# Central College Catalog 2004-05 

## Notice

This catalog should not be construed as constituting a formal contract between the college and any person or group of persons. The college retains the right to make changes in the academic and social programs as well as operating procedures. 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:

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# Academic Calendar 2004-2005 

Dates are subject to change. For current calendar information, check out our web site at wwww.central.edu or call toll-free 1-877-462-3687.

## August 2004

| 18 | New faculty orientation |
| :--- | :--- |
| $19-20$ | Faculty workshops |
| $19-21$ | New international student orientation |
| 21 | New students arrive |
| 21 | Welcome Week begins |
| 22 | Returning students arrive |
| 23 | Enrollment confirmation day |
| 24 | Fall semester classes begin |
|  | (Add/Drop Period: Aug. 24 - Sept. 7) |

## September 2004

6 Labor Day (no classes/college closed)
24-26 Homecoming weekend

## October 2004

7-8 Board of Trustees meeting
13 Midterm
13 Fall break begins after last class
18 Classes resume
22-24 Family weekend

November 2004
19 Last day to withdraw from fall courses
24 Thanksgiving break begins after last class
25 Thanksgiving
29 Classes resume

December 2004
1 Registration for new students begins
10 Last day of fall semester classes
13-16 Final exams
16 Residence halls close for break
25 Christmas

## January 2005

15-16 New student welcome days
16 Residence halls open 8 a.m.
17 Spring semester classes begin (Add/Drop Period: Jan. 17-28)
Martin Luther King, Jr. Day (shortened classes
possible)

## February 2005

No Events

## March 2005

4 Midterm
4 Spring break begins after last class
14 Classes resume
24 Easter break begins after last class
25 Good Friday
27 Easter
29 Classes resume

## April 2005

15 Last day to withdraw from spring courses
15-16 Board of Trustees meeting

May 2005
5-7 Tulip Time
6 Last day of spring semester courses
9 College-wide study day
10-13 Final exams
13 Residence halls close at 5 a.m.
14 Baccalaureate
15 Commencement

## Central . . . Briefly

- Located in Pella, Iowa - 40 minutes southeast of Des Moines
- Founded in 1853
- Campus includes 50 major buildings on 169 acres
- Vermeer Science Center -- $\$ 20$ million renovation and addition completed fall 2003
- 1203 Independence - 72-person residence hall opened fall 2003
- The Central Market - European marketplace design dining hall
- Weller Center for Business and International Studies - $\$ 3.8$ million facility opened fall 1999
- Ron Schipper Fitness Center - state-of-the-art fitness center available to all students opened fall 1999
- Geisler Library - over 220,000 books and journals plus access to a vast array of electronic information; Café@Geisler coffeeshop new fall 2002
- Kruidenier Center for Communication and Theatre
- Lubbers Center for the Visual Arts - includes the only teaching glassblowing studio in the Midwest
- Cox-Snow Music Center
- Graham Conference Center
- Townhouses for upper-class student housing, with a new addition in 2000
- International study abroad programs in England, France, Austria, Spain, Mexico, Wales, the Netherlands, China and Kenya
- U.S. News and World Report calls Central College one of the top 10 best comprehensive colleges for a bachelor's degree in the Midwest and recognizes our study abroad program as one of the best programs in the nation.
- Accredited by the North Central Association of Colleges and Secondary Schools, Iowa Department of Public Instruction, AACTE, National Association of Schools of Music, American Association of University Women and College Placement Council and follows the guidelines of the American Chemical Society.
- Named to Honor Roll for Character-Building Colleges by the John Templeton Foundation
- The Unofficial, Unbiased Guide to 328 Most Interesting Colleges, 2004 edition, published by Kaplan, names Central College a school that is a hidden treasure


## Students

- Total enrollment: 1700
- Number of states represented in student body: 33 states
- Foreign countries represented in student body: 13 countries
- Total aid awarded to all new students: $\$ 6,124,587$


## Faculty

- Total faculty: 138
- Full time: 94
- Ph.D. degree or terminal degree: 89 percent
- Faculty-student ratio: 14:1
- Average class size: 20


## Freshmen admission profile (Fall 2003)

- Total applications: 1865
- Total acceptances: 1549
- Final enrollment: 417
- Men: 192
- Women: 225
- Reformed Church in America students: 44
- Alumni parents or siblings: 42
- Percent in top 10 percent of high school class: 26 percent
- ACT composite score range of middle 50 percent of students who enrolled: 21-27
- Average HS GPA: 3.414
- Percentage entering with AP or college credit: 18 percent


## Financial aid profile

- Receiving need-based aid: 87.8 percent
- Receiving scholarship aid: 84.2 percent


## Music program

Central's music department is committed to providing students, both majors and non-majors, with a variety of musical performance opportunities: A Cappella Choir, Brass Ensemble, Chamber Singers, College-Community Chorus, CollegeCommunity Orchestra, College-Community Band, Flying Pans steel drum ensemble, Jazz Band, Piano Ensemble, String Chamber Ensemble, Symphonic Wind Ensemble, Vocal/Instrumental Jazz and Pop Combo, Woodwind Ensemble.

## Athletic program

- Central College is affiliated with the National Collegiate Athletic Association (Division III) and the Iowa Intercollegiate Athletic Conference for men and women. Our 17 teams include baseball, basketball, cross country, football, golf, soccer, softball, tennis, track and field, volleyball and wrestling.
- Central athletes have posted 11 NCAA Division III championships, 21 NCAA Division III national individual champions, 130 Iowa Conference championships, 22 men's and women's IIAC all-sports titles and 37 Verizon Academic All-Americans.

Athletic facilities:

- The Ron Schipper Fitness Center opened in 1999 and features a 7,200-square-foot weight training area
- A.N. Kuyper Field with synthetic 400-meter track
- P.H. Kuyper Gymnasium with new \$120,000 game floor added in 1997
- Human performance lab opened in 1999
- H.S. Kuyper Fieldhouse with indoor track, extended to 200 meters in 1999
- Ryerson Golf Range, new in 2003
- New soccer and intramural fields
- Tennis courts, softball, baseball
- Cross-country competition course, new in 2002


## Mission of Central College

Central College, a liberal arts college in the Christian tradition, is dedicated to helping students discover and reach their highest potential. We strive to engage each other in vigorous, free, open inquiry within the context of a caring community committed to the pursuit of academic excellence. To this end, the college offers a balanced emphasis on the development of mind, body and spirit.

Central combines career preparation with programs to promote values essential to becoming responsible citizens in local, national and international communities. Above all, Central seeks to cultivate the life of the mind, nurture depth of character, and foster habits of the heart that prepare students for a lifelong adventure in learning, growth and service.

