATION

Faculty
Mathew Kelly (chair), Mark Babcock, Stan Dahl, Brad Lampe, Sean Stephenson, Sarah Van Waardhuizen

Statement of philosophy
The Bachelor of Arts in Music Education is designed to prepare students for careers as music educators at the elementary and/or secondary level within the context of a comprehensive liberal arts program. Proceeding from a solid foundation in the analytical, historical, cultural and creative aspects of music, course requirements in this program are tailored to the specific needs of potential educators in the two tracks offered (vocal and instrumental). Recognizing the value of study in other cultures, the department works with music education majors to make study at one of Central's study abroad programs possible for them.

The Visual and Performing Arts Department stresses academic integrity in all aspects of the music curriculum. The department is committed to the development of students and to the recruitment of students with strong academic potential. To be accepted for entry to the music education major, each student must pass an audition to indicate aptitude and prospects for success including competence in at least one major performance area. The student must additionally apply and be accepted to the teacher education program through Central's Education Department.

Music education tracks
The Department of Music offers two distinct tracks in music education: instrumental music education (combined K-8/5-12), and vocal music education (combined K-8/5-12). Both tracks have a common set of 29 credits of music courses and various competency and performance requirements. The common set is listed below, followed by the additional requirements for each track.

In addition to the 60 credits of music courses listed in this section, music education majors must complete all the courses for secondary licensure listed in the "Education--K-12 Art, Music, PE" section of the catalog. These courses, together with the required music courses, fulfill the coursework requirements for teaching licensure in the state of Iowa.

Study abroad opportunities
Students are encouraged to study abroad. Music faculty advisors work carefully with music majors to coordinate departmental requirements with study abroad.

Major restrictions
Music Education majors cannot also declare a major or minor in Music. Additionally, a Music Education--Vocal major cannot also declare a major in Music Education--Instrumental, and a Music Education--Instrumental major cannot also declare a major in Music Education--Vocal.

Music Education Major- Instrumental (55.5 credits)

NOTE: Students who declare the Music Education-Instrumental track may not also declare the Music Education-Vocal track.

1. Complete all of the following: (25 credits)

MUS	114	World Music (3)
MUS	120	Theory and Aural Skills I (4)
MUS	211	History of Western Music: Antiquity to 1750 (3)
MUS	215	Piano for Proficiency I (1)
MUS	216	Piano for Proficiency II (1)
MUS	220	Theory and Aural Skills II (4)
MUS	231	Conducting (2)
MUS	312	History of Western Music: Pre-Classical to 1940 (3)
MUS	320	Theory and Aural Skills III (4)
MUS	488	Senior Recital (0)

2. Complete all of the following: (18 credits)

EDUC	313	Methods of Teaching Music in the Elementary School (3)
EDUC	316	Teaching Choral and Instrumental Music in Secondary Schools (2)
MUS	150	Introduction to Music Education (1)
MUS	249	Instrumental Methods: Percussion and Strings (2)

MUS 251 Instrumental Methods: Brass and Woodwinds (2)
MUS 255 Voice for Instrumental Music Majors (2)
MUS 258 Marching and Jazz Band Techniques (2)
MUS 332 Advanced Conducting (4)

3. **Piano Proficiency: Music Education majors must pass MUS 215 and 216 with a C+ or better. A grade of C or lower in either, or both, courses requires a student to complete at least one additional semester of applied piano. Failed courses must be repeated.**
   Students must demonstrate proficiency in piano/ organ either by taking MUS 215 and 216, or by taking two credits of piano/ organ lessons MUSL 123, 125, 225.

4. **Complete *10 credits* of applied lessons (MUSL) in the primary area of music study**

5. **Complete 2.5 *credits* of music (MUS/MUSG/MUSL) electives**

6. **Maintain continuous enrollment in a primary ensemble (MUSG).**
   Note: Primary ensembles are MUSG 222 (vocal), 223 (instrumental), 224 (string players only). Piano majors: any of the above, with approval from the department.

7. **Present a senior recital of one-half hour in the student's primary area of applied music study (or other approved significant senior project)**

8. **Students will receive chamber music experience either by enrolling in an approved chamber music ensemble or with an approved chamber music component in the senior recital.**

Music Education Major- Vocal (56.5 credits)

NOTE: Students who declare the Music Education-Vocal track may not also declare the Music Education-Instrumental track.

1. **Complete all of the following: (25 credits)**
   MUS 114 World Music (3)
   MUS 120 Theory and Aural Skills I (4)
   MUS 211 History of Western Music: Antiquity to 1750 (3)
   MUS 215 Piano for Proficiency I (1)
   MUS 216 Piano for Proficiency II (1)
   MUS 220 Theory and Aural Skills II (4)
   MUS 231 Conducting (2)
   MUS 312 History of Western Music: Pre-Classical to 1940 (3)
   MUS 320 Theory and Aural Skills III (4)
   MUS 488 Senior Recital (0)

2. **Complete *all* of the following: (19 credits)**
   EDUC 313 Methods of Teaching Music in the Elementary School (3)
   EDUC 316 Teaching Choral and Instrumental Music in Secondary Schools (2)
   MUS 149 Instrumental Methods: Percussion and Strings (1)
   MUS 150 Introduction to Music Education (1)
   MUS 151 Instrumental Methods: Brass and Woodwinds (1)
   MUS 228 Diction for Singers (2)
   MUS 236 Show Choir and Jazz Choir Techniques (2)
   MUS 332 Advanced Conducting (4)
   MUS 341 Vocal Pedagogy (3)

3. **Complete *10 credits* of applied lessons (MUSL) in the primary area of music study**

4. **Complete *2.5 credits* of music (MUS/MUSG/MUSL) electives.**

5. **Maintain continuous enrollment in a primary ensemble (MUSG).**
   Note: Primary ensembles are MUSG 222 (vocal), 223 (instrumental), 224 (string players only). Piano majors: any of the above, with approval from the department.

6. **Present a senior recital of one-half hour in the student's primary area of applied music study (or other approved significant senior project)**

7. **Piano Proficiency: Music Education majors must pass MUS 215 and 216 with a C+ or better. A grade of C or lower in either, or both, courses require a student to complete at least one additional semester of applied piano. Failed courses must be repeated.**

MUSICAL THEATRE

Faculty
Mathew Kelly (chair), Charles Adamson, Kate Kanne, Ron Rybkowski

Statement of philosophy
The Central College musical theatre program is committed to the development of our students as artist-citizens within the international art form of theatre. The curriculum provides a broad exposure to the theatre arts with majors eventually focusing on either a performance or design/ tech track. Theatre requires considerable collaboration and all students will be encouraged, over the course of their college career, to engage in every aspect of a production. Intellectual and artistic developments are carefully balanced within a production-oriented atmosphere.

Internship and off campus opportunities
Musical theatre students are encouraged to participate in study abroad program or the Washington, D.C. metropolitan program. Students should also consult with the department faculty and the office Career Development and Civic Engagement for learning opportunities available through internships with local and regional organizations.

Musical Theatre Major Requirements (minimum 35 credits)

Note: Students who plan to major or minor in musical theatre will be expected to participate in co-curricular theatre programs.

1. **Complete *all* of the following (23 credits):**
   - THEA 150 Acting (3)
   - THEA 163 Stagecraft (4)
   - THEA 180 Theatre Practice (1)
   - THEA 250 Musical Theatre History (3)
   - THEA 280 Advanced Theatre Practice (1)
   - THEA 363 Scenography (3)
   - THEA 370 Script Analysis and Dramatic Literature (4)
   - THEA 458 Directing (4)
   - THEA 485 A and B Portfolio Development (0) (two sections: performance track or design track)

2. **Complete minimum of 12 credits from the following:**
   For those interested in a focus on Design/ Tech (Recommended)
   - ART 151 2 D Problem Solving (4)
   - ART 161 3D Design Fundamentals (4)
   - ART 353 Visual Narratives (4)
   - THEA 267 Digital Media and Design with the Arts (3)

   For those interested in a focus on Performance: (Recommended)
   (Must complete both MUS 215 and MUS 216.)
   - ENGL 346 Discovering Shakespeare (3)
   - MUS 105 Music Fundamentals (3)
   - MUS 215 Piano for Proficiency (1)
   - MUS 216 Piano for Proficiency (1)
   - MUS 236 Show Choir and Jazz Choir Techniques (2)
   - THEA 174 Singing and Acting for the Stage (1)
   - THEAL 120, 220, 320 Dance Lessons (1-4 credits)

Musical Theatre Minor Requirements (20 credits)

1. **Complete *a minimum of 20 credits* of THEA courses** that have been approved by the department. At least 3 credits must be at the 300-400 level.

NATURAL SCIENCE

Faculty
Ashley Garr (director), Anya Butt, Russ Benedict, James Dunne, Lee Macomber, Viktor Martisovits, Paulina Mena, Alexey Pronin, Jay Wackerly, Paul Weihe

Statement of philosophy
The natural science major offers the opportunity to develop knowledge and skills in several disciplines. The natural science major is well suited for students who desire a broad background in the natural sciences as a preparation for a variety of career options and graduate or professional school. This major is also particularly appropriate for prospective natural science teachers at the secondary level.

Major Communication Skills
Natural Science majors are required to successfully complete two of the following courses BIOL 229, CHEM 241, PHYS 331 or GEOG 238. The program director will confer with the instructor of those courses to seek input on the student's oral and written communications skills and if necessary advise the student on additional courses to assist in developing better communication skills.

Major/Minor Restrictions
Students who major in natural science may not minor in the areas (biology, chemistry or physics) used to fulfill the major requirements.

Natural Science Major Requirements (54 credits)

1. Complete the following courses:

MATH	131	Calculus I (4)
MATH	132	Calculus II (4)

2. Complete all courses from any three of the four areas below.

Biology (16 credits)

BIOL	130	Diversity of Life with Lab (4)
BIOL	131	Introduction to Cells with Lab (4)
BIOL	221	Genetics and Evolution with Lab (4)
BIOL	229	Ecology and Evolution with Lab (4)

Chemistry (16 credits)

CHEM	111	General Chemistry I with Lab (4)
CHEM	112	General Chemistry II with Lab (4)
CHEM	231	Organic Chemistry I with Lab (4)
CHEM	241	Analytical Chemistry with Lab (4)

Physics (15 credits)

PHYS	111	General Physics I with Lab (5)
PHYS	112	General Physics II with Lab (5)
PHYS	225	Modern Physics I (3)
PHYS	331	Advanced Laboratories (2)

Geosciences (minimum 15 credits)

PHYS	106	Introductory Astronomy (3)
ENVS	125	Geology and the Environment with Lab (3)
GEOG	237	Physical Geography: Weather and Climate with Lab (4)
GEOG	238	Physical Geography: Geomorphology with Lab (4)

At least one other approved NASC/ENVS/GEOG course

Note: The following courses are not required but are strongly recommended:

BIOL	420	Evolution with Discussion Lab (4)
CHEM	321	Inorganic Chemistry with Lab (4)
		or CHEM 361 Physical Chemistry I (4)

NOT-FOR-PROFIT MANAGEMENT

Faculty
Ann McDonald (director), Kate Nesbit

Statement of philosophy
Not-for-profit organizations are looking for talented individuals who are prepared to take on the challenges of managing their organizations. Examples of such organizations include the American Red Cross, Big Brothers Big Sisters of America, Chamber of Commerce, Des Moines Playhouse, Doctors Without Borders, Iowa Arts Council, Lutheran Social Services, Meals From the Heartland, Girl Scouts of America, Make A Wish Foundation of Iowa, Pella Historical Society, Pittsburgh Symphony Orchestra, United Way, YMCA, World Vision and hundreds of others. Such organizations need people to promote the organization, raise funds, organize volunteers and spark caring in their communities.

Numerous Central College students are looking for a career that will use their social skills and their organizational abilities, and will offer them the fulfillment of helping others. Central's Not-For-Profit Management minor prepares graduates to assume entry level management positions in the nonprofit sector by helping students develop their skills in fundraising, grant writing, volunteer development, marketing and program planning.

The Not-For-Profit Management minor is designed primarily for students majoring in subjects other than business who plan careers in nonprofit organizations (educational institutions; community organizations such as Creative Visions of Des Moines; and social service organizations such as Habitat for Humanity, the Red Cross, or the YMCA). For more information about the Not-For-Profit Management minor, or to declare the minor, please contact the program director.

Minor Restriction
A student cannot declare both the Not-For-Profit Management minor and the Entrepreneurship minor.

Not-For-Profit Management Minor Requirements (19 credit minimum)

1. **Complete *all* of the following (13 credits):**
   - BMGT 271 Principles of Marketing (3)
   - BMGT 281 Principles of Management (3)
   - BMGT 335 Not-For-Profit Management (3)
   - ENGL 246 Writing for Non-Profit Organizations (4)

2. **Complete *one* of the following (3 credits):**
   - ACCT 241 Introduction to Financial Accounting (3)
   - BMGT 352 Human Resource Management (3)
   - BMGT 372 Consumer Behavior (3)
   - BMGT 373 Marketing Management (3)

3. **Complete *one* of the following (minimum of 3 credits):**
   - ACCT 446 Government and Non-Business Accounting (3)
   - BEHS 397 Internship in Not-For-Profit Management (3)
   - COMM 340 Public Relations (4)
   - DATA 110 Data Driven Decisions (3)
   - ENGL 243 Writing Oral Histories (4)
   - GEOG 320 Principles of GIS with Lab (3)
   - THEA 365 Entertainment Management (3)

Service leadership
Due to the nature of this career, students are strongly encouraged to volunteer in and demonstrate leadership in on-campus and off-campus volunteer organizations. Possibilities include Christian Opportunity Center, JUMP for Kids, orchestra, drama, Student Senate, scouting programs and many others.

Off-campus opportunities
Since many not-for-profit organizations are charitable and international nongovernmental organizations, students are encouraged to study abroad to take advantage of the numerous opportunities for international internships available in not-for-profit agencies. Excellent internship opportunities are also available in Washington, D.C. at the Washington Center.

PHILOSOPHY

Faculty
Timothy Olin (chair), Anna Christensen, Mark Thomas

Statement of philosophy
The focus of Central's philosophy program is "ethics and human flourishing." Often when people hear the word "ethics," they think of case studies and debates about hot-button issues. Our approach to ethics is more comprehensive: it involves getting students to think about how everything they do fits into the bigger picture of a meaningful life. It also involves offering courses exploring the core areas in philosophy and its history, realizing that a full appreciation of living well requires understanding basic questions of metaphysics, logic, and epistemology. By focusing on human flourishing and developing critical reading and reasoning skills, the program prepares students to be thoughtful, adaptable, and productive citizens in this changing world.

Major Communication Skills
By the time they graduate, philosophy majors should be able to grasp, reproduce and critically assess written arguments. From the time that they declare their intention to complete a major in philosophy until their communications skills are endorsed, they will be expected each spring to present to their philosophy advisor at least two philosophy papers that they have submitted in courses during the preceding two terms. The advisor will review the student's progress with colleagues in the department as appropriate and discuss with the student their development of communication skills. The discussion should indicate any deficiencies so that the student is clear on what should be improved. A student with serious deficiencies should receive from the advisor, at least two semesters before anticipated graduation, a written statement of remedial measures to be taken. The department may approve a student's communications skills before the third year. After a major's skills are approved, further submission of papers for skills review is optional.

Philosophy Major Requirements (32 credit minimum)

1. **Complete <u>one</u> of the following:**
   - PHIL 120 Introduction to Philosophy (3)
   - PHIL 121 Ethics (3)
   - PHIL 127 Meaning of Life (3)

2. **Complete <u>all</u> of the following:**
   - PHIL 125 Logic (3)
   - PHIL 221 Classical Thought (4)
   - PHIL 222 Modern Thought (4)

3. **Complete an additional 18 semester hours of PHIL electives. At least 15 semester hours must be at the 200-level or above, with at least 8 semester hours at the 300-level or above. The following two courses may be used as philosophy electives:**
   - **REL 236 Islamic Law, Theology, and Philosophy (3)**
   - **REL 238 Taoism and Confucianism (4)**

Philosophy Minor Requirements (18 credits)

1. Complete the following:

PHIL 125 Logic (3)

2. Take *one* of the following:

PHIL 120 Introduction to Philosophy (3)
PHIL 121 Ethics (3)
PHIL 127 Meaning of Life (3)

3. Complete one of the following:

PHIL 221 Classical Thought (4)
PHIL 222 Modern Thought (4)

4. Take an additional 8 semester hours of PHIL electives at the 200-level or above, with at least 4 semester hours at the 300-level or above

PHYSICS, BACHELOR OF ARTS

Faculty
Wendy Weber (chair), Elizabeth Golovatski, Viktor Martisovits, Alexey Pronin, Kristen Thompson, Anudeep Reddy Vedire

Statement of philosophy
As the most fundamental physical science, physics, is concerned with the basic principles of the universe. It is the foundation on which engineering, technology and the other sciences are based. Housed in the department of Analytical and Physical Sciences, a Bachelor of Arts with a major in physics is a problem-solving degree, preparing students for careers in many fields. A Bachelor of Arts with a major in physics has the flexibility to support preparation for graduate study in fields that go far beyond the physical sciences. It pairs well with majors or minors as far ranging as math, computer science, or data science (software design, big data, machine learning) to English (academic publishing) and music (acoustics). Students bound for graduate work in health fields, law or engineering have the flexibility to take the additional courses required or recommended for graduate admission in those fields. Our mission is to teach physics theory, problem-solving skills, and experimental techniques with an emphasis on science as a method for exploring the world. We prepare our students to be able to reason from the general fundamental principles to specific applications in physics and engineering.

*Students interested in pursuing graduate study in physics, astrophysics, or astronomy should consider the Bachelor of Science degree with a major in Physics. Students cannot obtain both a Bachelor of Arts and a Bachelor of Science with majors in Physics.

Study abroad opportunities
Students majoring in physics can study abroad with careful planning, especially during the summer.

Major Communication Skills
The department believes that it is important that students in physics can listen, speak, read, and write both within the discipline and outside it. Many courses throughout the major include activities evaluating students' communication skills, including PHYS 331 Advanced Laboratories. PHYS 331 has sufficiently high standards of technical writing that passing both semesters is evidence of a student's writing skills. Students in highly technical majors are often best served in gaining oral communication skills outside the sciences, leading the department to require physics majors to pass either COMM 160 Communication in Everyday Life or COMM 272 Professional Communication.

Physics Major Requirements (minimum of 57 credits)

1. Complete *all* of the following:

PHYS	111	General Physics I with Lab (5)
PHYS	112	General Physics II with Lab (5)
PHYS	225	Modern Physics I (3)
PHYS	331	Advanced Labs (4) (2 semesters)
CHEM	111	General Chemistry I with Lab (4)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)
MATH	231	Multivariable Calculus (3)
MATH	250	Differential Equations (3)

2. Complete *19 credits* from the following elective courses:

PHYS	211	Analog Electronics (3)
PHYS	215	Theoretical and Experimental Methods (2)
PHYS	216	Waves (2)
PHYS	322	Optics (3)
PHYS	325	Modern Physics II (3)
PHYS	326	Analytical Mechanics (4)
PHYS	412	Quantum Mechanics (4)
PHYS	421	Electricity and Magnetism II (3)
ENGR	212	Dynamics (3)*
ENGR	311	Thermodynamics (3)
ENGR	321	Electromagnetism (3)

* requires ENGR 211 as a pre-requisite, but does not count as an elective in the major.

3. Complete *one* of the following:
COMM 160 Communication in Everyday Life (3)
COMM 272 Professional Communication (3)

Physics Minor Requirements (18 credits)

1. Complete *all* of the following:
PHYS 111 General Physics I with Lab (5)
PHYS 112 General Physics II with Lab (5)
PHYS 225 Modern Physics I (3)
PHYS 331 Advanced Laboratories (2)

2. Complete an additional *3 credits* of PHYS courses numbered 211 or above

PHYSICS, BACHELOR OF SCIENCE

Faculty
Wendy Weber (chair), Elizabeth Golovatski, Viktor Martisovits, Alexey Pronin, Kristen Thompson, Anudeep Reddy Vedire

Statement of philosophy
As the most fundamental of the physical sciences, physics is concerned with the basic principles of the universe. It is the foundation on which engineering, technology, and other sciences are based. Research in physics today spans from the smallest of the small (fundamental particles) to the largest of the large (cosmology and astrophysics), answering questions both practical and awe-inspiring. Housed in the department of Analytical and Physical Sciences, a Bachelor of Science with a major in physics offers both a deeper dive into physics (compared to the Bachelor of Arts with a major in physics) and a branching out into related fields that prepares students for complex work in science and technology industries, research, or academia. This major is especially well-suited for students wanting to pursue doctoral work in physics, astrophysics, astronomy, or engineering specialties. Our mission is to teach physics theory, problem-solving skills, and experimental techniques with an emphasis on science as a method for exploring the world. We prepare our students to be able to reason from the general fundamental principles to specific applications in physics and engineering.

* Students interested in pursuing graduate study in health fields or law should consider a Bachelor of Arts degree with a major in Physics to accommodate the additional courses required or recommended for graduate admission in those fields. Students cannot obtain both a Bachelor of Arts and a Bachelor of Science with majors in Physics.

Study abroad opportunities
Students majoring in physics can study abroad with careful planning, especially during the summer.

Physics Major Requirements (minimum of 75 credits)

1. Complete *all* of the following (64 sh):

PHYS	111	General Physics I with Lab (5)
PHYS	112	General Physics II with Lab (5)
PHYS	215	Theoretical and Experimental Methods (2)
PHYS	216	Waves (2)
PHYS	225	Modern Physics I (3)
PHYS	322	Optics (3)
PHYS	325	Modern Physics II (3)
PHYS	331	Advanced Labs (4) (2 semesters)
PHYS	412	Quantum Mechanics (4)
PHYS	421	Electricity and Magnetism II (3)
CHEM	111	General Chemistry with Lab (4)
ENGR	211	Statics (3)
ENGR	212	Dynamics (3)
ENGR	311	Thermodynamics (3)
ENGR	321	Electromagnetism (3)
MATH	131	Calculus I (4)
MATH	132	Calculus II (4)
MATH	231	Multivariable Calculus (3)
MATH	250	Differential Equations (3)

2. Take *four* of the following elective courses (11-15 credits, including any additional pre-requisites for engineering courses):

CHEM	112	General Chemistry II with Lab (4)
CHEM	361	Physical Chemistry I (3)*
CHEM	461	Physical Chemistry II (3)*
COSC	110	Intro to Computer Science (3)
ENGR	112	Matlab (2)
ENGR	221	Electric Circuits (3)
ENGR	222	Electronic Devices (4)
ENGR	312	Fluid Dynamics (3)
MATH	240	Linear Algebra (4)

*Requires instructor permission

POLITICAL SCIENCE

Faculty
Randall Renstrom (chair), Mark Barloon, Andrew Green

Statement of philosophy
Government is the process through which people pursue collective goals, allocate scarce resources, and attempt to establish justice. Government decisions affect life and death, wealth and poverty, crime and punishment, individual freedom, opportunity, and happiness. Students in the political science program learn about government and how individuals and groups interact with government in the United States, other countries, and international organizations. Student learning focuses on theory and experience. In their courses political science students confront classic as well as contemporary political questions: Is there a best political order; how can hunger be eliminated; what are the causes of political violence and terrorism; what is the citizen's responsibility to the environment; what is the most efficient way to fund local schools? Political science students also learn how to do research projects that apply their theoretical knowledge to questions and concerns of personal interest. This is accomplished through the course work, supervised independent study, service learning, and internships. Our students also have the opportunity to study abroad to learn firsthand about foreign and international politics, or intern in Washington, D.C., Des Moines, or Chicago to learn about federal, state, and local government in the U.S.

Political Science Major Requirements (37- 40 credits)

1. **Complete all of the following (12 credits):**
   POLS 110 Introduction to American Politics (4)
   POLS 140 Introduction to International Politics (4)
   POLS 489 Capstone Seminar (4)

2. **Complete an additional seven Political Science (POLS) elective courses of which two must be at the 300-level (25-28 credits)**
   One 3+ credit POLS 397 Internship will count for one elective course in the major.
   One 3+ credit POLS 399 Independent Study will count for one elective course in the major.

Political Science Minor Requirements (21-24 credits)

1. **Complete five Political Science (POLS) courses (17- 20 credits)**
   One 3+ credit POLS 397 Internship will count for one course in the minor.
   One 3+ credit POLS 399 Independent Study will count for one course in the minor.

2. **Complete POLS 489 Capstone Seminar (4)**

PSYCHOLOGY

Faculty
Randall Renstrom (chair), Mindy Graham-Hinners, Keith Jones, Ashley Scolaro

Statement of philosophy
The curriculum of the psychology program is designed to inform students about approaches used, discoveries made, explanations offered and questions asked by people in the discipline to promote greater understanding about the nature of being human. Courses encourage students to examine their lives in personal, communal, societal and cultural contexts; to teach about ways to develop more productive and satisfying relationships; to understand how belief systems color and shape perceptions of self and others; to be aware of development across the life span; to be open to experience; and to grow in self-acceptance. Awareness is directed both to what is and to options about what could and, perhaps, should be.

Majors are prepared for graduate study in a variety of areas and are provided with the interpersonal skills and the communication skills that make them attractive at the B.A. level to employers in a wide variety of work situations. The department offers opportunities to do research and to have off-campus study experiences through participation in internships, service-learning, and study abroad programs.

Psychology Major Requirements (36 credits)

1. **Complete *all* of the following:**
   PSYC 122 General Psychology (3)
   PSYC 220 Psychological Investigations (4)
   PSYC 335 Fundamentals of Statistics (4)
   PSYC 348 Experimental Psychology (4)

2. **Complete 21 credits of PSYC elective courses with at least six credits at the 300 level or above and three additional credits at the 400 level (excluding PSYC 497 Internship).**

Psychology Minor Requirements (18 credits)

Complete 18 credits of PSYC courses; at least six credits at the 300-level or above.
Note: Students wishing to earn a minor should seek advising from a member of the psychology department early in the development of their program.

RELIGIOUS STUDIES

Faculty
Timothy Olin (chair), Terence Kleven, Elena Vishnevskaya

Statement of philosophy

The Religious Studies program fosters the academic study of theology and religion as one of the essential Humanities (Arts) disciplines in a Liberal Arts college. Our program seeks to encourage students to understand more deeply the nature of faith (either their own or that of others) and to prepare them for the enjoyable challenges of graduate studies and professional careers in Theology, Ministry, International Studies, the Foreign Service, Law, and Political Philosophy. Although the academic discipline of Religious Studies incorporates research done in all the sciences, its unique body of knowledge undertakes inquiry into essential questions regarding the nature of happiness, of the soul, and of ultimate reality. As a Humanities discipline, Religious Studies is devoted to the recognition of the centrality of language and of the necessity of coherent expression and reasoned argument to every aspect of our humanity. We study the importance of formative texts, both the literature and poetry of Scripture, as well as the essential treatises in the history of Philosophic Science.

As part of our commitment to the academic study of religion, the Religious Studies program gives direction to Central College's use of the phrase in our Mission Statement that we "are a liberal arts college in an ecumenical Christian tradition." The Religious Studies program has an essential role in educating students, who come from a variety of backgrounds, both those students from an identifiable religious heritage and those without such formations, to the intellectual study of Christianity and to the concomitant respect for faith, devotion, and Christian community.

Our curriculum in the Religious Studies program also emphasizes the importance of the academic study of the plurality of religious traditions around the world. We encourage the study of our own heritages as well as the study of the heritages of others, and each of these in local, national, and international contexts. The program recognizes the centrality of the Judeo-Christian heritage to Western Civilization; at the same time, we foster the study of various traditions of Eastern Civilizations, Islam, Hinduism, Buddhism, Taoism, and Confucianism, as well as indigenous traditions belonging to various continents, including in the Americas.

Major Communication Skills
A major in religion can verbally communicate at the level appropriate for the recipient of a Bachelor of Arts degree in core areas of a liberal-arts curriculum.

To ensure achievement at the required level, the communication skills of religion majors will be monitored from the time of major declaration. An evaluation of the student's abilities will be made in the earliest class possible and assessments and recommendations deriving from this evaluation will be discussed with the student and the student's advisor. Where appropriate, evaluation and recommendation will continue through the course work in the major until such time the student is consistently performing at the desired level.

Explanation of the Major
The Major requires thirty-three semester hours for completion. While majors usually begin with 100-level introductions, students are generally free to take courses in various sequences, in consultation with their academic advisor. As the capstone of a student's study in the Major, he or she will write a Senior Independent Study (3 SHs minimum) in which a student focuses on a research project with a faculty member.

There are three Tracks in the Major. These Tracks provide a student the opportunity to take a majority of courses in the student's intellectual interest or area of professional preparation. Students will also need to take courses outside a specific Track to complete their Majors or Minors. Students will work closely under the guidance of his or her faculty adviser in our program. Internships in ministry, in service organizations, in International Studies, and in political institutions are available in both Eastern and Western theological-political traditions.

Religious Studies Major Requirements (minimum 33 credits)

Choose one Track- Christian Studies, Biblical Studies or World Religions
Note: The completed Religious Studies major must include a minimum 11 credits at the 300-400 level.

Christian Studies

1. Complete five courses from the following (15-18 credits)

REL	110	Old Testament History and Religion (3)
REL	111	Introduction to the New Testament (3)
REL	150	The Christian Heritage (3)
REL	220	Christian Worship (3)
REL	252	The Reformation (3)
REL	254	The Early Church (4)
REL	274	World Christianity (4)
REL	285	The Pre-Ministerial Seminar (2)
REL	325	History of Spirituality in the Christian Tradition (4)

2. Complete one elective in World Religion (3-4 credits)

HIST	220	Middle Eastern Civilization (4) (*may only count in one category)*
REL	135	Islam (3)
REL	233	Judaism (3)
REL	236	Islamic Law, Theology, and Philosophy (3) or
REL	336	Readings in Islamic Law, Theology, and Philosophy (4)
REL	238	Taoism and Confucianism (4)

3. Complete an additional 8-12 credits of religious studies electives (courses that carry REL prefix) to achieve minimum 33 credits to complete the major.

Can also include the following (*courses may not count in more than one category)*

HIST	220	Middle Eastern Civilization (4)
LAS	410	course taught by a Religion faculty
REL	497	Internship in Religion (1-3) (*no more than 3 credits of internship can be counted or 3 credits of X99 may be counted, excluding the required REL-399)*

*No more than 2 of the following courses may count as religious studies electives.

ANTH	120	Introduction to Cultural Anthropology (3)
PHIL	221	Classical Thought (4)
PHIL	222	Modern Thought (4)

4. Complete REL 499 Senior Independent Study (3 credits)

Biblical Studies

1. Complete five course from the following (15-19 credits):

REL	110	Old Testament History and Religion (3)
REL	111	Introduction to the New Testament (3)
REL	210	The Prophets (3) or
REL	310	Readings in The Prophets (4)
REL	211	The Writings (3) or
REL	311	Readings in the Writings (4)
REL	216	Jesus and the Gospels (3) or
REL	316	Readings in Jesus and the Gospels (4)
REL	218	Pauline Epistles (3)

2. Complete one elective in World Religion (3-4 credits)

HIST	220	Middle Eastern Civilizations (4)
REL	135	Islam (3)
REL	233	Judaism (3)
REL	236	Islamic Law, Theology, and Philosophy (3) or
REL	336	Readings in Islamic Law, Theology, and Philosophy (4)
REL	238	Taoism and Confucianism (4)

3. Complete an additional 7-12 credits of religious studies electives (courses that carry REL prefix) to achieve minimum 33 credits to complete the major.

Can also include the following (*courses may not count in more than one category)*

HIST 220 Middle Eastern Civilization (4)
LAS 410 course taught by a Religion faculty
REL 497 Internship in Religion (1-3)
(*no more than 3 credits of internship can be counted or 3 credits of X99 may be counted, excluding the required REL-399)*

*No more than 2 of the following courses may count as religious studies electives.

ANTH 120 Introduction to Cultural Anthropology (3)
PHIL 221 Classical Thought (4)
PHIL 222 Modern Thought (4)

4. Complete REL 499 Senior Independent Study (3 credits)

<u>World Religions</u>

1. Complete the following (16-17 credits):

HIST 220 Middle Eastern Civilization (4)
REL 135 Islam (3)
REL 233 Judaism (3)
REL 236 Islamic Law, Theology, and Philosophy (3) or
REL 336 Readings in Islamic Law, Theology, and Philosophy (4)
REL 238 Taoism and Confucianism (4)

2. Complete one elective in Biblical or Christian Studies (3-4 credits)

REL 110 Old Testament History and Religion (3)
REL 111 Introduction to the New Testament (3)
REL 150 The Christian Heritage (3)
REL 210 The Prophets (3) or
REL 310 Readings in The Prophets (4)
REL 211 The Writings (3) or
REL 311 Readings in the Writings (4)
REL 216 Jesus and the Gospels (3) or
REL 316 Readings in Jesus and the Gospels (4)
REL 218 Pauline Epistles (3) or
REL 220 Christian Worship (3)
REL 252 The Reformation (3)
REL 254 The Early Church (4)
REL 274 World Christianity (4)
REL 325 History of Spirituality in the Christian Tradition (4)

3. Complete an additional 10-11 credits of religious studies electives (courses that carry REL prefix) to achieve minimum 33 credits to complete the major.

Can also include the following (*courses may not count in more than one category)*

LAS 410 course taught by a Religion faculty
REL 497 Internship in Religion (1-3)
(*no more than 3 credits of internship can be counted or 3 credits of X99 may be counted, excluding the required REL-399)*

*No more than 2 of the following courses may count as religious studies electives.

ANTH 120 Introduction to Cultural Anthropology (3)
PHIL 221 Classical Thought (4)
PHIL 222 Modern Thought (4)

4. Complete REL 499 Senior Independent Study (3 credits)

Christian Ministries Emphasis (8-10 credits)
Students may choose to earn a Christian ministries emphasis within the Religious Studies major. To earn this emphasis, students must complete all of the following courses in the process of completing the requirements of the Religious Studies major:

REL	220	Christian Worship (3)
REL	254	The Early Church (4)
REL	397	The Ministry Internship (1-3)

Religious Studies Minor Requirements (18 credits)

1. Complete 18 credits of religious studies courses in consultation with a Religious Studies Faculty member. May also include HIST 220 Middle Eastern Civilization (3).

Pre-Ministry Program
Central College continues the emphasis of the ecumenical Christian tradition in general, and the Reformed tradition in particular, to prepare students for a life of service to God and community, as well as to prepare some students for a professional vocation in the ministry.

The chaplaincy and the religion faculty work together to provide a period of reflection and discernment for students who are considering ministry, whether this be lay ministry (such as missions, church-related teaching, or para-church service) or ordained ministry that requires further graduate or seminary study. Pastoral and vocational counseling is offered by the chaplain, the department chair, and other faculty members. In addition, pre-ministerial students usually complete either a major or a minor in religion in order to give them adequate grounding in scriptural studies, in church history, theology, and ethics, and in at least one world religion other than Christianity. The students also have an opportunity to complete ministry internships in churches and church-related organizations either locally or through Central's off-campus programs. Students may also choose to receive spiritual formation from a designated mentor.

The variety of denominations represented by the faculty, students, and staff at Central College provides student with a rich exposure to various formulations of Christian teachings and practices. Although our aim is to provide students with an opportunity to study various church teachings besides their own, we also focus a particular student's study on the Church teaching to which he or she is most accustomed. As parts of an educational institution, the chaplaincy, the Christian ministries emphasis, and the religion major encourage students to develop a strong sense of the centrality of education to ministry. We foster an integration of faith with training of intellectual qualities of mind in order to establish a student's vocation on the best that is thought and known in Christian teaching and ministry.

SELF- DESIGNED STUDIES

All Faculty

Statement of Philosophy:
The self-designed studies interdisciplinary major is intended for mature and motivated students whose academic interests and goals would be best met outside the structure of any single departmental major and/or minor. Coursework is integrated around a basic theme or focusand culminates in a capstone experience. This interdisciplinary major can serve as an excellent preparation for a variety of graduate school programs and professional careers.

Study Abroad Opportunities:
Courses taken abroad can be included in a self-designed studies interdisciplinary major or minor.

Self-Designed Studies Interdisciplinary Major Requirements (45 Credits)

- Develop an interdisciplinary focus that combines either three or four academic disciplines. The definition of a “discipline”and examples of interdisciplinary foci are included at the end of this document.
- Identify a primary and a secondary advisor, each from a different selected academic discipline.
- Complete a minimum of 45 total credits in the selected disciplines. To ensure that coursework is suitably distributed acrossdisciplines and levels, students must:
    - Complete at least 6 credits per selected discipline. In each discipline, at least 3 credits should be at the 200-level orabove.
    - Complete a minimum of 12 credits at the 300/400 level.
    - Count a maximum of 10 credits at the 100-level toward the 45 credits required for the major.
    - Complete a 2-3 credit interdisciplinary senior capstone experience. The capstone must be approved and supervised by the student’s primary and secondary advisors. The capstone experience may take a variety of forms: a senior honors thesis, a research project for an existing disciplinary capstone course, an art exhibit or final performance, or another approved culminating project.
        - The capstone experience is not included in the 12 credits completed atthe 300/400 level, and students may not use transfer credit to satisfy the capstone requirement.
        - Formal assessment of the student learning outcomes developed by the student and their advisor(s) will take place during the capstone experience.
- **Note**: Students with a self-designed studies interdisciplinary major may not declare another major. Minors may be declared as long asless than 50 percent of the credits between the self-designed studies interdisciplinary major and proposed minor overlap.

Self-Designed Studies Interdisciplinary Minor Requirements (minimum of 21 credits):

- Develop an interdisciplinary focus that combines two or three relevant academic disciplines. The definition of a “discipline”and examples of interdisciplinary foci are included at the end of this document.
- Identify a faculty advisor from one of the selected academic disciplines. This faculty advisor should be outside of thestudent’s declared major.
- Complete at least 21 credits in the chosen disciplines. To ensure that coursework is suitably distributed across disciplines andlevels, students must:
    - Complete at least 6 credits per selected discipline, with a maximum of 3 credits at the 100-level per discipline.
    - Complete a minimum of 3 credits at the 300/400 level from each discipline, unique from the courses counted forthe student’s major(s).
- **Note**: This minor may be declared with a major as long as at least 12 credits used for the self-designed studies interdisciplinary minor are different from those taken for the major(s). Students with an interdisciplinary minor may not declare anotherminor unless the coursework is 100% unique.

Approval Process for a Self-Designed Studies Interdisciplinary Major or Minor: Self-designed Studies interdisciplinary majors and minors requireapproval from the Curriculum Approval Committee. A student’s self-designed studies interdisciplinary major or minor should be approved by the end of their sophomore year, and in no case later than the first semester of their junior year. To propose this major or minor, students should consult with their selected advisor(s) to complete:

1. A declaration form, listing the courses constituting the proposed major or minor.
2. A typed, 2-3-page proposal that clearly articulates:

a. The goals, topic, or theme of the proposed major/minor.
b. How the self-designed studies interdisciplinary major/minor helps meet the student's educational and vocational objectivesbetter than existing Central College majors and/or minors.
c. A plan for the student's intended final capstone experience (for the self-designed studies interdisciplinary major only). When preparing the declaration form and proposal, students and their advisors are encouraged to consult with the Curriculum Approval Committee or a Committee designee. Students will submit their completed forms and proposals to the Registrar's Office.Final approval of the major is received from the Curriculum Approval Committee.

Proposing Changes to a Self-Designed Studies Interdisciplinary Major or Minor: After initial approval, any subsequent changes to thestudents' proposed courses must be made in writing in advance. These changes should be approved by the primary advisor and thensubmitted for approval to the Curriculum Approval Committee.

Advisor Roles
Students should consult with both primary and secondary advisors when planning their self-designed studies interdisciplinary majors or minors, when proposing changes, and when completing their capstone experience. The primary advisor is responsible for approvingany proposed changes and for overseeing the final capstone experience. During the capstone experience, the primary advisor is responsible for consulting with the secondary advisor to assess the student's state learning outcomes. Assessment results must be reported to the Curriculum Approval Committee Chairs (SDS program chair) prior to commencement.

Academic Disciplines
Typically, a "discipline" is defined as a course of study that has a major or minor listed in the Central College Course Catalog.Exceptions can be made on a case-by-base basis (e.g., for disciplines like Geography or Data Science).