## Goals of Central College

## For students

1. To develop integrated knowledge of the content, organization, assumptions, and values of a variety of academic areas, along with in-depth knowledge.
2. To acquire skills and habits of mind appropriate to liberally educated persons, such as effective communication, foreign languages, computation, analytical and critical thinking, creativity and aesthetic awareness.
3. To become actively engaged with inquiry, to develop a sense of responsibility for learning, and to cultivate the intellectual habits and skills needed for life-long learning.
4. To prepare for all aspects of life beyond college, including work, service, and leadership within local, national and international communities.
5. To develop personally, spiritually, culturally, socially and physically through participation in the academic program and through programs of residential life, campus ministry, social action, and co-curricular activities.
6. To participate in governing the college, to provide input to the faculty for developing academic programs, and to enrich its cultural environment.

## For faculty

1. To develop a community of scholars in which teaching and learning are the activities with the highest priority.
2. To be models and mentors who support the development of students as independent learners, responsible citizens, and morally responsive persons.
3. To participate in governing the college, developing its academic programs and enriching its cultural environment.
4. To grow professionally, spiritually, and personally while contributing to the college and the larger academic community through research, creative expression, innovative teaching, and interdisciplinary dialogue.

## For the Central College community

1. To promote attitudes and values reflective of the Christian tradition: acceptance, mutual respect, justice, compassion , and service to others.
2. To promote and model appreciation of our natural environment and stewardship of its limited resources.
3. To foster examination and understanding of the Christian heritage and its implications for faith and learning.
4. To provide leadership and support for reform through dialogue with the broader communities of society, sustaining values while encouraging critical analysis of ideas and institutions.
5. To experience and appreciate the diversity of cultures present in the United States and the world, and to relate knowledgeably and sensitively to persons of diverse cultural perspectives.

## Drug-free campus statement

Central College, in compliance with the Drug-Free Schools and Campuses Act of 1989 but also to speak to a strong philosophical belief, establishes the following policy:

1. The college does not allow the possession, use or distribution of illicit drugs on campus or at college-sponsored functions. Related paraphernalia is also prohibited.

Violators can expect disciplinary sanctions to be imposed including the possibility of suspension or dismissal. Violators of this policy can also anticipate legal action being imposed. Legal sanctions could include monetary fines and/or imprisonment.
2. Substance abuse has proven to be injurious to health and very costly to employers as a result of accidents, time lost from the job and related health costs. Substance abuse has proven to be detrimental to the health and well-being of students, resulting in lower grades, reduced participation in various college activities and increased health problems.

The college, through its counseling service and its contacts with other health professionals in the area, is prepared to assist students with substance abuse problems. A contact with one of the college counselors could prove to be helpful.
3. Those who have questions regarding this policy should contact the student life office.

This statement does not, in any way, change existing policies that prohibit the legal use of alcohol on the campus or at college-sponsored functions. Please see the current student handbook to review all related policies in full.

## Central College . . . a history

Spawned in the wilderness of pre-Civil War Iowa, Central College has since its inception been committed to the ideals of liberal education.

Originally a Baptist institution, Central was founded in 1853 by a determined group of pioneer settlers who emigrated to central Iowa to escape religious tyranny in the Netherlands.

Central officially opened on October 8,1854 with a class of 37 . 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 Pieter Scholte. The college survived fires, three wars and economic depression during a period of history that saw the United States double in size. It remained solvent because of the faith and dedication of its early faculty members, some of whom accepted produce from local farms as payment.

In 1916, Central was transferred from Baptist control to the Reformed Church in America. The relationship with the RCA strengthened the college as families within the denomination sent their sons and daughters to be educated for teaching and the ministry. As its academic reputation grew, Central attracted many more students from outside the denomination.

International study programs were introduced in 1965, first in Vienna, Austria and later in Paris, France; Granada, Spain; Carmarthen, Wales; Colchester and London, England; Eldoret, Kenya; Granada, Spain; Hangzjou, China; Leiden, The Netherlands; Merida, Mexico; Paris, France; and Vienna, Austria.

Today, Central College welcomes approximately 1,700 students every year from 33 states and more than 12 foreign countries. Before they graduate, nearly half of all students participate in semester or full-year study programs at Central's foreign centers or in off-campus urban settings.

Central is located in one of the Midwest's most picturesque communities amid the meandering countryside of central Iowa. Pella, a town of 10,000 , features flower-lined streets, distinctive Dutch architecture, charming retail shops and famous bakeries that attract tourists from around the world. The annual Tulip Festival, celebrating the town's Dutch heritage, attracts over 100,000 visitors. Pella's unique blend of sophistication and small-town intimacy have been noted in several national publications.

Central's four-year liberal arts curriculum offers students the freedom to choose from 36 majors and interdisciplinary programs. Central offers a two-semester academic calendar.

Although founded 150 years ago, the college's facilities are modern and well-equipped. In the past 17 years, Central has constructed or completed renovations on 11 major buildings including the H.S. Kuyper Fieldhouse, the Maytag Student Center, the Schipper Fitness Center, The Central Market, the Weller Center for Business and International Studies, the Vermeer Science Center, Graham Conference Center, 1203 Independence, Firth House, Lubbers Center for the Visual Arts and Cox-Snow Music Center. Every summer, upgrades to student living and playing areas are completed including upgrading of heating and air conditioning in residence halls, replacement of old furniture, upgrading or installation of new intramural fields and more.

The college's 169 -acre campus - featuring a figure-eight-shaped pond spanned by a footbridge - has been described as among the most beautiful in the Midwest. All classrooms are within easy walking distance of student housing. Ninety-five percent of Central students live on campus, with many taking advantage of Central's townhouse residences that offer privacy and comfort in a home-like environment.

## Student records/The Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, ensures each student's right to:

- Inspect and review the student's education records.
- Seek amendment of the student's education records that the student believes to be inaccurate, misleading, or otherwise in violation of the student's privacy rights.
- Consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that the Act authorizes disclosure without consent.
- File with the U.S. Department of Education a complaint concerning alleged failures by the educational agency or institution to comply with the requirements of the Act.
All students are encouraged to request a copy of this federal law from the academic records and registration office at Central College, or to access it online at www.ed.gov/offices/OM/append.html.

To exercise the right to inspect and review a student's education records, the student must submit a written request to the appropriate records custodian at Central College. A list of all appropriate records custodians can be obtained from the academic records and registration office.

To exercise the right to amend a student's education records, the student must submit a written request to the registrar of Central College identifying the part(s) of the record to be amended and a specific description of the student's rationale for contending the record to be inaccurate, misleading, or otherwise in violation of the student's privacy rights. Should the college decline to comply with the student's request to amend the record, the student has the right to a college hearing to challenge the content of the education records. Further, the student may file a written complaint regarding an alleged violation of FERPA with the Family Policy Compliance Office, U.S. Department of Education, Washington, D.C.

## ADMISSION

## Campus visitation

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 host and visit with an admission counselor to discuss academic programming, extracurricular options, the admission process, scholarships and financial planning. 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. 5 p.m. Monday through Friday throughout the year. From September through May, the office is also open Saturdays from 9 a.m.-noon.

For more information, contact Central's campus visit coordinator toll-free at 877-462-3687 during regular office hours.

## 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, spring or summer, 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. have test scores on the ACT or SAT 1 high enough to predict probable success at Central; (For the purposes of admission and financial assistance decision-making, the college recognizes each candidate's highest ACT or SAT 1 composite score on a single test. Students are in no way penalized for sitting for the ACT or SAT 1 more than once.);
4. score a 530 on the TOEFL exam or a 197 on the computerized equivalent of the TOEFL exam (if enrolling as an international student);

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

1. English - four years, including literature;
2. mathematics - two or more years, including algebra, algebra II and geometry;
3. social studies - three or more years, including American and European history;
4. sciences - two or more years of lab science;
5. foreign languages - two or more years.

## Admission of home-schooled students

Prospective students seeking admission as freshmen who were home-schooled must submit scores from the ACT or SAT 1 and 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 homeschool 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. Students who did not take an ACT/SAT 1 while in high school or within four years of leaving high school are required to take an ACT/SAT 1 at a national test site or residually at Central College.

## Regular admission

Generally speaking, candidates who have an ACT composite score of 20 or above (890-920 SAT 1 combined scores) will be admitted to Central without restriction or condition if they meet each of the following criteria:

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

## Great Start admission

Candidates who have ACT composite scores of 19 or lower (SAT 1 combined scores of $850-960$ ), who demonstrate the potential and motivation for undergraduate success, but whose secondary school transcripts and supporting credentials suggest that a moderate amount of basic skills remediation will be necessary, may be admitted to the college through the Great Start program. A limited number of students will be admitted to the program. Great Start participants receive personalized assistance from their academic adviser and are strongly encouraged to utilize additional academic support services available at the college (Center for Academic Excellence, Counseling Center, etc.). Great Start students take a reduced class load during the first semester,
and they enroll ENGL 100 Reading and Writing Strategies, as well as other prescribed courses that are designed to strengthen their abilities as students.

## 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 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 reevaluating 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. If you are admitted without restriction or condition, what contributions will you make to the Central College community?
5. Which of the secondary school teachers can best speak to your potential to succeed in college (list name, department, address and telephone number)?

## Application for admission

- Apply on-line at www.central.edu.
- Applications are also generally available from your high school counselor or,
- Request one directly by writing: Office of Admission, Central College, Campus Box 5100, 812 University, Pella, IA 50219 or,
- Phone toll free at 877-462-3687 or locally 641-628-5285.
- Central's office of admission must have an application on file before making an admission decision.


## To apply for admission:

1. submit a completed application with a nonrefundable $\$ 25$ application fee. This fee will be waived if: you are a child of an alumnus; you apply before Jan. 14, 2005; you apply after a personal campus visit; and/or you apply on-line at www.central.edu.
2. have your high school send an official transcript of your high school credits to the office of admission.
3. have a report of your ACT or SAT 1 test scores sent to the office of admission if the test results are not posted on your transcript.

NOTE: When you register for either the ACT or SAT 1, use the Central College code numbers: \#1284 for ACT, \#6087 for SAT 1.

## Notice of admission

Applications for admission are reviewed by the admission committee beginning Oct. 1. Notification of the admission decision is made within two weeks after all official documents have been received unless additional information is requested. Central College adheres to the National Candidate Reply Date which 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 semester hours or more) are required to submit an enrollment deposit of $\$ 200$, which is refundable until May 1.

All full-time students must live in Central residence halls during the fall and spring semesters unless they are married, or live at home or with relatives. Any student requesting to live off campus must petition through the student life office.

## Merit scholarship notification

Students who meet the appropriate criteria and are accepted for admission will be invited to participate in the Presidential, Dean's or Dykstra Merit Scholarship programs in January or February. Students who participate in one of Central's scholarship competition programs may be selected to receive a scholarship that will supercede the merit scholarship or grant for which they would otherwise qualify. The Central Heritage Award will be added to all Central merit scholarships for those who qualify. Students interested in performance-based awards in music, theatre, communication studies, computer science and math, environmental science, modern language and art must be accepted for admission and audition, or submit a portfolio where appropriate, before Feb. 1 for full consideration. Students interested in the Preministerial Scholarships must be accepted for admission no later than Jan. 14.

Transfer students from two-year institutions who are active members of the Phi Theta Kappa chapters on their campus can be considered for several Phi Theta Kappa awards offered by Central. Presidential Community College Scholarships are available to students from accredited two-year institutions with a 3.5 cumulative G.P.A. on a 4.0 scale with a minimum of 24 semester credit hours.

## International student admission

Students who hold citizenship and residency in countries other than the United States should apply well in advance of the planned enrollment date. An international student application, the $\$ 25$ application fee, and properly certified copies of secondary school records, including national examinations, and/or university records must be submitted.

The SAT-1 or ACT is highly recommended for international students, although not required for admission. Students applying for merit scholarships must submit an SAT-1 or ACT score to be considered.

Applicants also should submit at least one recommendation from a teacher or faculty member.
Applicants whose first language is not English should take the Test of English as a Foreign Language (TOEFL) and have official scores sent to Central. Students whose first language is English do not have to submit a TOEFL. They must submit SAT-1 or ACT scores.

## INS requirements

Central is authorized by federal law to enroll non-immigrant students and exchange visitors pursuant to all SEVIS regulations and guidelines. 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 visa. Merit and need-based financial aid is available to international students, although the assistance offered does not cover the total cost of education.

Other national examinations may yield transfer credit. Applicants who have completed the International Baccalaureate are eligible for up to 30 hours of transfer credit. Partial completion of the IB requires a course-by-course evaluation.

## 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 degree-seeking students and meet the admission requirements detailed above.

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

As non-degree seeking students, Guest Students are not generally held to the standards of satisfactory academic progress governing degree-seeking students. However, Central College reserves the right to evaluate Guest Students' academic progress, to make recommendations for improving progress, and for taking progress-related actions (including but not limited to suspension and dismissal from the College).