Examples of Interdisciplinary Foci:
Students are strongly encouraged to develop their own individualized interdisciplinary focus. Advisor(s) could be sought from relevantdisciplines. The following are some examples of how this might be done:

- Students focusing on **Allied Health** could consider courses in Biology, Chemistry, Physics, Psychology, CommunicationStudies, and Kinesiology.
- Students focusing on **American Studies** could consider courses in History, English, Political Science, Sociology,Anthropology, and Religion.
- Students focusing on **Arts Management** could consider courses in Business Management, Art, Music, and Theatre.
- Students focusing on **Food Systems** could consider courses in Anthropology, Biology, Environmental Studies, PoliticalScience, and Chemistry.
- Students focusing on **Gender Studies** could consider courses in Psychology, Sociology, English, Anthropology, and Kinesiology.
- Students focusing on **Global Health** could consider courses in Anthropology, Biology, Economics, Exercise Science,Environmental Studies, Political Science, Mathematics, and Psychology.
- Students focusing on **Not-For-Profit Management** could consider courses in Business Management, Accounting,Communication Studies, and English.
- Students focusing on **Geography** could consider courses in Geography, Economics, English, History, Political Science andSociology.
- Students focusing on **Visual Communication** could consider courses in Art, Computer Science, and CommunicationStudies.

SOCIAL JUSTICE STUDIES

Faculty
Shelley Bradfield, Beth McMahon, Paulina Mena

Statement of philosophy
The minor in Social Justice Studies seeks to prepare students to apply knowledge and skills toward the work of positive, prosocial change for groups who have contextually and historically experienced marginalization. Students will develop skills in recognizing and analyzing the causes and consequences of social injustices from the perspectives of multiple disciplines, use theory and research to propose effective and sustainable ways to promote positive social change, investigate the ways in which they interact with the communities which they serve through critical self-reflection, and apply this knowledge through engagement in the Central College tradition of service learning and engaged citizenship. Minors in Social Justice Studies will graduate with knowledge and skills that are essential to being effective leaders and advocates in communities of which they are a part.

Major Communication Skills
Competency in communication skills is assessed by completion of SJS 499 Advocacy Capstone in which students reflect on their self-efficacy in engaging in social justice work and present their reflections in an oral form to the class.

Social Justice Studies Minor Requirements (minimum 19 credits)

Note: Due to the interdisciplinary nature of the minor, no more than 1 course can count toward both the social justice studies minor and other major(s)/ minor(s). Additionally, this minor requires a minimum of three disciplines represented, as indicated by program prefix, to ensure interdisciplinary work toward the minor requirements. The SJST prefix is among the disciplines that can fulfill this requirement, although this does not include either SJST 392 or 499. Courses with rotating topics, such as CIV 210, ENGL 378, and LAS courses may fulfill a Foundations, Critical Self-Reflection, or Integration requirement as appropriate with approval from the program director.

1. Foundations: Complete <u>two</u> of the following: (6 credit minimum)

BIOL	210	Epidemiology (3)
COMM	250	Evaluating Contemporary Media (4)
EDUC	135	Children with Exceptionalities (3)
ENGL	213	Literature, Environment and Ecology (3)
ENGL	214	Literature by Women (3)
ENGL	215	African American Literature (4)
ENGL	216	LGBTQ+ Literature and Culture (3)
ENGL	252	The Haunted House of British Literature, 1785- present (3)
GERM	362	Germany & the Environment (3)
HIST	126	World History Since 1500 (3)
HIST	310	Studies in World History (4)
MUS	211	History of Western Music: Antiquity to 1750 (3)
MUS	312	History of Western Music: Pre-Classical to 1940 (3)
PHIL	121	Ethics (3)
PHIL	345	Environmental Ethics (4)
PHIL	375	Memory and the Holocaust (4)
POLS	110	Introduction to American Politics (4)
POLS	140	Introduction to International Politics (4)
PSYC	231	Psychopathology (3)
PSYC	330	Multicultural Issues in Psychology (3)
REL	274	World Christianity (4)
SJST	130	Why Gender Matters (3)
SOC	225	Social Problems (3)
SOC	346	American Ethnicity (4)

2. Critical Self- Reflection: Complete <u>two</u> of the following: (6 credit minimum)

COMM	268	Intercultural Communication (3)
ENGL	217	Literature and Film of the Middle East (4)
ENGL	270	Illness and Health in Literature (4)
ENGL	346	Discovering Shakespeare (3)
PHIL	240	Social and Political Philosophy (3)

POLS	344	International Law and Human Rights (4)
PSYC	240	Psychology of Gender (3)
PSYC	385	Counseling Theories and Techniques (3)
SJST	330	Witches and Warriors: Feminist Thought and Social Justice (3)
SOC	336	Status and Inequality in Social Life (4)
SOC	390	Collective Action and Social Change (4)
SPAN	350	Hispanics/ Latinos in the United States (3)

3. Integration: Complete <u>one</u> of the following (3 credit minimum)

COMM	340	Public Relations (4)
COMM	376	Communicating Health and Illness (4)
EDUC	345	Human Relations (3)
ENGL	246	Writing for Non-Profit Organizations (4)
HIST	235	The Immigrant Experience (4)
KIN	379	Epidemiology of Physical Activity (3)
POLS	242	Global Sustainability Politics (4)
PSYC	384	Adult Development and Aging (3)
REL	325	History of Spirituality in the Christian Tradition (4)
SJST	220	Environmental Justice (3)
SJST	230	Reproductive Justice (3)
SJST	290	Social Justice in the City (6)

4. Empowerment (1 credit minimum)

Complete a 1 credit (minimum) course (SJST 392: Empowerment in Social Justice Studies) that supports the work toward and reflection of the Empowerment experience.

5. Advocacy Capstone (3 credits)

Complete a 3-credit independent study (SJST 499 Capstone in Social Justice Studies).

SOCIAL SCIENCE

Faculty
Timothy Olin (director), Mark Barloon, Anya Butt, Andrew Green, Mindy Graham-Hinners, Tuan Ho Quoc, Keith Jones, Tuan Nguyen, Randy Renstrom, Ashley Scolaro, Elena Vishnevskaya, Shawn Wick, Jon Witt, Lori Witt

Statement of philosophy
The social science major offers the opportunity to develop knowledge and skills in several disciplines. This major appeals to students who desire a broadly based experience in the social sciences. A critical element of the major is the recognition of essential understandings within academic disciplines and the relationships among the disciplines.

The social science major provides a solid background for a variety of career options. It is particularly appropriate for prospective social studies teachers at the secondary level.

Major Communication Skills
The student and major advisor will develop from one or more upper-level courses in the major a course portfolio that reflects successful demonstration of skills in reading, listening and speaking.

Social Science Major Requirements (45-47 credits)

1. Complete all courses from three of the subject areas below:

American History (at least 15 credits)
HIST 130 United States to 1877 (3) or HIST 131 United States since 1877 (3)
HIST 486 History Research Seminar (4)
At least two American HIST Electives at the 200- or 300-level (total of at least 8 credits)

***World History* (at least 15 credits)**
HIST 125 World History to 1500 (3) or HIST 126 World History Since 1500 (3)
HIST 485 Historiography Seminar (4)
At least two World HIST Electives at the 200- or 300-level (total of at least 8 credits)

Note: The following courses may count with permission of the director. Those seeking teacher licensure should get EDUC department approval in advance.
HIST 100T TE Western Civilization: Ancient to Early Modern (3-4)
Or HIST 100T TE Western Civilization: Early Modern to Present (3-4)
Or HIST 100AP AP European History (3)

American government (at least 15 credits)
POLS 110 Introduction to American Politics (4)
And at least 11 credits from:
POLS 210 American Political Institutions (4)
POLS 215 The Politics of State and Local Governments (4)
POLS 216 Don’t Look Up From Your Phone: Voting in the Age of Doomscrolling (4)
POLS 316 Presidential Elections (4)
POLS 361 American Political Philosophy (4)

Economics (at least 15 credits)
ECON 112 Principles of Microeconomics (3)
ECON 113 Principles of Macroeconomics (3)
ECON 312 Microeconomic Theory (4) or
ECON 313 Macroeconomic Theory (4)
Two 200-level or above ECON electives (6 credits total), *excluding ECON 381*

Geography (at least 15 credits)
GEOG 210 Human Geography (4)
At least 12 credits from GEOG courses, with 5 credits at the 300- level or above

Psychology (at least 15 credits)
PSYC 122 General Psychology (3)
Two 200-level PSYC courses (total of at least 6 credits)
Two 300- or 400-level PSYC courses (total of at least 6 credits)

Sociology (at least 15 credits)
SOC 120 Principles of Sociology (3)
Two 200-level courses (6 credits) chosen from:
SOC 225 Social Problems (3)
SOC 235 Schools and Societies (3)
SOC 241 Criminology (3)
SOC 242 Sociology of the Family (3)
Two SOC electives at the 300-level or above (6 credits)

SOCIOLOGY

Faculty
Randall Renstrom (chair), Shawn Wick, Jon Witt

Statement of philosophy
The sociology program is grounded in the belief that understanding society is essential to shaping a better future. Sociology helps students investigate the complex realities of social life by examining how relationships, institutions, culture, inequality, and social change influence human behavior and life chances. Through the sociological perspective, students learn to see how personal experiences are connected to larger social forces and to ask deeper questions about the world around them.

The philosophy of our department is rooted in the conviction that sociology provides both intellectual depth and practical relevance. We believe students learn best when they connect theory to lived experience, research to real-world problems, and academic inquiry to public life. Through engaged teaching, close faculty mentorship, applied internships, and training in both qualitative and quantitative methods, we prepare students to investigate important social questions and to develop evidence-based responses to them.

Our department seeks to foster graduates who can analyze complex issues, communicate persuasively, interpret data responsibly, and engage diverse perspectives with empathy and insight. We view sociology as a versatile and powerful preparation for a rapidly changing world, enabling students not only to understand society more fully, but also to participate in it more effectively, ethically, and impactfully.

Sociology Major Requirements (38 credits)

1. **Complete *all* of the following:**
   - SOC 120 Principles of Sociology (3)
   - SOC 350 Applied Quantitative Methods (4)
   - SOC 360 Applied Qualitative Methods (4)
   - SOC 450 Sociological Theory (4)
   - SOC 485 Sociology in Practice (4)

2. **Complete one of the following:**
   - SOC 297 Internship in Sociology (3)
   - SOC 397 Internship in Sociology (3)

Complete an *additional 16 credits* of sociology (SOC) elective courses *(at least 6 of these 16 credits must be at the 300-400 level)*

Sociology Minor Requirements (18 credits)

Complete *18 credits of SOC*, with at least 6 credits at the 300-400 level.

SPANISH

Faculty
Timothy Olin (chair), Timothy Johnson, Kathy Korcheck, Allison Krogstad, Óscar Reynaga

Statement of philosophy
The Spanish program faculty believes that intercultural understanding and appreciation should be a fundamental part of a student's education, and the ability to communicate (listen, speak, read and write) in another language is essential for attaining intercultural understanding. Students must learn what members of other cultures consider worth talking about: their historical, artistic and literary heritage; their contemporary political, social and economic problems; and their basic customs and values. Students must also gain an understanding of their own cultural perspective. Spanish course offerings are intended to build communication skills and insight into important topics of culture. All courses aim to increase language proficiency and cultural awareness as well as to prepare students for an extended off-campus immersion in a culture where the target language is spoken.

Study abroad opportunities
All Spanish majors are required to participate in a study abroad program approved by the Spanish faculty. Whether for a semester, summer, short-term, or faculty-led (or other) opportunity, the experience should immerse the student in the culture of a Spanish-speaking environment, provide opportunities for practicing and improving their Spanish skills, and allow time for reflection. Students should come away from the experience with increased awareness of and appreciation for the culture, language, and situation of others and an increased ability to interact within a Hispanic community.

Teaching licensure
Students seeking teaching licensure must secure information from the department of Language, Literature, and Communication and the department of education concerning departmental and state requirements.

Foreign language credit by proficiency
For information on earning credit by proficiency in a foreign language, please see the "Credit by Proficiency" section of this catalog.

Spanish Major Requirements (minimum 32 credits)

(Note: A student may have to complete 4-16 hours of prerequisites before starting SPAN 322 or 324, depending on the level into which the student places.)

1. **Complete at least one of the following:**
   SPAN 322 Advanced Spanish II (4)
   SPAN 324 Spanish for Heritage Learners (4)

2. **SPAN 323 Introduction to Hispanic Literature (3)**

3. **Complete a minimum of 24 additional hours/ credits of courses taught in Spanish at the 200, 300 or 400-level** (on-campus courses and/ or courses taken abroad). **At least 12 of these 24 credits must be at the 300-400 level.**

4. **SPAN 488 Senior Capstone Project (1)**

5. **Participation in a study abroad program approved by the Spanish faculty.**

6. **All courses must be conducted in Spanish.**

Spanish Minor Requirements (minimum of 7 credits)

(Note: A student may have to complete 4-16 hours of prerequisites before starting SPAN 322 or 324, depending on the level into which the student places.)

1. **Complete at least one of the following:**
   SPAN 322 Advanced Spanish II (4)
   SPAN 324 Spanish for Heritage Learners (4)

2. **Complete at least one of the following:**
   SPAN 323 Introduction to Hispanic Literature (3)
   SPAN 325 Spanish Conversation Through Film (4)

STRENGTH AND CONDITIONING

Faculty

David Pavlat (program director), Lee Macomber (Kinesiology chair), Adam Bradley, Jim Fuller, Shelli Green, Kyle Johnson, Monica Ruiz, Matthew Sagar, Sara Shuger Fox, Katelin Valster

Statement of philosophy

The Strength and Conditioning Major is accredited through the Council on Accreditation of Strength and Conditioning Education (CASCE).

The strength and conditioning program will provide experiences in collaboration with strength and conditioning professionals enabling the strength and conditioning student to learn and apply student outcomes as prescribed by the CASCE necessary to be a competent, professional entry level strength and conditioning coaches. Strength and conditioning education will occur within the liberal arts framework and the mission of Central College. This will occur through interactions with staff, faculty, practicum instructors and peers within the College and the Pella community.

The primary objective of the Central College Strength and Conditioning Program is to prepare entry-level strength and conditioning coaches. Strength and conditioning program students are provided with classroom and practicum experiences that develop and enhance their skills. Practicum experiences are an extension of the academic classroom and allow students to master program outcomes.

Admission to the Strength and Conditioning Program

Students interested in applying to the strength and conditioning program and majoring in strength and conditioning should contact the program director. The application and interview process (via committee) will occur during the first-year (March 1) or sophomore (October 1) year, prior to officially beginning the program. The requirements to complete the strength and conditioning program include five semesters of coursework over three years. To receive an application, student handbook, copy of the technical standards, transfer policy, GPA requirements, and to get the most current information regarding this program, contact the director of the Strength and Conditioning Program, or go to www.central.edu

Major Restrictions

Students may not declare majors in both Kinesiology and Strength and Conditioning. As a Strength and Conditioning major, students may not declare a Kinesiology minor.

Major Requirements (59 credits)

1. Complete all of the following:

KIN	149	Introduction to Kinesiology (3)
KIN	161	Human Anatomy and Physiology I with Lab (4)
KIN	162	Human Anatomy and Physiology II with Lab (4)
KIN	213	Principles of Coaching (3)
KIN	233	Lifespan Nutrition (3)
KIN	251	First Aid and Sports Injuries (3)
KIN	254	Human Anatomy and Kinesiology with Lab (4)
KIN	330	Exercise Psychology (4)
KIN	333	Sports Nutrition (3)
KIN	340	Exercise Physiology with Lab (4)
KIN	357	Fitness Assessment and Exercise Prescription with Lab (4)
KIN	361	Biomechanics with Lab (4)
SC	121	Theory and Practical Application of Skill-Related Fitness (3)
SC	293	Practicum in Strength and Conditioning I (3)
SC	393	Practicum in Strength and Conditioning II (3)
SC	472	Principles and Theories of Strength and Conditioning with Lab (4)
SC	493	Practicum in Strength and Conditioning III (3)

COURSES OF INSTRUCTION

Accounting

ACCT 241 Introduction to Financial Accounting (3)
Examines the financial accounting function of business entities. Develops an understanding of the financial information in published financial statements (income statement, balance sheet, cash flow statement, and equity statement). Examines the role of financial data in the decision-making process of “investors” and other “outsiders” of the business entity.

ACCT 242 Introduction to Management Accounting (3)
Prerequisite: ACCT 241. Focuses on providing information useful for internal decision-making in production, merchandising, government and service-oriented enterprises. Primary emphasis given to understanding of costs and cost behavior and the use of cost information for planning, controlling, decision-making performance evaluation and product costing. Introduces recent developments in management accounting, such as activity-based costing (ABC) and Just-in-Time (JIT). Development and use of electronic spreadsheets is emphasized.

ACCT 321 Data Analytics for Accounting (3)
Prerequisite: ACCT 242. The class will explore accounting concepts through the application of data analytics. Students will develop skills to ask the right question and learn how to use tools they may find in the workplace. The course will move from discovering what happened to analyzing the data to determine why it happened and then interpreting the results in order to make business decisions.

ACCT 341 Intermediate Financial Accounting I (3)
Prerequisite: ACCT 241 (grade of B or better recommended). Examines the current state of financial accounting theory, standards, principles and practices. Studies theoretical and practical problems of measurement and valuation related to the determination of net income, revenue recognition, cash flow and presentation of financial position. Emphasizes the asset section of the balance sheet.

ACCT 342 Intermediate Financial Accounting II (4)
Prerequisite: ACCT 341. Examines the current state of financial accounting theory, standards, principles and practices. Studies theoretical and practical problems with emphasis on special topics: long-term debt, capital stock, leases, pensions and other post-employment/retirement benefits, deferred tax, accounting changes/error corrections, cash flow statement and financial statement disclosures.

ACCT 343 Advanced Management Accounting (3)
Prerequisite: ACCT 242, and MATH 105 or MATH 215; or consent of the instructor. Examines the nature of accounting data as related to managerial functions of planning, controlling, decision-making, performance evaluation, and product costing. Major topics include cost accumulation, analysis, allocation and estimation (including statistical methods), budgeting and standard costing with variance analysis.

ACCT 344 Principles of Taxation (3)
Prerequisite: ACCT 241. Studies the general framework of the determination of income tax for an individual, with an emphasis on successful tax preparation.

ACCT 347 Accounting Information Systems (3)
Prerequisite: COSC 110 or DATA 110. Pre- or corequisite: ACCT 242. Introduces students to the role information systems plays in accomplishing the objectives of financial accounting, managerial accounting, tax accounting and auditing. Students study the principles of systems design, relational databases, and the controls in accounting information systems; the flows of information through the various accounting cycles and the corresponding internal controls; the information flows using the traditional accounting model with an emphasis on the use of current database technology, including data modeling.

ACCT 348 Principles of Auditing (3)
Prerequisite: ACCT 242. The course focuses on an accountant’s role in planning, risk assessment, audit procedures, obtaining evidence, and reporting for audit, attestation, and accounting and review service engagements. The course incorporates professional skepticism and professional judgment with a focus on the critical assessment of evidence and the need to apply knowledge and experience to make informed decisions

ACCT 350 Vita, Volunteer Income Tax Assistance (3)
Prerequisite: ACCT 344 or instructor’s permission. Students will prepare and review client tax returns at VITA clinics held on campus. Class time will be spent training and planning for clinics, discussing continuous improvement in VITA program, and reflecting on the experience post-filing-season. This class requires significant out-of-class service learning hours on Tuesday afternoons and/or Saturday mornings. May be repeated.

ACCT 390 Topics (Arr)
Prerequisite: instructor’s permission. Selected topics in accounting may be offered, depending upon student and staff interest.

ACCT 397 Internship (Arr)
Prerequisite: BMGT 281, ACCT 242, third-year standing and instructor's permission. Available only to students who have declared a major in the department. The seminar attempts to sensitize the student to work experience and provide communication with other students to discuss their mutual experience. May be repeated for a maximum of 9 credits total. Pass/No credit basis.

ACCT 441 Advanced Financial Accounting (3)
Pre- or corequisite: ACCT 342. Studies specialized financial reporting problems, including those related to investments in financial and derivative assets, the equity method of accounting, the entity concept (consolidated financial statements and international accounting operations), and non-corporate business reporting.

ACCT 442 Fraud Examination and Auditing (4)
Prerequisite: ACCT 347. This course will serve as an introduction to fraud examination, auditing, and assurance services that builds on coursework in management, financial accounting, and systems. The course will include an in-depth examination of the COSO internal control framework, followed by auditing and fraud examination concepts, both of which rely heavily on internal control concepts.

ACCT 445 Advanced Taxation (3)
Prerequisite: ACCT 241 and ACCT 344. Studies the specific tax code for corporations, estates and trusts. Relates the process of converting financial GAAP accounting to reporting under the IRS code.

ACCT 446 Government and Non-Business Accounting (3)
Prerequisite: ACCT 242. Studies the accounting procedures and financial reporting of governments and non-business entities. Examines the state and local government entities under the control of the GASB. Examines the financial reporting requirements of not-for-profit entities under the control of FASB, including: colleges and universities, hospitals and health care organizations, charities (501c2 and 501c3), and other non-profit entities.

ACCT 485 Accounting Research Seminar (1)
Prerequisite: senior standing and declared accounting major. Students conduct research on a substantive accounting topic in the areas of financial, managerial, tax, auditing, consolidations, international, information systems, not-for-profit, or governmental. A formal presentation to accounting faculty and senior majors is required. Pass/No Credit basis.

ACCT 499 Independent Study (Arr)
Prerequisite: instructor's permission. An independent research experience for senior majors.

Art

ART 151 2D Problem Solving (4)
This course is a workshop intensive introduction to the fundamental theory and practice of studio art. In class group and individual critiques will supplement the studio practice. Various materials, techniques and concepts within studio art will be explored including, but not limited to, the elements and principles of design, color theory, collaboration, idea generation, digital media and critical analysis. No previous experience in art required. (ART, EXP)

ART 161 3D Design Fundamentals (4)
A foundation studio art course that examines the elements of visual organization and the communicative possibilities of materials as they apply to three-dimensional forms. Investigates the relationship of form and content through emphasis on idea generation, problem solving, basic three dimensional studio techniques, and art vocabulary sufficient to analyze sculptural forms. (ART, EXP)

ART 250 Drawing Traditional and Digital Approaches (4)
In this hands-on studio workshop students will learn to manipulate the unique characteristics of drawing, in both traditional and digital media, to give visual form to ideas, create the illusion of space, draw Proportionately and ultimately convey meaning to an audience. Examination of select drawings throughout history will provide historical context while informing the critical analysis of the images created. The portfolio of imagery developed by the end of this course will demonstrate a student's ability to create technically proficient and meaningful images. Marketable skills developed in this course will be particularly applicable to the fields of illustration and graphic design. Critical analysis in both oral and written form will supplement the studio practice. No prior experience in drawing required. Students who took ART-290, Drawing: Traditional to Digital, in 22/SP cannot take this course. (ART)

ART 252 Painting Traditional and Digital Approaches (4)
In this hands-on studio workshop students will learn to manipulate the unique characteristics of paining, in both traditional and digital media, to give visual form to ideas, learn the complexities of color theory as it applies to both pigment and light, and ultimately convey meaning to an audience. Examination of select paintings throughout history will provide historical context while informing the critical analysis of the images created. The portfolio of imagery developed by the end of this course will demonstrate a student's ability to create technically proficient and meaningful images. Marketable skills developed in this course will be particularly applicable to the fields of illustration and graphic design. Critical analysis in both oral and written form will supplement the studio practice. No prior experience in drawing required. Students who took ART-290 Painting: Traditional to Digital, in 21/FA cannot take this course. (ART)

ART 253 Graphic Design (3)
This course will explore the fundamental practice of graphic design using industry standard software of Adobe InDesign, Illustrator, and Photoshop. Projects will include but not be limited to logos, icons, posters, brochures, and image manipulation. Emphasis will be placed on issues of design, visual communication, and collaboration. Regular in-class critiques and critical analysis will supplement the studio practice.

ART 255 Printmaking (4)
A hands-on studio art course exploring the fundamental theory, history, and practice of printmaking. Students will integrate content using a variety of traditional and non-traditional printmaking techniques that may include, but not be limited to, woodcut, linoleum cut, etching, and monoprint. While exploring the historical link between printmaking, book arts and papermaking, students will learn to make handmade paper from recycled materials. Critical analysis, interpretation and regular critiques will supplement the studio practice. (ART)

ART 262 Ceramics I (4)
Prerequisite: second-year standing. A studio art course exploring clay as an art medium through the basic ceramic processes commonly used by potters and sculptors, including hand-building, throwing, surface treatment, glazing, and firing. (ART)

ART 265 Glassblowing I (3)
Prerequisite: instructor's permission. An introduction to the techniques of off-hand glassblowing. Emphasis will be on the development of skills of working with the plastic and spontaneous qualities of molten glass. (ART)

ART 267 Jewelry and Metal Arts I (4)
Prerequisite: second-year standing. A studio art course investigating the concepts, processes, and materials for jewelry, hollowware, and small sculptural objects. The practice of organizing three-dimensional form will be explored through such techniques as casting, smithing, fabrication, and finishing processes. The primary materials explored will be nonferrous metals: brass, copper, and sterling silver. (ART)

ART 270 Book Arts (4)
A hands-on studio art course exploring the fundamental theory, history, and practice of creating handmade books using traditional structures. Students will learn to construct handmade books using 1, 2, and 3 section sewing techniques, French chain binding, and Coptic binding techniques among others. Initial projects will focus on mastery of technique while later projects will begin to integrate content. The historical link between book arts and papermaking will also be examined. Critical analysis, interpretation and regular critiques will supplement the studio practice. (ART)

ART 295 Practicum in Gallery Management (1)
Prerequisite: instructor's permission. Offers experience in art gallery management including organizing and installing exhibitions, docent duties and marketing of the gallery. May include some graphic design work. May be repeated. Pass/No Credit basis.

ART 350 Drawing and Painting: Conceptual Approaches (4)
Prerequisite: second-year standing. A hands-on studio art course emphasizing conceptual and thematic approaches to the creative practice of drawing and painting. Critical analysis and interpretation of work will be ongoing with regular group and individual critiques. We will focus on visual communication, idea generation, historical context as well as artistic influences. Previous experience in studio art class recommended. (ART)

ART 351 The Artist's Cauldron: Mixed Media Art (4)
Prerequisite: sophomore standing. This is a workshop-oriented course breaking the artificial categories of drawing, painting, sculpture and so on. Students will examine and respond to personal, local, and global issues through missed media artworks they create using a wide range of materials and techniques. See syllabus for complete description.

ART 353 Visual Narratives (4)
Prerequisite: second-year standing. In this hands-on workshop-oriented class, students will learn to create engaging visual stories which may include but no be limited to, four panel comics, multipanel graphic novelettes, and storyboards for video among other visual narratives. This cross-disciplinary process will include creative writing, critically analyzing visual works, storyboarding, and illustration in a variety of media. No previous experience in art is required. Students who took ART-290, The Graphic Novel, in 22/SP cannot take this course. (ART)

ART 362 Ceramics II (4)
Prerequisite: ART 262. A continuation of Ceramics I focused on more complex hand-building and wheel throwing construction methods, exploration into various glazing methods as well as an introduction to firing procedures. Emphasis on individual direction and technical achievement.

ART 365 Glassblowing II (3)
Prerequisite: ART 265 and instructor's permission. A continuation of working with molten glass as a medium of expression. Emphasis will be on developing a more personal style while continuing to improve technical skills and understanding of the processes.

ART 367 Jewelry and Metal Arts II (4)
Prerequisite: ART 267. A continuation of Metalsmithing I with both individually arranged and structured projects exploring more complex construction and statements in jewelry and small sculpture from metal. Emphasis on conceptual and technical achievement.

ART 380 Advanced Studio (3)
Prerequisite: Any 300-level studio course and instructor permission. A studio course that provides students an opportunity to explore individual advanced problems in art. Emphasis on developing a successful body of artwork. Stresses work presentation and portfolio development.

ART 397 Internship in Art (Arr)
Prerequisite: instructor's permission. The internship provides an opportunity for the student to explore a career option in the major field of study. Pass/No Credit basis.

ART 399 Independent Study (Arr)
Prerequisite: third-year standing, several art courses and instructor's permission. Provides an opportunity for students to explore individual problems in art. May be repeated for a maximum of 6 credits.

ART 485 Visual Arts Capstone (4)
Prerequisite: CIV-210, senior standing and major in Art or Multimedia Design or instructor's permission. This course is the capstone experience for Art and Multimedia Design majors. Students will, in consultation with faculty: research, develop, and present a visual arts exhibition or multimedia project of their own design. This mature and cohesive body of work will be developed over the course of the semester demonstrating the advanced integration of historical, technical, and conceptual frameworks information the project. Regular group critiques and discussions on professional practices will supplement the studio work. (CTN, WOC)

Behavioral Science

BEHS 397 Internship in Not-for-Profit Management (3)

Biology

BIOL 118 Environmental Problems and Midwest Ecosystems with Lab (4)
One of the most endangered ecosystems on earth is not in a distant place, but in Iowa. This course examines Midwestern ecosystems and environmental problems impacting them. Course goals are to increase knowledge and appreciation for nature in the Midwest and examine major environmental problems impacting Iowa, focusing on their causes and solutions. Students will spend a significant amount of time outdoors, and will design and conduct a research project. Includes one 3-hour lab. Does not count toward the Biology major. Students cannot receive credit for BIOL 118 and BIOL 123 or ENVS 120. (NS, GS)

BIOL 130 Diversity of Life with Lab (4)
An exploration of the major groups of organisms and of evolution as the source of biological diversity and the unifying principle of the biological sciences. The coverage of biological diversity includes basic structure and function, ecology and behavior. Laboratories allow students to experience the diversity of life firsthand with living examples of many groups. Includes one three-hour lab per week. (NS, EXP)

BIOL 131 Introduction to Cells with Lab (4)
Prerequisite: High school chemistry. An introduction to the cellular basis for life; includes the chemical building blocks of life, cell structure, membrane function, cellular energetics, cell reproduction and heredity and the elements of molecular genetics. Includes one three-hour lab per week. (NS)

BIOL 201 Introduction to Human Anatomy and Physiology I with Lab (4)
This is a two-course sequence surveying the structure and function of the human body; designed for certain pre-health programs such as nursing and occupational therapy where students are not seeking a science major. This course will cover body organization, basic cell structure and function, tissues, integumentary system, skeletal system, muscular system, nervous system and endocrine system. Includes one three-hour lab per week that involves significant laboratory experience including some dissection, examination of histological specimens, preserved organs and anatomical models. Does not count toward the Biology major or minor. (NS)

BIOL 202 Introduction to Human Anatomy and Physiology II with Lab (4)
Prerequisite: Completion of BIOL 201 with a grade of C or higher. This is the second of a two-course sequence surveying the structure and function of the human body; designed for certain pre-health programs such as nursing and occupational therapy where students are not seeking a science major. This course will cover the cardiovascular system, lymphatic system, digestive system, respiratory system, urinary system, reproductive system and will conclude with growth and development. Includes one three-hour lab per week that involves significant laboratory experience including physiological experimentation, some dissection, examination of preserved organs and anatomical models. Does not count toward the Biology major or minor.

BIOL 205 Natural History of American Ecosystems (2)
Prerequisite: BIOL 130. Students will be immersed in a detailed study of ecosystems found in a region. The overall goal is to increase understanding of the biological and physical factors that interact to build ecosystems. We also will address conservation issues impacting the area and learn to recognize important species or groups of species. The course will meet once a week during the second half of the spring semester and will conclude with a nine day trip to visit that ecosystem during late spring / summer. Students must attend both the class and the trip to receive credit. An extra fee will be assessed and students must buy their own food. This course does not count toward the biology major or minor.

BIOL 210 Epidemiology (3)
Introduces the basic concepts and principles of epidemiology and biostatistics as applied to public health problems, including historical overview; descriptive methods and sources of data; diagnostic screening; study designs; analytical tools; measures of association; bias and confounding factors. Emphasis is placed on methods of epidemiologic investigation, appropriate summaries and displays of data, and the use of classical statistical approaches to describe the health of populations, as well as critical evaluation and interpretation of public health research, using examples from the literature. (NS, GS)

BIOL 221 Genetics and Evolution with Lab (4)
Prerequisite: BIOL 131 and second-year standing. An introduction to genetic and evolutionary analysis. Coverage includes both classical and molecular genetics and evolution in the following areas: Mendelian analysis, linkage, mutation, changes in chromosome structure and number, the relationship between genetics and the central dogma, gene expression, sex determination, and their relationship to the evolution of populations and speciation. Laboratory will use both classical and molecular techniques to illustrate key concepts. One three-hour lab per week.

BIOL 229 Ecology and Evolution with Lab (4)
Prerequisite: BIOL 130 and BIOL 131. Analyzes the patterns present, and processes operating, in ecological populations, communities and ecosystems. Emphasis on ecology as a driver of evolution and the resulting adaptations in organisms. Laboratories introduce students to field methods and quantitative analyses, and allow students to conduct research, explore and interpret data, and present results. One three-hour lab per week. (GS)

BIOL 310 Tropical Ecology (1-4)
Prerequisite: BIOL 130 or instructor's permission. Introduces students to marine and terrestrial ecosystems in the tropics. Meets once a week during the semester and during a 17 day trip to Belize and Costa Rica or other tropical regions during winter break to explore several different ecosystems including coral reefs, tropical dry forests, cloud forests and tropical lowland forests. Students are required to attend both the trip and the lectures to receive credit. Students enrolling in this course must pay an additional fee and pay for airline tickets and other expenses. (NS)

BIOL 321 Comparative Vertebrate Anatomy with Lab (4)
Prerequisite: BIOL 130. A comparative analysis of vertebrate structure, with morphology interpreted in a phylogenetic context. Emphasis on the major morphological changes that have occurred during the half-billion years of vertebrate evolution. Laboratories involve dissection of the dogfish shark and the mink, as well as examination of much additional vertebrate material. Includes one three-hour lab per week.

BIOL 324 Field Botany with Lab (4)
Prerequisite: CIV 210; BIOL 130 and 131. An examination of the ecology, evolution and systematics of plants. Emphasis on the evolutionary relationships and natural history of the flora of Iowa. Extensive laboratory and field work including a weekend field trip will introduce the students to methods of plant identification, taxonomy and botanical field studies. Includes one three-hour lab per week. (WOC)

BIOL 333 Climate Change and Human Health (4)
This course examines the basics of climate change and the past, present and predicted future effects that a changing climate may have on human health. We will explore the causes of climate change and the need for action. We will look more closely at how climate change leads to human health impacts, how these impacts are disproportionately distributed due to climate injustice and how we can mitigate the effects of climate change on human health. (GS, CTN)

BIOL 341 Human Physiology with Lab (4)
Prerequisite: BIOL 131 and CHEM 231. Description of the anatomical structure and analysis of the molecular mechanisms of action of each of the vertebrate organ systems, including their nervous and hormonal control. Emphasis given to human systems but contrasting mechanisms from other vertebrate classes are included where possible and appropriate. Laboratory may include some experimentation with living tissue. Includes one three-hour lab per week.

BIOL 342 Mammalogy with Lab (4)
Prerequisite: CIV 210 and BIOL 130 or instructor's permission. Topics to be covered include anatomy, physiology, behavior, ecology, evolution, identification and conservation. Lab will include numerous field trips (some outside of regular class time) to capture bats and other mammals. Labs emphasize anatomy, field biology and identification of mammals, as well as census and capture techniques. (WOC)

BIOL 343 Ornithology with Lab (4)
Prerequisite: CIV 110 and 28 credits; BIOL 130. Provides an overview of the biology of birds including their anatomy, evolution, behavior, reproduction, ecology and conservation. Introduces students to techniques of identifying birds, focusing on species commonly found in the Midwest. The lab will be heavily field-oriented in the early mornings, so students must be prepared to be outside in all weather conditions, and willing to be quiet during observation or birds. Students are required to attend all field trips. The class may also include an optional weekend field trip. (WOC)

BIOL 345 Limnology with Lab (4)
Prerequisite: CIV 110 and 28 credits; BIOL 130. A comparative study of inland waters, including streams, ponds, lakes and wetlands. Examines the geology, biology, chemistry, physics and management of aquatic systems. Laboratory and field work, including a weekend field trip, will introduce students to the techniques of sampling and analysis. One three-hour lab per week. Additional lab fee applies. (CTN)

BIOL 350 Conservation Biology and Ecology of Iowa (4)
Prerequisite: CIV 110 and 28 credits; BIOL 130. Students will explore terrestrial ecosystems of Iowa, examining their ecology and the biology of the dominant organisms forming them. Furthermore, we will learn the basic principles of conservation biology and how these concepts are relevant to nature in the Midwest. Labs will be field-based, and students will explore, study, and manage ecosystems in our area. (GS, CTN)

BIOL 360 Human Anatomy with Lab (4)
Prerequisite: BIOL 131. Provides students with knowledge of the structure of the human body and illustrates the connections between structure and function. Follows a systems approach with review of the fundamentals of cell biology, an introduction to tissues, developmental biology, and nomenclature and conventions used to study human anatomy. Systems covered include the integumentary, musculoskeletal, cardiovascular, lymphatic and immune, nervous, endocrine, respiratory, digestive, urinary and reproductive.

BIOL 361 Microbiology with Lab (4)
Prerequisite: BIOL 131 or instructor's permission. A comprehensive overview of the biology of bacteria with discussions on archaea, eukaryotes, and viruses. Course topics include microbial structure/ function, physiology, genetics, host-microbe interactions, immunology, and ecology. The laboratory includes techniques in bacterial isolation, culture, quantitation, light microscopy, and physiological testing.

BIOL 364 Molecular Biology (3)
Prerequisite: BIOL 221 and CHEM 231. A comprehensive overview of the structure, metabolism, and regulation of DNA, RNA, and proteins.

BIOL 397 Internship in Biology (Arr)
Prerequisite: BIOL 130, 131 and instructor's permission. Students work under supervision of professional biologists in practical application of biological principles. Students considering an internship should confer with the department chair after obtaining the consent of one of the department staff to serve as supervising professor. Offered on demand. Pass/No Credit basis.

BIOL 420 Evolution with Discussion Lab (4)
Prerequisite: CIV 210; BIOL 221 or BIOL 229. An overview of evolution as the unifying principle of the biological sciences, with coverage of the origins of evolutionary thought, population genetics and phylogenetics. Includes workshop activities on topics such as population genetics, morphometrics and phylogeny reconstruction as well as review of the primary literature. One two-hour discussion lab per week. Students may not receive credit for BIOL 320 and BIOL 420. (WRT, WOC)

BIOL 499 Independent Study in Biology (1-4)
Prerequisite: BIOL 386 and instructor's permission. A research-oriented experience designed to focus on a well-defined problem identified in BIOL 386. Conduct of the research, analysis of the data and writing of the senior thesis are done in consultation with a supervising professor. No more than 4 credits may be taken pursuant to the major without approval of the department chair.

Business Management

BMGT 211 Business Writing and Speaking (3)
Prerequisite: ACCT 241 and CIV 210.. This course explores the difference between academic and business writing conventions. Students will practice writing to specific audiences using a variety of organizational patterns. Finally, the art of revision will be reviewed. (Previously taught as BMGT-290) (WRT, WOC)

BMGT 231 Business Law (3)
Prerequisite: Declared major in business management, accounting, or economics or department chair permission, second-year standing. Studies the legal process and the public and private law relating to business. Examines the underlying principles most closely connected with ordinary business transactions: introduction to the law, agency, contracts, sales and commercial paper.

BMGT 261 Principles of Finance (3)
Prerequisite: ACCT 241. This course introduces some basic concepts in financial management and their application to corporate financing and investment decisions. Topics covered will include financial statement analysis, time value of money, bond and stock pricing, capital budgeting, risk and return, and capital structure.

BMGT 271 Principles of Marketing (3)
Prerequisite: ACCT 241 and ECON 112 or ECON 113. Emphasizes a theoretical and practical understanding of the role of marketing in society. Focuses on managerial decision-making regarding markets, products and services, promotion, distribution and pricing to satisfy customer needs and organizational goals.

BMGT 281 Principles of Management (3)
Prerequisite: ECON 112, ECON 113 and ACCT 241. Explores the skills utilized in management, focusing on the four key functions: planning, organizing, leading, and controlling. Concepts and methods such as decision making, motivation, team building, ethics, and staffing that are used in managing people and organizations are examined.

BMGT 335 Not-for-Profit Management (3)
Prerequisite: BMGT 281 or instructor's permission. A course in which students utilize analytical skills to make managerial decisions in not-for-profit organizations. Emphasizes marketing and fund-raising plans.

BMGT 352 Human Resource Management (3)
Prerequisite: BMGT 281 and third-year standing. Concentrates on the human resource management functions of selection, performance appraisal, training and development and compensation. Focuses on the laws and current issues related to these functions. Special topics include equal employment opportunity, Affirmative Action, sexual harassment and discrimination.

BMGT 362 Principles of Investment (3)
Prerequisite: BMGT 261, MATH 105 or MATH 215 and ECON 112 or ECON 113. Concentrates on capital markets, security analysis and portfolio management. Classical and contemporary theories concerning optimum portfolio construction and asset allocation will be emphasized.