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

Students currently enrolled as juniors or seniors in high school are eligible to participate in the PSEOA program if they meet each of the required standards. They must rank in the top third of their class and have a qualifying test score in one or more of the following test programs: ACT, SAT-1, PSAT or PACT. 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 and have scored a composite of 90 or 900 on the PSAT or SAT-1, respectively, or a composite of 20 or better on the ACT or PACT.

To apply, students must submit an official transcript with test score results. PSEOA and visiting student forms are available in the office of admission.

Courses open to high school students through PSEOA are limited to study above and beyond what is available in their high school curriculum. Only classes with space available will be open for PSEOA applicants. Accepted students may take up to nine semester hours per academic year. Purchase of books and other material is the responsibility of the student and not Central College.

## Transferring to Central College

To transfer to Central from another college or university students should send the admission application and a nonrefundable $\$ 25$ application fee. If an application is submitted at the time of a campus visit or shortly afterwards, the application fee is waived.

- Applications may be requested directly by writing: Office of Admission, Central College, Campus Box 5100, 812 University, Pella, IA 50219 or,
- Phone toll free at 877-462-3687 or locally 641-628-5285 or,
- Apply on-line at www.central.edu.

Transfer students with fewer than 24 semester hours of completed college course work at the time of application for admission to Central must provide a final high school transcript indicating rank in class; cumulative GPA; ACT/SAT scores; and an official transcript from each college/university attended. TOEFL scores are required for all international students if English is their second language.

Transfer students must 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 release of a Central transcript.

A student who was suspended for academic or other reasons from a previously attended institution or who is not in good standing is not eligible for admission or to take course work at Central for one year or two semesters after the imposed suspension.

Transfer students who are currently enrolled at another institution must also provide a final transcript prior to enrolling at Central.

Credit earned at accredited colleges or universities will be accepted in transfer if grades of at least a C- are earned in the courses, and if the courses can be applied toward a Central College degree. A maximum of 66 semester hours (or 100 quarter hours) will be accepted from a two-year community college.

Credits earned at non-accredited institutions may be accepted if the transfer student's first year at Central is completed successfully, as defined by the policies governing academic standing

## Re-admission

The intellectual vigor of the Central College faculty, and the vitality of the academic requirements they establish, are exemplified by a dynamic curriculum, one that - though always grounded on unfailing core academic principles, values, and goals - evolves and changes over time. Accordingly:

1. A student who withdraws from Central prior to graduation and is readmitted at a later date will:
a. be subject to the requirements of the major/minor as determined by the major/minor department at the time of re-enrollment
b. be subject to Core and all other graduation requirements as determined by the Registrar, on behalf of the faculty, at the time of re-enrollment
2. Graduates of Central College who wish to return and take additional courses may do so in accordance with the following stipulations:
a. students will be governed by the registration and grading policies in effect at the time of re-enrollment
b. courses taken after graduation will be identifiable as such but otherwise recorded in standard fashion on the student's transcript
c. a student seeking to earn a major/minor in addition to the major(s)/minor(s) completed at the time of graduation must complete the requirements of the major/minor as determined by the major/minor department at the time of re-enrollment; all courses taken to complete an additional major/minor must be approved by the major/minor department at Central College, and a notation of such major/minor completion will be recorded on the student's transcript
Students seeking an exception to any portion of this policy may petition the Curriculum Committee. Students who withdraw from Central and later wish to re-enroll must first contact the office of admission, which will determine each student's admission status and requirements.

## Welcome Statement and Non-Discrimination Policy

Central College is committed to being an inclusive community whose members act with consideration for the physical, intellectual, and spiritual well being of all persons. All members of the college community are responsible for creating an atmosphere that fosters openness, mutual respect, and diversity. (Board of Trustees, 4/26/03).

The above non-discrimination policy includes, but is not limited to, 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.

## About the 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 diversity 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 various spiritual perspectives 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.

With due regard for the principles of freedom of expression and academic freedom, this policy seeks 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, mutual respect and diversity. The application of the college's nondiscrimination policy will often involve conflicting interests, particularly when applied to freedom of expression. Because the primary business of the college is liberal education and because liberal education cannot take place without the free, open, and civil exchange of ideas, the application of the nondiscrimination policy should always be made with consideration of how best to preserve the free, open and civil exchange of ideas.

Central College is an Affirmative Action and 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 individual for reasons listed above. Central College students have equal rights, privileges and responsibilities unless specifically restricted by college disciplinary action.

## College Costs

## Tuition, room, board, fees

Students entering fall semester 2004-05 will be charged tuition (based on a flat amount for 12-17 semester hours), room, board and fees. Students may choose the board plan that fits their needs.

The charges given in the table below are for 2004-05. Charges for 2005-06 will be determined in January, 2005. For more information, call us toll free at 877-462-3687 and request a printed copy of Central's fees for 2005-06.

|  | $\mathbf{1}^{\text {st }}$ semester | $2^{\text {nd }}$ semester | Total |
| :--- | ---: | ---: | ---: |
| Tuition (12-17 semester hours) | $\$ 9,324.00$ | $\$ 9,324.00$ | $\$ 18,648.00$ |
| Board (20-meal plan) | $1,653.00$ | $1,653.00$ | $3,306.00$ |
| Board (14-meal plan) | $1,553.00$ | $1,553.00$ | $3,106.00$ |
| Room (normal occupancy) | $1,590.00$ | $1,590.00$ | $3,180.00$ |
| Activity fee | 72.00 | 72.00 | 144.00 |
| Technology fee | 50.00 | 50.00 | 100.00 |
|  |  |  |  |
|  | $\$ 12,689.00$ | $\$ 12,689.00$ | $\$ 25,378.00$ |
| Totals (20-meal plan) | $\$ 12,589.00$ | $\$ 12,589.00$ | $\$ 25,178.00$ |

## Tuition (2004-05)

Tuition at Central College is based on the number of semester hours in which a student is enrolled. Most courses carry three semester hours of credit and meet two to three times a week throughout the 15 -week semester. A full-time student normally takes five such courses a semester, but is always enrolled for a minimum of 12 semester hours.

Tuition is $\$ 9,324$ for 12-17 semester hours.
In addition, Central offers a number of courses with values above or below 3 semester hours. Courses valued above 3 semester hours would meet more frequently, while those with less than 3 semester hours would meet fewer times. Tuition is $\$ 647$ for each semester hour for those credits outside the 12-17 semester hours which constitute the normal academic load.

For example, a part-time student who elects to carry 10 semester hours of credit will be charged $\$ 6,470$ for tuition (10 x $\$ 647$ ). A full-time student who elects to carry 18 semester hours of credit will be charged $\$ 9,971$ ( $\$ 9,324$ plus $\$ 647$ for the extra semester hour of credit).