BMGT 363 Advanced Financial Management (3)
Prerequisite: BMGT 261, and ECON 112 or ECON 113. Focuses on modern theory of corporate finance and its application to financial decisions. Topics such as leasing, the investment banking process, convertible securities and warrants, mergers and divestiture, leveraged buyouts and international financial management will be thoroughly examined.

BMGT 372 Consumer Behavior (3)
Prerequisite: BMGT 271. Analyzes personal and interpersonal influences on buyer behavior. Topics include perception, dissonance, imagery, lifestyle, culture, social class, the family and marketing communications.

BMGT 373 Marketing Management (3)
Prerequisite: BMGT 271. Studies marketing issues in an ever-changing global economy. Emphasizes the marketing manager's role in developing, implementing and analyzing goal-oriented strategies in both profit and nonprofit organizations. Major topics include marketing research; promotion, pricing and distribution strategies; and new product development.

BMGT 375 Marketing Research (3)
Prerequisite: BMGT 271 and MATH 105 or MATH 215. An introduction to the methodology and analysis of marketing research. Explores the uses of marketing research in management decision making. Students will design, conduct, analyze and present the results of marketing research projects. Topics include research design, data acquisition and analysis, creation of research reports and research ethics.

BMGT 379 Sports Marketing (3)
Prerequisite: BMGT 271. Develop skills necessary to address marketing issues specific to the sports industry. Analyze the field of sports in terms of the practices, applications, and strategy of mainstream marketing. The subject includes: Sponsorships, Endorsements, Licensing, Segmentation of the Sports Market, Promotional Strategy for Sports, and Emerging Issues in Sports.

BMGT 379 International Marketing (3)
Prerequisite: BMGT 271. Emphasizes the marketer's role in analyzing how cultural, social, political, and economic factors affect marketing decision-making in an international context. Focuses on the opportunities and challenges associated with the increasing globalization of markets.

BMGT 381 Operations Management (3)
Prerequisite: BMGT 281, MATH 105 or MATH 215 and third-year standing. Investigates the production and operations function of the firm and the decision-making framework related to the function. Emphasizes quantitative models useful in production and operations.

BMGT 390/490 Topics (Arr)
Prerequisite: instructor's permission. Selected topics in management may be offered, depending upon student and staff interest.

BMGT 397 Internship (Arr)
Prerequisite: BMGT 281, ACCT 242, third-year standing and instructor's permission. Available only to students who have declared a major in the department. May be repeated for a maximum of 12 credits total. Pass/No Credit basis.

BMGT 462 Derivative Markets (3)
Prerequisite: BMGT 362. This is an advanced course in derivative markets. Familiarity with derivative securities as would be found in an undergraduate investments text is assumed. Topics will include futures and forward prices, swaps, binomial option pricing, the Black-Scholes-Merton model, Brownian motion and Itô's Lemma.

BMGT 485 Strategic Management Capstone (3)
Prerequisite: CIV 210, BMGT 261, BMGT 271, BMGT 281 and fourth year standing. A capstone course that focuses on the integration of knowledge and application of skills gained in core business management courses. Emphasizes analysis of the business environment and use of strategic processes (strategy formulation, implementation, evaluation and control) to manage corporations and other large-scale organizations. (WOC)

BMGT 487 Leading a Problem-Solving Organization (3)
Prerequisites: BMGT 231, BMGT 261, BMGT 271 and BMGT 281; or instructor permission. This course will examine methods for identifying problems and determining which should be prioritized when allocating resources to solutions. Students will develop a problem-solver toolkit and think critically to apply tools in the kit to problems identified. Finally, the course will explore the importance of culture in leading a problem-solving organization.

BMGT 496 Co-Op (Arr)
Prerequisite: third-year standing, instructor's permission, and declared department major with ECON 112, 113, ACCT 241, 242 and BMGT 281 completed. Full-time, off-campus work experience for students meeting competitive selection criteria established by the Co-op organization. The Co-op training program, lasting four to twelve months, must be approved by the department. A list of approved programs is available from the Department Chair. Credit arranged from 1 to 12 semester hours. Pass/No Credit (awarded upon completion of the Co-op program).

BMGT 499 Independent Study (Arr)
Prerequisite: instructor's permission. An independent research experience for senior majors.

Chemistry

CHEM 107 Introduction to Environmental Chemistry (3)
Designed for students who may not have a background in chemistry but have an interest in the environmental impacts of chemistry. This basic chemistry knowledge will then be applied to chemical process in the atmosphere, lithosphere and hydrosphere. The course will conclude with a study of the biosphere. Students may not receive credit for CHEM 107 and either CHEM 108 or CHEM 111. (NS, GS, EXP)

CHEM 111 General Chemistry I with Lab (4)
Prerequisite: High school or college algebra. Concurrent registration in CHEM 111L required. Introduces the principles of chemistry for understanding chemical problems and for advanced work in the department. Develops college-level problem solving, analytical thinking, writing, and reading skills. One three-hour lab per week. (NS, EXP)

CHEM 112 General Chemistry II with Lab (4)
Prerequisite: CHEM 111, Concurrent registration in CHEM 112L required. Continues introducing the principles of chemistry for understanding chemical problems and for advanced work in the department. Develops college-level problem solving, analytical thinking, writing, and reading skills. One three-hour lab per week.

CHEM 203 Introduction to Organic and Biological Chemistry with Lab (4)
Prerequisite: CHEM 111; CHEM 112 is encouraged. This course covers an overview of organic chemistry and biochemistry with a focus on functional groups, reactivity, biological macromolecules and metabolism. This course is designed for students majoring in the sciences outside of chemistry and biochemistry. One three-hour lab per week.

CHEM 231 Organic Chemistry I with Lab (4)
Prerequisite: CHEM 112. Initiates the study of carbon chemistry by examining the structure and reactivity of organic functional groups with an emphasis on reaction mechanisms. One 3-hour lab per week. The laboratory will focus on basic techniques used in preparative organic chemistry.

CHEM 241 Analytical Chemistry with Lab (4)
Prerequisite: CHEM 112. An introduction to analytical chemistry, including chemical and physical methods. Two lectures and two laboratories per week.

CHEM 285 Introduction to Chemistry Research (1)
In this course, the student will conduct collaborative research with a faculty mentor from the chemistry department. Students may participate in ongoing faculty research or help collaboratively design their own research topic. Three hours of lab time a week is expected. Students will present their work to the public at the end of each term. Repeatable for credit.

CHEM 321 Inorganic Chemistry with Lab (4)
Prerequisite: CHEM 231. An introduction to transition metal chemistry. Topics will focus on coordination chemistry, symmetry and group theory, chemical bonding, and simple inorganic and organometallic reaction mechanisms. The lab will expand on previous synthetic techniques and introduce catalysis and air-free handling techniques. Additional $125.00 lab fee applies.

CHEM 331 Organic Chemistry II with Lab (4)
Prerequisite: CHEM 231. Continues the examination of the theoretical aspects of carbon chemistry. Synthesis and structure determination by spectroscopy are also introduced. The laboratory continues to teach the basic techniques of preparative organic chemistry. In addition, more sophisticated analysis and synthesis are incorporated. One three-hour lab per week.

CHEM 351 Biochemistry with Lab (4)
Prerequisite: CHEM 331. Introduces the chemistry and metabolic processes of living organisms. One three-hour lab per week.

CHEM 361 Physical Chemistry I (3)
Prerequisite: CHEM 241 and MATH 132. An introduction to thermodynamics in a chemistry context. Examines matter in various states. CHEM 361, CHEM 461 and CHEM 363 can be taken in any order.

CHEM 363 Physical Chemistry Lab (1)
Prerequisite: CHEM 361 and MATH 132. This is a lab course that focuses on thermodynamics, kinetics, and quantum chemistry.

CHEM 372 Environmental Chemistry with Lab (3)
Prerequisite: CIV 110 and 28 completed credits; CHEM 241. An advanced chemistry course focusing on the chemical processes operating in the Earth's atmosphere, hydrosphere, and lithosphere. Labs will focus sampling and analysis methods used in detecting various chemicals in the environment. Includes two three-hour lab per week. (GS. CTN)

CHEM 411 Advanced Topics in Chemistry (4)
Prerequisite: CIV 210, CHEM 331. This course explores deeper principles within the field of chemistry that were introduced during the first two years of chemistry coursework. The content of the course will be driven by the topic, but there are some generalities. About half of the course will focus on learning new chemistry content not covered in other chemistry courses. The remainder of the course will focus on a student-driven project where the motivation, planning, and results will be presented via written and oral forms. Includes one - three hour a week lab as arranged with the instructor. Additional $125.00 lab fee applies. Students who have taken CHEM 431 cannot take CHEM 411. (WOC)

CHEM 442 Instrumental Analysis with Lab (4)
Prerequisite: CHEM 241. An introduction to methods associated with and experience with major types of analytical instrumentation. Includes spectroscopy, chromatography and electrochemistry. Also covers sampling and sample preparation, signal modification and signal to noise ratios. Two lectures and two laboratories per week. Usually offered in alternate years.

CHEM 451 Advanced Topics in Biochemistry (3)
Prerequisite: CHEM 351 Biochemistry. Building from the foundational concepts covered in Biochemistry, this course covers one or more advanced topics in Biochemistry. Example topics include Biophysical chemistry, bioinorganic chemistry, Pharmaceutical biochemistry, and Medicinal chemistry. May be repeated once for credit when the topic changes.

CHEM 461 Physical Chemistry II (3)
Prerequisite: CHEM 241 and MATH 132. An introduction to quantum chemistry, chemical spectroscopy, and atomic and molecular structure.

CHEM 485 Research Investigations in Chemistry (2)
In this course, the student will conduct collaborative research with a faculty mentor from the chemistry department. Students may participate in ongoing faculty research or help collaboratively design their own research topic. Six hours of lab time a week is expected. Students will present their work to the public at the end of each term. Repeatable for credit.

CHEM 199, 299, 399 Independent Study in Chemistry (Arr)
Prerequisite: instructor's permission. Designed for the student who has demonstrated unusual ability in the area of chemistry. The studies will be in the current research areas of the members of the chemistry staff.

CHEM 397/497 Internship (Arr)
Prerequisite: departmental approval and instructor's permission. An applied experience in the major, requiring a minimum number of hours of work per credit hour. Includes conferences with the on-campus instructor and an evaluation by the job supervisor. Pass/No Credit basis.

CHEM 498 Research (Arr)
Prerequisite: CHEM 461 or instructor's permission. Intensive introduction to research. Research will be conducted in close collaboration with a member of the staff and will reflect his or her current research interests.

CHEM 498 Senior Thesis in Chemistry (2)
Prerequisite: Prior participation in a significant research experience. Students in this course will complete their senior thesis to meet the requirements for a Bachelor of Science Degree in Chemistry or Biochemistry. Prior research in the chemistry/ biochemistry field will be needed but can include work at Central College with a faculty member or through another approved research program such as REU at another accredited institution.

Civitas

CIV 110 First Year Seminar
This course will emphasize becoming an engaged, reflective, and responsible citizen of our campus community. The course will introduce first-year students to the liberal arts and to the Core's theme of Engaged Citizenship and serves as the foundation for Civitas II and other Core courses. Students will develop skills in open-inquiry, respectful dialogue, and critical reading, as well as written and oral communication.

Approved Civitas 110 courses include:

- AI: Good or Evil? (4)
- All About Water (4)
- Be the Change You Wish to See (4)
- Chemical Soup (4)
- Citizens or Subjects (4)
- Civitas: Cradle to Citizen? (4)
- Climate Change: Storytelling (4)
- Conspiracy or Conspiracy Theory? (4)
- Education and Engaged Citizenship (4)
- Eidos & Koinonia (4)
- Exploring Ethics in Science (4)
- Ford vs Ferrari: Citizen Leadership Through Rivalry (4)
- Freedom to Read: Reading's Role in Citizenship (4)
- Gaming to Connect (4)
- Have Passport, Will Travel (4)
- Infectious Diseases that Changed the World (4)
- Leap to Engaged Citizenship (4)
- Meeting at the Divide (4)
- Money and Society (4)
- Music: Rhythm + Drumming= Engaged Citizenship (4)
- Music as a Catalyst for Change, Healing, and Growth (4)
- Star Wars, Stoicism, and Citizenship (4)
- Storytelling and Change (4)
- The HeART of Central (4)
- The Maddeningly Complicated World of Healthcare (4)
- Think Like a Poet (4)
- Us and Our Environs (4)
- Us and Them (4)

CIV 210 Second Year Seminar
The course will focus on a problem or question related to creating a more just society. The problem or question can apply at the national or international levels, but it could also have some connection to work we can do in our local communities. Some form of community engagement is an expectation. The course will serve as a common sophomore experience and will reinforce the student learning outcomes and written and oral skills introduced in Civitas 110.

Approved Civitas 210 courses include:

- Alternative Identities in Musical Theatre (4)
- Citizenship in a Changing World (4)
- Citizenship without Equity (4)
- Community Citizen Science (4)
- Cuisine and Community (4)
- Elvis to Eminem: American Popular Music 1950- 2000 (4)
- Food Justice (4)
- Hip-Hop and American Injustice (4)
- Judaism and International Relations (4)
- Latinos in U.S. Popular Culture (4)
- Learning and Living Sustainably (4)

- Lies! Disinformation in the Digital Age (4)
- MAGA: Movement and Meanings (4)
- Music, Theater and Social Change (4)
- Poverty and Promise in Latin America (4)
- Products of Our Time (4)
- Rethinking Normal (4)
- Science Fiction as Social Discourse (4)
- Science is for Everyone (4)
- Sport and Society (4)
- Technology and Citizenship (4)
- Technology and Community (4)
- The Energy Landscape (4)
- The Innocence Project (4)
- The Power of Language (4)
- War and Society (4)

Communication Studies

COMM 160 Communication in Everyday Life (3)
Limited to first and second year students. Introduces students to basic skills necessary for communicating effectively across a variety of social and professional contexts. Emphasis is placed on the development of an analytical and critical approach to planning, implementing and assessing effectiveness when communicating with others. Oral communication competencies include listening, large and small group discussion, and formal presentations. (SB, EXP)

COMM 180 Introduction to Communication Theory (3)
Surveys and analyzes significant theories of the Communication Studies discipline. Topics include the self and messages, relationship development, groups and organizations, public communication, the media, and culture and diversity. Critical thinking and writing skills are cultivated through brief theory application papers. Theories are also explored through in-class exercises.

COMM 240 Multimedia Writing Strategies (3)
This course provides instruction and practice for developing the professional-level writing skills required of strategic communication experts. Students will gain confidence in writing strategic message planners, creative briefs, news releases, and social media posts. In addition, students will implement podcast shows, radio/ TV ads, campaign fundraisers, and various print materials. Composing messages for the appropriate audience, identifying strategies for PR campaigns, and interacting on social media are emphasized.

COMM 245 Group and Team Communication (3)
Prerequisite: COMM-160. This course examines the processes of small groups and provides the skills specific to working in groups and team. In this highly interactive course, students will explore ways that people think and behave in groups, the way groups make decisions, how to lead effective and efficient groups, and how to influence positive interaction and productivity.

COMM 250 Evaluating Contemporary Media (4)
Prerequisite: CIV-110, and 28 credits or sophomore standing. Investigates how contemporary screen media construct, reflect, and naturalize identities in the U.S. and other national contexts. In addition, the course introduces students to the contexts of production, text, and audiences, and invites them to actively respond to the identities constructed through screen media. (GPC, CTN)

COMM 262 Interpersonal Communication (4)
Prerequisite: second-year standing or instructor's permission. Examines one-to-one communication encounters including friendships, intimates, family and work relationships. Applies theoretical concepts related to human perception, language, nonverbal communication, conflict resolution, listening and gender dynamics. (SB)

COMM 268 Intercultural Communication (3)
Prerequisite: CIV 110 and 28 completed credits. Explores communication within and across cultural groups. Addresses cultural differences broadly, including not only ethnicity, but also race, age, sexual orientation, gender, and disability. Presents and applies key concepts, skills, and processes of intercultural communication. Provides a forum not only to talk about diversity, but also to interact across difference and develop a better understanding of one's own culture. (GPC, CTN)

COMM 272 Professional Communication (3)
Prerequisite: second-year standing. This course examines oral communication in a variety of professional face-to-face and digital contexts. Develops understanding and communication skills in relation to job searches and interviews, professional presentations, interpersonal and group interaction, persuasion, and professional etiquette. .

COMM 275 Sports Communication (4)
Prerequisite: second-year standing. Investigates the communication practices by which individuals, groups, and organizations frame their experiences in/through sport. It operates from the assumption that people enact, produce, consume, and organize sport primarily as a communication activity. The class is structured from a survey perspective where the relationship between communication and sport is examined in interpersonal, social, family, mediated, and organizational contexts. Analysis papers, independent research, oral presentations, and class discussion/activities will be emphasized.

COMM 280 Communication Research Methods (4)
Prerequisite: COMM 180 and second-year standing or instructor's permission. Introduces basic primary and secondary research methods used in the study of human symbolic activity. Provides working knowledge of resources and research methods used in the communication discipline while refining research and academic writing skills. Primary methods emphasized include survey, ethnography, interviewing, and textual analysis. Includes significant writing component. Designed for students planning to be Communication Studies majors.

COMM 330 Media Criticism (3)
Prerequisite: third-year standing or instructor's permission. Students will examine the production, textual meaning, and reception contexts of media culture by focusing on the gains of historical and contemporary approaches to media studies and their theoretical limitations. Each unit will incorporate case studies that examine the influence of media, and students will be tested on each unit along with the opportunity to implement each theoretical approach. Finally, students will select a theoretical perspective to apply to their media object of choice in a critical analysis paper.

COMM 340 Public Relations (4)
Prerequisite: third-year standing or instructor's permission. Focuses on the fundamental communication processes involved in public relations. Basic theories of identity formation, persuasion and social influence are examined. Applied areas of emphasis include planning and implementing campaigns, as well as public relations writing, crisis response and information management. This course includes a service learning component.

COMM 342 Negotiating Organizational Cultures (4)
Prerequisite: CIV 210 and third-year standing. Examines the role of communication in workplace and other organizational cultures. Presents and applies theories of organizational communication through readings, case studies, and an original primary research project. Develops analytical, problem-solving, professional, and personal effectiveness through exploration of topics such as organizational systems and cultures, power and difference in organizations, and teamwork and leadership. (WOC)

COMM 364 Family Communication (4)
Prerequisite: CIV 210, third-year standing or instructor permission. Students will explore various family forms and examine family interaction from different theoretical lenses. Specifically, we will focus on the role of communication in a variety of family relationships (e.g., siblings, parent-child) and in a variety of settings (e.g., in times of stress and change, in health conversations, and through social media), as well as assess the idea of what constitutes a "functional" family. (WOC)

COMM 376 Communicating Health & Illness (4)
Prerequisite: CIV 210 and third-year standing. Provides a broad introduction to communication about health and illness in a variety of contexts for both theoretical and practical perspectives. Explores how health and illness are socially constructed through interaction and how they affect and are affected by communication. Topics include health/illness identity and social support, provider-client interaction, communication in health care organizations, and public health, including issues related to media and health promotion. Provides practical information that can be used in personal and professional life. This course is appropriate for non-majors. (WOC)

COMM 385 Digital Media Discourses (4)
Prerequiste: CV 210, third-year standing or insturctor permission. Examines dystopian and utopian discourses about how digital media influence human communication with a focus on personal, interpersonal, social, educational, professional and virtual contexts. In addition to reading scholarly articles, students will consider how their media interactions fashion communication and relationships. This class is designed to engage students through daily readings and discussions and a group research paper that investigates an issue in digital media. (WOC)

COMM 397 Internship in Communication Studies (Arr)
Prerequisite: declared major or minor in Communication Studies; departmental GPA of 2.0 or higher; and departmental approval. An applied professional experience in communication-related fields. Includes midterm and final evaluations by site supervisor; written reflection during the experience; conferences with supervising faculty member; and submission of an acceptable internship analysis paper. May be repeated for a maximum of 8 credit hours applied to the major or 3 credit hours applied to the minor. Pass/No Credit basis.

Computer Science

COSC 110 Introduction to Computer Science (3)
Prerequisite: Minimum ACT composite score of 23 or DATA 110 recommended. Introduction to the fundamental ideas and techniques of computer science. Introductory programming topics such as variables, sequence, selection, repetition, and objects will be covered. Students will spend a significant amount of time out of class writing and debugging code in a programming language. (MR, EXP)

COSC 130 Data Structures (3)
Prerequisite: COSC 110. Studies the implementation of common data structures such as stacks, queues, linked lists, and trees. Intermediate programming topics such as recursion, analysis of algorithms, and other topics will be introduced. Students will spend a significant amount of time out of class designing, writing, collaborating on, and debugging classes and programs.

COSC 210 Database and the Web (4)
Prerequisite COSC 110. Introduction to the client-server paradigm using web clients and database servers. The interaction of the web client languages HTML, CSS, and JavaScript with server languages such as PHP and SQL will be explored.

COSC 220 Software Design (4)
Prerequisite: COSC 130. Introduces current design methodologies for developing computer programs. Object-oriented programming concepts will be covered. Designing classes and interaction between objects will be emphasized. In addition, API's for common data structures will be included. Students will spend a significant amount of time out of class designing, writing, collaborating on, and debugging classes and programs in an object-oriented programming language.

COSC 245 Computer Organization and Architecture (4)
Prerequisite: COSC 130. A study of the internal organization and design of computing devices. The machine will be examined at different levels such as digital logic, microprogramming, conventional machine and assembly language. Advanced architectures such as RISC and parallel machines will be explored.

COSC 250 Databases and Big Data (3)
Prerequisite: COSC 110. Introduces a variety of paradigms for secure data storage and analysis. Highlights relational databases and SQL. Non-relational databases and storage of large datasets will also be discussed.

COSC 325 Mobile Application Development (4)
Prerequisite: COSC 220. Studies the principles of software development for mobile platforms.

COSC 330 Algorithms (3)
Prerequisite: COSC 130. A survey of algorithm analysis and design, with an introduction to advanced algorithms. Topics may include sorting and searching, strings, graphs, and dynamic programming.

COSC 345 Computer Systems (4)
Prerequisite: COSC 130, COSC 245 recommended. Studies fundamental system concepts such as memory management, input/output, process and thread management, concurrency, and networking.

COSC 346 Cybersecurity (4)
Prerequisite: COSC 130. Overviews computer security in software systems and the Internet. The course will evaluate risks to computer and network systems, examine and design security systems against attacks, and apply security principles to solve real-world problems. A "learning by doing" approach using self-contained labs will be used to demonstrate security flaws and their remedies.

COSC 362 Computer Graphics (4)
Prerequisite: COSC 220**.** Introduction to the principles and techniques of computer graphics. This course begins with a bottom-up approach, in which you write C++ code from scratch to create 3D images in two fundamentally different ways. This provides a strong foundation for learning OpenGL, the industry-standard graphics API.

COSC 390/490 Topics: Computer Science (Arr)
Prerequisite: COSC 220. Various topics in computer science can be studied depending upon the interest of the students. Some possible areas of study are advanced programming techniques and systems analysis.

COSC 420 Senior Project (4)
Prerequisite: CIV 210, COSC 220. Students will learn current development practices and apply them to design and implement a semester project of their choice. Students are expected to present (orally and in writing) the results of their work. (WOC)

Data Science

DATA 110 Data-Driven Decisions (3)
Introduction to techniques for effectively making decisions using data. Studies fundamental principles, concepts, and techniques used to organize and analyze information. Exposes students to a variety of data tools.

DATA 210 Introduction to Data Science (3)
Prerequisite: COSC-110, CIV-110, and either second-year standing or 28 completed credits. An introduction to concepts, tools, and techniques in data science including data acquisition, cleaning, analysis, modeling, and visualization. No prior familiarity with data science is assumed. (CTN)

DATA 310 Data Visualization (3)
Prerequisite: Second-year standing. Studies principles of effective visualization based on insights from many disciplines, including cartography, psychology, cognitive science, and graphic design. Students will learn to analyze visualizations based on these principles and apply the principles to create effective visualizations of their own. (CTN)

DATA 340 Applied Machine Learning (3)
Prerequisites: MATH-131, COSC-110. The course focuses on the regression, classification, and clustering tasks with the scikit-learn machine learning library in Python. The basic data structures used in machine learning such as numpy arrays and pandas data frames will be introduced in the beginning of the course. Students will spend a significant amount of time out of class designing, writing, collaborating on, and debugging Python programs.

DATA 420 Senior Project (4)
Prerequisites: CIV 210, DATA 310 or DATA 340. Students will learn mathematical research techniques and apply them to design and implement a semester project of their choice. Students are expected to present (orally and in writing) the results of their work (WOC).

Decision Science

DESC 110 Introduction to Decision Science (1)
This one-credit introductory course offers a comprehensive overview of decision science. The course will introduce the Decision Quality Framework championed by the Strategic Decision Group (SDG). Students taking this course will explore how structured decision-making can enhance outcomes in their academic work, their health, and athletic performance. They will also explore how strategic decision-making can enhance outcomes in business, public policy, healthcare, and everyday life, through interactive discussions, thought experiments, case studies, and lectures from outside speakers (local leaders and coaches).

DESC 210 Applied Decision Science (1)
Prerequisite: DESC- 110. This one-credit course offers a comprehensive overview of decision science. The course will introduce a Decision Quality Framework championed by the Strategic Decision Group (SDG). Students taking this course will explore how structured decision-making can enhance outcomes in their academic work, their health, and athletic performance. They will also explore how strategic decision-making can enhance outcomes in business, public policy, healthcare, and everyday life, through interactive discussions, thought experiments, case studies, and lectures from outside speakers (local leaders and coaches).

DESC 310 Applied Decision Making (3)
Prerequisite: CIV 210. This course explores how people and organizations make choices and how they can make better ones. By using decision frameworks, students will practice analyzing problems, recognizing common biases, weighing risks, and applying ethical reasoning, all while building strong data, critical thinking, and communication skills. (CTN)

Direct Service-Learning Module

XXXX-283/XXXX-383 Direct Service-Learning Module (1-3)
Provides individualized (200 or 300 level) academic direct service-learning activity focused on a specific field of study in collaboration with an approved community partner. The registration process involves preparation and approval of a proposal in consultation with a faculty member and the associate director of Community Engaged Learning. Typically, students will receive credit in the department of the faculty member. Requirements include: a minimum of 2 hours of service per week for every semester hour of credit earned; pre-experience readings; participation in CEL reflection series; a final product, and participation in the CEL Symposium at the conclusion of the semester. Pass/No Credit. May be repeated.

Economics

ECON 112 Principles of Microeconomics (3)
Introduces the major concepts and applications of microeconomic theory. Examines the economic decision making of individuals and firms and explores market mechanisms within the context of scarce resources. Explores economic rationales for government intervention in the market. (SB)

ECON 113 Principles of Macroeconomics (3)
This course explores the function of the national economy. By discussing unemployment, inflation, economic growth and a variety of measures of economic output, students in the course will begin to understand how economic behavior affects nations in the aggregate. Special attention is placed to the function of both fiscal and monetary policy. (SB)

ECON 312 Microeconomic Theory (4)
Prerequisites: ECON 112, ECON 113 and MATH 131. Studies the theoretical foundations of economics; examines the behavior of individuals, firms and markets. Includes indifference analysis, production theory, factor markets and general equilibrium theory.

ECON 313 Macroeconomic Theory (4)
Prerequisites: ECON 381 and MATH 131. Discusses aggregate measures of economic activity; presents and contrasts the theoretical approaches to the macroeconomy; examines policy issues related to inflation, unemployment and economic growth.

ECON 321 Environmental Economics (3)
Prerequisite: ECON 112. Economic analysis of natural resources and environmental goods. Topics include optimal consumption of depletable resources, analysis of environmental policy, theory of common property resources, public goods, and external costs and benefits, as they apply to environmental resources. (GS)

ECON 322 International Trade and Finance (3)
Prerequisite: ECON 113, CIV 110 and 28 completed credits. This course seeks to expose students to both the theoretical and application aspects of international trade and finance. Students learn why countries trade with each other, the benefits associated with trade and the role politics play in hindering free trade, migration and capital flows. Students also learn how cultural ties, geographic proximity, domestic tastes and preferences affect international trade in goods and services. The second half of the course covers topics such as the balance of payments, exchange rates, Monetary Unions and financial globalization. (GPN, CTN)

ECON 324 Monetary Theory and the Financial System (3)
Prerequisite: ECON 113. Examines the theoretical debate over the role of money in the economy and the ability of the central bank to affect economic activity. Reviews the commercial banking system and other financial markets. Offered alternate years.

ECON 329 Economic Development (3)
Prerequisite: CIV 110 and 28 completed credits. Economic development is a subset of economics concerned with not just economic growth but a concurrent change in the standard of living for masses of people living in lesser developed countries. This involves changes in economic, social, political and institutional mechanisms. This course also considers intergenerational equity and development so future generations are not left worse off in the drive for current economic development. (GS, CTN)

ECON 381 Research Methods in Economics (4)
Prerequisites: CIV 210, ECON 112 or ECON 113, MATH 105 or MATH 215. An in-depth analysis of the role of inferential statistics in economics. Emphasizes model construction and applications of probability to univariate and multivariate hypothesis testing, confidence intervals, and simple multiple regression, among other topics. Formerly ECON-281. Students may not receive credit for both. (WOC)

ECON 382 Economic Forecasting (3)
Prerequisite or corequisite: ECON 381. This course provides a basic understanding of economic forecasting and its associated terminology. Concepts in modeling time-series data such as seasonality, trends and cycles, auto regressive and moving averages models are discussed. Students are introduced to practical data analysis application using the software R.

ECON 390 Topics (Arr)
Prerequisite: instructor's permission. Selected topics in economics may be offered, depending upon student and staff interest.

ECON 397 Internship (Arr)
Prerequisite: third-year standing. Available only to students who have declared a major in the department. The seminar attempts to sensitize the student to work experience and provide communication with other students to discuss their mutual experience. May be repeated for a maximum of 9 credits total. Does not count toward the economics major. Pass/No Credit basis.

ECON 485 Economics Research Seminar (3)
Prerequisite: ECON 381. Requires students to conduct a research project grounded in economic theory and utilizing statistical methodologies. Typically, the research project is a continuation and extension of a project begun in ECON 381 or another upper-level course. There is an emphasis on close collaboration between student and department faculty. (WRT)

ECON 499 Independent Study (Arr)
Prerequisite: instructor's permission. An independent research experience for senior majors.

Education

EDUC 110 Foundations of Education (3)
Focuses on the development of schools in American society, and issues related to philosophy, curricula, governance, finance, law, ethics, professionalism and teaching as a career. Emphasizes active student learning and development of college level literacy and research skills. This course is required for admission to the teacher education program.

EDUC 135 Children with Exceptionalities (3)
This general survey course presents an overview of children and adolescents with exceptionalities. The special education process, characteristics of exceptionalities, and treatment options will be examined related to children experiencing learning disabilities, emotional behavior disorders, attention deficit hyperactivity disorder, autism spectrum disorders, physical and other health impairments. This course is required for admission to the teacher education program. (SB, EXP)

EDUC 181 Developmental Psychology (3)
Focus is on basic theories and concepts related to physical, cognitive, and psychosocial development. While specific emphasis will be placed on children and adolescents, a lifespan perspective will be utilized including discussion and content from pre-natal development through issues associated with death and dying. This ccourse is required for admission to the teacher education program. (SB)

EDUC 183 Pre-Admission Workshop (1)
Corequisite: Enrolled in EDUC 110, EDUC 135 or EDUC 181 or instructor approval. This workshop is required for admission to the teacher education program at Central College. Students will complete pre-entry observation hours, review the handbook requirements for the teacher education program and conclude the course by completing their application to the program. Pass/ no credit.

EDUC 210 Methods of Teaching Physical Education, Visual Arts, and Performing Arts in the Elementary Classroom (3)
Prerequisite: admission to the teacher education program. Provides elementary teachers with the opportunity to explore creative expression, integrating the teaching of physical education, health, and wellness as well as the visual and performing arts into the elementary curriculum. Students will be required to examine and apply National Standards for physical education, music education and the visual arts to teaching methods. The theoretical, philosophical, developmental, social, and cultural foundations that support arts integration and cross-curricular applications will be examined.

EDUC 220 Phonological Awareness and Phonics (3)
Prerequisite: admission to the teacher education program. Corequisite: EDUC 237. This course is designed to teach the fundamental principles and concepts of the structure of language, with a focus on phonological awareness and phonics. Students learn the sound-symbol correspondences of language and understand the relationship of phonemic awareness and the phonological system of language to the reading process. Students also study the linguistic and cognitive bases of reading. Practicum experience of 15 hours is required.

EDUC 231 Teaching English Language Learners (3)
Prerequisite: admission to the teacher education program. The course is designed to support preservice teachers in designing and delivering effective instruction to English Language Learners (ELLs). Students will be introduced to models and pedagogy regarding teaching ELLs. Students will focus on differentiation and how to develop and implement effective lessons that meet the individualized needs of ELLs in the classroom. Students will gain insights into how these principles are put into action by working with English Language Learners in placements provided by the Center for Community-Based Learning. Field experiences include 15 hours of service learning. The understanding of methods and approaches to teaching ESL/EFL will be addressed throughout the course.

EDUC 237 Foundations of Literacy (3)
Prerequisite: admission to the teacher education program. Co-requisite: EDUC 220. The Foundations of Literacy course provides a scientifically based foundation in the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development. The course presents the key scientifically based reading research foundations needed to understand how reading develops, and effective methods and strategies used to teach literacy skills to young children through young adults. Topics include understanding reading research, cognitive psychology's contributions to understanding the reading process, language development, the sequence of learning to read, the essential components of reading instruction, and an introduction to the most effective approaches to teaching reading across the grade bands.

EDUC 239 Psychology in Elementary Education (3)
Prerequisite: admission to the teacher education program. Co-requisite: EDUC 237. Examines the fundamental concepts of learning, motivation and behavior in relation to educational practices. The student will also examine the tools and techniques of test construction, measurement and evaluation by the teacher.

EDUC 240 Teaching, Learning and Assessment (3)
Prerequisite: admission to the teacher education program. Co-requisites: Either EDUC 237 for elementary education or EDUC 342 and EDUC 374 for secondary and K-12 education. Examines the fundamental concepts of learning, motivation and behavior in relation to educational practices. The student will also examine the tools and techniques of test construction, measurement and evaluation by the teacher. Practicum experience of 20 hours is included for Secondary Education students.

EDUC 253 Engineering for Teachers (3)
Prerequisite: admission to the teacher education program. This course will introduce students to the engineering design process, where they will apply math, science, and engineering standards in hands-on projects. They will work individually and in collaborative teams to design solutions to a variety of problems using 3D modeling software and an engineering notebook to document their work. Students will also work with programming logic and problem-solving models in a technological design focused unit.

EDUC 262 Collaboration Strategies and Administrative Practices (3)
Prerequisite: admission to the teacher education program. This course focuses on the fundamental aspects and principles of leadership and collaboration within early childhood, K-8 general education, and preK-8 special education settings. As such, significant emphasis will be placed on the building of strong communication and collaborative relationships with fellow teachers, paraprofessionals, support personnel, parents and the greater community that play a role in meeting the needs of students with and without disabilities and their families.

EDUC 275 Health, Safety & Nutrition (3)
Prerequisite: admission to the teacher education program. Required for the ECE/ Inclusive Endorsement #1001. The course focuses on evidence- based concepts in the fields of health, safety and nutrition and their relationship to the growth and development of the young child from birth to through third grade. Participants will learn to recognize signs of emotional distress, physical and mental abuse and neglect in young children. Additionally, participants will study learning environments and classroom procedures to promote positive social interaction, conflict resolution and self- regulation in children birth through third grade.

EDUC 311 Methods of Teaching Health, PE and Adaptive PE in the Elementary School (3)
Prerequisites: admission to the teacher education program. Provides students who intend to teach health and PE in grades K-6 with a variety of theoretical, philosophical, and practical principles necessary for the development of a sound, professionally grounded, and research-based curriculum for children in grades K-6. Information covered includes general and specific teaching methods, justifying and designing a physical education program, developing a total program and implementing instructional activities. Students participate in 20 hours of clinical experience in area schools, grades K-6. Students write and implement lesson plans, critique methods, and conduct self and peer evaluations of their teaching. Students consider developmental, remedial, and corrective programs in physical education; emphasizes adaption to special needs beyond the regular physical education program. Requires participation in service learning to help students integrate course content with experience.

EDUC 312 Methods of Teaching Art in the Elementary School (2)
Prerequisites: admission to the teacher education program. Explores the history and philosophies of art education and the developmental levels of art making. Provides methods for teaching art that challenges children to use higher order thinking skills. Lessons will be prepared and presented to elementary art students. Students will participate in a 20-hour clinical experience in K-8 classrooms. Students will create and teach lessons and conduct self and peer evaluations of their teaching.

EDUC 313 Methods of Teaching Music in the Elementary School (3)
Prerequisite: admission to teacher education program. Provides students with a variety of theoretical and practical principles that are necessary for the development of the general music curriculum for K-8th grade students. The emphasis is on the presentation of musical concepts through a variety of approaches with special regard for aspects of child development. Students will participate in a 20-hour clinical experience in K-8 classrooms. Students will write lesson plans, use appropriate teaching techniques, apply theoretical principles in the practical setting, and conduct self and peer evaluations of their teaching methods.

EDUC 314 Methods of Teaching Health, PE and Adaptive PE in the Secondary School (3)
Prerequisites: admission to the teacher education program. Provides students who intend to teach health and PE in grades 7-12 with a variety of theoretical, philosophical, and practical principles that are necessary for the development of a sound, professionally grounded, and research-based curriculum for children in grades 7-12. Information covered includes general and specific teaching methods, justifying and designing a physical education program, developing a total program and implementing instructional activities. Students will participate in 20 hours of clinical experience in area schools in grades 7-12. Students write and implement lesson plans, critique methods, and conduct self and peer evaluations of their teaching.

EDUC 315 Methods of Teaching Art in the Secondary Schools (2)
Prerequisites: admission to the teacher education program. Methods and strategies for teaching art to secondary students and will include readings and handouts from professional organizations about the field of art education. Students will participate in class discussions about the readings. Students will take away from this class several ways to engage students in visual thinking and strategies to carry out that task with age appropriate materials. Responses may be required in verbal and/or written form. A total of 20 hours of clinical experiences will be completed in the secondary art classroom, including classroom observations of secondary art students followed by experiences where students will prepare and teach lessons to secondary art classes and will conduct self and peer evaluations of their teaching.

EDUC 316 Teaching Choral and Instrumental Music in Secondary Schools (2)
Prerequisite: admission to the teacher education program. Provides students with the skills, techniques, and resources needed to teach choral and instrumental music in grades 5-12. Students will consider various perspectives of music philosophy and learn how these views affect teaching methods. Students will learn pedagogical approaches and techniques for individual lessons and small ensemble and large ensemble rehearsal settings. Students will prepare for both the administrative responsibilities and musical responsibilities for directing a secondary school music program. Students will participate in 20 hours of clinical experience in area schools in grades 5-12. Students will write and implement lessons plans and units, critique methods, and conduct self and peer evaluations of their teaching and rehearsal methods.

EDUC 320 Middle School Methods and Curriculum (3)
Prerequisite: admission to the teacher education program. This course is designed to assist future middle school teachers to become better informed about teaching at the middle school level. Identifies important characteristics of a quality middle school, and the curricular development in middle level education. Students will prepare interdisciplinary instructional materials. A field experience of 15 hours in middle school sites is required.

EDUC 322 Early Adolescent Development (3)
Prerequisite: admission to the teacher education program. This course focuses on the developmental, social, cognitive, and personal issues that confront adolescents as they emerge from childhood and strive for adulthood. Students will examine the physical and social adjustment of the adolescent child and the relationship of the school environment to the child's development. Lecture, class discussions, group activities, experiential exercises, videos and homework assignments will be used to meet instructional goals. Five hours of clinical experiences are embedded into this course and fulfill state of Iowa licensure requirements.

EDUC 331 Curriculum and Methods for Students with Mild/Moderate Disabilities-Elementary (3)
Pre-requisite: admission to the teacher education program. Co-requisite EDUC 360. Fuses the characteristics of students with diverse learning needs with the demands of education. This methods and strategies course covers multiple approaches for providing curricular and instructional methodologies to educate students with mild disabilities. Ethical considerations are given to contemporary alternatives for meeting the individual needs of students who differ in degree and nature of disability in order to maximize participation and progress in the general education curriculum. Features of effective teaching and features of high-quality educational tools, including the use of assistive technology, provide a structure for exploring curriculum and approaches which maximize a student's potential to learn. Course covers sources of services, organizations, and networks for individuals with mild and moderate disabilities, including career, vocational and transitional support to post-school settings with maximum opportunities for decision making and full participation in the community. A minimum of 30 hours of unique field experience targeting programs that enhance a student's social participation in family, school, and community activities is expected and specific to the elementary endorsement.