## Overload

Students must obtain permission from the associate dean of academic services before they will be allowed to be enrolled for more than 17 hours of credit in any one semester.

## Room (2004-05)

The basic charge for all on-campus residence units is $\$ 1,590$ per semester. The general rule is two persons per room. An additional charge of $\$ 155$ is assessed for a private room.

## Board (2004-05)

Two meal plans are offered: a 20 -meal plan (no Sunday morning breakfast) and a 14 -meal plan. The 2004-05 rate for the 20 -meal plan is $\$ 1,653$ per semester; the 14 -meal plan is $\$ 1,553$.

## Additional fees (2004-05)

Additional fees include:
Monthly payment plan fee $\quad \$ 25 / \mathrm{yr}$; $\$ 15 /$ sem
Glass blowing fee $\$ 115$
Photography lab \$175
Pottery lab fee (beginning) $\quad \$ 75$
Pottery lab fee (advanced) \$100
Pre-student teaching fee $\$ 50$
Science lab \$75
Student teaching fee $\$ 100$
Audit, general (above or below block per semester hour) \$65
Transcript \$4
Student insurance (12 months) \$303*
*subject to change
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.

## Student activity fee (2004-05)

The student activity fee supports programs, events and initiatives such as the student newspaper, the yearbook, the Campus Activities Board, the intramural programs, and various other activities and organizations on campus.

The fee is $\$ 144$ for the entire year, $\$ 72$ for each semester at Central College.

## Books

The cost of text and reference books ranges from $\$ 600$ to $\$ 780$ a year, depending on the courses taken. New and used books are available in the college bookstore.

## Music lessons

Students who schedule a music lesson to be included within the 12-17 semester hours which constitute the normal academic load will be charged the following music lesson fees. If the lessons are added onto the normal academic load (above 17 semester hours of credit), then students will be charged tuition ( $\$ 647$ per semester hour of credit) plus the music fee.

## Above 17 semester hours

Credit or audit, per $1 / 2$ hour private
Tuition $+\$ 190$
Credit or audit, 50 minute class
Tuition + \$ 85

## Student insurance

All full-time students enrolled on the Pella, Chicago and Washington D.C. campuses taking 12 or more semester credits are required to participate in the student health insurance plan unless proof of comparable coverage is provided. The fee will be charged directly to the student account in the student's first semester at Central. See the business office for further details.

## Off-campus programs - 2004-2005

Central has study abroad programs in France, Austria, Spain, England (Colchester and London), Wales, the Netherlands, China, Kenya and Mexico. Central also has programs in Chicago and Washington, D.C. The basic cost of study abroad programs includes tuition, fees, room, excursions and cultural events. Students provide their own transportation to and from the offcampus programs and other expenses. Please contact the controller's office for costs for the Washington, D.C. and Chicago programs. Costs for the 2004-2005 academic year study abroad programs can be found under the "International Education" heading of this catalog.

Central financial assistance will be available to Central students for a maximum of two semesters for off-campus programs. The semesters may be during the same year or different years, but cannot exceed two off-campus semesters. Central students who choose to study abroad or at off-campus locations for more than two semesters will continue to receive Pell Grants, Iowa Tuition Grants, and Federal Direct or alternative loans for which the student qualifies.

Please visit our Web site for updated prices.

## Refund policy for official withdrawal from college

Students are required to officially withdraw from Central College if they wish to receive a refund of institutional charges and avoid having failing grades posted to their academic record. Students should contact the student life office to begin the withdrawal process. Students studying on Central's international programs should consult the appropriate program handbook for withdrawal and refund policy information.

Students studying on the Pella, Chicago or Washington D.C. campuses who officially withdraw or are suspended prior to completing 60 percent of the semester will receive a refund of institutional charges for tuition, room, board and fees based on the percentage of the semester that has not been completed. 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, Perkins Loans, PLUS Loans, Pell Grants, SEOG Grants and other Title IV assistance. Outside scholarships will remain on the student account unless it creates an over-award situation or the donor specifically requests a refund should the student withdraw from college. All work-study earned will be paid to the student. Students who withdraw during the drop and add period will be charged an additional $\$ 100$ administrative fee.

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. In simple terms - if the student completes 20 percent of the term, the student would only be charged for 20 percent of the tuition, room, board and fees and would only receive 20 percent of the financial aid other than outside scholarships and work.

Students studying on Central's international programs 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.

## Refund policy for unofficial withdrawal from college

The student is responsible for officially withdrawing from Central if they choose to leave or stop attending. 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 in accordance with the refund policy stated above. The associate dean of academic programs will determine the date that most accurately reflects when the student ceased academic attendance due to circumstances beyond their control.

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

## Refund policy for dismissal from college

Students who are dismissed from the college must vacate their rooms within 24 hours. No tuition, room, board or fees will be refunded. If the student received 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.

## Registration and housing deposit

For returning students who wish to reserve courses for the following academic year and live on campus, his/her student account must be paid in full, with an additional $\$ 25$ deposit for course reservations and $\$ 100$ deposit for housing. The credits are applied against the student's fall semester bill. If the student decides not to return, the deposits are nonrefundable.

## 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.

Diplomas, transcripts, certificates or credentials will be withheld, and credits will not be transferred to other colleges until all accounts with the college are settled.

Interest will be assessed against unpaid balances.

## SAFE accounts

Central students may make deposits into a SAFE account any time. The college will pay an attractive interest rate and automatically make transfers to cover tuition costs on registration day. Contact the controller's office for additional information.

## Monthly payment plans

A monthly payment plan is available to Central College students. Information will be sent to all students each spring. An annual fee of $\$ 25$ is required. For more information and an application, 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 assistance

The cost of a quality college education is an important investment in your future. Financial assistance, 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 2003, 100 percent of those new students who sought financial assistance received aid. The average new freshman financial aid packet for fall 2003 was $\$ 14,625$, which included scholarships, grants, work study and loans. Financial assistance 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 assistance, you must be an accepted degree-seeking applicant. If you wish to be considered for need-based financial assistance, you should file a Free Application for Federal Student Aid (FAFSA) as soon after Jan. 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.

FAFSA forms are available from your high school counselor or from the office of student financial planning at Central College. Please indicate that you would like to have the results released to Central College (code 001850). Students filing a FAFSA will receive a Student Aid Report (SAR) directly from the federal processor. The student should review the information for accuracy, and immediately make corrections if needed. Results received at Central for accepted applicants prior to March 15 will be given first consideration for funding. Apply for aid early, even if you feel 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 assistance, you may be considered for financial assistance 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 committee 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. If you decide to attend Central, you should accept the aid award and return one copy to the office of student financial planning at Central College.