EDUC 332 Curriculum and Methods for Students with Mild/Moderate Disabilities-Secondary (3)
Pre-requisite: admission to the teacher education program. Co-requisite: EDUC 360. Fuses the characteristics of students with diverse learning needs with the demands of education. This methods and strategies course covers multiple approaches for providing curricular and instructional methodologies to educate students with mild disabilities. Ethical considerations are given to contemporary alternatives for meeting the individual needs of students who differ in degree and nature of disability in order to maximize participation and progress in the general education curriculum. Features of effective teaching and features of high-quality educational tools, including the use of assistive technology, provide a structure for exploring curriculum and approaches which maximize a student's potential to learn. Course covers sources of services, organizations, and networks for individuals with mild and moderate disabilities, including career, vocational and transitional support to post-school settings with maximum opportunities for decision making and full participation in the community. A minimum of 30 hours of unique field experience targeting programs that enhance a student's social participation in family, school, and community activities is expected and specific to the elementary endorsement.

EDUC 333 Science and Technology Curriculum and Methods (3)
Prerequisites: EDUC 352, EDUC 354, EDUC 374 and admission to the teacher education program. Co-requisite of EDUC 334. This course introduces students to a wide variety of teaching methods in elementary science. Students will be exposed to sound educational philosophy, research, best practices and experiences, which can be implemented in the science classroom. A variety of student-centered instructional approaches with an emphasis on inquiry and student engagement will be presented. Meaningful integration of technology will also be stressed. This course includes a 12-hour practicum experience in an elementary classroom. Designed for students seeking K-6 licensure.

EDUC 334 Social Studies Curriculum and Methods (3)
Prerequisites: EDUC 352, EDUC 354, EDUC 374. Co-requisite: EDUC 333. This course is designed to equip prospective elementary teachers to understand, plan, and teach social studies at the K-6 level. The course will focus on unpacking and prioritizing social studies content, identifying and implementing appropriate instructional strategies, and planning assessment that measures students' progress toward standards-based learning targets. The course focuses on evidence-based practices and sound pedagogical philosophy and practice. Throughout the course, students will be asked to wrestle with the problems, trends, threats, and most notably, the importance of social studies education and its connections in helping teachers meet the standards of the Common Core State Standards. This course includes a 12- hour Practicum Experience in an elementary classroom. This is designed for students seeking K-6 licensure.

EDUC 340 Learning and Assessment in Secondary Education (3)
Prerequisites: admission to the teacher education program. Co-requisites: EDUC 342 and EDUC 375. Examines the fundamental concepts of learning, motivation and behavior modification in relation to education practices. The student will also examine the tools and techniques of test construction, measurement and evaluation by the teacher. Practicum experience of 20 hours is included.

EDUC 342 Reading in the Content Area–Secondary (1)
Prerequisite: admission to the teacher education program. Co- requisites: EDUC 340 and EDUC 375. Reading in the secondary classroom differs significantly from reading instruction in the elementary school. It is generally assumed that the basic skills of learning how to read are acquired in the elementary grades. It cannot be assumed, however, that students at the secondary level will automatically make the transition from reading elementary texts to successful completion of the complex demands of reading and learning in the content area. It is the purpose of this course to help secondary level teacher-in-training acquire knowledge of skills and strategies that will help enable all of their students to be more successful at learning in the content areas.

EDUC 343 Foundations of Reading Test Prep (1)
Prerequisite: student teaching in the next year. Provides instruction and preparation that includes an overview of the state of Iowa mandated Foundations of Reading test. Course will include strategies for analyzing and answering test questions, and strategies for studying for this high-stakes test. This course includes a practice assessment and review.

EDUC 344 IEPs, Assessment, and Evaluation (3)
Prerequisite: admission to the teacher education program. Teaches the legal provisions, regulations and guidelines regarding unbiased assessment and use of psychometric instruments and instructional assessment measures of individuals with disabilities. Students will participate in the application of assessment results to individualized program development and management, and the relationship between assessment and placement decisions. Additionally, students will gain knowledge of any specialized strategies such as functional behavioral assessment and any specialized terminology used in the assessment for various disabling conditions.

EDUC 345 Human Relations (3)
Prerequisite: CIV 210 and admission to the teacher education program. Examines issues in education related to culture, gender, ethnicity, sexual orientation, socio-economic status and linguistic diversity. Intended to increase knowledge of and sensitivity to the diverse groups that make up the student population in schools today. A semester- long (15 hour) service learning experience provides opportunities to relate knowledgeably, respectfully, and sensitively to students from ethically-diverse backgrounds. (GPC, WRT, CTN, WOC)

EDUC 346 Secondary General Methods I (2)
Prerequisites: Admission to teacher education program, EDUC 2140, EDUC 242. Corequisite: EDUC 374. Introduces prospective teachers to the general methods of teaching in the middle and secondary grades. Specific skills are acquired in planning, implementing instructional strategies, providing for individual differences and evaluating student performance. Practicum experience of 15 hours is required.

EDUC 352 Vocabulary, Comprehension and Writing Instruction (3)
Prerequisites: admission to teacher education program, EDUC 220, EDUC 237. A comprehensive exploration of the developmental and instructional implications related to fluent reading vocabulary acquisition, comprehension and writing instruction. Along with these core aspects of reading, major skill domains that contribute to the development of written expression are explored. Principles of explicit and systematic instruction of these core aspects of reading and writing are studied and practiced. Field experience of 15 hours is required.

EDUC 354 Teaching of Mathematics (3)
Prerequisites: EDUC 237, EDUC 239 and admission to the teacher education program. Co- requisites: EDUC 352 and EDUC 374. Presents methods and materials for teaching elementary school mathematics. Conceptually oriented, the course involves actively doing math, emphasizes development of math thinking and reasoning skills, math applications, pedagogy, and a broad range of content. Practicum experience of 10 hours is included.

EDUC 356 STEM Curriculum and Methods (3)
Prerequisite: admission to the teacher education program. Prerequisite or co-requisite: EDUC 352, EDUC 354 EDUC 374. This course will teach students to effectively integrate science, technology, engineering, and mathematics content into their daily instruction. The course will allow students to explore STEM and STEAM curriculum and pedagogy from a variety of best-practice programs. They will design, develop, and facilitate a STEM based learning experience for children ages 3-13 in an academic setting.

EDUC 360 Instructional Strategies I: Behavior Modification (3)
Prerequisite: admission to the teacher education program; Co-requisite: EDUC 331 or EDUC 332. Teaches non-aversive approaches to individual behavioral issues, specially designed instructional techniques addressing academic areas, and the evaluation and instruction in skills which maximize the development of cognitive, academic, social, language, and functional abilities for students are addressed.

EDUC 374 Behavior and Classroom Management (3)
Prerequisites: admission to the teacher education program. Co-requisites: either EDUC 352 and EDUC 354 for elementary majors or EDUC 240 and EDUC 342 for secondary majors. Focuses on strategies in behavior and classroom management including applied behavioral analysis, for working with groups and individuals on academic, behavioral, or social skills. Addresses classroom management strategies appropriate for all children, including those with special educational needs.

EDUC 375 Behavior and Classroom Management-Secondary and K-12 (3)
Prerequisite: admission to the teacher education program. Co-requisites of EDUC 340 and EDUC 342. Focuses on strategies in behavior and classroom management. Addresses classroom management strategies appropriate for all children, including those with special educational needs.

EDUC 383 Field Experience in Special Education (1)
Prerequisite: admission to the teacher education program and instructor's permission. This experience is designed as an introduction to working with children with an individualized education program. The primary focus is on service delivery models and instructional methods unique to those in special education. This 30-hour field experience may be completed up to three times in different settings. Pass/No Credit basis.

EDUC 384 Field Experience in Secondary Education (1)
Prerequisites: EDUC 240, EDUC 342, EDUC 374 and admission to the teacher education program. Co-requisites: EDUC 450 and EDUC 451 for secondary education. Students will explore classroom observation techniques and basic theories of communication, tutoring, and planning. A 30-hour field experience is required and provides a broad application overview of the planning and teaching processes in secondary schools. Designed for students seeking secondary teacher licensure. Pass/No Credit basis.

EDUC 392 ESL Practicum (Arr)
Prerequisite: ENGL 360 and instructor's permission. The ESL practicum is a pre-student teaching experience of observation, teaching and reflection on teaching English as a second language in the public-school setting. The course requires 45 contact hours divided between both the primary and secondary levels, as well as group and individual discussion and research.

EDUC 397 Central Teacher Academy Internship (1)
Prerequisite: instructor permission. Participants in the Central Teacher Academy collaborate with a mentor teacher 2-3 hours/week to provide instructional services to students in the Pella community. Participants also engage in a variety of professional development activities sponsored by Central College and their school placements. This course may be repeated up to 5 times.

EDUC 397 Experiential STEM Internship (1)
Prerequisite: admission to the teacher education program. Prerequisite or co-requisite of EDUC 356. This course will include an internship experience involving STEM, with a minimum of 30 contact hours for the internship. Students will experience STEM in an authentic environment through participation of this internship with the goal of being better able to provide an authentic experience for K-8 students as a STEM teacher.

EDUC 397 Internship: Teaching ESL (Arr)
Prerequisite: ENGL 360 and permission of instructor. Students gain experience teaching English to non-native speakers of the language. The supervising instructor must approve the internship site and student population. This course is not intended as a practicum for teaching licensure.

EDUC 420 Early Childhood Education I: Curriculum, Assessment & Methods (4)
Prerequisite: admission to the teacher education program. This course is required for the ECE/ Inclusive Endorsement #1001. This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate practices in a context of family and culturally sensitive care. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions, and environments in the following areas: dramatic play, art, music, fine and gross motor play. Students will be exposed to early childhood theories, child development, current research and curriculum standards, assessments and outcomes in designing environments. Students will participate in a 30-hour clinical experience.

EDUC 421 Early Childhood Education II: Curriculum, Assessment & Methods (4)
Prerequisite: admission to the teacher education program. This course is required for the ECE/ Inclusive Endorsement #1001. This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate practices in a context of family and culturally sensitive care. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions, and environments in the following areas: emergent literacy, math, science, technology, and social studies. Students will be exposed to early childhood theories, child development, current research and curriculum and assessment standards and outcomes in designing environments. Students will participate in a 30-hour clinical experience.

EDUC 430 Early Childhood Education III: Administration, Supervision & Collaboration (4)
Prerequisite: EDUC 420, EDUC 421. This course is required for the ECE/ Inclusive Endorsement #1001. This course focuses on the fundamental aspects and principles involved in setting up and administering an early childhood program. Emphasis will be on licensing regulations, bookkeeping, insurance enrollment, record keeping, verification preparation, training and supervision of employees, facility planning and maintenance and quality programming and improvement strategies. Curricular leadership, selection of materials and equipment, and curricular implementation are also embedded. Students will participate in a 30 hour clinical experience.

EDUC 438 Literary Assessment and Intervention (6)
Prerequisite: admission to teacher education program, EDUC 220, EDUC 237, EDUC 352. Corequisite: EDUC 390. Vocabulary, Comprehension and Writing Instruction is a comprehensive exploration of the developmental and instructional implications related to fluent reading, vocabulary acquisition, comprehension and writing instruction. Along with these core aspects of reading, major skill domains that contribute to the development of written expression are explored. Principles of explicit and systematic instruction of these core aspects of reading and writing are studied and practiced. Field experience of 45 hours is required.

EDUC 444 Literacy Strategies for Content Area Reading (3)
Prerequisite: admission to the teacher education program. Examines strategies for integrating literacy in the content areas. A 15-hour middle school practicum experience provides opportunities to embed strategies in the classroom curriculum and instruction to enhance students' abilities to learn content knowledge and disciplinary literacy.

EDUC 446 Secondary General Methods II (1)
Prerequisites: admission to the teacher education program, EDUC 346, EDUC 374. This course will give students a firm theoretical base for practical methods of planning and teaching in secondary schools. It extends knowledge for pre-service teachers of the general methods of teaching in the middle and secondary grades. Specific skills are acquired in long-term planning, curriculum mapping, and evaluating student performance, in addition to reflecting upon teaching through a professional learning community.

EDUC 450 General Secondary Methods (3)
Prerequisites: admission to the teacher education program, EDUC 240, EDUC 342 and EDUC 374. Co-requisites: EDUC 384 and EDUC 451 for secondary education. Introduces prospective teachers to the general methods of teaching in the middle and secondary grades. Specific skills are acquired in planning, implementing instructional strategies, providing for individual differences and evaluating student performance, and reflecting upon teaching through a professional learning community.

EDUC 451 Secondary Special Methods (1)
Prerequisites: EDUC 240, EDUC 342, EDUC 374 and admission to the teacher education program. Co-requisites for secondary education: EDUC 384 and EDUC 450 for secondary education. Introduces prospective teachers to the methods and curriculum in the specialized subject areas in the middle and secondary grades. Specific skills are acquired in planning, implementing instructional strategies, providing for individual differences and evaluating student performance.

EDUC 453 Advanced Integration of Technology in Education-Elementary (1)
Prerequisite: approval to student teach. Co- requisites: EDUC 460 or EDUC 462 and EDUC 468 and EDUC 485. Focuses on instructional technology strategies, educational pedagogy, educational philosophy and research, and a wide variety of instructional technologies. Emphasis on learning how to plan, design, and integrate technologies into teaching and learning. The ethical and equitable use of instructional technology is discussed and demonstrated by students. Designed for students seeking K-6 licensure. This class meets online.

EDUC 455 Advanced Integration of Technology in Education-Secondary (1)
Prerequisite: approval to student teach. Co-requisites: EDUC 470 or EDUC 466 and EDUC 476 and EDUC 486. Focuses on instructional technology strategies, educational pedagogy, educational philosophy and research, and a wide variety of instructional technologies. Emphasis on learning how to plan, design, and integrate technologies into teaching and learning. The ethical and equitable use of instructional technology is discussed and demonstrated by students. Designed for students seeking 6-12 licensure. This class meets online.

EDUC 460 Elementary Student Teaching (12)
Prerequisite: approval to student teach. Co- requisites: EDUC 453 and EDUC 485. Students will observe, assist and teach in elementary school classrooms for 16-weeks under the guidance of the classroom teacher, the school principal and the college supervisor. Pass/No Credit basis.

EDUC 461 Elementary Intern Teaching (Arr)
Prerequisite: approval to student teach. An experience as a teaching intern with close supervisory assistance from the local school district as well as from the college staff. Pass/No Credit basis.

EDUC 462 Elementary Student Teaching (6)
Prerequisite: approval to student teach. Co- requisites: EDUC 468, EDUC 453 and EDUC 485. Supervised observation and teaching for 8 weeks in regular K-6 classroom. Pass/No Credit basis.

EDUC 464 Elementary Student Teaching in Subject Area (12)
Prerequisite: approval to student teach. Co- requisites: EDUC 485 and EDUC 453. Supervised observation and teaching experience for 16 weeks for students who only seek endorsement in elementary art, music or physical education. Pass/No Credit basis.

EDUC 466 Elementary Student Teaching in Subject Area (6)
Prerequisite: approval to student teach. Co- requisites: EDUC 455, EDUC 476 and EDUC 486. Supervised observation and teaching experience for 8 weeks for students who seek endorsements in both elementary and secondary art, music or physical education. Pass/No Credit basis.

EDUC 468 K-6 Mild and Moderate Disabilities Student Teaching (6)
Prerequisite: approval to student teach. Co-requisites: EDUC 462, EDUC 453, and EDUC 485. Supervised observation and teaching for 8 weeks in K-6 multi-categorical resource room for students with mild disabilities. Pass/No Credit basis.

EDUC 469 7-12 Mild and Moderate Disabilities Student Teaching (2 or 6)
Prerequisite: approval to student teach. Supervised observation and teaching in 7-12 special education environment serving students with mild disabilities. Elementary Education majors: Take 2 credits concurrently with EDUC 453, 460, and 485. K-12 Subject Areas: Take 2 credits concurrently with 455, 466, 476, and 486. Secondary Education majors: Take 6 credits concurrently with EDUC 455, 476 and 486. Pass/no credit basis.

EDUC 470 Secondary Student Teaching (12)
Prerequisite: approval to student teach. Co- requisites: EDUC 455 and EDUC 486. Students observe, serve as teaching assistants and take responsibility for teaching in grades 7-12 for 16 weeks under the guidance of their college supervisor, the classroom teacher and the school principal. Pass/No Credit basis.

EDUC 476 Secondary Student Teaching in Subject Area (6)
Prerequisite: approval to student teach. Co- requisites: EDUC 455, EDUC 466 and EDUC 486. Supervised observation and teaching experience for 8 weeks for students who seek endorsement in both elementary and secondary art, music or physical education. Pass/No Credit basis.

EDUC 485 Senior Seminar in Elementary Education (2)
Prerequisite: approval to student teach. Co- requisites: EDUC 453 and EDUC 460 or EDUC 462 and EDUC 468. A capstone course integrating research, theory and application of concepts and skills in the field of education. Each student will develop and present a professional portfolio and action research projects at the conclusion of student teaching and will engage in a variety of planned professional development opportunities. Pass/No Credit basis.

EDUC 486 Professional Development Seminar-Secondary (2)
Prerequisite: approval to student teach. Co- requisites: EDUC 455 and EDUC 470 or EDUC 466 and EDUC 476. A capstone course integrating research, theory and application of concepts and skills in the field of education. Each student will develop and present a professional portfolio and action research projects at the conclusion of student teaching and will engage in a variety of planned professional development opportunities. Pass/No Credit basis.

Engineering

ENGR 108 Introduction to the Engineering Profession (1)
Preparation for entering the professional world of engineering. Includes presentations and interaction with industrial and professional practitioners. Students will gain a greater understanding of the engineering profession and what is needed to succeed after college. May include local field trips.

ENGR 111 Engineering Graphics (2)
Prerequisite: MATH 131 and PHYS 111 each with a grade of "C" or better. Introduction to engineering design graphics, 3-dimensional visualization, and spatial reasoning. Topics include descriptive geometry, engineering drawing conventions, dimensioning and tolerance specification, parametric and feature-based solid modeling, and assembly design. Emphasizes the use of CAD (SolidWorks) as the major graphics and design tool**.**

ENGR 112 MATLAB for Engineers (2)
Prerequisites: MATH 132 and PHYS 112 each with a grade of "C" or better. Introduction to solving engineering problems using the MATLAB and basic concepts in programming. Students are expected to learn basic operations of MATLAB, various data types and ways to manipulate them, building functions and loops, data input and output, and visualization of data. The course is taught with an emphasis on engineering applications.

ENGR 211 Statics (3)
Prerequisites: MATH 132 and PHYS 111 each with a grade of "C" or better. Principles of force and moment balance are applied to systems in static equilibrium. Students are introduced to the concepts of free-body diagrams and equivalent systems of forces, moments, analysis of simple structures (e.g., trusses, frames), internal forces and stresses.

ENGR 212 Dynamics (3)
Prerequisite: MATH 231 and ENGR 211 each with a grade of "C" or better. Application of classical mechanics to engineering problems of motion and acceleration. Topics include kinematics and kinetics of particles, systems of particles, and rigid bodies.

ENGR 213 Strength of Materials (3)
Prerequisite: MATH 231 and ENGR 211 each with a grade of "C" or better. Stress and deformation analysis of materials and solid structures under a variety of load conditions. Topics include stress and strain definitions, uniaxial loading, linear elasticity, material behaviors, bending of beams, torsion of circular shafts, and thin-walled tubes.

ENGR 214 Engineering Materials with Lab (3)
Prerequisite: CHEM 111 and ENGR 213 each with a grade of "C" or better. Atomic structure, bonding, and crystal structure of solids. Mechanical and physical properties of solids mechanical and physical tests, phase equilibria, and processing of solids. Strengthening methods, principles of material selection, ferrous and non-ferrous metallurgy, polymers, and ceramic composites. Three hours of lab per week. Additional lab fee applies.

ENGR 221 Electrical Circuits (3)
Prerequisites: MATH 132 and PHYS 112 each with a grade of "C" or better. The course covers principles of linear circuit analysis and problem-solving techniques associated with circuits containing both passive and active components. Students are introduced to DC circuit analysis, AC circuit analysis, and transient circuit analysis.

ENGR 222 Electronic Devices with Lab (4)
Prerequisite: ENGR 221 and PHYS 225 each with a grade of "C" or better. Introduces the mechanisms and principles of operation of major electronic devices: operational amplifiers, diodes, bipolar junction transistors, and field-effect transistors. Covers the terminal characteristics of the devices, volt-ampere curves, small and large signal equivalent circuit models, and basic single stage amplifier configurations. Three hours of lab per week.

ENGR 311 Thermodynamics (3)
Prerequisites: MATH 132 and PHYS 112 each with a grade of "C" or better. An introduction to classical thermodynamics. Fundamental concepts based on zeroth, first and second laws of thermodynamics. State descriptions of pure substances and mixtures. Control volume analysis and conservation principles applied to systems with respect to mass, energy, and entropy with applications to power, refrigeration, chemically reacting and other energy conversion systems.

ENGR 312 Fluid Mechanics (3)
Prerequisite: MATH 231, MATH 250 and ENGR 212 each with a grade of "C" or better. An introductory course in fluid mechanics. Fundamental concepts include continuity, momentum, and energy relations. Control volume analysis and differential formulations. Internal and external flows in laminar and turbulent regimes. One dimensional compressible flows.

ENGR 313 Theory of Machines (3)
Prerequisites: ENGR 212 and ENGR 213 each with a grade of "C" or better. Analysis and synthesis of mechanisms using graphical and analytical techniques. Applications include cams, gears, and linkages such as four-bar, slider-crank, and quick-return mechanisms. Gear train specification and force analysis. Position, velocity, and acceleration analysis and mechanical advantage of a wide variety of linkage systems.

ENGR 314 Heat Transfer with Lab (4)
Prerequisites: ENGR 214, ENGR 311 and ENGR 312 each with a grade of "C" or better. Examines fundamentals of conduction, convection, and thermal radiation energy transfer. Conduction of heat in steady and unsteady state. Principles of boundary layer theory applicable to free and forced convection heat transfer for internal and external flows. Radiation analysis with and without convection and conduction. Three hours of lab per week investigating thermo-fluids phenomena.

ENGR 321 Electromagnetism (3)
Prerequisites: PHYS 215 and PHYS 216 each with a grade of "C" or better. Examines electrostatics, Coulomb's law, Gauss's law, polarization, permittivity, electric energy, and capacitance. Magnetostatics, the Lorentz force law, the Biot-Savart law, Ampere's law, magnetization, permeability and constitutive relations, magnetic energy, and inductance. Introductory Maxwell's equations. Transmission lines, voltage and current waves, wave impedance, reflection, SWR, and the Smith chart.

ENGR 322 Signals and Systems with Lab (4)
Prerequisites: MATH 250, ENGR 112 and ENGR 222 each with a grade of "C" or better. An introduction to the framework associated with the analysis of linear systems. Continuous and discrete time signals, signal manipulations, signal representation by orthogonal functions, impulse response, convolution, Fourier and Laplace analysis, and frequency response of circuits and systems. Three hours of lab per week.

ENGR 411 Dynamic Systems and Control with Lab (3)
Prerequisites: ENGR 313, ENGR 322 and PHYS 216 each with a grade of "C" or better. Fundamentals of dynamic system analysis and control systems. Topics include system modeling and representation, system time and frequency response, system stability, open loop and closed loop systems, PID controllers, control design using root-locus, frequency response, and state space analysis. Three hours of lab per week. Additional lab fee applies.

ENGR 421 Digital Control Systems (3)
Prerequisites: ENGR 313, ENGR 321 and ENGR 322 each with a grade of "C" or better. Study and analysis of digital control systems. Topics include system interfacing and data acquisition, study of different types of actuators and sensors, development of circuits for automation, and controller design for digital systems.

ENGR 430 Engineering Elective (3)
Prerequisite or corequisite: ENGR 214 and ENGR 314. Study of advanced engineering topics with emphasis on engineering design. May be repeated with different topics.

ENGR 487 Engineering Project Management and Design (3)
Prerequisite: CIV 210; ENGR 111, ENGR 313, ENGR 314, and ENGR 322 each with a grade of "C" or better. This is the first course in a two-course sequence in design and gives senior engineering majors an opportunity to complete a major design experience based on the knowledge and skills acquired in engineering course work. Student groups will work on projects with industry mentors to identify a real-world engineering problem and devise its solution incorporating appropriate engineering standards and multiple realistic constraints. Students will analyze the problem and perform design, implementation and evaluation of their solution. Students will work as a team and report their progress and results. May include local field trips. (CTN, WOC)

ENGR 488 Engineering Capstone Design (1)
Prerequisites: ENGR 411, ENGR 421, and ENGR 487 each with a grade of "C" or better. Provides engineering students with an opportunity to further refine design skills developed during and conclude the design project started in ENGR 487 Engineering Project Management and Design. Additional lab fee applies. May include local field trips.

English

ENGL 140 Introduction to Creative Writing (4)
A workshop course exploring the art and craft of the primary genres of creative writing, including fiction, creative non-fiction, and poetry. Readings include contemporary and historical examples in these genres. (ART, EXP)

ENGL 160 The Literary Imagination (4)
Prerequisite: limited to first and second-year students. Introduces students to the critical concepts and vocabulary of literary study by focusing on a specific genre or topic. Designed for potential English majors as well as for all students who enjoy reading literature. Promotes the development of college-level skills in writing and critical thinking. (LP, WRT, EXP)

ENGL 180 The Reader's Toolbox (3)
This course introduces students to various approaches to critical reading. Students will practice reading, summarizing, and responding to critical articles that reflect a variety of methods of literary study. Required for English majors. (LP, EXP)

ENGL 208 Literature for Children (3)
Prerequisite: Admission to the teacher education program or instructor's permission. Intended for students in the teacher education program. Furnishes a background of juvenile literature through wide reading in various types of materials both classic and modern. Includes principles of evaluation, selection and presentations of material. Stresses an appreciation for good literature. Does not count toward the major.

ENGL 212 Caribbean Literature (3)
Studies contemporary writers of the Caribbean and the Caribbean diaspora. Emphasis on resistance and response to European colonialism and plantation slavery. Possible authors include Edwidge Danticat, George Lamming, Sam Selvon, Aimé Cesaire, Grace Nichols, Jamaica Kincaid, and Kei Miller. (LP, GPN)

ENGL 213 Literature, Environment, and Ecology (3)
Studies the literary tradition of nature as a source of inspiration for many poets, novelists, and essayists. Explores writings and films concerned with climate change and the triple bottom line of sustainability. Readings include authors such as Leopold, Carson, Kimmerer, Kingsolver, and Pollan. (LP, GS)

ENGL 214 Literature by Women (3)
Prerequisites: CIV-110 and 28 completed credits. Surveys a long history of Anglophone literature from the Renaissance to the present. Attention to thematic and stylistic concerns of women's literary traditions and an introduction to feminist theory. (LP, WRT, CTN)

ENGL 215 African-American Literature (4)
Explores the tradition of African-American writing, with an emphasis on the Harlem Renaissance to the present. Includes attention to thematic and stylistic concerns of African American literature and an introduction to critical race theory. Authors might include Langston Hughes, Zora Neale Hurston, Ralph Ellison, James Baldwin, Audre Lorde, and Toni Morrison. (LP, GPC, WRT)

ENGL 216 LGBTQ+ Literature and Culture (3)
Examines how different genres of literature articulate LGBTQ+ experiences, intimacies, politics, and communities by undertaking close readings of plays, poetry, and fiction from the 16th century to the present. We will question how those texts stage sexuality in relation to gender, race, health, activism, economics, and kinship, aiming to understand how queer sexualities are produced both though and against these other categories of experience. (LP, GPC)

ENGL 217 Literature and Film of the Middle East (4)
Surveys the rich traditions of literature, film, music, and comics in the Modern Middle East and its diaspora. Uses a multi-media approach to study topics including the Arab Spring, Islamophobia, oil and international politics, gender and Islamic feminism, and the refugee experience. (LP, GPN, WRT)

ENGL 218 Introduction to Film Studies (3)
Prerequisites: CIV-110 and 28 completed credits. Introduces basic elements of film creation and explores the contours of film history through selected feature films. Students will also learn techniques for analyzing narrative cinema. Longer class duration is to allow time to screen feature films. (CTN)

ENGL 222 Literature for Young Adults (1)
Provides a background of literature for young adults through wide reading in various types of materials both classic and modern. Includes principles of evaluation, selection and presentations of material.

ENGL 236 The American Experiment, Origins-1890 (3)
Surveys American literature from the oral tradition through Romanticism. Major periods covered include Pre- Columbian indigenous literature, European contact with First Nations in North America, Puritan New England, the Early Republic, and American Romanticism. Representative authors include Cabeza de Vaca, John Winthrop, Anne Bradstreet, Phillis Wheatley, Nathaniel Hawthorne, Harriet Jacobs, Walt Whitman, and Emily Dickinson. (LP)

ENGL 237 The American Experiment, 1890- Present (3)
Surveys American literature from the postbellum period to the present day. Major periods covered include Realism, Naturalism, Modernism, and Postmodernism. Representative authors include Mark Twain, Charles Chesnutt, Kate Chopin, William Faulkner, Willa Cather, Toni Morrison, Louise Erdrich, George Saunders, and Adrienne Rich. (LP)

ENGL 240 The Personal Essay (4)
Prerequisite: CIV 210. Instruction, practice and experimentation in the art of creative nonfiction, including memoir, reportage, creatively researched essays, and the lyric essay. Readings include both contemporary and historical examples of the form. (ART, WRT, WOC)

ENGL 241 Short Story Writing (4)
A workshop course exploring the art and craft of short story writing. Readings include stories by contemporary fiction writers. (ART, WRT)

ENGL 243 Writing Oral Histories (4)
Blends narrative techniques with fact-driven reporting. Explores both short articles and feature writing, hones interviewing and research skills, and emphasizes the importance of both note taking and revision in the writing process. Discussions emphasize selections from literary journalism and longform radio storytelling. (ART, WRT)

ENGL 244 Professional Writing (3)
Theory, principles and processes of effective communication typically encountered in business and the professions. Practice in many areas of professional communication, including letter, memo, and email correspondence; short and formal reports, and formal presentations. Best for students who have had an internship or are preparing for one. (WRT)

ENGL 246 Writing for Non-Profit Organizations (4)
Prerequisite: second- year standing. Instruction in and practice of writing designed to extend the concept of community and interrogate the notion of "service." Students write for community organizations, social service agencies and other not-for-profit groups and associations. Note: This course does require a service-learning component. (WRT)

ENGL 251 Monsters and Monstrosity in English Literature 800-1785 (3)
Prerequisite: CIV 210. Surveys major literary movements from Beowulf to the eighteenth century. Emphasis on the theme of monstrosity as it relates to politics, religion, race, gender, sexuality, disability, form, and genre. Reading list includes major authors and new additions to the literary canon as well as scholarship in medieval and early modern studies. Authors might include Chaucer, Wyatt, Sydney, Marlowe, Webster, Behn, Milton, and Equiano. (LP, WOC)

ENGL 252 The Haunted House of British Literature, 1785- present (3)
Surveys British literature from 1785 to the present with an emphasis on texts that examine the "ghosts" of Britain's past and of Britain-yet-to-come. Possible authors include Zadie Smith, Hanif Kureishi, Salman Rushdie, Alan Moore, Virginia Woolf, Toru Dutt, Vernon Lee, and Mary Seacole. (LP)

ENGL 270 Illness and Health in Literature (4)
Prerequisite: CIV 210 and second-year standing or 28 completed credits (sophomore standing). Emphasizes the interdependence of storytelling and science and raises questions about the human condition by exploring the roles of literature and the creative arts within medicine. Readings will include fiction, memoir, and drama. (LP, WRT, CTN)

ENGL 280 The Humanities Lab: Digital Tools for Critical Thinkers (3)
ENGL 280 introduces students to a wide range of digital tools helpful for critical thinkers and creative minds: Humanities-oriented data visualization and analysis tools, website builders and online exhibit platforms, 3-D modeling and software, etc. The course is also designed to prompt critical conversations about the ethical and practical limitations of these tools.

ENGL 320 Teaching Writing (2)
Focuses on both the theory and practice of teaching writing. In addition to becoming conscious of their own writing process, students will gain practical experience in helping others to write.

ENGL 346 Discovering Shakespeare (3)
Prerequisite: CIV 210. Studies Shakespeare's major comedies, tragedies, histories, and romances. Includes background on Shakespeare's life and times and an introduction to Shakespeare scholarship. Emphasis on oral interpretation and performance. (LP, WOC)

ENGL 361 World Literature (4)
Prerequisite: CIV 110 and 28 completed credits. Studies major works of world literature. Rotating reading list includes texts from the ancient world through the present day. Emphasis on writing and research. (LP, WRT, CTN)

ENGL 378 Literary Topics (4)
Prerequisite: CIV 210. Rotating topics in American and British Literature, repeatable for credit. Some courses might offer focused surveys of historical periods. Others might follow the genre/issue model. Topics might include Literary Histories of Race and Gender, Gender and Disorder on the Renaissance Stage, Medical Humanities, Modernism, Ethnic American Literature, Literature and Wonder, Sound and Voice in Literature, Environmental Literature, and Trans-imperial Lit and Postcolonial Theory. (LP, WRT, WOC)

ENGL 425 Seminar in Literary Studies (4)
Prerequisites: Third-year standing and at least one 300-level literature course. A specialized investigation into a specific and limited topic or major author, such as Ben Jonson and Christopher Marlowe; Willa Cather; Thomas Pynchon; Virginia Woolf and Toni Morrison; or Ecocriticism. Each seminar will focus on the student's critical and research abilities to produce a major analytic project.

ENGL 497 Internship in Writing (Arr)
Prerequisite: third-year standing and instructor's permission. Available only to English majors or majors with an emphasis in writing. An applied writing experience in a business, institutional or governmental setting. Includes conferences with on-campus staff, a portfolio of work written during the internship, and evaluation by the job supervisor. Pass/No Credit basis.

ENGL 199, 299, 399, 499 Independent Studies in English (Arr)
Prerequisite: instructor's permission. Student-defined tutorial of readings and research. Each participant will submit a proposal to the department.

Entrepreneurship

ENTR 111Survey of Entrepreneurship (1)
Introduces the fundamentals of new venture creation including creating a new business and the necessary skills entrepreneurs need for start-ups. Key topics covered in the class include making decisions under uncertainty, opportunity recognition, and venture financing. Entrepreneur speakers will attend the course for students to learn from directly. Offered pass/ no credit only.

ENTR 215 The Entrepreneurial Mindset (3)
This course is designed to inspire and engage participants in the fundamental aspects of an entrepreneurial mindset and the unlimited opportunities it can provide. The overall objective is to empower learners through entrepreneurial thinking and immerse them in entrepreneurial experiences that will enable them to develop entrepreneurial skills.

ENTR 225 Social Entrepreneurship (3)
Prerequisite: CIV 110 and 28 completed credits. Explores the role that some entrepreneurs play in fulfilling a societal need while maintaining profitability. Students in this course will be exposed to the vast research and theory in social entrepreneurship. This class also allows for the experiential opportunity to explore local community issues that could be addressed through social entrepreneurship. (CTN)

ENTR 311 Professional Sales (3)
Prerequisite: Third year standing. Professional and personal selling techniques and methods are the main objectives of the course. Written and oral communication, presentation, and emotional management skills are focal points of this course. Problem solving, expense management, motivation, training, will be taught by faculty and leaders from industry as guest speakers.

ENTR 315 Advanced Entrepreneurship: Startup Semester (3)
Prerequisite: third year standing or 60 credits completed. This course provides students with a toolkit of techniques, skills and resources that will empower them to accept the entrepreneurial challenge of starting and operating a new business venture, all in a semester's time. Students will learn the fundamentals of business models/customer development and then get out of the building to interact with customers, vendors, partners and suppliers while developing a sustainable business.

ENTR 387 Project Management and Product Design (3)
Prerequisite: CIV 210, MATH 131 or above or BMGT 261. This course introduces students to the principles and practices of project management and product design through a structured, team-based approach. Students will learn to evaluate project feasibility, define customer, financial, and technical requirements, apply tools common in project management and perform risk assessment. The course emphasizes communication, ethics, and the social and environmental impacts of decisions Students will explore creative design methodologies and develop cost estimates for materials, manufacturing, and personnel. The course culminates in a final group presentation showcasing a comprehensive project plan and product concept. May include local field trips. (CTN, WOC)

Environmental Studies

ENVS 120 Introduction to Environmental Science with Lab (4)
Introduction to the structure and function of ecosystems and how they are altered by human activity. Surveys various environmental issues such as human population problems, endangered species and habitats, land and food resources, human health and the environment, water and energy resources, and air pollution. One 3-hour lab per week. (NS, GS, EXP)

ENVS 125 Geology and the Environment with Lab (3)
Introduction to the elementary principles of physical geology, including identification of minerals and the major rock types. Examines applications of geological resources and the associated environmental impact as well as a review of the processes forming them through tectonic activity and geomorphic agents. Reviews events over geologic time and the geologic history of Iowa. Includes a 3-hour lab and weekend field trips. (NS, GS, EXP)

ENVS 233 Environmental Health (3)
This course examines the relationships between human health and the environment via the physical, chemical, biological, and behavioral sociological factors of our environment. We will explore the role of the natural and built environment and the impact on health, both local and global. Areas of emphasis include air, water and land pollution, hazardous wastes, and noise and radiation hazards. This multidisciplinary course will draw from the fields of medicine, public health (global health, behavioral health, environmental health, epidemiology, and health policy), environmental sociology, and ecology to investigate global health threats such as climate change, and pollution. This course is designed for students of all majors. (EXP)

ENVS 240 Agriculture and Sustainability (3)
Modern agriculture has been essential in feeding the world's growing population. But is it sustainable? In this course, we will engage in a holistic examination of agriculture, covering the history of our current system, examine trends in sustainable agriculture and investigate connections between agriculture, the environment, our current socio-economic systems and global health. (GS)

ENVS 270 Fire and Ice: Stories of Iceland (104)
Iceland occupies a unique place, both geographically and culturally. Tectonic plate separation is visible; frequent volcanic eruptions have implications beyond the country, and Iceland houses large land glaciers. Continually adapting to a harsh physical environment and sustainability challenges relating to climate change, tourism, and economics, artists, scholars, and writers have told their stories. We examine Iceland through the lens of these stories. There is a mandatory May field trip. Variable course 1 - 4 credits. (GS, GPN with minimum 3 credits)

ENVS 340 Agriculture and Sustainability (3)
Prerequisite: CIV 210. With Iowa one of the major agricultural producers, we have a large impact on the environment. But often, we don't really question how our agricultural activities relate to our efforts to become a more sustainable society. Can Earth sustain a growing population with its increasing food demands? In this course, we explore the connections between agriculture, the environment, global health and climate change. This will be achieved through readings and lectures on basic concepts regarding soils, agriculture, and global health, as well as discussing issues arising from current practices. Students may not receive credit for both ENVS-240 and ENVS-340. (CTN, WOC)

ENVS 380 Project Proposal Development (3)
Prerequisite: ENVS 120 and third-year standing or instructor's permission. Students select and develop a project through research and examination of current environmental and sustainability issues. Within an interdisciplinary perspective, they will conceive of a project idea, research it and determine its need and feasibility. They will write up the project as a grant proposal, examining its benefits for a target audience, create a timeline and develop a budget. In addition ot the project developemtn, the course also focuses on career preparedness. (WRT, WOC)

ENVS 480 Environmental Capstone Project (1)
Prerequisite: ENVS 380 or instructor permission. Students managed and complete proposals developed in ENVS 380. Course focuses on project management, report writing and presenting information to the public.

General College Credit (non-departmental courses)

GENR 104 Central College Kickstarter (1)
Transitions students to Central College with a focus on building skills and providing tools. Students will learn about various paths for building success in academics, social interactions and career preparation. The Kickstarter program will prepare students for a liberal arts experience by integrating them into the campus community and the community of Pella. Limited to first-semester students. Pass/ No Credit basis.

GENR 105 Introduction to College Success II (1)
Prerequisite: GENR 104 and participation in the SSS program. A continuation of GENR-104 where students will develop self-awareness and lifelong learning skills. Examines career exploration, personality preferences, learning styles and emotional intelligence. This course meets in the second half of the semester.

GENR 106 Intro to Central: Transfers (1)
This course provides transfer students with an introduction to Central College. Class discussion will address acclimation to Central’s community, engagement in activities and how to succeed academically.

GENR 204-SS Introduction to College Success III (1)
Prerequisite: GENR-104 and GENR-105. This course serves as a follow-up to GENR-104-SS Intro to College Success I and GENR-105-SS Intro to College Success II from the initial semester and continues to help students get acclimated to life at Central. Topics include increasing self-awareness of individual strengths and interests, increasing financial literacy, formulation of career goals, exploration of cultural diversity and empathy, and a variety to wellness concepts.

GENR 208 Learning Lab (1)
This course is designed to help students learn about how they learn. After students take the Learning and Study Strategies Inventory, the course will introduce students to the study cycle, talk about growth mindset, and lead students through a series of cycles, where students are introduced to a specific strategy, and then given an opportunity to practice that strategy on the content for one or more of their classes in a supportive environment.

GENR 214 Mock Trial (1-2)
Students will study the American judicial process and argue a simulated civil or criminal case in multiple intercollegiate competitions sponsored under the auspices of the American Mock Trial Association. The course focuses on the development of critical thinking and oral communication skills. Offered for two credits in the fall and one credit in the spring. Unlimited repeats allowed. Pass/No Credit basis.

GENR 283 Experiential Module (1-2)
Prerequisite: instructor's permission. Provides an individualized experiential opportunity in an approved off-campus cross-cultural experience. Requires consultation with a faculty member, preparation and approval of a proposal that specifies a required bibliography on the target culture, the type of reflection that will take place, the format of the final product and the presentation of a final product. Requires a minimum of 15 hours of direct contact for each hour of credit requested. Also requires participation in diversity training and orientation seminar unless previously completed. Pass/No Credit. May be repeated.

Geography

GEOG 110 Introduction to Geography (3)
As an introduction to the broad field of Geography, this course introduces students to a survey of geographic concepts ranging from economy, politics, plants, urbanization, culture, and landforms to industry, population, and agriculture. In this course, students will also learn about the tools Geographers use to study the world, including maps. The course is therefore designed for students who are new to geography, and it will attempt to engage their broad interests through the lens of geographical thinking and analysis. (SB, GS)

GEOG 210 Human Geography (4)
Examines and analyzes changing interconnections among places by exploring dynamic processes and patterns worldwide, including the distribution and diffusion of people, their religions, customs, and economic means, providing an understanding of spatial and functional (space and scale) patterns of the cultural, social, political, and economic processes that shape the geography of the world. (SB, GS)

GEOG 215 Introduction to International Studies (3)
Introduction to the complexities and diversity of political, economic, social and cultural interactions of nations and people. Provides an expanded understanding of the world and cultures, through exploration of global and regional issues (GPN, EXP)

GEOG 225 Geography of Sub-Saharan Africa (3)
The African continent remains a mystery to many outside of that region. Students will examine the diverse experiences of the people who live there with particular attention paid to the environmental and cultural geography south of the Sahara. Students will explore various challenges and opportunities that people in this region face such as food insecurity, rural/urban conflicts, environmental management, gender empowerment, foreign aid, debt, and engagement with both the United States and China. (SB, GS, GPN)

GEOG 237 Physical Geography: Weather and Climate with Lab (4)
Explores how the earth's natural systems (weather, climate, and hydrological processes) interrelate, work and interact to shape and influence earth's natural regions, including soils and the biosphere. One three-hour lab per week. (NS, GS, EXP)

GEOG 238 Geomorphology with Lab (4)
This course examines the composition of and the processes working on our earth with the understanding that the earth, our environment and human activities are a single interconnected system. To understand the earth, we cover processes acting on the earth, their relationship and interconnections. The focus of this course is geomorphology. We will discuss the physical features of the earth are shaped through fluvial, Aeolian, glacial, karst and coastal processes. Along the way, the course provides you with an opportunity to understand and apply the scientific method and develop your critical thinking skills. This course emphasizes laboratory work, writing and an understanding of the interconnectedness of earth's dynamic systems.Student cannot receive credit for both GEOG-238 and GEOG-338.

GEOG 320 Principles of GIS with Lab (3)
Prerequisite: second-year standing. Introduces students to the basic concepts of GIS and its applications to natural resource management, marketing and disaster preparedness. Covers the fundamental components of Geographic Information Systems including types of spatial data, data entry, analysis and display, as well as creating and managing GIS projects. Also covers some of the more advanced functionality of geoprocessing through Spatial and Network Analyst. One three-hour lab per week.

GEOG 337 Physical Geography: Weather and Climate with Lab (4)
Prerequisite: CIV 210. This course examines the single interconnected system of our earth, its atmosphere, and human impacts. To understand the earth, we cover basic subsystems of the earth (atmosphere, hydrosphere and biosphere), their relationship and interconnections. The focus of this course will be on weather and climate, discussing the processes and factors that influence these. We also discuss how humans have been influenced by the physical features of the earth and how we affect the earth. Along the way, the course will provide you with an opportunity to understand and apply the scientific method and develop your critical thinking skills. Laboratory work, focused on calculating and understanding weather processes, will be vital. Students may not receive credit for both GEOG 237 and GEOG 337. (CTN)

GEOG 338 Geomorphology with Lab (4)
Prerequisite: CIV 210. This course examines the composition of and the processes working on our earth with the understanding that the earth, our environment and human activities are in a single interconnected system. To understand the earth, we cover processes acting on the earth, their relationship and interconnections. The focus of this course is geomorphology. We will discuss how the physical features of the earth are shaped through fluvial, Aeolian, glacial, karst, and coastal processes. Along the way, the course provides you with an opportunity to understand and apply the scientific method and develop your critical thinking skills. This course emphasizes laboratory work, writing and an understanding of the interconnectedness of earth's dynamic systems. One three-hour lab per week. Students cannot receive credit for both GEOG 238 and GEOG 338. (NS, WOC)

GEOG 420 Advanced GIS with Lab (2)
Prerequisite: GEOG 320. This course builds on introductory principles of GIS, examining where and how GIS is used in advanced spatial analyses. Topics covered in the course include spatial literacy, 3-D representations in GIS, online GIS services, spatial statistic, as well as a variety of modeling techniques in GIS. Students will be expected to develop their own GIS project, as well as complete weekly laboratory assignments.

German Studies

Note: Courses offered by the department of modern languages are calibrated to the nationally recognized target levels of proficiency defined by the American Council on the Teaching of Foreign Languages. Details are available from the department.

GERM 121 Beginning German I (4)
Training in understanding the spoken language, reading and the fundamentals of grammar. Includes an introduction to aspects of the culture(s) of German-speaking countries.

GERM 122 Beginning German II (4)
Prerequisite: GERM 121 or equivalent. Continued training in understanding the spoken language, reading and the fundamentals of grammar. Includes an introduction to more aspects of the culture(s) of German-speaking countries.

GERM 240 The German Imagination (3)
Taught in English; also offered as GERM 340. By examining literary and non-literary readings, film, and popular culture, students will be introduced to the development of a particularly German cultural and intellectual tradition. Students who wish to count this course toward the German Studies major or minor or receive 300-level credit must register for GERM 340, which has a prerequisite of GERM 321, and will be assigned alternative course work and readings in German. (LP)

GERM 362 Germany and the Environment (3)
This course will examine Germany's relationship to the environment in light of its particular political, cultural and business context. Taught in English, with appropriate assignments for students wishing to count this course toward a German Studies major. (GS, GPN)

GERM 390 Topics in German (3)
Offered as needed to meet student needs and interests when these cannot be accommodated by regular offerings. May be taught in English or German, depending on student population, with appropriate assignments for students wishing to count this course toward the German Studies major. May be repeated for credit when the course focuses on a different topic. (GPN)

GERM 489 Senior Capstone (1)
Prerequisite: Completion of study abroad or instructor's permission. Intended to be taken concurrently with another German Studies course. Students will compile a portfolio including materials for professional use and additional written assignments in German, which demonstrate the students' critical reflection upon their experiences in Pella and abroad.

GERM 497 Internship in German (Arr)
The German internship program is designed for the German language student who wants to broaden his/her classroom studies with an actual work experience in a German language environment. Pass/No Credit basis.

GERM 499 Independent Study-German (Arr)
Open to qualified students with departmental approval.

History

HIST 125 World History to 1500 (3)
This course examines the similarities and differences between multiple cultural centers in the Americas, Africa, Europe and Asia starting in the Stone Age. We will look at Mesopotamia, Egypt, China, Greece, India Rome and medieval Europe. Topics will include politics, religion, art, migration, and war. The course concludes with the start of the voyages of De Gama, Diaz, and Columbus in the fifteenth century. (HP, GPN, EXP)

HIST 126 World History Since 1500 (3)
Starting in 1500, we will investigate the places and events that have helped shape the world in which we live. In particular, we will focus on how groups of people meet and interact. We will look at the connections between Europe, Africa, East Asia, and the New World. (HP, GPN, EXP)

HIST 130 United States to 1877 (3)
A survey of American history from European exploration and discovery through the Civil War and Reconstruction emphasizing political, economic, social and cultural development. The process of emerging problems and solutions will be analyzed. (HP, EXP)

HIST 131 United States Since 1877 (3)
A survey of American history from the last quarter of the nineteenth century until the Present emphasizing continued national development in political, economic, social and cultural arenas. The process of emerging problems and solutions will be analyzed. (HP, EXP)

HIST 210 History of Modern Europe (4)
This course explores the history of Europe from the end of the Middle Ages until today. The continuous shift between fragmentation and relative unity in economic, political, and social spheres will underpin the class. (HP, GPN)

HIST 212 World War I and II (4)
A detailed examination of World War I and World War II. The causes, combat, and outcomes of both wars will be discussed. The ultimate goal is to investigate how these two wars shaped the twentieth century. (HP)

HIST 213 Russia and the USSR (4)
This course provides a broad overview of the USSR from its creation to its dissolution. We begin by looking at the origins of the Soviet Union in Tsarist Russia and explore the Union itself (politics, economics, and society). Finally, we examine the fallout after the 1991 collapse including Vladimir Putin and the Chechen Wars. (HP)

HIST 215 The Balkans: Between East and West (4)
This course provides an overview of the history of the Balkan Peninsula (including the modern Bosnia-Herzegovina, Croatia, Serbia, Bulgaria, Romania, and Macedonia among others). In particular, we will look at the region as a meeting point of cultures: Greek and Latin, Christian and Muslim, capitalist and communist. (HP, GPN)

HIST 216 Germany and Central Europe (4)
Bounded by Germany in the west, Poland in the east, the Baltic Sea in the north, and to the northern Balkans in the south, Central Europe is a geographical space as well as a persistent idea. This course will explore the history of this region from antiquity to the present day focusing on conflict and accommodation. (HP, GPN)

HIST 217 Contemporary Europe (4)
This course will examine the history of Europe from 1890 until the beginning of the twenty-first century. We will spend a significant amount of time examining how modern European history is one of conflict (World Wars I and II, the Balkan Wars of the 1990s) and division (the Cold War) but also one of increasing unity (the European Union) and the recent current trends towards separatism. Formerly numbered POLS-223. Students with credit for POLS-223 may not also receive credit for HIST-217. (HP, GPN)

HIST 220 Middle Eastern Civilization (4)
Studies the history of Middle Eastern Civilization from antiquity to present through reflection on the major political events and ideas of the region and with a focus on it's three main religions: Judaism, Christianity, and Islam. Examines the unique recovery of Classical Greek Philosophy in the Arabis-speaking world and its impact on modern Philosophy. (HP, GPC, WRT, EXP)

HIST 230 Colonization and American Revolution: 1607-1787 (4)
Prerequisite: CIV 110 and 28 completed credits (sophomore standing). Examines the major influences in the development of national values and institutions from the Age of Discovery and Exploration and the Colonial Period through the American Revolution and the drafting of the Constitution in 1787. (HP, CTN)

HIST 231 American Expansion and Civil War: 1787-1877 (4)
An examination of the major political, social, economic and cultural trends in the United States from its constitutional beginnings through Reconstruction. Major topics will include early national development, Jacksonian Democracy, Manifest Destiny and expansion, and slavery and the sectional crisis leading to the Civil War. (HP)

HIST 232 America's Rise to Power: 1877-1945 (4)
Examines the transformation of the United States from Reconstruction through World War II when the nation evolved from isolation and pre-industrial values and institutions to a modern country characterized by industrialization, immigration, urbanization and international diplomacy and warfare. (HP)

HIST 233 The Fifties and Sixties: U.S. History: 1945-1975 (4)
Prerequisite: CIUV 110 and second year standing or 28 completed credits (sophomore standing). An examination of the major political, economic, social, cultural, and diplomatic trends from World War II through the end of the Vietnam War. Major areas of consideration will include the Cold War at home and abroad, the Civil Rights Movement, Vietnam, the New Left and the Counterculture, the Women's Movement. (HP, CTN)

HIST 234 Recent United States: 1975- Present (4)
An examination of the major political, economic, social, cultural, and diplomatic trends from the post-Watergate era through the present. Major areas of consideration will include the rise of the New Right in politics and culture, the limits of the American economy, Carter diplomacy, the impact of the Middle East Hostage Crisis, Ronald Reagan and the Cold War, the end of the Cold War, the New World Order, the computer and communications technology revolution, the 2000 presidential election, the impact of 9/11/01, and the wars with Iraq. (HP)

HIST 235 The Immigrant Experience (4)
Prerequisites: CIV 110 and 28 completed credits. An overview of patterns and issues in immigration history and in the acculturation of immigrants to American society. Primary, but not exclusive, focus on Iowa. Includes case study, personal investigation of and contact with an immigrant individual, family or group. Citizenship is considered from the point of view of immigrants and students' experiences. (HP, GPC, CTN)

HIST 237 American Environmental History (4)
Environmental history studies the changing relationships between human beings and the natural world through time. This course examines American history through the lenses of conservation, environmentalism, geography, philosophy, public policy, and technology. Consequently, American history looks very different when seen in environmental context. (HP, GS)

HIST 250 Latin American Civilization (4)
A survey of Latin American history, culture and politics from 1500 to the present, with a focus on Mexico and Peru – the two most diverse countries in Spanish-speaking America. Students read extensively in primary and secondary sources on these two countries, and conduct research on a topic of individual interest in Latin America. (HP, WRT, GPC)

HIST 280 Modern African Civilization (4)
An interdisciplinary survey of cultures and life in modern Africa. Emphasis on sub-Saharan African history, art, political economy, women, development and society. Explores sustainability principles across cultures, historical time periods, and societies. (HP, GS, GPN)

HIST 310 Studies in World History (4)
Prerequisite: second-year standing. Addresses the changing interpretations of various topics in world history, as chosen by the instructor, from ancient times to the present. Promotes the development of analytical thinking and writing and engages in dynamic learning with group discussion and individual presentation. May be repeated with different topics. (HP, WOC)

HIST 330 Studies in American History (4)
Prerequisite: CIV 210, Addresses the changing interpretation of various topics in American history, as chosen by the instructor, from the colonial period to the present. Promotes the development of analytical thinking and writing and engages in dynamic learning with group discussions and individual presentation. May be repeated with different topics. (HP, WOC)

HIST 485 Historiography Seminar (4)
Prerequisite: CIV 110 and 28 completed credits. Instructor permission. Examines the nature of historical inquiry and methodology over time. Includes discussion of recent issues in the field of History. Among these is the connection of history to engaged citizenship. (CTN)

HIST 486 History Research Seminar (4)
Prerequisite: instructor's permission. This course is designed to help students learn how to do sophisticated historical research, read and interpret primary and secondary source materials, and write a formal research paper in a scholarly manner. (WRT, WOC)

HIST 497 Internship: Public History (Arr)
Prerequisite: instructor's permission. These are off-campus experiences designed to enrich a student's education through supervised practical experience in the field of public history. This can include work in the area of museum studies, archival theory and practice, historical preservation, oral history and local history. Pass/No Credit basis.

HIST 499 Independent Study-History (Arr)
Prerequisite: instructor's permission.

Honors

HONR 191 Honors Seminar (1)
Prerequisite: honors-eligible status. A seminar designed for honors-eligible students to explore a specific topic or issue. May be repeated for credit.

HONR 391 (1)
Prerequisite: honors-eligible status. A seminar designed for honors-eligible students to explore a specific topic or issue. May be repeated for credit.

Kinesiology

KIN 120 Theory and Practical Application of Health-Related Fitness (3)
Examines the scientific theory and practical application of the health-related components of physical fitness (i.e. cardiorespiratory endurance, muscular endurance, muscular strength, flexibility, body composition). Topics will include recent trends in group fitness programming and practical application of fitness to different populations and exercise settings. (Does not count toward the KIN major.) (Students who received credit for EXSC 120 may not also receive credit for KIN 120.)

KIN 149 Introduction to Kinesiology (3)
An introduction to the discipline of kinesiology, as well as the scientific application and professional practice within the sub-disciplines of motor behavior, exercise physiology, biomechanics, sport/exercise psychology, etc. (EXP)

KIN 161 Human Anatomy and Physiology I with Lab (4)
This is a two-semester course introducing the morphology (structure and function) of the human body designed to prepare students for the curriculum. The course includes the study of body organization and tissues, endocrine function, circulation and body defense (blood, heart, vasculature, and lymphatic system), and energy supply and use (respiration, digestion, metabolism, and urinary system). Students will meet for lecture three times per week and one 2-hour laboratory one time per week. The laboratory will consist of learning from a laboratory manual, anatomical model, and digital A&P tools. Additional lab fees apply. (Students may not receive credit for KIN 111 and KIN 161.)

KIN 162 Human Anatomy and Physiology II with Lab (4)
This is a two-semester course introducing the morphology (structure and function) of the human body designed to prepare students for the curriculum. The course includes study of body organization and medical terminology, movement and support systems (skeletal and muscular), and control and coordination (nervous and endocrine systems). Students will meet for lecture three times per week and one 2-hour laboratory one time per week. The laboratory will consist of learning from a laboratory manual, anatomical model, and digital A&P tools. Additional lab fees apply. (Students may not receive credit for KIN 111 and KIN 162.)

KIN 212 Adapted Physical Education (3)
Prerequisite: second-year standing. Considers developmental, remedial, and corrective programs in physical education; emphasizes adaptation to special needs beyond the regular physical education program. Requires participation in service learning to help students integrate course content with experience.

KIN 213 Principles of Coaching (3)
Prepares students for the problems, challenges, expectations and demands of coaching in several settings including high school, junior high school and other youth and recreational venues.

KIN 215 Introduction to Angling (3)
Prerequisite: instructor's permission. This course introduces the basic skills, theory and equipment necessary to begin the development of lifelong angling skills. Awareness of resource sustainability, environmental responsibility, water chemistry testing, stream/pond assessment and biological monitoring will be introduced. Biological data collection, analysis and submission to statewide database will be required. Other topics include fish characteristics (Biology), habitat design and building, knots, others determined by the class. A current Iowa fishing license is required. There is a lab fee. (GS)

KIN 220 Personal Wellness (3)
Prerequisite: second-year standing. Principles, concepts and evidence-based research related to understanding the concept of wellness and recognize the long-term benefits of maintaining a high level of wellness in today's world. Emphasis on individual decision making, prevention strategies and personal conduct developed is emphasized.

KIN 233 Lifespan Nutrition (3)
This course will examine how nutrient needs vary during the lifespan. Nutritional needs during the following: preconception, pregnancy and lactation, infant nutrition, childhood, adolescent, adult and older adult nutrition.

KIN 251 First Aid and Sports Injuries (3)
Deliver knowledge, theory, and skill training in practical application of prevention, evaluation, initial care, rehabilitation, emergency care and first aid for injuries to the physically active. Provides American Heart Association certification in Basic Life Support (BLS). Additional lab fees apply. (Students may not receive credit for KIN 151 and KIN 251.)

KIN 254 Human Anatomy and Kinesiology with Lab (4)
Prerequisite: KIN 111 or KIN 161 and KIN 162 or BIOL 201 and BIOL 202. Examines the structure and function of the skeletal, muscular, and articular systems of the body. Includes one 90- minute lab per week.

KIN 260 Substance Abuse (3)
Studies the sociological, psychological and legal dimensions of alcohol and drug dependency. Focus on the interrelational nature of substance abuse in American culture.

KIN 261 Community, Consumer, and Global Health (3)
Prerequisite: CIV 110 and either second year standing or 28 completed credits. Reviews current and complex health issues within the perspective of global sustainability. Consumer, community and global health concepts, theories and models will be examined at the local, state, national and international levels. (GS, CTN)

KIN 265 Data Management in Sports Science (3)
Prerequisite: second-year standing. Kinesiology, Strength and Conditioning Major or instructor permission. This course's purpose is to aid students in developing a solid foundation in the tools and functions of Excel and Google Sheets as they relate to sports science. We will develop abilities to communicate with data to various populations using various forms of visualization of data collected throughout the semester. We will also develop methods to manage and organize data of diverse types and be able to sort/ filter data to meet the needs of the population and career paths.

KIN 283 Field Experience: Kinesiology (Arr)
Prerequisite: second-year standing and instructor's permission. A practical experience under the direct supervision of a certified individual.

KIN 330 Exercise Psychology (4)
Prerequisites: second-year standing and PSYC 122 recommended. Analysis of psychological theories for predicting health- based exercise behavior. The assessment of psychological and psychobiological responses to exercise will be distinguished for intervention use. Students will develop and predict psychological adherence interventions for increasing exercise participation. (Students who have received credit for KIN 230/EXSC 230 will not receive credit for KIN 330.)

KIN 333 Sports Nutrition (3)
Prerequisite: CIV 110 and 28 completed credits and KIN 233. An evaluation and application of human nutrition; interpretation of sports nutrition concepts, analysis of key nutrient functions, deficiencies, sources of and utilization of nutrients, theory of popular dietary plans and efficacy (Mediterranean, DASH, Paleo, Gluten Free). The mastery of the physiology as it relates to digestion and metabolism will also be examined. Assessment of nutrition principles to design specific dietary plans for athletes, chronic diseases, and weight management will be rated. Evaluation of sports nutrition principles to formulate an enhanced sports performance, including ergogenic aids will be discussed. Modification of optimal nutrition will be discussed and measured as the foundation for physical performance (aerobic & resistance). The interrelationships among intake, expenditure, performance, training, and maintenance of optimal health will be justified through current literature. They will also learn to use critical thinking skills when examining ingredients on labels (food & supplement) and when judging media recommendations in nutrition. (Students may not receive credit for KIN 333 and KIN 334.) (CTN)

KIN 334 Sports Nutrition (4)
Prerequisite: KIN 111 or BIOL 131, and third-year standing. An evaluation and application of human nutrition; interpretation of sports nutrition concepts, analysis of key nutrient functions, deficiencies, sources of and utilization of nutrients, theory of popular dietary plans and efficacy (Mediterranean, DASH, Paleo, Gluten Free). The mastery of the physiology as it relates to digestion and metabolism will also be examined. Assessment of nutrition principles to design specific dietary plans for athletes, chronic diseases, and weight management will be rated. Evaluation of sports nutrition principles to formulate an enhanced sports performance, including ergogenic aids will be discussed. Modification of optimal nutrition will be discussed and measured as the foundation for physical performance (aerobic & resistance). The interrelationships among intake, expenditure, performance, training, and maintenance of optimal health will be justified through current literature. Students will examine ingredients on labels (food & supplement) and judge media recommendations in nutrition. (Students may not receive credit for KIN 333 and KIN 334.)

KIN 340 Exercise Physiology with Lab (4)
Prerequisite: KIN 254. Examines principles of physiology involved with both the acute and chronic effects of exercise. A lab-oriented class will help put exercise physiology theory into practice. (Students may not receive credit for KIN 340 and KIN 460 or KIN 461.)

KIN 345 Research Methods in Kinesiology (4)
Prerequisite: CIV 210 and third year standing. An introduction to the foundational principles, knowledge, and skills necessary to comprehend, conduct, and interpret evidence- based research in health and movement sciences. (WOC)

KIN 357 Fitness Assessment and Exercise Prescription with Lab (4)
Prerequisite: KIN 340. This course covers laboratory and field tests to assess physical fitness components and principles of exercise prescription when working with apparently healthy clients. Test results are used to develop individualized exercise prescriptions to improve cardiorespiratory fitness, muscular endurance, strength, body composition, and flexibility This class can prepare you for the ACSM/ Certified Exercise Physiologist exam. (Students may not receive credit for KIN 257 and KIN 357.)

KIN 358 Principles of Personal Training (3)
Prerequisite: KIN 257 or KIN 357. Explains individualized fitness programs, business and legal issues for personal trainers and develops personality and communication attributes of trainers.

KIN 361 Biomechanics with Lab (4)
Prerequisite: KIN 254 and third-year standing. Synthesis of biology and mechanics that seeks to explain human movement in terms of space, time, direction and forces. Involves application of mechanics for the expressed purpose of analyzing/improving performance and locating the mechanical cause of faults observed in performance. Includes one 75-minute lab per week.

KIN 379 Epidemiology of Physical Activity (3)
Prerequisite: third-year standing. Examines the relationship between an individual's physical activity and public health policy in terms of cost and effectiveness of combating various diseases and chronic conditions. Various methods for epidemiological assessment will be discussed as well as current research regarding physical activity, chronic disease risk factors, and the basis for public health policies. Recommendations for proactive physical activity following the American College of Sports Medicine's "Exercise is Medicine" model will be highlighted.

KIN 381 Social Media and Kinesiology (3)
Prerequisite: CIV 210, third year standing and instructor permission. Prepares students to evaluate and disseminate fitness information through social media platforms, podcasts, blogs and more. Explores current tends in content creation while considering health and legal risks facing online kinesiology professionals. (CTN, WOC)

KIN 432 Aging and Health (3)
Prerequisite: CIV 110, 28 completed credits and third year standing. Presents information on the aging process and factors that influence health and independence from a holistic and multi-dimensional perspective. Students will learn appropriate assessment options and develop safe and effective activity programs for older adults. Requires participation in service learning to help students integrate course content with experience. (CTN)

KIN 433 Advanced Nutrition (4)
Prerequisite: CIV 110 and either second-year standing or 28 completed credits, KIN 233 or CHEM 351. This course integrates contemporary nutrition science with critical analysis of dietary strategies to optimize health and performance across the lifespan. Students examine the biochemical and physiological mechanisms of nutrient metabolism, energy balance, and chronic disease prevention while applying evidence-based principles to diverse populations. Laboratory experiences emphasize dietary assessment, metabolic analysis and food preparation methods. (CTN)

KIN 460 Exercise Physiology (3)
Prerequisite: KIN 254, KIN 257, and third-year standing. Examines principles of physiology involved with both the acute and chronic effects of exercise. (Students may not receive credit for KIN 340 and KIN 460 or KIN 461).

KIN 461 Exercise Physiology Lab (2)
Prerequisite or corequisite: KIN 360. A lab-oriented class that helps put exercise physiology theories into practice. (Students may not receive credit for KIN 340 and KIN 460 or KIN 461)

KIN 462 Motor Learning (3)
Prerequisite: third-year standing. Examines principles of skill acquisition related to motor skill performance; includes teaching and coaching methods through lecture and lab experiences.

KIN 494 Practicum in Personal Training (3)
Prerequisite: KIN 358 and instructor permission. Senior level review of the business and operations of Personal Training. Extensive content in organization and administration of Personal Training programs. Discussions related to applications and concepts of Personal Training will be emphasized. Additional emphasis in exercise instruction will occur. During the semester the student will be supervised while working with personal training clients outside of class. The students will be expected to practice, demonstrate, refine, and apply competencies gained in previous classes. The student will also demonstrate appropriate communication skills with other professionals working with their clients. (Students may not receive credit for KIN 394 and KIN 494).

KIN 397/497 Internship (Arr)
Prerequisite: departmental approval and instructor’s permission. An applied experience in the major, requiring a minimum number of hours of work per credit hour. Includes conferences with the on-campus instructor and an evaluation by the job supervisor. Pass/No Credit basis.

KIN 533 Sports Nutrition (3)
Prerequisite: Admittance into the Master of Science in Strength and Conditioning Program. An evaluation and application of human nutrition; interpretation of sports nutrition concepts, analysis of key nutrient functions, deficiencies, sources of and utilization of nutrients, theory of popular dietary plans and efficacy (Mediterranean, DASH, Paleo, Gluten Free). The mastery of the physiology as it relates to digestion and metabolism will also be examined. Assessment of nutrition principles to design specific dietary plans for athletes, chronic diseases, and weight management will be rated. Evaluation of sports nutrition principles to formulate an enhanced sports performance, including ergogenic aids will be discussed. Modification of optimal nutrition will be discussed and measured as the foundation for physical performance (aerobic & resistance). The interrelationships among intake, expenditure, performance, training, and maintenance of optimal health will be justified through current literature. They will also learn to use critical thinking skills when examining ingredients on labels (food & supplement) and when judging media recommendations in nutrition. Students may not receive credit for both KIN 333 and KIN 533.

KIN 561 Biomechanics with Lab (3)
Prerequisite: Admittance into the Master of Science in Strength and Conditioning Program. Synthesis of biology and mechanics that seeks to explain human movement in terms of space, time, direction and forces, involves application of mechanics for the expressed purpose of analyzing/ improving performance and locating the mechanical causes of faults observed in performance. Includes one 75-minute lab per week. Students may not receive credit for both KIN 361 and KIN 561.

Liberal Arts Seminar

LAS 225 My Greek Odyssey: Discovering the Origins of Engaged Citizenship (4)
Prerequisites: CIV 110 and second year standing of 28 completed credits. This course offers students an opportunity to explore the birthplace of democracy and Western civilization, fostering their understanding of engaged citizenship. The course's interdisciplinary focus will teach students the profound connections between history, philosophy, religion, gastronomy, sports, science, and current affairs. An introduction to the rich heritage of Greece will help students learn more about the world and themselves, thus enriching their individual journeys as engaged citizens. Through guided readings, lectures, discussions, self-reflections, and international travel, students will enhance their intercultural competency, reflect on global citizenship, and synthesize their newfound knowledge through creative cultural experiences. Students will be required to take the trip to Greece at the end of the semester. (GS, GPN, CTN)

LAS 425 Climate Change: Implications for the World (4)
Prerequisite: CIV 110 and 28 completed credits. What is climate change? Is it real? Does it matter? What can we do about it? Why aren't we doing anything? Big questions that shape our future but involve very complex examination. This course examines the science and history behind global climate change before moving on to discuss consequences and implications for life on earth. In these examinations, our societal actions become a major driver, so discussions will include the psychology, ethics, economics and politics of our action/inaction. (GS, CTN)

LAS 426 Exploring the Origins of Color (4)
Prerequisite: CIV 210 and second year standing. Students will examine the history, science and cultural aspects for common colors including but not limited to indigo, the blue dye used in blue jeans, Tyrian Purple, the color of royalty derived from snails and cochineal, the red color derived from insect husks in South America. (GPN, WOC)

LAS 427 Modern Board Game Studies: Immersion & Design (4)
Prerequisite: CIV 210 and second year standing. This seminar course will first provide an immersive environment where the class will familiarize themselves with the knowledge and understand of modern board games, or so called "designer board games", as well as explore the connections of their themes, mechanisms, etc. to academic disciplines (e.g., history statistics, art). In the second part of the course teams of students will work cooperatively to create their own modern board game from the ground up building on the content learned during the immersive experience. (WOC)

LAS 428 Ethnobotany: How Plants Save The World (3)
Prerequisite: CIV 210 and second year standing. Since our origins in the distant past, we humans have relied on plants for food, fuel, and fiber; we often use them in many other ways as well. Likewise, plants have adapted to us, and in some sense have changed our human nature through the interaction. Ethnobotany is the study of how people use plants, so it is the intersection of two distinct disciplines: Plant Biology (Botany) and Anthropology. This field is a subset of the study of humans using other organisms (not just plants) for material, cultural, and spiritual uses, a subject known as Ethnobiology. (GPC, GS, CTN, WOC)

LAS 429 Exploring Ecotones of Literature, Science, and History (3)
Prerequisite: CIV 210 and second year standing. What does it mean to be an ecologically- literate global citizen in Pella, Iowa? Explore the answer to this question and discover how perspectives of ecology, history and literature contribute to our understanding of the future and biodiversity of all life. Through popular science and history texts as well as short articles, novels, poems, films and documentaries, students will investigate the natural history of the current landscape and the once deciduous forest or tallgrass prairie of Iowa and its human and non-human communities. (GS, CTN, WOC)

LAS 430 Behind Bars: Revealing Chocolate's Bitter Sweetness (3)
Prerequisite: CIV 210 and second year standing. This course explores the origins of chocolate in MesoAmerica as well as the modern status of edible art. Students will see the sweet and bitter interconnectedness of our world through the lens of a chocolatier. (GS, CTN)

Mathematics

MATH 102 Contemporary Mathematics (3)
A non-technical survey of applications of contemporary mathematics, including topics such as networks, voting theory, probability, statistics and methods of counting. Explores the use of mathematics to better understand the world. Does not count toward the major. (MR, EXP)

MATH 105 Introduction to Statistics (4)
Prerequisite: Placement at the MATH 109 level or lower. An introduction to the basic statistical methods for collecting, organizing, displaying, and analyzing data, along with the basic statistical procedures for inference. No prior knowledge of statistics is assumed. Does not count toward the major. Students completing MATH 131 or higher should take MATH 215. (MR, EXP)

MATH 108 Algebra Workshop (1)
Reinforces the basic algebra concepts and skills needed to succeed in mathematics. MATH 108 is required as a pre-or co-requisite for MATH 109 Pre-Calculus for those students with mathematics placement at the MATH 103 level and is strongly recommended for any student concurrently enrolled in MATH 109. Topics include the study of functions, graphs, and their properties, including linear, exponential, logarithmic, and trigonometric functions. Does not count toward the major

MATH 109 Pre-Calculus (3)
Prerequisite: College Algebra or pre- or co-requisite enrollment in MATH 108 for students with placement below the MATH 109 level. Students placing at the MATH 109 level are strongly encouraged to enroll in MATH 108. Continuation of some college algebra topics and the study of functions, graphs, and their properties, including exponential, logarithmic and trigonometric functions. Does not count toward the major. (MR)

MATH 115 Mathematical Concepts I (3)
Prerequisite: EDUC 110, EDUC-135 or EDUC-181 and intended Elementary Education major. This course studies mathematical content needed for teaching elementary mathematics: problem solving, sets, functions, ratios, proportions, the properties of and operations on whole numbers, integers, fractions, decimals, rational and irrational numbers. Does not count toward the mathematics major. (MR, EXP)

MATH 116 Mathematical Concepts II (3)
Prerequisite: MATH-115. This course continues the introduction of the mathematical content needed for teaching elementary mathematics: algebraic thinking, data analysis, statistics, probability, measurement, geometry. Does not count toward the mathematics major. (MR, EXP)

MATH 131 Calculus I (4)
Prerequisite: usually, 4 years of college-bound mathematics or MATH 109. An introduction to differential calculus of functions of one variable. Covers concepts, mechanics, and applications of the derivative with an introduction to integral calculus. (MR, EXP)

MATH 132 Calculus II (4)
Prerequisite: MATH 131. An introduction to integral calculus of functions of one variable. Covers the definite integral, techniques of integration, and applications of the integral, as well as sequences, series, and polynomial approximations of functions. (MR, EXP)

MATH 160 Introductory Investigations in Mathematics (3)
An introduction to investigating mathematical topics of the student's choosing. The course will focus on the process of mathematical investigation while developing technical communication skills. (EXP)

MATH 215 Applied Statistics (4)
Prerequisite: MATH 109 or placement at the MATH 131 level (or above), or instructor permission. Introduces fundamental concepts of methods of statistics. Key ideas to be studied include data collection strategies and their scope of conclusion, the role of randomness in collecting data and drawing conclusions, graphical and numerical summaries of data, assessing statistical significance and estimating with confidence. (MR, EXP)

MATH 220 Discrete Mathematics (3)
Prerequisite: Second year standing. An introduction to the mathematical ideas commonly used in upper-level mathematics and computer science courses. Topics covered include propositional and predicate logic, recursion, induction, relations, functions, graphs, counting techniques, and discrete probability.

MATH 231 Multivariable Calculus (3)
Prerequisite: MATH 132. This course introduces the principles, methods and applications of calculus in three or more dimensions. (MR)

MATH 240 Linear Algebra (4)
Prerequisite: MATH 131. This course introduces matrices, vector spaces and linear mappings. (MR)

MATH 250 Differential Equations (3)
Prerequisite: MATH 132. Students learn to solve ordinary differential equations including systems. Students are introduced to numerical techniques and methods of qualitative analysis.

MATH 310 Geometry (3)
Prerequisite: MATH 220. Introduces students to the foundations of geometry. Studies geometric transformations, axiomatic systems for finite geometries and Euclidean geometry, synthetic geometry, hyperbolic geometry, and other geometries. (WOC)

MATH 330 Mathematical Modeling (3)
Prerequisite: MATH 132 and COSC 110. Studies techniques for developing and interpreting mathematical models in several contexts such as: graphical models, proportionality, optimization, dynamic systems, probability, simulation and Markov processes.

MATH 341 Probability (3)
Prerequisite: MATH 132. This course introduces an axiomatic approach to probability, sample spaces and the study of distribution functions.

MATH 342 Statistics (3)
Prerequisite: MATH 341 (MATH 231 recommended). This course is about the study of distribution functions, estimation techniques and hypothesis testing.

MATH 350 Studies in Applied Mathematics: topic (3)
Prerequisite: MATH 220. The study of an applied mathematics topic. May be repeated with different topics.

MATH 390/490 Topics: Mathematics (Arr)
Various topics in mathematics can be studied depending upon the interest and demand shown by students. The student's transcript will indicate the topic studied.

MATH 420 Senior Project (4)
Prerequisites: CIV 210 and MATH 220. Students will learn mathematical research techniques and apply them to design and implement a semester project of their choice. Students are expected to present (orally and in writing) the results of their work. (WOC)

MATH 450 Studies in Theoretical Mathematics: topic (3)
Prerequisite: MATH 220. The study of an advanced mathematics topic with an emphasis on definitions and proofs. May be repeated with different topics.

MATH 460 Advanced Investigations in Mathematics (3)
Prerequisite: MATH 220. Individual research in or investigation of an advanced mathematics topic of the student's choosing.

Music

MUS 105 Music Apps (3)
An introductory course designed for students who want to learn more about music theory through Popular music. By studying current trends in music, students will synthesize historical and current musical practices. Students will gain a basic knowledge of piano skills as well as the voice, ukulele, and composition practices. This is a course designed for non-majors as well as those considering a Music major, Music Education major, Musical Theatre major, or a Music minor. Effective note-taking strategies, quiz and test study habits, and chunking a final major assignment fulfill the additional EXP requirements. (ART, EXP)

MUS 114 World Music (3)
Explores the music of world cultures that are not normally addressed in traditional western European-based courses in music. Includes music of India, Africa, Latin America, the Middle East and other world cultures. (ART, GPN, EXP)

MUS 120 Theory and Aural Skills I (4)
Corequisite: concurrent registration in MUS 215. A study of the relationships of rhythm, harmony and melody. Class activities include writing and performing music, sight singing and exercises in keyboard harmony, score reading and ear training. (ART)

MUS 149 Instrumental Methods Percussion and String (1)
Prerequisite: second year standing. A basic methods course for prospective vocal music educators. Students learn to play the instruments in the percussion family and string family. Students learn basic techniques for teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed. MUS 249 is offered jointly with MUS 149. Both courses cover the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research in MUS 249. Students cannot receive credit for both MUS 149 and MUS 249.

MUS 150 Introduction to Music Education (1)
Prerequisite: Intended for first year students interested in music education. An introductory course to music education for prospective music education majors. Students will learn the historical and philosophical underpinnings to music education in America. Students will become acquainted with methods, tools, language, and literature in the music education profession.

MUS 151 Instrumental Methods Brass and Woodwinds (1)
Prerequisite: second year standing. A basic methods course for prospective vocal music educators. Students learn to play the instruments in the brass family and woodwind family. Students learn basic techniques for teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed. MUS 251 is offered jointly with MUS 151. Both courses cover the same topics, but with some separate assignments, sessions, and expectations for advanced discussion and research in MUS 251. Students cannot receive credit for both MUS 151 and MUS 251.

MUS 211 Music History I: Antiquity through Baroque (3)
A broad survey of the beginnings of Western art music. Students will explore the development of music as well as the historical and cultural contexts that informed that development. Religion and politics played especially important roles throughout the eras covered, so particular emphasis will be placed upon their contextual importance. Students will dive more deeply into specific aspects of music history through long and short written assignments including a research paper. Completion of MUS 220 or equivalent musical preparation is strongly advised before taking this course. (ART, WRT, CTN)

MUS 215 Piano for Proficiency I (1)
Corequisite: concurrent registration in MUS 120. Develops beginning sight-reading, score-reading, improvisation, accompanying, and harmonization skills necessary for achieving piano proficiency, required of all music and music education majors.