## Crediting the student's account

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

## Renewal

Financial assistance is generally available for four academic years at Central College. Renewal is not automatic, however, and it is the student's responsibility to see that all requirements for renewing aid are met. Presidential Scholarships require a 3.25 cumulative grade point average for full renewal. Dean's/Dykstra Scholarships require a 3.0 cumulative grade point average and other Central scholarships generally require a 2.75 cumulative grade point average. Other assistance is generally renewable based on your FAFSA results, academic progress and available funding. Continuation of financial assistance beyond the fourth year may be considered for students who have previously formalized their intentions to enroll as a part-time student or who have submitted documentation stating the circumstances that either prevented them from completing their degree requirements in the traditional four-year-time-frame or that require them to be enrolled for a semester beyond graduation.

Application materials are distributed to upperclass students prior to Christmas break through their Central e-mail accounts. Upperclass students will be notified in late spring or early summer of the aid awarded for the next academic year. Students not making normal progress as defined under the section on Academic Information in this catalog may jeopardize their financial assistance. Any questions concerning financial aid should be directed to the student financial planning office.

## 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 recipient 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. Students selected as the top candidates for our Scholars Programs will be awarded scholarships based on a percentage of tuition and those scholarships do adjust in value with tuition increases during the student's enrollment. Students will be awarded the highest merit scholarship or award based on academic and/or talent criteria for which they qualify. The Art, Music, Theatre, Communication or Language Awards for non-majors may be added to other academic awards provided the award value does not exceed full tuition and students will not be awarded in more than one of these areas. Heritage and Travel Awards may also be added to other academic awards provided full tuition is not exceeded.

## Presidential Scholar Awards

Students who have clearly distinguished themselves from the rest of the class are awarded Central's highest levels of academic scholarship assistance. Qualified candidates must have an ACT composite score of 28 or higher, or a combined SAT score of 1240 or higher, and have a cumulative high school grade point average of at least 3.75 ( 4.0 scale), or a number one high school class ranking.

Students who meet the criteria above and are accepted for admission prior to Jan. 14 will be invited to campus for the Presidential Scholars Program. Competitive scholarships offered include:
P.H. Kuyper, H.S. Kuyper and Joan Kuyper Farver Scholarships - 1 each @ full tuition

Pella Rolscreen Scholarships (5)
Cover, Petz, Robertson, Vance and Wormhoudt Distinguished Scholarships
Presidential Art, Music or Theatre Scholarships (also see information below)
Presidential Communication or Language Scholarship (also see information below)
Presidential Scholarships
Students who meet the Presidential Scholar criteria but are not accepted by January 14 or choose not to participate in the Presidential Scholars Program are eligible for a Presidential Scholarship.

The scholarships listed above are renewable for three subsequent years, provided the student maintains a 3.25 cumulative GPA and normal academic progress.

## Dean's Scholar Awards

Students who demonstrate outstanding levels of academic achievement as evidenced by a 25 ACT composite score OR 3.5 cumulative high school grade point average OR rank in the top 20 percent of the high school class are awarded our next highest level of scholarship assistance.

Students who meet one of the criteria above and are accepted for admission prior to Jan. 14 will be invited to campus for the Dean's Scholars Program. Competitive scholarships offered include:

Dykstra Scholarships-6@ half tuition
Dean's Art, Music or Theatre Scholarships (also see information below)
Dean's Communication or Language Scholarships (also see information below)
Dean's Scholarships
Students who meet the Dean's Scholar criteria but are not accepted by Jan. 14 or choose not to participate in the Dean's Scholars Program are eligible for an Dean's Scholarship.

The scholarships listed above are renewable for three subsequent years, provided the student maintains a 3.00 cumulative GPA and normal academic progress.

## Cornerstone Scholarships

Students with an ACT composite of at least 21 and a cumulative high school grade point average of 3.0 or higher (4.0 scale) will qualify for a Cornerstone Scholarship. These scholarships are renewable for three subsequent years, provided the student maintains a 2.75 cumulative GPA and normal academic progress.

## Preministerial Scholarships

Memorial funds from seven previously endowed scholarships honoring Johanna Bush Butterbaugh, Genevieve Edgett, Clara Ritter Foss and William C. Trembeth, Wilhelmina Heeren, Woodmar Reformed Church, and Natalie Smith have been combined to form the Preministerial Scholarships at Central College.

Two scholarships are awarded annually to high school seniors who demonstrate outstanding academic ability, a record of involvement in school, church and community activities and an interest in pursuing careers in the ministry or other church-related vocations. The scholarships are renewable, providing the recipient maintains a 3.0 grade point average and is actively involved in
campus life and religious activities.
To be considered, students must be accepted for admission and submit an application for the scholarship by January 14.

## Art, Music or Theatre Scholarships and Awards

Students must plan to major in art, music or theatre and receive scholarship recommendation by the fine arts faculty following an audition. Scholarship values are reflective of both academic and talent qualifications with the student receiving the highest single valued scholarship for which they qualify. Students who do not plan to major in one of these areas may audition for award consideration. Students must be admitted by Jan. 14 to be eligible to audition with completion of auditions by the end of the third week of February. Students may audition in more than one area, but will not be awarded in more than one area.

## Communication or Language Scholarships and Awards

Students must plan to major in communication or French, German or Spanish and provide recommendation by a communication or language teacher. Scholarship values are reflective of both academic and talent qualifications with the student receiving the highest single valued scholarship for which they qualify. Students who do not plan to major in one of these areas may audition for award consideration. Scholarship and award recommendations by Central faculty will be made following a review of the candidate's credentials which must be submitted by the end of the third week of February. Students may apply in more than one area, but will not be awarded in more than one area.

## Central Challenge Awards

Students with an ACT composite of 20 or higher and a cumulative high school GPA of at least 2.500 ( 4.0 scale) will receive a Central Challenge Award. The award will be renewed each year as long as the student maintains normal academic progress.

The Central Challenge Awards increase in value $\$ 100$ per year for each year that the student maintains a 2.500 cumulative GPA and full-time status at Central.

## Central Incentive Awards

Students with a cumulative high school GPA of at least 2.000 ( 4.0 scale) will receive a Central Incentive Award. The grant will be renewed each year as long as the student maintains normal academic progress.

The Central Incentive Awards increase in value $\$ 100$ per year for each year that the student maintains a 2.500 cumulative GPA and full-time status at Central.

## Central Heritage Awards

In affirmation of the Central College community, the Central College Heritage Award is an assured grant given to every student who has had a parent attend or sibling currently attending Central, or who is a member of the Reformed Church in America. This award guarantees $\$ 1,500-2,100$ in gift assistance per year in addition to other merit-based scholarships up to full tuition. It is renewable for three subsequent years provided the student maintains normal academic progress. Students who demonstrate financial need in excess of the value of merit scholarships and the Central Heritage Award will be considered for additional need-based funding. Students receiving tuition exchange or tuition reduction awards are not eligible for a Central College Heritage Award or the award will reduce the value of the tuition benefit.

## Central Travel Awards

Central recognizes that out-of-state students have basic travel expenses that are in excess of the travel expense for most Iowa students. The Central Travel Award is available to out-of-state and international students. Students residing in states bordering Iowa will receive a $\$ 500$ award. Students from non-contiguous continental states will receive a $\$ 1,000$ award. Students residing in other countries or the non-continental U.S. will receive a $\$ 1,500$ award.

## Phi Theta Kappa Scholarships

Phi Theta Kappa Scholarships are available for outstanding transfer students from accredited two-year institutions. Students must be active in their Phi Theta Kappa chapter and have achieved a cumulative GPA of 3.500 ( 4.0 scale) or higher with 45 semester hours completed. To be considered, students must be accepted for admission and submit an application for the scholarship by March 1. Phi Theta Kappa Scholarships are renewable, provided the student maintains a 3.00 cumulative GPA.

## Presidential Community College Scholarships

Presidential Community College Scholarships are offered to outstanding transfer students who have a 3.5 G.P.A. or higher with 45 semester hours completed from an accredited two-year institution. These scholarships are renewable, provided the student maintains a 3.00 cumulative G.P.A.

## Multicultural Scholarships

The William Randolph Hearst Foundation provides scholarships to qualified minority students. The scholarships are awarded based on the student's academic record, potential for leadership and ability to communicate.

The Harriet Heusinkveld Scholarship, named for Central's long-time professor of geography, is intended to help a student from Yucatan, Mexico, meet the expenses of a Central College education.

The Frank and Dorothy Kressen Scholarship awarded to a deserving student of African-American or Hispanic ancestry from California or Hawaii with financial need.

The Wilbur T. Washington Minority Scholarship, funded by anonymous donors in honor of a former faculty member to enable minority students to attend Central.

Arthur Muhlenbeck Scholarships are for needy students from minority groups.
Putting People in Mission Scholarship for Minorities, given by the Reformed Church in America.
Margaret Chambers Warnshuis Scholarships are awarded to qualified foreign students with preference to students who plan to return to their home country.

## Gifted Scholarships

A number of endowed scholarships are available as a result of generous gifts creating endowed funds. 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. Students are nominated by the department chair based on department criteria. No application required.

## Grants

## Federal Pell Grants

This federal program is designed for students who could not attend college without financial assistance. Awards range in value and are based on the family contribution and the cost of attending Central College. Application is made by filing a Free Application for Federal Student Aid.

## 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 assistance, 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 Carl D. Perkins Loans

Federal Perkins Loans are made directly through Central with funds provided jointly by Central College and the federal government. The amount of the loan shown in your financial aid package is the maximum amount that can be borrowed for the year at Central. Students may choose to borrow less. No interest accrues nor is repayment required while enrolled in college at least half-time. Simple interest of 5 percent begins to accrue nine months after the student is no longer enrolled in college at least half-time. Repayment begins in the ninth month after the students leaves school at a minimum rate of $\$ 120$ per quarter. Partial loan cancellation may be granted if the graduate is in certain types of teaching, Peace Corps, law enforcement, corrections' officer or under certain circumstances involving military service. Students are given information regarding rights and responsibilities when they arrive on campus, and the loan papers will be available for signing at registration.

## Federal Direct Stafford/Ford Loans

Federal Direct Stafford/Ford Loans are available to aid applicants who filed a needs analysis form, and are enrolled at least half-time in college. These loans are federally funded, with the federal government paying an interest subsidy, if applicants show financial need, and without an interest subsidy, if the applicant does not show need. If eligible for the interest subsidy, the government will pay the interest on the loan until six months after the student graduates, withdraws from college, or enrolls less than half-time. If eligible for an unsubsidized loan, the student is responsible for the interest while in college or no longer enrolled at least half-time as well. A loan fee of up to three percent will be deducted from each disbursement. No payment toward the
principal is required while enrolled as at least a half-time student. Repayment of the principal plus simple interest begins six months after the student leaves school at a minimum rate of $\$ 50$ a month. The interest rate for new borrowers is variable but will be capped at 8.25 percent under current regulations. The Federal Direct Stafford/Ford Loan is suggested only as an additional source of funds. Students are not obligated to apply for a Federal Direct Stafford/Ford 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 assistance 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 up to 4 percent will be deducted from each disbursement. Repayment begins immediately upon disbursement with a minimum payment of $\$ 50$ a month. Federal Direct PLUS Loans have a variable interest rate not to exceed 9 percent for new borrowers under current regulations. The interest rate is tied to the 52 -week T-bill plus 2.1 percent on the unpaid principal. 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 sources of assistance have been investigated.

## Central College Loans

Loan funds are available to help full-time students who are making satisfactory progress toward their degrees. Amounts of such loans depend on the availability of a student's personal funds and funds from other sources. To obtain a loan, the student should submit a completed application form to the controller's office accompanied with a letter from the parent indicating why the loan is needed, how repayment of the loan will be made and any special circumstances meriting consideration in granting the loan. Application forms are available from the controller's office. Loan applications will be evaluated by the loan committee and will be considered on a first come, first served basis. Other criteria will be the student's cumulative grade point average, total financial assistance and campus activities.

## Parent/Computer Loans

The Parent/Computer Loan fund is designed to help parents of students, married students, and single parent students borrow funds to finance the purchase of a computer. This loan must be paid in full at the time a student graduates, transfers to another school or terminates attendance at Central.

## Vance Loans

The Vance Loan Fund is designed to help parents of students finance the cost of attending Central. The college expects that all other available forms of financial assistance be pursued prior to applying for a Vance Loan. This loan program is available after the student has completed one semester at Central College's Pella campus and is designed to help in unusual economic situations. Loan amounts are not to exceed the cost of attending Central College less other forms of financial assistance. The maximum amount is $\$ 6000$ per year. While the student is attending Central a reduced payment schedule will be in effect. Application forms are available in the loan office located in the controller's office.

## Henry Strong Student Loans

The Henry Strong Educational Foundation was created from the estate of Henry Strong to help deserving students obtain college educations. Upperclass students who have completed at least one semester at Central College and are 30 years of age or younger may receive consideration for this loan.