MUS 216 Piano for Proficiency II (1)
Corequisite: concurrent registration in MUS 220. Builds upon skills covered in MUS 215, including: more advanced sight-reading, score-reading, improvisation, accompanying, and harmonization skills necessary for achieving piano proficiency, required of all music and music education majors.

MUS 220 Theory and Aural Skills II (4)
Prerequisite: MUS 120. Corequisite: concurrent registration in MUS 216. Theory and Aural Skills II requires a mastery of tonal harmony and the fundamentals of music (key signatures, scales, intervals, chords, and voice leading). It assumes abilities to analyze melodies, harmonies, and textures as studied in music theory I. The course focuses on key modulations, extended analysis of larger musical forms, and composition using the fundamentals of music. It expands on the concepts of ear training with chromatic sol-feg and chord progressions.

MUS 320 Theory and Aural Skills III (4)
Prerequisite: MUS 220. A continuation of MUS 220. Students must concurrently enroll in MUS 215 Piano for Proficiency I unless exempted by proficiency exam.

MUS 228 Diction for Singers (2)
Focuses on the correct song pronunciation of the four major vocal solo and choral classic languages (English, French, German, and Italian). The course incorporates the International Phonetic Alphabet. It is required for all vocal music education majors and encouraged for all vocal performers and conductors.

MUS 231 Conducting (2)
Prerequisite: MUS 220. A study of fundamental conducting techniques, both choral and instrumental.

MUS 235 Theory and Aural Skills IV (4)
Prerequisite: MUS 220. A study of contemporary theory derived from jazz and popular music. Includes composition and improvisation in a variety of styles, as well as basic arranging techniques. Students must concurrently enroll in MUS 216 Piano for Proficiency II unless exempted by proficiency exam.

MUS 236 Show Choir and Jazz Choir Techniques (2)
Prerequisite: MUS 220 and admission to teacher education. Co- or prerequisite of MUS 231. Students will learn the fundamentals in terms of directing and managing both a show choir and a jazz choir. Implementation and observation of both kinds of ensembles will help to further facilitate the learning throughout the semester. Vocal music education students need to be well versed and trained to direct many different kinds of ensembles, including show choir and a jazz choir.

MUS 249 Instrumental Methods Percussion and String (2)
Prerequisite: second year standing. A basic methods course for prospective instrumental music educators. Students learn to play the instruments in the percussion family and string family. Student learn basic techniques for teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed. MUS 249 is offered jointly with MUS 149. Both courses cover the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research in MUS 249. Students cannot receive credit for both MUS 149 and MUS 249.

MUS 250 Instrumental Methods: Woodwinds (1)
Prerequisite: second year standing. A basic methods course for prospective instrumental music teachers. Students learn to play the instruments in the woodwind family and basic techniques for teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed. Offered fall of odd-numbered years.

MUS 251 Instrumental Methods Brass and Woodwinds (2)
Prerequisite: second year standing. A basic methods course for prospective instrumental and vocal music educators. Students learn to play the instruments in the brass family and woodwind family. Students learn basic techniques for teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed. MUS 251 is offered jointly with MUS 151. Both courses cover the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research in MUS 251. Students cannot receive credit for both MUS 151 and MUS 251.

MUS 252 Instrumental Methods: Strings (1)
Prerequisite: second year standing. A basic methods course for prospective instrumental music teachers. Students learn to play the instruments in the string family and basic techniques for teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed. Offered fall of even-numbered years.

MUS 255 Voice for Instrumental Music Majors (2)
An introduction for instrumental music education majors to the teaching of singing. Topics include movement and the body; structure and function of the larynx and breathing apparatus; resonance and style; developmental factors; techniques for teaching good vocal production; guidelines for choosing repertoire at each point in the developmental spectrum. In class singing and role playing are integral. During the final six weeks of the course, students will take lessons from their counterparts in Voice Pedagogy with supervision and feedback.

MUS 258 Marching Band and Jazz Band Techniques (2)
Prerequisite: second year standing. Studies the materials, organization and methods for charting marching band shows and teaching improvisation to musicians in jazz programs. Offered fall or even- numbered years.

MUS 312 History of Western Music: Pre-Classical to Present (3)
The development of Western music from the pre-Classical era to the present day, including the Classical, Romantic, Late Romantic, and Modern eras. Emphasis is also placed on listening to music for form and style. This course provides the opportunity for students to research and present on selected topics from music of the 20th or 21st centuries. Completion of MUS 220 or equivalent musical preparation is strongly advised before taking this course. (ART, WRT, WOC, CTN)

MUS 313 Music History: 1940-Present (3)
Prerequisite: MUS 312. The development of Western music from 1940- present, with an emphasis on Modernist and Postmodernist approaches to musical composition. This course also provides the opportunity for upper-level music students to research and present on selected topics from the literature of genres such as orchestral, chamber, symphonic, concerto, art song, opera and oratorio. Completion of MUS 220 or equivalent musical preparation is strongly advised before taking this course.

MUS 320 Theory and Aural Skills III (4)
Prerequisite: MUS 220. A continuation of MUS 220. Students must concurrently enroll in MUS 215 Piano for Proficiency I unless exempted by proficiency exam.

MUS 332 Advanced Conducting (4)
Prerequisite MUS 231. Advanced Conducting focuses on four major pillars: 1. The art of conducting- expressive visual communication of musical ideas, 2. Leadership- effectively developing and maintaining a music program, 3. Rehearsal Methods, and 4. Music Ensemble Repertoire.

MUS 333 Advanced Instrumental Conducting and Methods (4)
Prerequisite: MUS 231. Examines the artistic nature of instrumental conducting and the methods for leading an effective band or orchestra programs. Emphasis is given to repertoire and stylistic considerations.

MUS 341 Voice Pedagogy (3)
Prerequisite: two semesters of MUSL 120, MUSL 220 or MUSL 320. An introduction for voice majors to the teaching of singing. Topics include movement and the body; structure and function of the larynx and breathing apparatus; resonance and style; developmental factors; techniques for teaching good vocal production; guidelines for choosing repertoire at each point in the developmental spectrum. In class singing and role playing are integral. During the final six weeks of the semester, students will give lessons to their counterparts in Vocal Methods with supervision and feedback. Offered spring semester of even-numbered years.

MUS 397/497 Internship (Arr)
Prerequisite: Departmental approval and instructor's approval. An applied experience in the major, requiring a minimum number of hours of work per credit hour. Includes conferences with the on-campus instructor and an evaluation by the job supervisor. Pass/No Credit basis. Offered on request.

MUS 488 Senior Recital/ Project (0)
Prerequisite: MUSL-2XX/ 3XX in primary area of applied music study. Present a senior recital of one-half hour in the student's primary are of applied music study (or other approved significant senior project).

MUS 499 Independent Study (Arr)
Prerequisite: instructor's permission. Research in approved topics. May be repeated on demand. Offered on request.

Music (groups/ensembles)

MUSG 220 Central College-Community Chorus (.5)
Prerequisite: instructor's permission. Students, faculty and local area vocalists are eligible for membership. Two concerts featuring major choral works are presented each year. (ART)

MUSG 222 A Cappella Choir (1)
Prerequisite: instructor's permission. Members are admitted after auditions at the discretion of the director. Repertoire includes works of many styles and periods. The choir sings on many occasions throughout the school year and makes a concert tour each spring. (ART)

MUSG 223 Symphonic Wind Ensemble (1)
Prerequisite: instructor's permission. The Symphonic Wind Ensemble is open to all students by audition. Emphasis is on the performance of quality wind band literature. Performances include on-campus concerts, a concert tour each spring and a concert preceding the annual commencement exercises in May. (ART)

MUSG 224 Scholte Strings.5)
Prerequisite: instructor's permission. The orchestra includes students, faculty, local and area musicians and guest artists. Several concerts featuring a variety of excellent literature are performed throughout the school year. (ART)

MUSG 225 Jazz Ensemble (.5)
Prerequisite: instructor's permission. The group is organized to study and perform music of the American jazz idiom with emphasis on both individual improvisation and ensemble playing. Students are chosen by audition.

MUSG 226 Chamber Ensemble (.5)
Prerequisite: instructor's permission. Devoted to the study and performance of chamber music literature, the course culminates in a public, department-sponsored performance. Students are chosen by audition from members of the primary ensemble appropriate for their instrument.

MUSG 227 Chamber Singers (.5)
Prerequisite: instructor's permission. Concurrent enrollment in MUSG 223 Symphonic Wind Ensemble. Specializing in music for the small vocal ensemble, the group is chosen by audition from the A Cappella Choir membership. Performances include the spring tour, Christmas candlelight concerts, and occasional music theatre productions. (ART)

MUSG 229 Treble Clef Choir (.5)
Students will actively engage in choral music through sound technique, serious study of the varied repertoire and the development of artistic expression. Students will gain a stronger appreciation for the choral art and its relationship to the larger society. All students who can sing in the treble clef range are eligible for participation in the Treble Clef Choir. No audition is required. The ensemble will perform varied repertoire throughout the spring semester of the academic year. (ART)

MUSG 230 Flying Pans Steel Band (.5)
The Flying Pans Steel Band perform diverse styles of music from traditional Caribbean rhythms of calypso, soca and reggae to that of Classical Latin, disco, techno and rock. The steel drum ensemble presents a variety of concerts throughout the year, both on and off campus. All students are invited to participate. No audition required. (ART)

MUSG 250 Vocal Fusion (.5)
Vocal Fusion is a small contemporary ensemble focused on the performance of diverse repertoire spanning jazz, pop, contemporary commercial music (CCM), musical theatre, and modern a cappella styles. Emphasis is placed on healthy technique, blend, basic sound reinforcement practices, stylistic authenticity, musicianship, and collaborative ensemble skills. Students develop performance confidence through rehearsals and performances that integrate musical precision with expressive communication. Enrollment is limited by audition and instructor approval.

Music Lessons (private instruction)

MUSL 1xx Applied Study (1)
Beginning-level individual instruction in a performance area, 30 minutes per week for 13 weeks. At the instructor's discretion, small-group instruction may substitute. Attendance at Student Showcase Recitals (maximum of 2 per semester) is required; the instructor may also require participation in periodic studio classes.

MUSL 2xx Applied Study (1-2)
Prerequisite: instructor permission. Intermediate-level individual instruction in a performance area, 30 minutes (for 1 SH) or 60 minutes (for 2 SH) per week for 13 weeks. Students should enter with the ability to perform intermediate-level solo repertoire in the performance area. For voice study, music-reading ability sufficient to learn songs independently is also expected. Attendance at Student Showcase Recitals (maximum of 2 per semester) is required; the instructor may also require participation in periodic studio classes.

MUSL 3xx Applied Lessons (1-2)
Prerequisite: instructor permission, declared music major, and at least 2 semesters of study at the 100- and/or 200-level. Advanced-level individual instruction in a performance area, 30 minutes (for 1 SH) or 60 minutes (for 2 SH) per week for 13 weeks. Attendance at Student Showcase Recitals (maximum of 2 per semester) is required; the instructor may also require participation in periodic studio classes.

Musical Theatre

THEA 142 Introduction to Film (4)
Develops a greater understanding of and appreciation for the art and history of film as it examines contemporary American and international cinema in historical and cultural contexts. Enhances analytical skills to better understand filmmakers' intentions and how they are conveyed. (ART)

THEA 145 Introduction to Musical Theatre (3)
Over the course of the semester students will learn about musical theatre, a brief history of musical theatre and the elements of creating a musical theatre show. This includes script writing, producing, directing and choreographing, and the design areas. A course fee is attached to this course for attending a live musical in Des Moines at some point in the semester. Students are also required to attend a Theatre Central show during the semester. (ART, EXP)

THEA 150 Acting (3)
Examines the theories and practices of acting from a Western perspective. Students practice basic aesthetic judgments, professional ethics, and physical and vocal training through theatre games, improvisation and introduction to scene study. (ART, EXP)

THEA 151 Dance Fundamentals (1)
This course is designed to give the student the essential training in various dance techniques and an understanding of the structure behind their differences and similarities. Students will explore and experience various dance styles through in-class technical training and explore historical context and the artistic impacts in the Fine Arts.

THEA 161 Introduction to Theatrical Design (3)
An introduction to theatrical design concentrating on the creative process in developing the design of sets, lighting, costumes, as well as the presentation of design ideas. This course examines the role of the designer and how designs support the ideas of a play in visual ways. Promotes the development of college-level writing, reading, listening and speaking skills. Students with credit for THEA-173 may not also receive credit for THEA-161. (ART)

THEA 163 Stagecraft (4)
An introduction to the rudimentary skills involved with planning, constructing, painting, rigging and lighting of stage scenery. (EXP)

THEA 174 Singing and Acting for the Stage (1)
Students will develop skills and techniques specifically for acting and singing on the stage in a musical theatre performance. This is a studio course where students learn repertoire from the musical theatre canon and perform it in class with instructor feedback/ direction on improving performance techniques. We will study various genres of musical theatre productions. There are also potential possibilities to work with outside professionals in a master class type of situation.

THEA 180 Theatre Practice (1)
This course is designed to allow students to gain practical rudimentary experience in theatre by working on a realized theatrical production.

THEA 250 Musical Theatre History (3)
This course examines the history and evolution of Broadway musical theatre, one of America's great indigenous art forms. The course gives students the opportunity to evaluate and compare a variety of musicals from the nineteenth century to present-day Broadway musicals including minstrel shows, vaudeville, operetta, musical comedy, opera on Broadway and Rock Opera.

THEA 267 Digital Media and Design with the Arts (3)
This course aims to provide training in digital programs used in theatre design. Through a series of projects this course will explore a variety of digital tools and help students familiarize themselves with digital options for design renderings. (ART)

THEA 280 Advanced Theatre Practice (1)
This course is designed to allow students to gain practical advance experience in theatre by working on a realized theatrical production.

THEA 361 Theatrical Design I (3)
Focuses on designing the tangible elements of the stage; i.e., scenery, props, costumes, and makeup. Students will develop the ability to critically analyze design and technical aspects of a theatrical production using current professional language and tools of those areas. Hands on projects in scenery and costume renderings and paperwork as well as oral design presentations will be utilized in this course. (ART)

THEA 362 Theatrical Design II (3)
Focuses on designing the nontangible elements of the stage; i.e.- lighting, projections, and sound. Students will develop the ability to critically analyze design and technical aspects of a theatrical production using current professional language and tools of those areas. Hands on projects in lighting, projection, and sound plots and other paperwork as well as oral design presentations will be utilized in this course.

THEA 363 Scenography (3)
Prerequisite: second-year standing or instructor permission. Scenography is about integrating all visual components of a theatrical production including designing scenery, costumes and lighting to create an engaging visual environment. Students will learn the fundamentals of all aspects of scenography, in a collaborative and hands-on workshop classroom. Class discussions, critiques, and presentations will advance the skills learned.

THEA 365 Entertainment Management (3)
Prerequisites: CIV-110 and 28 credits. Students learn about the practice, realm and study of entertainment management in commercial and non-commercial operations. Students will also learn about stage management; the process and responsibilities of stage managers as they take a show from preproduction to closing. Students will learn about the National Endowment for the Arts and how theatres get funding through grants. (CTN)

THEA 370 Script Analysis and Dramatic Literature (4)
Prerequisite: CIV 210 and second-year standing. An interdisciplinary investigation of theatre and literature. Explores a variety of analytic methods for examining dramatic literature from both performance and design perspectives. Brief explorations of critical theory used to critique, analyze, and produce plays. (LP, WRT, WOC)

THEA 397 Internship in Theatre (Arr)
Prerequisite: 3.0 departmental GPA and instructor's permission. An applied experience in a communication and/or theatre-related setting requiring a minimum of 30 hours for each credit hour. Includes conferences with on-campus staff, portfolio of work performed and evaluation by job supervisor. May be repeated for a maximum of 10 credit hours applied to the major. Pass/No Credit basis.

THEA 440 Critiquing Musicals (3)
Prerequisite: CIV 210, third-year standing. This course will critically examine issues of social justice, discrimination, and inequality and how they appear in dramatic literature. Students will watch a series of musicals in which these are represented, discuss them, write analysis papers and give two oral presentations over the material in class. (WOC)

THEA 458 Directing (4)
Prerequisite: THEA 150 and third-year standing. Explores the roles and responsibilities of a theatre director. Students will be exposed to various types of theatre budgets and how to plan for your performance of a stage musical or play. Also included are the importance of copyright compliance, theatrical rights for public performances, how to create and explain your vision to your cast and crew, the various stages of the rehearsal process, and the responsibilities once the performances have concluded. Students will also direct a one-act play.

THEA 485 Senior Seminar in Theatre (4)
Prerequisite: Declared theatre major and senior standing. Serves as a capstone to the Theatre major's undergraduate career and prepares them for transition into the professional theatre and/or graduate studies. The course may include lectures, workshops, professional guest speakers, discussion sessions and any other aspects related to the collaborative world of theatre. Students will complete various writing-intensive projects including resume building, portfolio constructing, career-based cover letters and a 5-8 page research paper based upon their individualized track in theatre.

THEA 488 Final Portfolio (0)
Students will work with a faculty member in their chosen area of specialization to build a professional portfolio to help launch a career in theatre. This is a graduation requirement for all Musical Theatre majors.

THEA 499 Independent Study (Arr)
Prerequisite: instructor's permission. A course allowing students to probe more deeply into an area for which they have been prepared, but in which there are no further advanced courses offered. Prior to registration the student must present the proposed study to the department for approval. May be repeated.

Dance Lessons

THEAL 120 Dance Lessons (1)
These lessons will give students the essential fundamental training in various dance techniques and an understanding of the structure behind their differences and similarities. Students will explore and experience various dance styles through in-class technical training and explore historical context and the artistic impacts in the Fine Arts. Lessons may be one-on-one and small group as necessary. Course may be repeated up to 3 times. Private/ group lesson fee applies.

THEAL 220 Dance Lessons (1)
These lessons will give students the essential intermediate level training in various dance techniques and an understanding of the structure behind their differences and similarities. Students will explore and experience various dance styles through in-class technical training and explore historical context and the artistic impacts in the Fine Arts. Lessons may be one on one and small group as necessary. Course may be repeated up to 3 times. Private group lesson fee applies.

THEAL 320 Dance Lessons (1)
These lessons will give students the essential advanced level training in various dance techniques and an understanding of the structure behind their differences and similarities. Students will explore and experience various dance styles through in-class

technical training and explore historical context and the artistic impacts in the Fine Arts. Lessons may be one on one and small group as necessary. Course may be repeated up to 3 times. Private group lesson fee applies.

Natural Science

NASC 110 Concepts in Natural Science (3)
This course explores the fundamental topics of physical, life and earth/ space sciences and examines the interactions between fields. Laboratory activities will be integrated into the course (NS, EXP)

NASC 115 Medical Terminology (3)
This course introduces students to the language of medicine, focusing on the structure, meaning, and pronunciation of medical terms. Emphasis is placed on word roots, prefixes, suffixes, abbreviations, and terminology related to major body systems. Students will develop skills to interpret and apply medical terminology accurately in academic, clinical, and allied health contexts.

NASC 185 Exploring Scientific Research (1)
This course is designed to give students an introduction with hands-on experience in STEM research in a range of disciplines.

Philosophy

PHIL 120 Introduction to Philosophy (3)
Explores life's most fundamental questions by discussing classic texts from the history of philosophy. What does it mean to live a good life? Why is there evil in the world? Is there a God? Do we really know what we think we know? Students will try out their own answers to these questions and learn how to argue for those answers in writing and class discussion. (LP, EXP)

PHIL 121 Ethics (3)
What is the right thing to do? What makes an action right or wrong? And why should we think there is a right or wrong, anyway? Through this course, you will encounter and learn to analyze different ways to answer these questions, including the most historically relevant responses from Utilitarianism, Deontology, and Virtue Ethics; in the process, you will also learn to apply those answers to your own life and social experiences. (LP, EXP)

PHIL 125 Logic (3)
An introduction to logic, the art of evaluating arguments and reasoning correctly. Students will learn how to analyze the structure and language of arguments and use that analysis to distinguish good from bad arguments (logical fallacies). Designed to give students the tools to construct and critique arguments in whatever discipline or career path they choose. Covers both informal logic and the basics of symbolic logic (categorical and propositional). (MR)

PHIL 127 Meaning of Life (3)
We all want to live good lives, but how can we actually achieve that goal? This course provides an investigation into this question. Through the study of ancient and contemporary answers, students are challenged to examine their own assumptions and to develop their understanding of life's value based on logical reasoning and evidence. (LP, EXP)

PHIL 221 Classical Thought (4)
Prerequisite: CIV 110 and 28 credits or sophomore standing. This course provides a survey of Western philosophy from Ancient Greece to the Middle Ages. We focus on Plato, Aristotle, and their inheritors, then we will see how these ancient ideas were understood by the medieval thinkers, Boethius and Aquinas. Our primary goal is to understand these authors in their own terms; but we will also be interested in thinking about how their ideas continue to influence us today. (LP, WRT, CTN)

PHIL 222 Modern Thought (4)
Prerequisite: CIV 110 and 28 credits. Focuses on the philosophical origins of our modern way of thinking-and reflects on its limitations. In the process, students will critically engage with some of the most important texts in the modern period of philosophy (c. 1600-1900). Key themes include: (1) technology and scientific progress, (2) individual freedom and subjectivity, and (3) secularism (the divide between religion and public life). What have we gained? What have we lost? (LP, WRT, CTN)

PHIL 240 Social and Political Philosophy (3)
This course allows students to address important questions about individual, social, and political relationships. Questions to be discussed may include: What makes a government legitimate? What rights and freedoms should a government protect, and what obligations, if any, does a citizen owe their government? How does an ever-increasing global awareness shape our responsibilities as citizens? And how ought we respond to injustice? (LP)

PHIL 242 Philosopher Queens (4)
Prerequisite: CIV 110 and either second year standing or 28 completed credits. Women have been a part of intellectual development for as long as humanity has existed. But their achievements are often unknown, misrepresented, or ignored altogether. This course examines some of the intellectual contributions of women thinkers to philosophy, literature, and political theory so that their voices may no longer be silent. (CTN)

PHIL 250 Technology and Society (4)
Prerequisite: CIV 210. Explores philosophical questions related to technology, focusing on the connection between technology and human flourishing. Although the core approach is philosophical, the course also draws on a range on non-philosophical texts and media to give a fuller picture of technology in modern life. Topics include the nature and goals of technology, its potential downsides, and the relationship between technology and living meaningfully. The course also addresses ethical questions about AI and human enhancement. (LP, WRT, WOC)

PHIL 270 Philosophy of Art (4)
Prerequisite: CIV 210. A philosophical investigation of the nature of art and its role in human life. Special emphasis will be placed on music, painting, and Greek tragedy. Topics include the criteria for calling something art, the nature of aesthetic judgement, the source of artistic inspiration, and the relationship between art and contemplation. (LP, WRT, WOC)

PHIL 375 Memory and the Holocaust (4)
Prerequisite: CIV 110 and either second year standing or 28 completed credits. This course will take an interdisciplinary approach to questions about memory and the Holocaust. We will reflect on the philosophical significance of memory and apply our reflections to the history of the Holocaust and the process of its memorialization. We will also read Holocaust literature that raises ethical questions about how we remember. (LP, GPN, CTN)

PHIL 282 Philosophy of C.S. Lewis (4)
Prerequisite: CIV 110 and 28 credits. This course explores the life and works of the Christian author and apologist C.S. Leiw, focusing on the lasting impact of his key philosophical and theological ideas. The course also considers other authors whose writings influenced Lewis, including J.R.R. Tolkien, Plato, and Aristotle. Texts to be studied include *The Screwtape Letters, The Problem of Pain, The Four Loves,* and *The Lion, the Witch and the Wardrobe* (among others). (LP, WRT, CTN)

PHIL 345 Environmental Ethics (4)
Prerequisite: Second year standing or instructor permission. This course is designed to help you develop an understanding of a wide range of ethical issues related to the environment while 1) developing your ability to think critically, read closely, and argue well. 2) introducing you to major controversies in environmental philosophy; and 3) adding your ability to arrive at your own rational and clear-mined conclusions. (LP, GS)

PHIL 346 Biomedical Ethics (4)
Prerequisite: second- year standing or instructor permission. This course provides a survey of the major ethical controversies in medical and other healthcare-related fields. Students will explore ethical challenges in medicine and encounter specific case studies that relate to concerns about balancing autonomy, beneficence, nonmaleficence, and justice. Some topics include whether a doctor can lie to her patient; whether children can give consent for medical treatment; whether parents can select for certain genes when reproducing; and whether anyone can ethically choose when and how they die. Students may not receive credit for both PHIL 246 and PHIL 346. (LP)

PHIL 380 Advanced Plato (4)
Prerequisites: Successful completion of 200-level philosophy course; CIV 210. Plato is one of the most important Western philosophers, and his influence continues to extend into contemporary philosophy, politics, and religion today. In fact, it has even been claimed that Western philosophical tradition consists of nothing more than a series of footnotes to Plato! In this course, we will examine the veracity of this claim by diving into Plato's works and exploring Plato's contributions to politics, ethics, metaphysics, epistemology, and aesthetics. We will also view Plato's philosophy through the lens of various ancient and modern interpretations to achieve fuller understanding of Plato's continued relevance to life and society. (LP, WRT, WOC)

PHIL 390 Topics in Philosophy (Arr)
Varying topics determined by the interests of students and the staff. May be repeated for credit.

PHIL 397/497 Internship (Arr)
Prerequisite: departmental approval and instructor approval. Applied experience in the major, requiring a minimum number of hours of work per credit hour. Includes conferences with the on-campus instructor and an evaluation by the job supervisor. Pass/No Credit basis.

PHIL 399 Independent Study (Arr)

PHIL 423 Advanced Contemporary Philosophy (4)
Prerequisite: CIV 210 and one philosophy course at the 200- or 300- level. Focuses on advanced readings by a selection of contemporary philosophers. The course will emphasize the development of the craft of philosophy through upper-level writing assignments and presentations. Students may not receive credit for both PHIL 323 and PHIL 423 (WOC)

PHIL 446 Philosophy of Death and Dying (4)
Prerequisite: CIV 210; successful completion of a 200-level PHIL course. This course will equip students with tools to address how to have meaningful life when lives inevitably end in death The course tackles what death is and what we can know about it (epistemological concerns), questions about the value of life, suicide, and euthanasia (ethical concerns); and the desire for immortality (metaphysical concerns). (WOC)

Physics

PHYS 101 Introductory Physics I with Lab (4)
Prerequisite: high school algebra. A thorough basic course studying fundamental physics and laboratory techniques necessary for understanding science and its relation to everyday experiences. One three-hour lab per week. (NS)

PHYS 102 Introductory Physics II with Lab (4)
Prerequisite: PHYS 101. A continuation of PHYS 101. One three-hour lab per week. (NS)

PHYS 106 Introductory Astronomy (3)
Prerequisite: high school algebra. A descriptive course dealing with the celestial sphere, the solar system, stars and galaxies. It presents the astronomical phenomena of the universe in the context of physical science and examines related laws in the context of current issues in planetary and space sciences. This course is open to all students who desire a basic understanding of their astronomical environment. Of value to future teachers and anyone interested in how mathematics is integrated into science. (EXP, NS)

PHYS 111 General Physics I with Lab (5)
Pre- or co-requisite: MATH 131. A thorough basic course in all major branches of classical physics with an emphasis on mathematical analysis. Designed for physics, chemistry, and engineering majors. Required for advanced physics courses. One three-hour lab per week. (NS, EXP)

PHYS 112 General Physics II with Lab (5)
Prerequisite: PHYS 111; Pre- or co-requisite: MATH 132. A continuation of PHYS 111. Designed for physics, chemistry, and engineering majors. Required for advanced physics courses. One three-hour lab per week. (NS)

PHYS 204 Energy and Environment (3)
Prerequisite: CIV 110 and 28 completed credits. An examination of energy-related problems both ecological and social from a physical science perspective. Investigation is made of the historical origins of these problems, a description is given of the problems as they exist in various cultures today, and some policies of energy usage are examined, followed by a scenario of outcomes as a result of implementation of various policies. Emphasis is placed on the natural principles underlying the problems and evaluations of the problems in this light. Does not count toward the major. (NS, GS, CTN)

PHYS 215 Theoretical and Experimental Methods (2)
Prerequisites: PHYS 112 and MATH 231. Introduces students to various theoretical and experimental methods used in engineering and physics. Topics include theory of fields, curvilinear coordinates, tensors, spectral analysis, errors in experiments, and their propagation.

PHYS 216 Waves (2)
Prerequisite: PHYS 112. Physical concepts and mathematical relations describing wave phenomena in a variety of physical systems. Topics include oscillation in mechanical and electrical systems, mechanical and electromagnetic waves, and optics.

PHYS 225 Modern Physics I (3)
Prerequisite: PHYS 112. Special theory of relativity, quantization of electromagnetic waves and photons, wave properties of matter, structure of the atom, and introductory quantum mechanics. (NS)

PHYS 322 Optics (3)
Prerequisite: PHYS 112. Pre- or co-requisite: MATH 231 or instructor's permission. Light as an electromagnetic wave, propagation of light, geometrical optics, polarization, interference, diffraction, and their applications.

PHYS 325 Modern Physics II (3)
Prerequisite: CIV 210, PHYS 225. Continuation of PHYS 225. Applications of introductory quantum theory to the subjects of solid state physics and nuclear physics. An introduction to sub-atomic particles called quarks and leptons. (WOC)

PHYS 331 Advanced Laboratories (2)
Pre- or co-requisites: PHYS 225 and third-year standing. A laboratory investigation of all major branches of physics with an emphasis on experimental design and procedures, precise data collection, quantitative data analysis, and professional written reports in a research atmosphere of independent thinking. Two semesters required for a major.

PHYS 412 Quantum Mechanics (4)
Prerequisite: PHYS 225. Pre- or co-requisite: MATH 231 or instructor permission. The Schrodinger equation, hydrogen atom, simple harmonic oscillator, expectation values, eigenvalues, eigenfunctions, operators.

PHYS 421 Electricity and Magnetism II (3)
Prerequisite: ENGR 321. A continuation of ENGR 321. Electric currents, electromagnetic induction, Maxwell's equations, energy, momentum and angular momentum of electromagnetic fields and their conservation, electromagnetic waves, fields of moving charges, and radiation of electromagnetic waves.

PHYS 397/497 Internship (Arr)
Prerequisite: departmental approval and instructor's permission. An applied experience in the major, requiring a minimum number of hours of work per credit hour. Includes conferences with the on-campus instructor and an evaluation by the job supervisor. Pass/No Credit basis.

Political Science

POLS 110 Introduction to American Politics (4)
An examination of political life in the United States with attention to the environment in which politics takes place and the traditional institutions that comprise the federal government. This course may be used for teacher certification. (SB, EXP)

POLS 140 Introduction to International Politics (4)
Basic survey of the contemporary international political system with emphasis on key concepts of power, sovereignty, and national interest; studies global patterns and trends in relations between major state and non-state actors. Special attention is devoted to sources and consequences of conflicts, global politics of transnational problems of environment, development, and international political economy. Promotes development of critical thinking, analytical reading and writing, research skills and collaborative learning. (SB, GPN, GS, EXP)

POLS 210 American Political Institutions (4)
An examination of the role the formal political institutions play in American politics. Discussion will focus on the implications of legislative, executive, or judicial behavior on the formation of public policy, why institutional rules and institutions matter, and how American political institutions help maintain our democratic form of government. May be repeated with different institutions. (e.g., Congress, Presidency, Courts). (HP)

POLS 215 The Politics of State and Local Governments (4)
An examination of government and politics at the state and local level. Topics covered will include state-level institutions and processes, local-level institutions and processes, urban politics, and Iowa politics. Emphasis will be placed on how state and local governments fit into the American political system.

POLS 216 Don't Look Up From Your Phone: Voting in the Age of Doomscrolling (4)
Prerequisite: CIV 110 and 28 completed credits. This course focuses on the following question: Why do young voters have lower voter turnout rates than older voters and why is that consequential for American democracy? We will examine this question through the lens of political science with a specific emphasis on the citizen's role in shaping decisions made by elected officials and political institutions. (CTN)

POLS 220 Dictatorship and Democracies (4)
We trace the origins, institutions, and policy commitments of influential dictatorships and democracies in global politics today. We compare democratic and authoritarian states in terms of government capacity, national unity, institutions and regime change, and human development/general well being. This comparative politics framework is borrowed from Munck and Lopez (2022) Comparative Political Analysis. We will focus on China, India, The European Union, and select other cases based on student interest. Students will be evaluated primarily on writing and basic research.(CTN, SB, GPN, WRT)

POLS 225 Modern Latin America (4)
A cross-national comparison of political, socioeconomic and cultural development in Latin America from 1870 to the present. Countries of focus are Brazil, Argentina, Chile, Mexico, and Cuba. Studies the cycles of dictatorship and democracy, economic boom and bust, and political and social economic liberalization since the mid-1980s. (HP, GPC, WRT)

POLS 231 The Middle East in World Affairs (4)
A comparative historical and institutional analysis of post-colonial foreign policies of selected state and non-state actors in the Middle East, including Israel, its Arab neighbors, and Iran. Special attention is given to the historical roots of major contemporary regional conflicts and domestic social, economic, political, and religious influences shaping contemporary external relations. (HP, GPN, WRT)

POLS 233 American Environmental Politics and Policy (4)
Investigates the political and public policy dimensions of major American environmental issues and problems from 1945 to the present. Identifies and analyzes major U.S. environmental actors, including industry groups, environmental NGOs, as well as major governmental actors and policy bodies in the environmental arena at the national state, and local levels. (GS)

POLS 235 The U.S. in World Affairs (4)
Prerequisite: CIV 110 and either second year standing or 28 completed credits. An examination of the historical evolution of major U.S. foreign policy-making institutions and processes, with emphasis on the post-1945 era. Analysis of guiding principles and patterns in U.S. foreign diplomatic, economic and military relations since 1898. (HP,CTN)

POLS 242 Global Sustainability Politics (4)
Prerequisite: second-year standing or instructor permission. A policy-oriented overview of selected global sustainability issues, problems, and solutions drawn from across the political, economic, and social justice realms. Examines roles of key international, governmental, and non-governmental actors. Emphasizes engaged citizenship at the local, national, and global levels. Opportunities for participation in campus and community outreach sustainability projects are included. (SB, GS)

POLS 287 Presidential Inauguration Seminar (3)
Prerequisite: GPA of 2.5 or above. An examination of the inauguration and how new presidents operate during the early weeks of a new presidential administration. Discussion will be directed toward the outcome of the current presidential election and how it might impact American politics and policy. Course will be offered every fourth spring after a presidential election. Students must participate in The Washington Center's Inauguration Program prior to the semester beginning.

POLS 316 Presidential Elections (4)
Prerequisite: Second-year standing, third-year recommended. An examination of presidential elections. Discussion will be directed toward electoral processes, how voters make decisions in elections, and strategic campaigning by candidates, political parties, and other political actors. Course will be offered every fourth fall during a presidential election year. (SB)

POLS 326 Political Violence and Terrorism (4)
An inquiry into the causes of political violence and terrorism focused on theories of human nature and institutions. Causal explanations are evaluated against particular cases involving different types of political violence in different historical, cultural, and political contexts. In addition to weekly assignments requiring critical reading, viewing, writing and discussion, students complete a semester-long Event Structure Analysis (ESA) on some particular case of political violence. The ESA project involves evaluation of reliable, relevant primary and secondary sources and the application of a formal social sequence analysis framework. Final products of the project include a formal written report and oral presentation. (SB, GPC, WRT)

POLS 344 International Law and Human Rights (4)
A prior course in Political Science; POLS-140 strongly recommended. Examines major international legal principles and organizations in a changing global system. Special emphasis on evolution of human rights norms in a changing international order. Emphasis on the United Nations system, particularly peace and security and sustainable development functions. Examines the growing role of non-governmental organizations (NGOs in world politics. (SB, WRT)

POLS 355 Seminar in Public Policy (3)
Examination of the formulation, implementation, and analysis of public policy in the United States. Discussion will focus on the implications of institutional behavior on the public policy process, the role of procedures and rules in the policy process, and the role of the policy-making process within our democratic form of government. In addition, students will gain firsthand experience in a particular policy domain through a service-learning experience.

POLS 361 American Political Philosophy (4)
Prerequisite: CIV 110 and either second year standing or 28 completed credits. An examination of the contribution of American thinkers to the literature of political philosophy. Emphasis will be upon the "founding fathers," but concern will be given to developing themes, ideas and topics relevant to citizens today. (LP, CTN)

POLS 363 Political Theory: freedom and the State (3)
Prerequisite: sophomore standing. Examines the tension between the human's desire to be free and the state's drive for order and prosperity through the lens of modern political theory. Themes include the meaning of political freedom, the state's competing interests in developing happy but orderly citizens, the legitimacy of power exercised by the state, and the origins of revolutions. (CTN)

POLS 390 Topics: Political Science (3)
Offered as needed to cover the interests of staff and students when these cannot be accommodated by regular offerings. The student's transcript will carry an indication of the topic pursued.

POLS 397 Internship: Political Science (Arr)
These are off-campus experiences designed to enrich a student's education through supervised practical experience in a civic, governmental, or business institution. Three structured programs are currently available: The Washington Center in Washington, D.C.; the Intern Program in Des Moines; and the Chicago Semester Program. Approved independent programs are also available. Unsupervised political activity does not qualify. Total credit for full time internship may not exceed 15 hours per semester; no more than 3 credits may count toward a major or minor in political science. Pass/No Credit basis.

POLS 399 Independent Study (Arr)
Offered on an individual basis to those students who demonstrate that their interest cannot be met by scheduled offerings. Students seeking to enroll must consult the staff member involved the semester beforehand and obtain approval of their projects.

POLS 489 Capstone Seminar (4)
Prerequisite: Junior or Senior standing. A capstone experience primarily for Political Science majors and minors. Political Science majors and minors pursue a variety of career options, so this course will challenge you to develop a sense of your own work as a Political Science major or minor by focusing on how political scientists engage the political world as knowledgeable citizen-professionals with a specific emphasis on political writing and speaking.

Psychology

PSYC 122 General Psychology (3)
Surveys the field of psychology. Emphasizes the scientific study of behavior and mental processes and challenges students to critically analyze the major findings, theories and applications in areas such as sensation and perception; development, learning, memory and cognition; motivation and emotion; psychopathology and social psychology. (SB, EXP)

PSYC 175 Applied Social Psychology (3)
Prerequisite: PSYC 122. This class is intended for advanced first-year students. Humans are deeply social. This class will explore the ways we people understand and interact with one another in everyday life. Why do we obey people in authority? What are the roots of prejudice and how can we overcome them? Why do other people sometimes bring out our worst and other times bring out our best? We will address these questions and more as we apply social psychology to our everyday lives and hopefully learn something about what it means to be a person in the presence of other people.

PSYC 220 Psychological Investigations (4)
Prerequisite: PSYC 122 and second-year standing. Introduces students to major assumptions, values, and questions addressed by psychologists, and presents basic concepts and methods of psychological inquiry. Special emphasis is given to individual and class research projects, data analysis and research report writing. (WRT)

PSYC 231 Psychopathology (3)
Prerequisite: second-year standing and PSYC 122. Surveys psychological disorders and abnormal behaviors including symptoms, causes and treatments. Integrates biological, psychological, and social influences. Introduces diagnostic criteria for major disorders.

PSYC 240 Psychology of Gender (3)
Prerequisite: PSYC 122 and second-year standing, or instructor's permission. This course explores psychological research and theory related to gender, with a particular focus on the ways in which gender influences men's and women's daily lives. Attention is given to the biological, cognitive, and psychosocial changes in sex and gender across the life-span. Topics include the effects of parents, peers, school, work, and health as they shape gender identity. Throughout the course, we will examine how gender can be studied using empirical research methods and emphasize the importance of identity, sexual orientation, culture, and social class in understanding gender. (GPC)

PSYC 255 Introduction to Counseling (3)
Prerequisite: PYSC 122 and second year standing, or instructor permission. An introduction to the process of therapy, including session types, active listening skills and ethical issues. Students explore professional identities in the helping field broadly, particularly within counseling. Throughout the semester, students consider their own personality, beliefs, values, culture, and experiences and how they influence their perceptions.

PSYC 277 Clinical Neuroscience (4)
Prerequisite: PSYC 122 and second-year or sophomore standing, CIV 110. Clinical neuroscience focuses on the neurological underpinnings of psychological disorders and diseases of the central and peripheral nervous system. The course will explore a wide variety of topics including addiction, autism spectrum disorders, borderline and antisocial personality disorders, obsessive compulsive disorder, schizophrenia, dementia, affective disorders, neurodegenerative diseases, and neuropsychological assessment. Students may not receive credit for both PSYC 277 and PSYC 477. (CTN)

PSYC 278 Forensic Neuroscience (4)
Prerequisite: PSYC 122, CIV 210 and sophomore or second-year standing. Advances in psychology and neuroscience techniques and imaging have required the judicial system to reconsider the role that behavioral science plays in courtroom decision-making. In Forensic Neuroscience, students will learn the applications of psychology and neuroscience to the judicial system while interpreting evidence in past criminal trials or mock courtroom settings. The course will explore a wide variety of topics including the neurological underpinnings of eyewitness memory, jury selection, battered woman syndrome, the insanity plea, competency to stand trial and the criminal mind. Students may not receive credit for both PSYC 278 and PSYC 478. (CTN, WOC)

PSYC 279 Social, Affective, and Developmental Neuroscience (4)
Prerequisite: PSYC 122, CIV 110 and sophomore or second-year standing. Social, affective and developmental neuroscience focuses on the neurological underpinnings of emotion, social interaction and development. The course will explore a wide variety of topics including the neuroscience of empathy, religious and political affiliation, love, language development and developmental disorders such as autism and dyslexia. Students may not receive credit for both PSYC 279 and PSYC 479. (CTN)

PSYC 330 Multicultural Issues in Psychology (3)
Prerequisite: PYSC 122 and third-year standing, or instructor's permission. This course will introduce and familiarize students with the concept of multicultural issues in the field of psychology. The concept of "culture" will be viewed broadly, not only encompassing issues of race and ethnicity, but also gender, age, sexual orientation, religion, socio-economic status, immigration status, personal interests and attitudes as well as ability and disability. The course will examine various issues through a multicultural lens including education, communication, research, testing, prejudice, identity development, health, and acculturation. (GPC)

PSYC 335 Fundamentals of Statistics (4)
Introduces students to the statistical techniques typically used in psychology, sociology, education, communication and related areas. Topics and procedures include: grouping, graphical representation of data, measures of central tendency and variability effect size, probability, hypothesis testing, correlation, tests of differences, several models of analysis of variance and nonparametric alternatives, including chi square. (MR)

PSYC 336 SPSS for Psychological Research (1)
Corequisite: concurrent enrollment in PSYC 480. Students learn how to use the Statistical Package for the Social Sciences (SPSS) to input data, save and retrieve data, make data transformation, conduct analyses, manipulate and understand output, and create and edit graphs. Pass/No Credit basis.

PSYC 340 Cognitive Psychology (3)
Prerequisite: PSYC 122. Introduces students to the theories and methods of cognitive psychology and cognitive science. Topics include attention, perception, memory, language, knowledge representation, problem solving, computer modeling and everyday cognition.

PSYC 348 Experimental Psychology (4)
Prerequisite: third-year standing or instructor's permission, PSYC 220 and previous or concurrent enrollment in PSYC 335, or instructor's permission. Covers basic principles of research design with a focus on experimentation. Surveys theory and research in various domains of experimental psychology, including perception, learning, memory, problem solving, social influences, individual differences, development, environmental psychology and human factors.

PSYC 382 Child & Adolescent Development (4)
Prerequisite: PSYC 122, third-year standing, and CIV 210. Covers theory and research on physical, cognitive, social, and emotional development from conception through adolescence. Requires participation in service-learning to help students integrate course content with experience. A student cannot receive credit for both EDUC 270 and PSYC 382. (CTN,WOC)

PSYC 384 Adult Development & Aging (3)
Prerequisite: CIV 110 and 28 credits, PSYC 122 and third-year standing or instructor's permission. Covers theory and research on physical, cognitive, social, and identity development from early through late adulthood. Includes issues related to work, family, relationships, sexuality, death and grieving, and social policy. (CTN)

PSYC 385 Counseling Theories and Techniques (3)
Prerequisite: PSYC 122 PSYC 255 and third-year standing or instructor's permission. This course examines major counseling theories and basic techniques of the major theories. Students learn the basic techniques of counseling and engage in practicing their skills in the role of counselor, utilizing basic counseling skills and the learned theories and techniques that apply to those theories.

PSYC 397 Internship: Psychology (Arr)
Prerequisite: third-year standing and instructor's permission. Students work under professional supervision in a situation involving application of psychological principles. Emphasis is on learning by observing and practicing. Number of credits is determined according to the extent of the experiences, not to exceed 6 credits in the 35 credit minimum. Students considering an internship should confer with the department to receive consultation and guidelines. Pass/No Credit basis.

PSYC 427 Memory (4)
Prerequisite: CIV 210, PSYC 122 and third-year standing. This seminar style course focuses on the topic of human memory and its application to real-world problems. After defining memory and reviewing the major theoretical perspectives on memory, students will explore numerous aspects of memory including stress and its impact on memory, the impact of healthy and abnormal aging on memory, false memory, confabulation, nostalgia, eyewitness memory, amnesias, the recovered memory controversy, forgetting and extraordinary memory. (CTN, WOC)

PSYC 468 Social Cognition (4)
Prerequisite: Third-or fourth-year standing and at least two 200-level psychology courses or instructor permission. Explore social-cognitive processing or thinking in social contexts. Topics include stereotyping, memory, social judgment, and using knowledge about others in social interactions. Students will explore these topics, read original empirical research and theoretical papers, and consider research methods used to investigate these phenomena. Additionally, we will examine how social cognition has been influenced by cognitive, social, and developmental psychology.

PSYC 477 Clinical Neuroscience (4)
Prerequisite: PSYC 122 and senior standing. Clinical neuroscience focuses on the neurological underpinnings of psychological disorders and diseases of the central and peripheral nervous system. The course will explore a wide variety of topics including addiction, autism spectrum disorders, borderline and antisocial personality disorders, obsessive compulsive disorder, schizophrenia, dementia, affective disorders, neurodegenerative diseases, and neuropsychological assessment. Students may not receive credit for both PSYC 277 and PSYC 477. (CTN)47

PSYC 478 Forensic Neuroscience (4)
Prerequisite: PSYC 122, CIV 210 and 4th year standing. Advances in psychology and neuroscience techniques and imaging have required the judicial system to reconsider the role that behavioral science plays in courtroom decision-making. In Forensic Neuroscience, students will learn the applications of psychology and neuroscience to the judicial system while interpreting evidence in past criminal trials or mock courtroom settings. The course will explore a wide variety of topics including the neurological underpinnings of eyewitness memory, jury selection, battered woman syndrome, the insanity plea, competency to stand trial and the criminal mind. Students may not receive credit for both PSYC 278 and PSYC 478.(CTN, WOC)

PSYC 479 Social, Affective, and Developmental Neuroscience (4)
Prerequisite: PSYC 122 and senior standing. Social, affective and developmental neuroscience focuses on the neurological underpinnings of emotion, social interaction and development. The course will explore a wide variety of topics including the neuroscience of empathy, religious and political affiliation, love, language development and developmental disorders such as autism and dyslexia. Students may not receive credit for both PSYC 279 and PSYC 479. (CTN)

PSYC 480 Advanced Research in Psychology (4)
Prerequisite: CIV 210, PSYC 335, and PSYC 480 or instructor's permission. Students design and implement individual research projects on cognitive, cultural, developmental, personality, gender, multicultural or social psychology topics. As part of this capstone research experience, students collect and analyze data, and present research results both orally and as manuscripts written in accordance with American Psychological Association. (WRT, WOC)

PSYC 486 Psychological Tests and Assessment (4)
Prerequisite: Senior standing, PSYC 335 or comparable background in statistics, or instructor's permission. Studies basic psychometric principles, including reliability, validity and score interpretation. Considers tests of intelligence, creativity, interest and personality in an assessment context.

PSYC 199, PSYC 299, PSYC 399, PSYC 499 Independent Study (Arr)
Permission must be secured prior to registration. Designed to permit students to pursue individual interests in specialized area of psychology to supplement scheduled course offerings.

Religious Studies

REL 110 Old Testament History and Religion (3)
Examines the Old Testament (in Judaism, the Hebrew Bible) through a close and careful study of it rhetorical art in order to elucidate the theological, moral, and political teachings of these canonical books. Reflects on its significance for the cultural and spiritual heritage of Christianity, Judaism, and Islam and its implications for modern life and culture. (REL, EXP)

REL 111 Introduction to the New Testament (3)
A study of the New Testament within its literary, cultural and canonical context in order to understand its central theological teachings. Reflects on the use of the New Testament in respect to its place in the life of the Church and of a criticism of contemporary theological-political and moral topics. (REL, EXP)

REL 135 Islam (3)
General introduction to Islam dealing with three main topics: (a) the life of Muhammad and the origins of Islam; (b) the diversity of Muslim religious beliefs and cultural forms throughout Islamic history to the present; (c) an introduction to Islamic texts, including the Qur'an, legal interpretation, theology, and philosophy, especially in Classical or Medieval period. (REL, GPN, EXP)

REL 150 The Christian Heritage (3)
The Christian Heritage introduces students to Christian thought in its historical development. The course examines various historical contexts, from Late Antiquity to the present, and explores their distinct influences on the shaping of the Christina faith. While focusing on the historical particulars of Christian thought, the course locates the universal elements shared by different Christian traditions. (REL, EXP)

REL 210 The Prophets (3)
Studies selected passages and books from the second Division of the Old Testament (in Judaism, the Hebrew Bible), canon which consists of Joshua through II Kings, Isaiah, Jeremiah, Ezekiel and the Twelve Minor Prophets. The course explores the meaning of prophetic knowledge in Christianity and Judaism and the consequence of this knowledge today. (REL, WRT, EXP)

REL 211 The Writings (3)
Studies selected passages from the third division of the Old Testament (Tanakh in Judaism), consisting of the books of Job, Psalms, Proverbs, Ecclesiastes, Song of Songs, Ruth, Lamentations, Esther, Daniel, Ezra, Nehemiah, and I and II Chronicles. Through careful study of selected texts, the course explores the purposes of this diverse material for an understanding of Biblical history and religion. (REL, WRT)

REL 216 Jesus and the Gospels (3)
Studies the life and teachings of Jesus according to the depictions of the four Evangelists in the canonical Gospels of the New Testament. Through a close and careful reading, we examine how the rhetorical arts assist in our understaning of the teaching of the Gospels. Explores the significance of these Gospels for the Church today and for contemporary life. (REL, EXP)

REL 218 Pauline Epistles (3)
Examines the Epistles of the apostle Paul in their historical, religious, and canonical contexts. We will study the major themes and teachings of St. Paul in the establishment of the early Church. (REL, EXP)

REL 231 Eastern Christianity (4)
Prerequisite: CIV 110 and 28 completed credits (sophomore standing). The course explores the history and development of the Eastern Orthodox Church and examines major themes of the Eastern Christian tradition. Special attention is given to the Russian Orthodox Church. In addition, the course examines the role of the Orthodox churches in contemporary politics and society. (CTN)

REL 233 Judaism (3)
Studies the history and teachings of Judaism from its formative texts in the Mosaic Law and in the Targums and Talmuds of the Rabbinical schools through to the Medieval and Modern periods. The emphasis is on primary texts of the Classical tradition as well as writers such as Saadya Gaon and Maimonides. Students will be introduced to modern variations within Judaism, including the formation of Zionism. (REL)

REL 236 Islamic Law, Theology, and Philosophy (3)
Studies the religion of Islam from its beginnings to modern times with particular interest in the emergence of traditions of law, theology, and philosophy. Explores the religious, political, scientific, and philosophical aspects of the formative texts and thinkers of medieval Islam as a context for understanding the relation of Islamic political philosophy to recent politics. (REL, GPN, EXP)

REL 238 Taoism and Confucianism (4)
Prerequisite: CIV 210. The course focuses on the religious and philosophical aspects of Taoism and Confucianism. Attention is also given to the variety of cultural and moral practices that have developed throughout the history of these two streams of thought. Key primary texts to be examined include, but are not limited to, the *Too Te* Ching and the *Analects*. The course seeks to foster knowledge and appreciation of the ideas and practices of Taoism and Confucianism. While students are provided with opportunities to see their own “otherness” in the context of studying “the other”, they are also encouraged to make connections between class material and their lives. (REL, GPN, WRT, WOC)

REL 252 The Reformation (3)
Studies the religious movements in 16th-century Europe that shaped modern Protestantism and Catholicism. Religious ideas will be examined in relation to their political, social and intellectual setting, as well as to the broader Christian tradition. (REL)

REL 254 The Early Church (4)
Prerequisite: CIV 210. The course studies the period of the first five centuries as formative for Christian self-understanding and mission. The course explores the diversity of early Christian thought and practice by situating the fledgling church in the religious, cultural, social, and political context of the Roman empire. The Early Church also examines some of the principal challenges to the identify and unity of ancient Christian communities and the ways in which early Christians dealt with those challenges. (REL, WRT, WOC)

REL 274 World Christianity (4)
Examines the encounters of the church with new cultures and civilizations, especially during critical periods of expansion and adaptation. Considers issues faced by contemporary Christianity in non-Western settings: missions, relations with indigenous religions, inculturation, religious pluralism, and political participation. (REL, GPN, WRT, EXP)

REL 285 The Pre-Ministerial Seminar (Arr)
Prerequisite: one course in religion at the 100-level and instructor’s permission. An introduction to the pre-ministerial program will be taught and coordinated by the director. The seminar is designed to introduce students to the wide variety of types of ministry and is taught by people working as professionals in the various fields of ministry.

REL 310 Readings in The Prophets (4)
Prerequisite: CIV 210 and instructor’s permission. Offered jointly with REL 210 and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both REL 210 and REL 310. (REL, WRT, WOC)

REL 320 Nature, Science, Theology, and Political Philosophy (4)
Prerequisite: CIV 210. Studies the history of science from Classical Greek Philosophy through the great changes of the seventeenth century to the modern context, and especially in the critiques of Classical Philosophy and Science by German idealism, positivism, existentialism, and postmodernism. Special attention is paid to prophetic religion and to the theme of citizenship. (CTN, WOC)

REL 325 History of Spirituality in the Christian Tradition (4)
Prerequisite: CIV 210. History of Spirituality in the Christian Tradition examines Christian spirituality in historical perspective. The course studies the development of Christian spirituality over time and considers how works of Christian spirituality were created and what influences shaped their creation. REL 325 also explores the study of spirituality as a discipline with a distinct body of forms, texts, and topics, with its own schools and forms of transmission. (REL, WRT, GPN, WOC, CTN)

REL 335 Readings in Islam (4)
Prerequisite: instructor's permission. Offered jointly with REL 135 and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both REL 135 and REL 335. (REL, GPN, WRT)

REL 336 Readings in Islamic Law, Theology, and Philosophy (4)
Prerequisite: Instructor permission. Offered jointly with REL 236 and covering the same topics, but with some separate assignments, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both REL 236 and REL 336. (REL, GPN, WRT)

REL 390 Topics in Religious Studies (Arr)
Varying topics determined by the interests of students and the staff. May be repeated for credit.

REL 397 The Ministry Internship (Arr)
Prerequisite: two courses in religion with at least one at the 200-300 level and instructor's permission. The ministry internship is a supervised work experience that exposes the student to some aspect of ministry. Ideally it occurs in the summer between the third and fourth years, or perhaps a weekend assignment during a semester. The internship gives the student on-the-job experience in the area of service interest, under the supervision of an established minister, who works closely with the preministerial program director on campus. Pass/No Credit basis.

REL 497 Internship in Religion (Arr)
Prerequisite: instructor's permission. The internship provides an opportunity for the student to explore a career option in the major field of study. Pass/No Credit basis.

Social Justice Studies

SJST 130 Why Gender Matters (3)
Gender is a primary lens through which societies are organized and identity is experienced. As a field of academic inquiry, Gender Studies intersects with virtually every other academic discipline. This course will introduce students to a range of scholarship and diverse perspectives to gain an overview of this dynamic field. (GPC, EXP)

SJST 220 Environmental Justice (3)
Prerequisites: CIV 110 and 28 completed credits. Environmental justice examines the uneven distribution of environmental burdens and the scholarly imperative to investigate its causes, consequences, and solutions. This interdisciplinary course will consider how factors and forces such as race, wealth/poverty, colonialism, and globalization contribute to environmental inequity. All people have a right to live in a clean environment and access resources to sustain health and livelihood. We will investigate under what conditions some people are denied this basic right and how some have sought change to understand how we can build a socially, economically, and environmentally sustainable society. (CTN)

SJST 230 Reproductive Justice (3)
Prerequisite: second- year standing. Reproductive justice refers to an interlinked matrix of human rights: the right to bodily autonomy, the right to have children, the right to not have children, and the right to nuture our families in safe and sustainable communities. As both an activist movement and a critical philosophy, reproductive justice confronts history's lessons to examine how race, class, ability, sexuality, and ideology intersect to shape family making, reproductive decisions, policy, and health outcomes. While the word "reproductive" is often conflated with "women", reproductive justice is equally relevant for male, queer, ace, trans, and gender non-binary people because we all have the right to bodily integrity and to create families. (GPC)

SJST 285 Movements in Meaning: Engaging Citizens, Cultures, and Communities in Contemporary Chile (3)
Prerequisite: CIV 110 and second- year standing or 28 completed credits (sophomore standing). Examines the nature of engaged citizenship in the context of Chile, using the lens of social justice to explore the country's recent transition from dictatorship (1973-1990) to democracy (1990- present), its diverse geography, expansive and enduring cultural heritage, and status as an economic and democratic superpower in Latin America. Requires trip to Chile (CTN)

SJST 330 Feminist Thought and Social Justice (3)
Prerequisite: second- year standing. This interdisciplinary course examines critical developments and debates in feminist theory. Reading diverse works in feminist scholarship, both classic and contemporary, will challenge us to engage with new perspectives on the development of feminist thought. As we examine the ways in which gender issues intersect with race, class, and colonialism, we will apply an expanding body of theoretical insights to address real-world inequity. Understanding the historical and theoretical foundations of Women's, Gender, and Sexuality studies will enable students to effectively apply a critical lens to disciplinary and interdisciplinary study. While we will not actually be casting spells or riding into battle in this class, we will develop strategies for feminist practice in scholarship and civic life.

SJST 385 Movements in Meaning: Engaging Citizens, Cultures, and Communities in Contemporary Chile (3)
Examines the nature of engaged citizenship in the context of Chile, using the lens of social justice to explore the country's recent transition from dictatorship (1973- 1990) to democracy (1990- present), its diverse geography, expansive and enduring cultural heritage, and status as an economic and democratic superpower in Latin America. This course has a required short-term faculty led trip to Chile during the winter break. Students may not receive credit for both SJST 285 and SJST 385 (GS, GPN)

Sociology

SOC 120 Principles of Sociology (3)
Presents key basic concepts and principles of the discipline. Designed to introduce students to how sociologists use these tools to analyze society, including social and cultural change. (SB, GPC, EXP)

SOC 225 Social Problems (3)
Prerequisite: SOC 120 or instructor's permission. Explores contemporary social issues, such as poverty, race, gender, including analysis of the breadth and depth of the problems, the causes of the problems and some potential responses to them. The focus is on understanding the dimensions of the problems that can then be used to analyze and critique contemporary society.

SOC 235 Schools and Societies (3)
Prerequisites SOC 120 or EDUC 110. Designed to provide an overview of sociological theories that examine education in modern societies. Utilizing a global, comparative approach, the course investigates topics such as: the historical origins of schooling and education systems; the effects of school characteristics on student achievement and educational attainment; education and inequality; cross-national differences in educational systems; the organizational characteristics of schooling; and prospects for school reform. Discussion of research in these areas helps to dispel myths about formal education and provide a sense of the powerful impact -- and also the limitations -- of schools in modern societies. (SB, GPN)

SOC 241 Criminology (3)
Prerequisite: SOC 120. Criminology is designed to provide an overview of sociological and criminological theories that explain crime and deviance in the contemporary period. In addition, we examine the consequences and patterning of crime, and analyze the criminal justice system and corrections policies. (SB)

SOC 242 Sociology of the Family (3)
Prerequisite: SOC 120 or instructor's permission. Examines the interaction of family with conditions and structures in society. Surveys the social history of the family and examines factors bringing about changes. Explores some contemporary family topics and looks at available alternatives. (SB)

SOC 250 Introduction to Social Work (3)
Prerequisite: SOC 120 or instructor's permission. Provides an overview of the applied field of social work. Explores the various theories and approaches used by social workers to help improve the quality of their clients' lives. Highlights the range of human service organizations operating in today's society.

SOC 275 The Sociology of Health, Illness, and Healthcare (4)
Prerequisite: SOC 120. The Sociology of Health, Illness, and Healthcare helps us see that health and illness are important aspects not just of our physical bodies, but also our social lives. This insight allows us to ask such questions as: What are the social environmental conditions that produce certain types or patterns of illness? How is the healthcare system in the United States organized and how does it compare to healthcare systems in other countries? How do the social constructs of class, race, gender, and age shape the likelihood that a person will become ill, how that illness is experienced, and how that person interacts with the healthcare system? In short, this class will help you develop an understanding of health and illness as not simply biological matters, but fundamental social processes.

SOC 320 Sociology of Gender (4)
Prerequisite: SOC 120 or equivalent. Examines ways in which society and culture shape gender expectations. Focuses on the impact of gender on identity, life-long socialization, work and violence. Also covers the dynamics of race and gender.

SOC 335 Globalization and Development (4)
Prerequisite SOC 120. Explores historical and contemporary processes that are leading to greater cultural, economic, and political interconnectedness at individual, local, and national levels. A central goal of the course is to clarify what is meant by the ideas "globalization" and "development" and to better understand how and to what extent these forces affect societies and individuals around the world. Provides an overview of globalization and development drawing on theoretical ideas from sociology and related fields. (GPN, GS)

SOC 336 Status and Inequality in Social Life (4)
Prerequisite: CIV 110 and either second-year students or 28 completed credits, SOC 120 or instructor's permission. Examines how the distribution of economic, social, and cultural resources in the United States including income, wealth, social networks, education, and taste, shapes life chances for individuals and communities. Investigates tensions between core U.S. values-- community and individualism, cooperation and competition, and sameness and difference-- and, based on those values, considers actions we might take to increase opportunity for all. (CTN)

SOC 340 Sociology of Sport (3)
Prerequisite: SOC 120 and second-year standing. Sport in the United States pervades social institutions throughout society, including family, education, economy, and government. This course focuses on sport – from youth sports to the professional level – as a social and cultural phenomenon utilizing sociological concepts to analyze the influence sport has on individuals and society. Particular attention will also be paid to issues of race, gender, and class as they relate to sport.

SOC 342 Sociology of Religion (3)
Prerequisite: SOC 120 or instructor's permission. Examines the impact that religious belief and practice have upon contemporary life in the U.S. and abroad. The course also investigates how religious institutions are affected by other forms of social life. Offered alternate years.

SOC 346 American Ethnicity (4)
Prerequisite: SOC 120 and second-year standing. Explores the meaning and consequences of race and ethnicity in the United States. Explores how race and ethnicity are impacted by social, structural, and historical changes in society. Gives special attention to theories utilized by sociologists to explain demographic and social trends related to race. (GPC)

SOC 350 Applied Quantitative Methods 4)
Prerequisite: CIV 210, SOC 120 or instructor's permission. 350
Focuses on the major consecutive steps involved in a scientific inquiry into social relations, and, in addition, deals with problems particularly characteristic of social scientific research. Special emphasis on group research projects, questionnaire construction, data analysis and data presentation. (WRT, WOC)

SOC 360 Applied Qualitative Analysis (4)
Prerequisites: Sociology major or minor; or instructor permission. Provides an in-depth exploration of qualitative research approaches used in the social sciences, focusing on their application in real-world contexts. Students will gain both theoretical and practical knowledge of quantitative methodologies, including interviews, participant observation, focus groups, case studies, and content analysis. In addition to developing competencies relevant to designing and conducting qualitative social scientific research, students will explore the wide range of professional contexts- including health, public policy, human services, social work, and counseling, business, marketing, and human resources, among others- where qualitative research skills are highly valuable.

SOC 375 Collective Action and Social Change (4)
Prerequisite: CIV 110 and 28 completed credits, SOC 120 or instructor permission. Collective Action and Social Change investigates the dynamic ways individuals and groups have understood and responded to the everyday challenges they face. Drawing on research that examines the origins, approaches, and outcomes of classic (e.g., civil rights, human rights, environmental, etc.) and contemporary social movements, the course seeks to develop a deeper understanding of and appreciation for the motivations and mechanics of successful and unsuccessful efforts at social change. Important to our investigations will be an emphasis on building a toolkit of skills and sensibilities conducive for facilitating, understanding, and responding to social change. (GS, CTN)

SOC 397 Internship: Sociology (Arr)
Prerequisite: instructor's permission. Students will work under supervision of professionals in one of several areas, e.g., corrections, social work, hospital, school, adoption agency, etc. for a semester. Focus will be on learning by observing and practicing. Pass/No Credit basis.

SOC 450 Sociological Theory (4)
Prerequisite: five courses in the department. Provides analysis of sociology's major theorists with an emphasis on classic works, such as those by Marx, Weber, Durkheim, Cooley, Mead, and others. The goal will be on both learning the contact of various theoretical perspective and on application of such models to critique contemporary society.

SOC 485 Sociology in Practice (4)
Prerequisite CIV 210, Sociology major and junior standing. A capstone course where students integrate and assess acquired sociological knowledge through applied research, guided discussion, and written analysis. In addition, students will prepare for their transition from college to professional life by investigating prospective post-graduate educational and career paths and produce documents (e.g., resume, cover letter, statement of purpose, etc.) relevant to each of these paths. (WRT, WOC)

Spanish

SPAN 121 Beginning Spanish I (4)
Includes essential grammar and vocabulary. Foundation for the development of listening comprehension, conversation, reading and cross-cultural skills at the equivalent of the novice low to mid- level of the ACTFL scale. Labs may be required

SPAN 122 Beginning Spanish II (4)
Prerequisite: SPAN 121, placement or equivalent. Includes essential grammar and vocabulary. Foundation for the development of listening comprehension, conversation, reading and cross-cultural skills at the equivalent of the novice high to mid- level of the ACTFL scale. Labs may be required.

SPAN X60 Language and Culture: [Location] (1-4)
Prerequisite: Instructor determines placement level. This course involves a short-term, faculty-led study experience in a Spanish-speaking community and can be taken for variable credit (to be determined by the instructor). The course level is at the discretion of the instructor and is also dependent on language placement.

SPAN 212 Language and Culture in the Yucatan Peninsula (1)
Pre- or Co-requisite: SPAN-122 (or higher) or placement in SPAN-221 or higher. Explores the relationship between language and culture through readings and class discussions on the many cultural traditions and practices of this region. Students will be afforded many opportunities for experiential learning by engaging with local Spanish speaking communities, both here and abroad, providing a real-life context for students to practice their language skills and reflect on these intercultural exchanges. Students enrolled in this course will participate in a mandatory short-term study abroad experience in Merida, Mexico.

SPAN 221 Intermediate Spanish I (4)
Prerequisite: successful completion of SPAN 122 or equivalent or placement. Continues development of reading, writing, speaking and listening comprehension skills, with particular emphasis on the development of oral proficiency at the equivalent of intermediate low to mid-level. Includes an introduction to Spanish and Latin American life and culture. Labs may be required. (GPN, EXP)

SPAN 222 Intermediate Spanish II (4)
Prerequisite: successful completion of SPAN 221 or equivalent, or placement. Continues development of reading, writing, speaking and listening comprehension skills, with particular emphasis on the development of oral proficiency at the equivalent of intermediate-mid level. Includes a study of aspects of Spanish and Latin American life and culture and an introduction to the reading of short literary and non-literary selections. Labs may be required. (GPN, EXP)

SPAN 223 Language and Culture at Work (4)
This intermediate-level Spanish course strengthens grammar and vocabulary through meaningful, real-world communication focused on career and cultural contexts. This course may include a lab session. (EXP)

SPAN 312 Language and Culture in the Yucatan Peninsula (1)
Pre- or Co-requisite: SPAN-222 (or higher) or placement in SPAN-222 or higher. Explores the relationship between language and culture through readings and class discussions on the many cultural traditions and practices of this region. Students will be afforded many opportunities for experiential learning by engaging with local Spanish speaking communities, both here and abroad, providing a real-life context for students to practice their language skills and reflect on these intercultural exchanges. Students enrolled in this course will participate in a mandatory short-term study abroad experience in Merida, Mexico.

SPAN 321 Advanced Spanish: Grammar, Composition & Conversation I (4)
Prerequisite: successful completion of SPAN 222 or equivalent, or placement. Continues development of reading, writing, speaking and listening comprehension skills. Aims to have students attain intermediate high to advanced low on the ACTFL scale for all four language skills by the end of the next course in the advanced sequence. Entry course for the Spanish major. Labs may be required. (GPN)

SPAN 322 Advanced Spanish: Grammar, Composition & Conversation II (4)
Prerequisite: successful completion of SPAN 321 or equivalent or placement. Continues development of reading, writing, speaking and listening comprehension skills. Students must attain intermediate high to advance low on the ACTFL scale for all four language skills by the end of the course. Labs may be required. (GPN)

SPAN 323 Introduction to Hispanic Literature (3)
Prerequisite: SPAN 322 or placement. An introduction to the scope of Hispanic Literature. Studies significant literary works in prose, poetry, drama and the literary essay and authors from the medieval to contemporary times. The course approaches literature in its historical dimension as part of a larger cultural and historical process. Introduces vocabulary, concepts and methods to enable students to analyze the building blocks of literary texts and see how meaning is constructed and deconstructed. Labs may be required. (LP, GPN)

SPAN 324 Spanish for Heritage Learners (4)
Prerequisite: SPAN 321 or equivalent or placement or higher. Continues the development of listening, writing, and speaking skills in Spanish for heritage speakers, with the emphasis on their unique linguistic and cultural needs and abilities. Service-learning is required. (Note: this course is intended for heritage speakers of Spanish.) Labs may be required. (GPC)

SPAN 325 Spanish Conversation Through Film (4)
Pre- or Co-requisite: SPAN 322. Develops and hones conversational skills in Spanish through the critical reading of films from Spain, Latin America and the Latino U.S. Students will engage in vocabulary-building, written reflection and discussion-based activities, learning strategies for and approaches to examining audiovisual texts in their appropriate historical, cultural and linguistic contexts. Labs may be required.

SPAN 332 Modern Spanish Literature (3)
Prerequisite: SPAN 323 or equivalent. Focuses on various authors and genres in the modern literature of Spain, including the society and culture that made that literature possible. Students will learn how to engage the literary text in order to see how it reflects history and represents human endeavor in political, aesthetic and personal terms. May be taken twice with different genres/authors. Labs may be required.

SPAN 343 Civilization of Hispanic America (3)
Prerequisite: successful completion of SPAN 323 or equivalent. Conducted in Spanish. Surveys various topics from the history and culture of the Latin American peoples. May include daily life, cultural values, political, social and economic issues, art, music, literature and film. Also continues to develop students' language skills toward the proficiency goals required of all majors. Offered alternate years. Labs may be required. (HP, GPC, CTN)

SPAN 344 Culture and Civilization of Spain (3)
Prerequisite: successful completion of SPAN 323 or equivalent. This course offers students a survey of Spanish culture and civilization, from prehistoric times to the present. Students will examine Spanish geography, history, politics, religion, civilization and the arts through written and visual texts. Labs may be required. (HP, GPN)

SPAN 346 Latin American Voices (3)
Prerequisite: SPAN 323 or equivalent. Focuses on various authors and genres in the literature of Latin America, and the cultures that produced that literature. Requirements include extensive reading, class discussion and short essays. Continues to develop the student's language skills toward the proficiency goals required of all majors. May be taken twice with different genres/authors. Labs may be required.

SPAN 350 Hispanics/Latinos in the United States (3)
Prerequisite: successful completion of SPAN 323 or equivalent. Conducted in Spanish. Studies the culture, history, and social, economic and political situation of the Hispanic/Latino population in the United States through its literature, film and music, and through current articles on the subject. Readings in Spanish and English. Also continues to develop student's language skills toward the proficiency goals required of all majors. Offered alternate years. Labs may be required. (GPC)

SPAN 425 Topics in Hispanic Culture and Civilization (3)
Prerequisite: SPAN 323 or equivalent. Offered occasionally to meet students' needs and interests in the cultures of Spain or Latin America. This course will allow students to explore current issues, history, film or other topics of interest while continuing to develop language skills toward the proficiency required of all majors. May be repeated with different topics. Labs may be required.

SPAN 487 Senior Seminar in Hispanic Literature and/or Culture (3)
Prerequisite: two Spanish courses numbered 332 or higher. Explores a focused topic in the literature and/or culture of Spain and/or Latin America. Students are expected to apply the knowledge and skills they have acquired during the course of the major program in an interdisciplinary manner. May be repeated for credit when topics vary.

SPAN 488 Senior Capstone Project (1)
Prerequisite: senior standing or instructor permission. The student will collaborate with a Spanish professor to explore in depth a topic of interest related to the cultures and languages of the Spanish-speaking world.

SPAN 494 Language Teaching Practicum (6-9)
Offers opportunity to apply second-language teaching methodology in small-group setting. Emphasis on oral skill development. Will be supervised by a faculty member.

SPAN 499 Independent Study (Arr)
Prerequisite: completion of advanced courses offered on campus with instructor's permission. For majors who have completed all advanced courses on campus, and who wish to investigate some area of individual interest.

Strength and Conditioning

SC 121 Theory and Practical Application of Skill-Related Fitness (3)
Examines the scientific theory and practical application of the skill related components of physical fitness (i.e. agility, coordination, balance, reaction time, and speed). Topics will include recent trends and a multi-component approach to teaching and coaching weight room technique and various other skills in strength and conditioning. (Does not count toward the KIN major.) (Students who received credit for EXSC 121 may not also receive credit for KIN 121.)

SC 293 Practicum in Strength and Conditioning I (3)
Prerequisite: instructor's permission. Entry-level study of Olympic lifts, torso training, functional warm-ups and speed drills. Discussions related to applications and concepts in strength and conditioning will be emphasized. Allows the student to develop basic knowledge to be able to assist the strength and conditioning staff to perform, instruct and correct basic lifting technique. Pass/No Credit basis. (Students who received credit for EXSC 293 may not also receive credit for KIN 293.)

SC 393 Practicum in Strength and Conditioning II (3)
Prerequisite: instructor's permission. Advanced study of implementation of Olympic lifts, core training, functional warm-ups, functional rehabilitation, functional training and warm-up methodology. Discussions related to applications and concepts in strength and conditioning will be emphasized. The students will be expected to practice, demonstrate, refine and apply competencies gained in previous setting. The students will also demonstrate appropriate communication skills with other professionals working with their team. Pass/No Credit basis. (Students who received credit for EXSC 393 may not also receive credit for KIN 393.)

SC 472 Principles and Theories of Strength and Conditioning with Lab (4)
Prerequisite: KIN 460 or KIN 340. Advanced study of the scientific principles and theories related to strength and conditioning. Discussions related to applications and concepts in the exercise sciences, testing and evaluation, program design, and strength and conditioning administration and facility organization will be emphasized. (Students may not receive credit for SC 372 and SC 472.)

SC 493 Practicum in Strength and Conditioning III (3)
Prerequisite: instructor's permission. Senior level review and evaluation of practicum competencies and proficiencies. Extensive content in organization and administration of Strength and Conditioning programs. Discussions related to applications and concepts in strength and conditioning will be emphasized. Preparation for the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist examination will occur. The students will be expected to practice, demonstrate, refine and apply competencies gained in previous setting. The students will also demonstrate appropriate communication skills with other professionals working with their team. Pass/No Credit basis. (Students who received credit for EXSC 493 may not also receive credit for KIN 493.)

Sustainability

SUST 125 Introduction to Global Sustainability (3)
Global sustainability is about meeting the needs of the present generation without compromising the ability of future generations to meet theirs. Sustainability has three interconnected dimensions: environmental, economic, and social, because people all over the planet, rich and poor, urban and rural, children and adults, have a wide variety of basic human needs. This course will challenge you to think about yourself in relation to the natural world, in relation to other people in the natural, and economic, and social world, and our responsibilities in relation to those yet unborn people of future generations, who also have basic rights to a good life in dignity on Planet Earth. (GS, WRT, EXP)

Writing

WRIT 100 Writing Studio (1)
Co-requisite: Concurrent registration CIV 110. Practice in the basics of academic writing, including a focus on the writing process. Students will strengthen writing skills through weekly large group workshops and appointments with a WOC tutor. Pass/No credit basis.

WRIT 102 Writing Studio II (1)
Prerequisite: WRIT-100, Co-requisite: WRT/WOC or CIV 210 course. Continued practice in the basics of academic writing, including a focus on the writing process. Students will continue to strengthen writing skills through regular meetings with the Director of Writing and regular appointments with a WOC tutor. Pass/ No credit basis.

UPWARD BOUND PROGRAM COURSES

The following courses are offered through the Central College's Upward Bound program during the summer to provide high school juniors and seniors an opportunity to sample college courses and earn college credit. Two or three courses are offered each summer. These courses have been approved for college credit as electives.

BIO 100 Issues in Human Biology (1.5)
A special course offering for the Upward Bound program comprising a brief survey of the human body's organ systems, laboratory examination of their tissues and discussion of current issues in human health.

ENG 103 Improving Reading in the Content Areas (1.5)
This course is designed to teach students a variety of techniques for comprehending nonfiction material. Students will learn reading strategies and have opportunities to apply those strategies. The objective for each student is to be able to identify the format of a given text and utilize the most effective strategy based on the selection's design and the purpose for reading.

GENR 101 Pathways to College (1)
A college success and leadership course designed for Upward Bound student advisory board members.

WASHINGTON CENTER COURSES

The following courses are offered to Central students studying in Washington, D.C., through The Washington Center program, which serves students from colleges and universities throughout the country and abroad.

GENR 389D Washington Center Seminar (3)
Courses in a variety of disciplines taken in conjunction with internships in Washington, D.C., under the auspices of The Washington Center.

POLS 397D Washington Center Internship (8 for summer; 12 for fall or spring)
Professional internship in Washington D.C. through The Washington Center designed to enrich students' education through supervised practical experience in nearly every possible setting: government, business, historical, fine arts, sciences, health, not-for-profit, among others.

ACADEMIC RESOURCES

Student Support Services

Student Support Services (SSS) is a federally funded program available to 200 eligible Central students. It is the purpose of SSS to assist students in achieving their educational goals and to enhance college experience by providing opportunities for social, emotional, and cultural growth. All eligible students are assured equal access to programs, with the eventual outcome being successful graduation from college. The program provides the following support services:

- Kickstarter Courses to make the transition into college a positive experience
- Peer instructors to answer questions or concerns
- Professional tutors, peer tutors, and group study sessions to assist with academic challenges.
- Opportunities to attend cultural events, participate in service activities, attend leadership seminars, and experience other activities.
- Professional counseling for academic, career, or personal concerns
- Laptops and textbook labs for student assistance
- Preparation and visits to graduate schools for SSS participants
- Seminars, workshops, and financial literacy videos to enhance financial aid options and money
- Individualized accommodations for students with documented disabilities

The Tutoring & Writing Hub

The Tutoring & Writing Hub (TWH) provides free individual and group peer tutoring, for both writing and academic subjects, and Supplemental Instruction (SI) sessions. Trained student tutors, recommended by faculty, offer feedback and assistance on an appointment or drop-in basis. Writing and Oral Communication (WOC) tutors consult with students on all aspects of the writing process and on any communication assignments. Subject tutors work with individuals or small groups to better understand class material and assignments. SI sessions are peer-led group reviews for historically difficult classes. The TWH, directed by the Tutoring Coordinator, is located in Geisler Library, facilitating close collaboration between librarians and the tutoring and writing staff in their support of student learning.

Geisler Library

Geisler Library is central in supporting student learning and academic success. It provides an extensive collection of print and electronic books, journals, films, music, and archival materials, as well as online access to numerous databases and full-text academic journals. Librarians offer individual research assistance and work closely with faculty to teach students the research abilities necessary for intellectual achievement and lifelong learning. Tutoring and writing services are located in the library, facilitating close collaboration between librarians and tutoring and writing staff in their support of student learning. Classes may utilize the library instruction areas for research or writing workshops. Students can take advantage of numerous group and individual study spaces or take a break in the Global Café at Geisler downstairs.

Information Technology

From move-in day to graduation, Central's tech is here to help you learn, connect, and thrive. Here's what you should know — from tools you'll use every day to how to use them responsibly.

Tools You'll Use All the Time

- **my.Central.edu**: Your main hub for schedules, grades, billing, and campus announcements.
- **myCentral (Dutch) App**: Check your day-to-day schedule, assignments, and alerts from your phone.
- **Blackboard Learn:** Your virtual classroom — where you'll find syllabi, assignments, discussions, and grades.
- **Microsoft 365:** Use Word, Excel, and more — all provided free for Central students.
- **Teams:** Join class discussions, group work, or campus events from anywhere.
- **Panopto:** Re-watch class lectures, submit presentations, or learn from video tutorials created by faculty.

Using Tech Around Campus

- **Bring your own device:** Laptops and smart devices are welcome.
- **Print from anywhere:** Send print jobs from your own device to multi-function printers around campus.
- **Need software?** Most specialized software (like SPSS or Adobe) is available in labs — and many tools can be installed on your own device thanks to campus licenses.
- **Computer labs** are available across campus for homework, research, and projects.

Your Student ID: More Than Just a Card

- Use it for: Dining hall check-ins, library checkout, residence hall access, and printing.
- Prefer your phone? The **CBORD Mobile ID app** works just like your ID card for door access.

Internet & TV Access

- **Wi-Fi** blankets the entire campus — inside and out.
- Prefer a wired connection? Dorms support Ethernet too.
- **TVs in dorms** can connect to a campus-wide over-the-air TV channels (QAM tuner required)

Using Central's Network Responsibly

You get access to two main networks — each with different expectations:

1. **College Network (Classrooms, Labs, Offices)**

- For academic and official use only.
- Keep it professional: no gaming, personal streaming, or excessive downloads.
- Protected by strong security tools — activity may be monitored to keep things secure and fast for everyone.

2. Residential Network (Your Dorm)

- Personal use is allowed — stream, game, and scroll freely (within reason).
- Don't break the law (like pirating content or using sketchy software).
- Don't install your own routers or devices that disrupt the network.
- ITS may step in if there's a serious problem or security issue.

Tech Do's and Don'ts

Do:

- Keep your login info secure.
- Use college-provided tools for class and collaboration.
- Reach out for help when you need it.

Don't:

- Share copyrighted material illegally.
- Harass or threaten others online.
- Try to bypass security or hack systems.
- Use Central's tech for personal businesses or political campaigns.

Need Tech Help?

The **ITS Help Desk** is located in the lower level of Douwstra Auditorium. Contact us for:

- Wi-Fi or account issues
- Printing help
- Software questions
- Tech emergencies

https://service.central.edu | itshelpdesk@central.edu | 641.628.7010

We're here to support your success — and keep your tech running smoothly!

PRE-PROFESSIONAL PROGRAMS

Pre-health

The pre-health advising program is designed to serve the needs of students who plan to attend professional or graduate school in a variety of health-related fields (including but not limited to medical school, veterinary school, dental school, optometry school, chiropractic school, nursing school, physical therapy school and occupational therapy school). Central offers agreements with Palmer College of Chiropractic (Davenport, Iowa), Washington University (St. Louis, MO) for Occupational Therapy, Mercy College of Health Science (Des Moines, Iowa) for Nursing, Allen College for Nursing, Physical Therapy, and Occupational Therapy (Waterloo, Iowa), Grand View University (Des Moines, Iowa) for Athletic Training Loras College (Dubuque, Iowa) for Athletic Training and the University of Iowa (Iowa City, Iowa) for Athletic Training. Because of the diversity of academic preparation required by the various health profession programs and graduate schools, pre-health advising is designed as a supplemental program meant to complement any major. As students identify specific professions or areas of interest, they should declare their intent and interest area(s) via the pre-health declaration form which is submitted to the Pre-Health Advisor. The role of the Pre- Health Advisor is to guide the student in identifying appropriate graduate or professional schools and their admission requirements and to assist the student in designing curricular sequences to meet the individual professional school requirements.

Pre-athletic training

Central's agreements with Master's in Athletic Training programs allow students to secure admittance to an entry-level program. The three program affiliates include: Grand View University, Loras College, and the University of Iowa. Each program has unique conditions:

- Grand View University will hold up to two seats for Central College graduates
- Loras College will hold up to two seats for Central College graduates
- University of Iowa will hold up to three seats for Central College graduates.

Students are expected to complete their undergraduate major in Kinesiology at Central College while fulfilling the necessary pre-requisite courses and expectations for the specific program. Then, interested students go through the accelerated admissions process. Students interested in this option should contact the Pre-Health Advisor. The Pre-Health Advisor will work with students and their major advisor to ensure that all required coursework is taken and to communicate with representatives at the prospective professional program regarding the admissions process.

Pre-chiropractic

Central's 3 + 1 agreement with Palmer College is an excellent opportunity for students to obtain both a Doctor of Chiropractic degree and a liberal arts degree in a shortened time span. Students will earn credits toward a Bachelor of Arts degree (BA) from Central College majoring in Biology and transfer to Palmer College to begin work on the Doctor of Chiropractic degree. Students typically spend three years at Central as full-time students, taking courses toward the Central College degree with a major in Biology. Students are able to take full advantage of all opportunities offered at a small liberal arts institution. After three years at Central College, students transfer into Palmer's program. Credits earned during the first year in the Doctor of Chiropractic program at Palmer College are transferred back to Central College and allow the student to complete the Central College BA degree. Students may also opt to complete the four-year degree with another major at Central College and then apply to Palmer College.

Students interested in this program should contact the Pre- Health Advisor. The Pre- Health Advisor will work with students and their major advisor to ensure that all required coursework is taken and to communicate with representatives at Palmer College regarding transfer into their Doctor of Chiropractic program. Because the 3 + 1 option does involve meeting several requirements for both degrees it is best if interested students meet with their advisor and the Pre- Health Advisor prior to the start of their first semester to discuss a three- year plan that will ensure that all requirements are met in order to graduate in the time frame mentioned above.

Pre-nursing

Central's agreements with Allen College and Mercy College are excellent ways for students to obtain both a nursing degree and a liberal arts degree. These programs allow students to complete both a Bachelor of Arts degree (BA) from Central College in the major of their choice and a Bachelor of Science in Nursing (BSN) from Allen College or Mercy College. Students are able to take full advantage of all opportunities offered at a small liberal arts institution. Students may spend three or four years at Central as a full time student, taking courses toward the Central College degree and then transfer into an accelerated nursing program and complete a one-year program. Credits earned from each institution allow for completion of both degrees in just a little over 4 years. Students may also opt to complete the four-year degree at Central College and then apply to their nursing program.

Students interested in this pathway should contact the Pre-Health Advisor. The Pre- Health Advisor will work with students and their major advisor to ensure that all required coursework is taken and to communicate with representatives at the partner institution regarding transfer into their accelerated Nursing program. Because the pre-nursing option involves meeting several requirements for both degrees, it is best if interested students meet with their pre-health advisor and their major advisor prior to the start of their first semester to discuss a three- year plan that will ensure that all requirements are met in order to graduate in the time frame mentioned above. It is also recommended students meet with the financial aid office to discuss how financial aid might be affected in the pursuit of a nursing degree.

Pre-occupational therapy

Central's 3 + 2 (MSOT) or (OTD) agreement with Washington University in St. Louis and Allen College are excellent opportunities for students to obtain either a Master's or Doctor of Occupational Therapy degree and a liberal arts degree in a shortened time span. Students will earn credits toward a Bachelor of Arts degree (BA) from Central College and transfer to Washington University in St. Louis or Allen College to begin work on the professional degree. Students typically spend three years at Central as full-time students, taking courses toward the Central College core, their chosen major, and 90 total credits. Students are able to take full advantage of all opportunities offered at a small liberal arts institution. After three years at Central College, students transfer into the occupational therapy program. Credits earned during the first year in the professional program are transferred back to Central College and allow the student to complete the Central College BA degree.

Students interested in this program should contact the Pre- Health Advisor. The Pre- Health Advisor will work with students and their major advisor to ensure that all required coursework is taken and to communicate with representatives at Washington University in St. Louis or Allen College regarding transfer into their professional program. Students will still be required to go through the full admissions process at Washington University in St. Louis or Allen College. Because this pathway involves meeting several requirements for both degrees, it is best if interested students meet with their major advisor and the Pre- Health Advisor prior to the start of their first semester to discuss a three-year plan that will ensure that all requirements are met in order to graduate in the time frame mentioned above.

Pre-law

By design, Central does not offer a pre-law major. Law schools regularly accept students from all majors. Pre-law advisors, law school admissions directors, the American Bar Association, American Association of Law Schools – and attorneys – indicate that developing and sharpening key skills and values are the best preparation for the study and practice of law. All strongly agree on the value of a well-rounded liberal arts education.

Choose a major that you are interested in or that fits with your personal and professional life goals. Increasingly, law schools are admitting students from a wide range of majors, including the social sciences, natural sciences, and the arts. Law schools are interested in demonstrated academic success and skill development, not in a specific list of courses taken or a particular major. They are also generally unimpressed by double majors or minors. During your undergraduate years, work towards achieving the strongest possible academic record you can and enroll in courses that will enhance the skills necessary to be successful in law school.

The American Bar Association Committee on Pre-Law Education and Iowa law schools recommend that you consider the following key skills areas when choosing courses:

- Writing Skills
- Analytical Reasoning Skills
- Logical Thinking and Problem-Solving Skills
- Critical Reading Skills
- Oral Communication and Listening Skills
- Research and Information Literacy Skills
- Task Organization and Management Skills
- Values of Serving Faithfully the Interests of Others While Promoting Justice
- A Healthy Respect for History

Developing and sharpening these skills and values will increase your potential for success in the very rigorous, demanding study and practice of law. Attorneys – and law students – must be able to analyze complex and sometimes conflicting cases and statues, while expressing their legal reasoning with clarity, logic, and precision. Choose courses that are designed to prepare you to write well and think logically. Take challenging courses, with challenging requirements, which force you to continuously improve your writing, analytical, and research skills.
Central's pre-law program is an advising-based program. Central does not offer a major or certificate/endorsement in

pre-law, but works with students, in partnership with their academic adviser(s), to choose courses which will maximize their skills prior to applying for law school.

Pre-ministry

Central College continues the emphasis of the ecumenical Christian tradition in general, and the Reformed tradition in particular, to prepare students for a life of service to God and community, as well as to prepare some students for a professional vocation in the ministry.

The chaplaincy and the religion faculty work together to provide a period of reflection and discernment for students who are considering ministry, whether this be lay ministry (such as missions, church-related teaching, or para-church service) or ordained ministry that requires further graduate or seminary study. Pastoral and vocational counseling is offered by the chaplain, the director of the Christian ministries emphasis of the religion major, and other faculty members. In addition, pre-ministerial students usually complete either a major or a minor in religion in order to give them adequate grounding in scriptural studies, in church history, theology, and ethics, and in at least one world religion other than Christianity. The students also have an opportunity to complete ministry internships in churches and church-related organizations either locally or through Central's off-campus programs. Students may also choose to receive spiritual formation from a designated mentor.

The variety of denominations represented by the faculty, students, and staff at Central College provides student with a rich exposure to various formulations of Christian teachings and practices. Although our aim is to provide students with an opportunity to study various church teachings besides their own, we also focus a particular student's study on the Church teaching to which he or she is most accustomed. As parts of an educational institution, the chaplaincy, the Christian ministries emphasis, and the religion major encourage students to develop a strong sense of the centrality of education to ministry. We foster an integration of faith with training of intellectual qualities of mind in order to establish a student's vocation on the best that is thought and known in Christian teaching and ministry.

HONORS

Emerging Scholars Honors Program

The Central College Honors Program presents academically high-achieving students with the opportunity to grow as intellectuals within a community of their peers. The components of the Honors Program support students as they develop this community with each other and their faculty mentors, nurture their intellectual curiosity and creativity, and design and carry out advanced research, creative, and community-based projects that accelerate their own educational and career goals.

The capstone of the Honors Program is the Senior Honors Project, a significant research and/or creative project spearheaded by the student and supervised by two faculty members. In addition to offering unique opportunities for in-depth study and/or creativity, the Senior Honors Project allows students to distinguish themselves when applying for graduate school, medical school, law school, and future employment.

Application

Membership in the Honors Program is by application only. Students who have at least a 3.500 Central College cumulative grade point average are eligible to apply.

Students may apply after completing at least one semester as a full-time student at Central College; students must be accepted into the program at least three semesters prior to graduation, or no later than the first semester of their third year. If at any time the student falls below the 3.500 minimum GPA they must raise their GPA by the following semester to at least a 3.500 cumulative GPA to remain in the program.

Components

For a student to earn an Honors designation on their transcript the following components of the Emerging Scholars Program must be successfully completed:

- 2 1-credit Honors Enrichments or Honors Seminars
- 1 1-credit Honors Research Practicum
- A Senior Honors Project
- A 3.500 cumulative GPA or above at the time of graduation

Honors Seminars* are one-credit courses taught by different faculty on campus in which students are grouped together from a variety of disciplines to explore topics at an advanced level. Students may add **Honors Enrichment Credit*** to any course in which they have special interest. In doing so, the student has the opportunity to work closely with a professor and pursue a topic in the course at an advanced level. The **Senior Honors Project** is a year-long capstone experience focused on an area of special academic or creative interest that fills a gap in knowledge, addresses a problem, or demonstrates a high level of creative achievement. This project is informed by extensive research and is designed, carried out, and presented by the student under the mentorship of a faculty advisor and a faculty second reader. Completion of these components culminates with a ceremony in which each student is formally recognized and presented with a medallion to wear at commencement.

*In addition to accepted students in the Honors (Emerging Scholars) Program, any students with at least a 3.500 cumulative GPA or entering first-year students with at least a 3.750 high school GPA or who finish in the top 5% of their class are eligible to take **Honors Seminars** and **Honors Enrichment Credits**.

For more information, on any of the components of the Honors program, contact the Honors Program Coordinator at honors@central.edu.

SPECIAL PROGRAMS

Direct Service-Learning Modules

Direct Service-learning modules provide for individualized (200 or 300 level) academic direct service-learning activity focused on a specific field of study in collaboration with an approved community partner. The registration process involves preparation and approval of a proposal in consultation with a faculty member and a member of Career and Experiential Learning. Typically, students will receive credit in the department of the faculty member. Requirements include: a minimum of 2 hours of service per week for every semester hour of credit earned; pre-experience readings; participation in CBL reflection series; a final product, and participation in the CBL Symposium at the conclusion of the semester. Modules may be taken for 1-3 credits, are graded pass/no credit, and may be repeated.

Internships

All academic internships bridge theory and practice, purposefully connecting academic learning to experience and workplace competencies. Academic internships enhance a student's understanding of both themselves and a work environment and, in doing so, enrich their educational training.

In addition to work done at a business or other organization, each internship requires the formulation of an academic learning and application goal, career development goal, personal development goal, skill development goal, objectives and guided reflection through an evaluation plan developed in partnership with the faculty supervisor. This academic reflection can include, but is not limited to: goal- setting, reflection though journaling, portfolio development, peer-discussions, research, paper writing, and presentations. Similar to the traditional classroom, faculty members have the freedom to develop additional goals most appropriate for individual internships.

For each semester hour of credit, a student will complete at least 36 hours on-site and 6 hours of academic reflection. Registered internships are graded on a pass/no credit basis and are recorded on students' transcripts.

On-site and Academic Hours per credit hour			
Credit Hours	On-Site Hours	Academic Hours	Total Hours per Semester
1	36	6	42
2	72	12	84
3	108	18	126
4	144	24	168
5	180	30	210
6	216	36	252

The following policies also apply to students engaged in internship opportunities:

- A student may earn up to nine credits at the same internship site over a maximum of one academic year, provided that there is significant change over time in the duties involved or in the level of responsibility.
- No academic credit will be awarded for work already completed.
- Students must register for internships prior to either the start of work or the published deadline to add a course in the semester the internship is to take place, whichever is sooner.
- Summer internship registrations are due no later than the last class day of the spring semester.

Career Readiness & Experiential Learning provides assistance with site investigation (queries?), the application process, and guidance regarding evaluation. Internships are clearly invaluable in providing students with firsthand experience in professional work environments. For more detailed information and to search for internships go to Handshake and Career Readiness - Home (sharepoint.com)

The Washington Center (TWC)

Through a formal partnership with TWC, Central students may participate in internships in the nation's capital. Art students may work at the National Gallery, biology students at the National Institutes of Health, language students at the state department or foreign embassy – there are opportunities for every major. Costs are comparable to studying on Central's campus, and both semester and summer programs are available. Participation is limited to selected upper-level students with a GPA of at least 3.0/4.0. Students may receive either a grade for seminar participation, as well as

pass-no credit designation for the internship through the program. Interested students must obtain application information from the director of career development and civic engagement rather than applying directly to TWC.

During the semester in Washington, D.C., students can receive 15 academic credits by enrolling in GENR 389D *Washington Center Seminar* (3) and POLS 397D *Washington Center Internship* (12). For the summer, students receive 11 credits, 3 for the seminar and 8 for the internship. For additional information, please go to: www.twc.edu.

Social Justice Internship Program in the City

This eight-week faculty-led summer program combines academic coursework and social justice training with an internship in one of many possible arenas in an urban setting. Central faculty serve as program leaders and teach the course *Interdisciplinary Perspectives on Social Justice.* Internships take place in non-profit and community organizations. Open to students in any discipline, the program provides a strong foundation in social justice theory and practice within an experiential learning setting that encourages reflection. For more information contact the director of career development and civic engagement.

International Education at Central College

Central College is dedicated to fostering global experiential learning by supporting off-campus programs across the globe. Students are encouraged to immerse themselves in diverse cultures, developing the skills needed to navigate and thrive in an interconnected world. Through international education, students are challenged to think empathetically, collaborate across cultures, and act responsibly as global citizens in a rapidly changing environment. We partner with study abroad providers to give students a wide range of options, countries, and opportunities within their majors.

Every major offers the opportunity to spend at least one semester studying abroad, earning credits toward their degree or minor through pre-approved programs. With a variety of study tracks available at most locations, students of all language levels and proficiencies can find a program that suits their needs and aspirations.

For additional information visit the Off-Campus Experiences page (www.central.edu/study-abroad).

Seeking pre-approval for other programs

Central students seeking to enroll in a non-Central study abroad program that has not been pre-approved are advised of the following:

1. There is no guarantee that Central College will accept in transfer any academic credit earned on such a program or that any accepted credit will meet particular academic requirements (i.e., core, major, minor).

2. Central College financial aid will not be applied to pay for any portion of such a program. Students must formally request a review of potential transfer credit from such a program. Details are available in the registrar, or the career development and experiential office offices on campus.

AWARDS

Academic and Leadership awards

All-college awards

John Allen Writing Award
All Central College students are eligible for the John Allen Writing Awards regardless of major or class standing. Professors from all disciplines are encouraged to submit student papers that exhibit superior rhetorical competence, high levels of readability, originality and insight. Papers are judged by an independent evaluator or committee who selects about 10 of the best papers to be published in the college's annual *Writing Anthology*. From these, the evaluators may name two writers for the John Allen Writing Awards. The award, in the form of a commemorative book, honors the late John Allen, former Central English professor.

Henry G. Eggink Award
The Rev. Henry G. Eggink Award is given to deserving pre-ministerial students preparing for the parish ministry. Grant recipients are encouraged to use the funds provided for the purchase of books that will become the nucleus for a theological library.

Marjorie Giles Student Life Leadership Award
The Marjorie Giles Student Life Leadership Award is given annually to a junior or senior who has demonstrated positive values through faith-based leadership in a variety of co-curricular activities, in addition to Central athletics as an athlete, trainer, student coach or related athletic role.

Graham Distinguished Scholar Award
The Graham Distinguished Scholar Award is given to students who are distinguished in both academic performance and in promise of future service to worldwide societies as revealed, in part, in personal perspectives that have been significantly enhanced by participation in an international education program. It is in honor of James Graham, former Dean, whose pivotal leadership catapulted Central's international programs to national prominence.

Prins Sportsmanship Award
The Prins Sportsmanship Award is given to honor the memory of Tunis W. and Harriet B. Prins. Together, they served Central College and the Pella community for a period of 24 years. Mr. Prins was Director of Athletics and Professor of Physical Education from 1938 until his untimely death in 1949 at which time Dr. T.G. Fultz presented a bronze plaque to the College in Prins' memory. In that same year Mrs. Prins became Residence Director of Graham Hall and later Dean of Women until her retirement in 1962. Tunis and Harriet Prins exemplified and encouraged good sportsmanship—in contests on the field and in all human relationships. Candidates for the award are recommended by members of the senior class and the faculty. From these recommendations, the award committee picks a student to receive the certificate of award and have his or her name engraved on the plaque.

The winner will be a student, athlete or non-athlete, who has demonstrated outstanding sportsmanship in dealing with fellow students on campus or in meeting life's challenges.

Ron Schipper Leadership Award
The Ron Schipper Leadership Award is presented annually to a senior who, in either formal or informal leadership roles, reflects the character, commitment and enthusiasm for Central College displayed by Coach Schipper during his 36 years of service to Central's students. The recipient must demonstrate a willingness to set lofty goals and the drive to achieve them, high ethical standards and strong Christian values, a joyous spirit, genuine concern for others and a deep, personal loyalty to Central College.

Julia Van Houweling Award
This award is given to the student who has completed a minimum of 12 credits each semester and earned the highest grade point average during the three preceding semesters. If two or more students have identical averages, the college honors committee will make the final selection. Previous winners are not eligible.

Service Award
This award recognizes a volunteer or student organization that demonstrated a superior commitment to the greater community during the past academic year through active service (i.e. hands-on service activities, philanthropic and fundraising events, political and/or advocacy efforts, or other civic engagement-related pursuits.)

Organizational Excellence Award
This award honors a student organization for making positive contributions to and building community at Central College, outstanding programming, and/or strong organizational structure, leadership, and action.

Outstanding New Leader Award
This award honors a first, second, and third year student volunteer who shows leadership promise while not necessarily holding a leadership position through their exemplary contributions to a recognized student organization and have helped the organization grow their participation.

Outstanding Event Award
This award recognizes a successfully-planned, efficiently-run, effectively-advertised, and well-attended event that enhanced the social, educational and/or cultural life at Central College which was sponsored by a recognized student organization or student-led volunteer group.

Bridge Builder Award
This award recognizes a student volunteer, recognized student organizations or paraprofessional who have worked to establish connections across campus, i.e., collaborative social or educational events, exploration of diverse cultures, or education about issues that have challenged the campus.

Unsung Hero Award
This award recognizes a student volunteer(s) or student paraprofessional(s) that has/have positively influenced a program or organization from behind the scenes through a positive attitude, a willingness to help in whatever capacity necessary, and a commitment to excellence in the completion of tasks and duties.

Student Organization Advisor of the Year Award
This award recognizes an individual Central College employee who exemplifies Central's ideals of leadership, service and excellence through the individual's dedication, mentorship, compassion, and wisdom while serving as an advisor to a campus student organization.

Senior Student Development Award
This award is presented to a student paraprofessional who has made notable contributions within student development while at Central College. This award recognizes sustained, outstanding leadership in integrated, co-curricular, and/or extracurricular activities and involvement to improve an aspect campus life for students.

Diversity & Inclusion Award
This award is presented to a student volunteer or recognized student organization that actively demonstrates commitment to issues of diversity, inclusion, and social justice through its programming and campus initiatives.

Departmental Awards

Biology

Biology Senior Award
This award is given to a top graduating senior who is entering graduate or professional school. The award consists of a cash award and a one-year membership in the Iowa Academy of Science.

John Bowles Award
This endowed cash award is presented to a graduating senior in recognition of exemplary achievement or service in the areas of environmental, ecological, evolutionary, or field biology.

Chemistry

Analytical Chemistry Award
The Analytical Chemistry Award is chosen by the analytical chemistry professor and given to a chemistry major. The gift, a one-year subscription to the *Journal of Analytical Chemistry*, is awarded based upon interest and ability.

Art Bosch Chemistry Award
This endowed cash award, in honor of a long-time member of the chemistry faculty, may be given to a senior for outstanding service to the functioning of the department.

Chemistry Senior Award
This award is given to an outstanding senior majoring in chemistry. The award includes membership and a subscription to *The Chemist*.

Freshman Award
This award is given to the freshman who has gained highest achievement in first-year chemistry coursework. The student is selected by the professors in these courses and receives a certificate.

Inorganic Chemistry Award
The Inorganic Chemistry Award recognizes a senior student who displays significant aptitude for inorganic chemistry and to encourage further interest in the field. The award includes a certificate and letter of recognition from the ACS Division of Inorganic Chemistry.

Organic Chemistry Award
The Organic Chemistry Award recognizes a senior student who displays significant aptitude for organic chemistry and to encourage further interest in the field. The award includes a certificate and letter of recognition from the ACS Division of Organic Chemistry.

Communication Studies

Steve and Joyce Bell Excellence in Journalism Award
The Bell endowed cash award is given to a sophomore, junior or senior who, over the course of an academic year, has demonstrated consistent excellence and integrity in journalistic reporting, writing, photography or video news packaging for campus publications, news broadcasts and on-line news outlets. The same recipient is not eligible for the award in consecutive years. Categories considered for this award include: news stories and opinion pieces that contain original reporting, investigative journalism, stories presented in a series, creative photo journalism, video news packaging, and editorial leadership. Nominations for the Bell Award are solicited from student editors of campus news outlets and their faculty advisors. The Communication Studies faculty selects from the nominations received.

C.A. and Frances L. DeBruin Award
Endowed by the Rev. C.A. DeBruin, the cash award goes to the junior or senior within the Communication Studies department who has exhibited sound academic achievement, high moral character, and who has made a significant contribution to the department.

Economics/Accounting/Business management

Butler Scholar in Economics Award
Named in honor of Dr. Donald Butler, late Professor emeritus of economics, this honor and cash award is given to a senior economics major or a senior student who has completed a significant number of courses in economics. The award is based on the student's interest in independent research, the desire to pursue a career in economics or a related field, evidence of intellectual growth, and superior academic performance. The student is selected at the end of his/her junior year, and the student undertakes a research program in economics that culminates in a written paper and public presentation to other students and faculty.

Economics, Accounting and Management Department Business Management Award
This award is given to a senior Business Management major. Departmental faculty will grant the award based on the recipient's scholarship, leadership and demonstration of sincere interest in the field of business management. In recognition of his/her achievement, the award recipient's name will be inscribed on a plaque in the Weller Center. The award recipient also will receive a monetary award.

Economics, Accounting and Management Department Outstanding Leadership and Service Award
This award is given to a senior Economics, Accounting, or Business Management major who has distinguished himself/herself not only by earning a minimum cumulative GPA of 3.0, but also by providing independently driven and entrepreneurially minded leadership and/or service to the department and its students. This can be demonstrated either through work done in student clubs or through other volunteer service in the department. In recognition of his/her service/leadership, the award recipient's name will be inscribed on a plaque in the Weller Center. The award recipient also will receive a monetary award.

Economics Award
This award is presented to the senior economics major who has demonstrated the highest academic achievement in the economics major. The award winner must also have a sincere interest in an economics career and in furthering his or her education with graduate school experience.

Institute of Management Accountants Award
The award is given to the senior accounting major who has demonstrated excellence in accounting as determined by the department faculty. This award is given with the support of the ***Institute of Management Accountants*** to a student planning a career in accounting.

Iowa Society of CPAs Award
The award is given to the senior accounting major who has demonstrated excellence in accounting as determined by the department faculty. This award is given with the support of the ***Iowa Society of Certified Public Accountants*** to a student planning a career in public accounting.

Robert J. Maurer Accounting Award
Each year the faculty from the department of Economics, Accounting and Management will make a written recommendation for this award. The award shall be distributed to the senior accounting major who has demonstrated excellence in accounting as determined by the EAM department faculty. In making this determination the faculty will take all relevant facts and circumstances into consideration to include but not limited to the following criteria in making their selection: a min overall GPA of 3.5, a min accounting GPA of 3.33 with all 300 and 400 level accounting courses taken at Central or an approved program. Completion of a senior honors project with an Accounting related topic. Outstanding performance in Accounting Research Seminar; student has immediate plans for a career in accounting as evidenced by intention to take an accounting certification exam; service to the department through help with grading, supplemental instruction student clubs; high quality and outstanding performance in accounting related internship.

Education

Bruce and Susan Berical Anderson Education Grant
The Bruce and Susan Berical Anderson Education Grant supports graduates of Central College who successfully complete the Central Teacher Academy in good academic standing. Susan was a dedicated teacher, mentor and friend to all those who knew and worked with her. The Central Teacher Academy supports all aspects of teaching and follows Susan's wish that with a passion for education, and a fire in their belly, all teachers can make a difference in the lives they touch.

Lee Collins Award for Excellence in Education
This endowed award is given to one or more upper class elementary education students who demonstrate ideals which were modeled by Professor Collins. Selection for the award is made by faculty members in the education department on the basis of academic achievement, and commitment to the welfare of youth.

Barbara Dieleman Award for Excellence in Education
The award is given in honor of Barbara Dieleman, a long-time member of the education faculty. The award is given annually to one or more upperclass education students who demonstrate ideals that were modeled by Professor Dieleman in her teaching career. Selection for the award is made by the education department on the basis of academic achievement, commitment to teaching and learning, personal qualities such as caring, and dependability, service to college and community and overall potential as an effective teacher.

Joyce Huizer Award for Excellence in Education
This award is given to one or more upper class elementary education students who demonstrate ideals which were modeled by Professor Huizer. Selection for the award is made by faculty members in the education department on the basis of academic achievement, commitment to the welfare of youth, and overall potential as a teacher, particularly in the areas of language arts education.

English

Calliope Award
The Calliope Award is named for Muse Epic poetry and is awarded annually, at the department's discretion, to the English major who has demonstrated creativity and intellectual curiosity. The award is funded by members of the English department.

Environmental Science

Anya Z. Butt Environmental Studies Award

The Anya Z. Butt Environmental Studies award is awarded to a graduating senior who has had significant impact on campus or community through involvement and advocacy in environmental issues and has incorporated a sense of global awareness in their studies, evidence through participation in a study abroad program. The recipient receives a monetary award.

The Outstanding Environmental Science Award

The Outstanding Environmental Science Award is awarded to the student with the highest GPA graduating in the environmental science track of the major. The recipient receives a monetary award.

The Outstanding Environmental Sustainability Award

The Outstanding Environmental Sustainability Award is awarded to the student with the highest GPA graduating in the environmental sustainability track of the major. The recipient receives a monetary award.

Humanities

The Vander Lugt-Voss Scholarship Fund and Prizes in the Humanities

The Vander Lugt-Voss Scholarship Fund is given for excellence in the study of the humanities. Annually, the individual departments in the humanities division (English, history and philosophy/religion) choose one student from each department to receive a cash prize of $100. Prize winners may major in any field and may be in any class so long as they have displayed excellence in their humanities division courses. The award is made in honor of Drs. Gerrit and William Vander Lugt. Dr. Gerrit Vander Lugt was Central College president from 1946-60 and Dr. William Vander Lugt was a professor of philosophy at Central from 1934-50.

Kinesiology

Verle Rinehart Exercise Science Award

The Verle Rinehart Exercise Science Award is an endowed award given to an outstanding senior graduating with a kinesiology degree. It is hoped this recognition will inspire the recipients to greater service to mankind in the tradition that was Verle Rinehart's. Selection is made by the kinesiology faculty. This endowed award pays for a certification exam.

Mathematics/Computer Science

Henry W. Pietenpol Award

Each year the department gives this endowed award to one or two deserving juniors who have made significant contributions to the department through outstanding scholarship and other service. The award includes membership to the Mathematics Association of America or the Association for Computing Machinery and subscription to two journals.

Modern Languages

Lilo Ritter Award in German

Jim Graham Award for Academic Excellence in Spanish

Martha Betancourt Prize for Departmental Excellence and Service Within the Spanish Department

These language awards are given to outstanding language students who have performed at an equally excellent level on campus and abroad and who have promoted the study of language on our campus.

Music

Music Leadership Award

The award is given to a senior music major who has demonstrated excellence in music performance, course work, peer leadership and support of larger department goals. Selection is made by the music faculty annually.

Musical Theatre

Mr. "B" Outstanding Performance Award

Provided by former Central theatre director Robert Wegter in honor of Maurice Birdsall, director of theatre at Central from 1947-1977, the award goes to the student who made the most significant contribution to the theatre program and who has exhibited competent academic achievement. The recipient receives a monetary award.

Physics

Richard J. Mentink Award
An award endowed by gifts of friends and the Mentink family in memory of Richard J. Mentink, who was a student at Central, is given annually to a student who has demonstrated worthy achievement in the field of college physics. The recipient receives a monetary award.

Political Science

Pi Sigma Alpha Award
This award is given to an outstanding political science student, usually a senior, who has set an example of sustained excellence within the discipline through speaking, writing and critical thinking.

Political Science Award
This award is given to an outstanding political science student who shows promise of excellence within the discipline through speaking, writing and critical thinking.

Pre-health Science

Dr. Herman Vander Meulen Award
This endowed award is given to an outstanding senior pre-health student who has been accepted into medical school. This monetary award is to be used to start a professional library. The recipient receives a monetary award.

Pre-law

MVP Award
This award is presented to an outstanding member of the Central College Mock Trial Team who has contributed to the overall success of the team during the course of the season.

Sociology/Anthropology

Gordon F. De Jong Senior Award
This endowed, cash award is given to an outstanding senior sociology student who shows potential for graduate study. The award is to be used to purchase books for a professional library or for graduate education-related expenses.

Megan Sloss Award
The Megan Sloss award is given to a graduating sociology major who exhibits strong character, a positive and inquisitive spirit, builds relationships with both peers and faculty, and demonstrates devotion to social service work, positive social change, and/or social justice issues.

Athletics awards

All-sports

Senior Coaches' Award
Presented to the senior female and male student-athletes who have achieved the highest grade point average during their college career and have earned a minimum of two varsity letters in one sport.

Sterling Strength and Conditioning Athlete of the year Award
Presented annually to the male student-athlete and female student-athlete who best demonstrate a burning passion to achieve their highest potential through strength and conditioning training; who display leadership in their workout programs; and who show significantly improved performance in their sports as a result of their training. The recipients are selected by the college's strength and conditioning coordinator and the exercise science department chair.

Baseball

Most Valuable Player Award
Harold and Mansford Versteeg Award
Given annually to the baseball player who best exemplifies scholarship, leadership, and sportsmanship as selected by the coaching staff.

Men's basketball

Defensive Player of the Year Award
Newcomer of the Year Award
Tom Steward Hustle Award
Established in 2013 as a memorial to Tom Steward by his family, this award is to honor a varsity men's basketball player who displays the most consistent effort and hustle during the season.

Connie Muyskens Memorial MVP Award
Established in honor of the late Rev. Cornelius P. Muyskens, the trophy is presented to the player making the best all-around performance in basketball. The record is based on ability and improvement during the season, scholastic standing, sportsmanship and faithfulness in training.

Wassenaar Coaches' Award
Awarded by the coaches to the basketball player, whose playing time though limited, makes a positive contribution to the team through attitude and example.

Mentink Award
Given in memory of the late Richard J. Mentink, this award is presented annually to the outstanding basketball player, who, by performance and example, both in varsity competition and in the classroom, provides inspiration and leadership to his team. This award is given by the late Drs. Maxine and D.M. Huffman.

Gary Dirksen Achievement Award
Named for a Central graduate, long-time college administrator and ardent supporter of the Dutch men's basketball program, the award seeks to honor a varsity men's basketball player who has not only strived to achieve on the basketball court but has also strived to achieve off the floor. Consideration is given to the candidate's efforts to achieve academic excellence, to achieve leadership roles in college clubs and organizations and to achieve a sense of community involvement in working with local organizations.

Women's basketball

Most Valuable Player Award
Offensive Player of the Year Award
Defensive Player of the Year Award
Most Improved Player Award
Newcomer of the Year Award

Gary Dirksen Achievement Award
Named for a Central graduate, long-time college administrator and ardent supporter of the Dutch women's basketball program, the award seeks to honor a varsity women's basketball player who has not only strived to achieve on the basketball court but has also strived to achieve off the floor. Consideration is given to the candidate's efforts to achieve academic excellence, to achieve leadership roles in college clubs and organizations and to achieve a sense of community involvement in working with local organizations.

Men's cross country

Most Valuable Performer Award
Newcomer of the Year Award
Most Improved Performer Award
Dutch Spirit Award

Women's cross country

Most Valuable Performer Award
Newcomer of the Year Award
Most Improved Performer Award
Dutch Spirit Award

Football

Heerema-Schilder Memorial Most Valuable Player Award
A plaque is given in honor of the late Arie Schilder to the player making the best all-around performance in football. The record is based on ability and improvement during the season, scholastic standing, sportsmanship and faithfulness in training. The award is endowed by Lester Claussen, John Ver Heul and Martin Heerema.

Mentink Award
The award is given in memory of the late Richard J. Mentink, a former player. It is given to that player, who, by performance and example, both on and off the field and in the classroom, provides inspiration and leadership to his team. The award is given by the Mentink family.

P.H. Kuyper Coaches' Award
Awarded by the coaches to the senior football player, whose playing time though limited, makes a positive contribution to the team through attitude and example.

Borgman Award
Given in honor of Worp Borgman to the senior football player who has achieved the highest cumulative grade point average and excelled on the field of play.

Les Claussen Coaches' Award
Given in memory of Les Claussen to the student who improves as a football player and makes outstanding contributions to the total program.

Bruce Wendt Award
Given in memory of former Central football player Bruce Wendt to the outstanding offensive lineman.

Dr. George H. Lankelma/Menning Award
The award, a wrist watch, is presented annually to the underclassman who contributes the most to the football team.

Wagner Award
Given in memory of former Central football player Kirk Wagner to the outstanding member of the offensive scout team.

Dagh Award
Given in memory of former Central football player Ted Dagh to the outstanding member of the defensive scout team.

Brian O'Donnell Award
Given in honor of Brian O'Donnell to the outstanding freshman football player.

Mel Ver-Meer Loyalty Award
Given in memory of Mel Ver-Meer to the player who has demonstrated loyalty to the program.

Men's golf

Most Valuable Freshman Award
Golden Putter Award (most improved player)
Most Improved Player Award
Ryerson MVP Award
Given in memory of late coach Norman Ryerson, the award is presented to the most valuable player on the men's golf team.

Wagner Award
Given in memory of former Central golf team member Kirk Wagner to the player, whose playing time though limited, makes outstanding contributions to the team through leadership and example on and off the golf course.

Women's golf

Maurine Timmer Most Valuable Player Award
Established in honor of Maurine Timmer, the first Central women's golf coach (1973-87), the award is presented to the player making the best all-around performance in women's golf. The record is based on ability and improvement during the season, scholastic standing, sportsmanship and team commitment.

Most Dedicated Player Award
Most Improved Player Award
Most Valuable Freshman Award
Outstanding Attitude Award

Men's soccer

Most Valuable Player Award

Most Inspirational Player Award
Most Improved Player Award
Newcomer of the Year Award

Women's soccer

Most Valuable Player Award
Most Improved Player Award
Hustle Award
Newcomer Award
Most Inspirational Player Award

Softball

LeRoy Timmer MVP Award
Given annually to the outstanding member of the softball team.

LeRoy Timmer Most Inspirational Player Award
Presented to the player who through leadership, dedication, and example on and off the playing field, makes an outstanding contribution to the softball team.

Most Improved Player Award
Defensive Player of the Year
Offensive Player of the Year
Newcomer of the Year Award

Men's tennis

De Haan Most Valuable Player Award
Given annually to the outstanding member of the men's tennis team.

Bogard Award
Given annually to the team's most improved player. The award is given by W. Carl and Alice Bogard.

Hardest Worker Award

Women's tennis

De Haan Most Valuable Player Award
Given annually to the outstanding member of the women's tennis team.

Bogard Award
Given annually to the team's most improved player. The award is given by W. Carl and Alice Bogard.

Hardest Worker Award

Men's track and field

Most Valuable Performer Award
Most Improved Performer Award
Most Valuable Newcomer Award
Dutch Spirit Award
Awarded to the runner who shows a positive spirit and puts team before themself.

Women's track and field

Most Valuable Performer Award
Most Improved Performer Award
Most Valuable Newcomer Award
Dutch Spirit Award
Awarded to the runner who shows a positive spirit and puts team before themself.

Volleyball

Jamie Hill Most Valuable Player Award
Established in memory of former coach Jamie Hill, the award is presented to the player who displays leadership, physical ability, a positive attitude, and hard work and effort. It recognizes the player who makes a genuine effort to contribute to the team and best exemplifies all of the above traits.

Mart & Elva May Heerema Achievement Award
This award honors a varsity volleyball player who has strived to achieve on and off the court.

Leadership Award
Dutch Spirit Award
100% Award
Most Improved Player Award
Freshman of the Year Award
Academic Award

Wrestling

Most Valuable Performer Award
Lawrence Award
Presented to the wrestler who best displays the dedication, intensity and work ethic exemplified by former team members Dale and Duane Lawrence.

Most Improved Wrestler Award
Most Valuable Newcomer Award
Academic Achievement Award (Highest GPA)
Coaches Award
Awarded to a standout in areas important to the coaching staff that are not reflected in the record.

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