## Langerak Loan Fund

The Langerak Loan Fund was established in 1981 by Dr. Willard Langerak, a 1933 graduate of Central College and an active supporter of the college. The loan fund is intended to help students who are preparing to enter the Christian ministry.

## Central College International Student Loans

This fund has been established by Don and Maxine Huffman to meet special monetary problems encountered by Central students from foreign countries who have completed at least two semesters at Central.

## Root Loan Fund

The Richard Morton Root and Ruth Bailey Root Charitable Trust Fund is to provide a means whereby students studying in the liberal arts or fine arts might obtain a loan to further their educational studies. This loan is for an Iowa student and must maintain a grade point average of at least a 3.0.

## Employment

More than 80 percent of Central's students are given some employment opportunity during the school year. Students who demonstrate financial need are given priority for on-campus employment.

Efforts are made to assign students to positions for which they are best suited by past experience and training, and to provide work in amounts proportionate to their needs. Continued employment is contingent on good performance.

Students should limit themselves in the number of hours they work each week. Students who are having difficulty with their studies, or who fail to make satisfactory progress toward a degree should not attempt off-campus work. Accordingly the college reserves the right to deny employment to any student who has not maintained a " $C$ " average.

Part-time employment is dependent upon the student's class schedule. Although the student employment office will make every effort to assist interested students seeking part-time work, the college does not guarantee locating employment nor that the student will earn the total amount allocated to them. Application for part-time employment should be made to the student employment office.

Employed students are paid directly by the controller's office every four weeks. The student is allowed to earn the amount specified in their aid award but the final responsibility for whether the amount is earned belongs to the student.

## Academic Philosophy

To fulfill its goals for students, faculty and the entire college community - and to do so explicitly guided by and in concert with the college mission - the faculty of Central College have developed and continually assess, refine and augment an academic curriculum recognized nationally for its:

- unfailing foundation in the liberal arts
- innovative programs to develop high-level rhetorical skills
- significant emphasis on multicultural awareness, and the understanding and appreciation of all facets of human diversity
- demonstrated academic rigor and intellectual challenge

While students' academic experiences are governed by the college's graduation requirements, those experiences are most powerfully shaped by the instructive and nurturing relationships developed among students and faculty, and by each student's individual desire to be intellectually curious and to engage oneself in the lifelong quest for the knowledge that sustains and advances us all.

## Communication across the curriculum

One of the most significant components of Central's curriculum - and of all quality liberal arts curricula - is an exemplary commitment to the development of speaking and writing skills. Central College has one of the longest histories in American higher education of helping students become rhetorically sophisticated, so that they may best adapt to and communicate successfully in a multitude of academic and professional settings.

Central's Communication Across the Curriculum Program, initially funded by the National Endowment for the Humanities and the Meredith Corporation and subsequently driven by its own success, is grounded in the understanding that communication skills employed in context are best learned in context; accordingly, the development of students' written and oral rhetorical skills is the responsibility of faculty teaching courses in each academic major, throughout the curriculum. Faculty fulfill that responsibility through two key program components:

## Central Foundations

As part of Central's Core requirements, all students must complete at least two courses (at least 6 s.h. of credit) identified as Central Foundations courses within the first two years. These courses are distinguished as follows:

1) They address the basic assumptions and values of an academic discipline at the introductory level (100).
2) They approach study of the discipline via methods that demand active student involvement in and critical analysis of the disciplinary exchange of ideas; process - as much as product - is emphasized. Assignments demand a progression of skills such that students can summarize, analyze, evaluate and produce their own arguments within both disciplinary and interdisciplinary contexts.
3) They are identified throughout this catalog by a lower-case letter f next to course numbers (i.e. "CHEM 131fq," "EDUC 110f," "ENGL 120ft," etc.).
4) To best facilitate the type of growth detailed above, class size is generally limited to 22 students.

## Communications skills endorsement

A critical requirement of each academic major - and, thus, a graduation requirement - is that students must earn a faculty endorsement of their communication skills in the context of their major discipline. Generally, students skills are assessed at the time of major declaration so that a program of further development - and, if necessary, remediation - can be embarked upon. Major-specific communication skills endorsement requirements and procedures are detailed in the sections of this catalog addressing the individual majors.

## First-Year Seminar: Intersections

A hallmark of the first-year experience at Central College is the Intersections course, COLL 110f. Required of all new, first-year students in the fall semester, Intersections is an interdisciplinary seminar designed to introduce students to the intellectual life at a liberal arts college in general and, more specifically, to academic life at Central. Small groups of students explore the intersections at which academic/intellectual disciplines, ideas, and events converge, connect and collide. Faculty from throughout the natural sciences, behavioral sciences, fine arts and humanities teach the seminars. All sections of the course share a common topic and many common readings and experiences, while each instructor adds a unique emphasis.

## Graduation Requirements

To earn the Bachelor of Arts degree from Central College, all students must:

1) Complete all Central Core requirements
2) Complete all requirements for at least one academic major

- with a GPA of 2.000 in all courses applied toward the major(s)

Note: Students are required to complete the major requirements in effect at the time the student submits a completed Declaration of Major form in the academic records and registration office
3) Complete a total of 120 semester hours (s.h.) of course work:

- with a cumulative GPA of 2.000
- with at least 20 s.h. of course work at the 300 -level or above
- with no more than $20 \mathrm{~s} . \mathrm{h}$. of internship, practicum or experiential course work
- with no more than $60 \mathrm{~s} . \mathrm{h}$. of course work taken in the major discipline counting toward the total 120 s.h. required
(for disciplinary/departmental majors only)

4) Complete 30 of their last 45 semester hours in a Central College program, with at least 15 of these on the Pella campus:

- note: Students who fulfill all requirements of one of the co-op pre-professional degree programs meet this residency requirement.
- note: The vice-president of academic affairs may grant exceptions to this residency requirement.

While academic advisers, 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.

## Central Core requirements

The cornerstone of Central's liberal arts curriculum is the Core, a combination of course and proficiency requirements which ensure that the education of all Central College students is grounded in an understanding of the breadth of human thought and experience. All Core requirements are listed below and refer to courses which fulfill these Core requirements. Core courses are identified throughout this catalog by lower-case letters (e.g. "h," "r," "s," etc.) next to course numbers (e.g. "HIST 130h," "REL 111r," "SOC 120s," etc.).

## 3 s.h. of COLL 110f Intersections

All new, first-year students will take in their first semester COLL $110 f$ Intersections (3), an interdisciplinary seminar designed to introduce students to the intellectual life at a liberal arts college and, more specifically, to academic life at Central. Small groups of students explore the intersections at which academic/intellectual disciplines, ideas, and events converge, connect and collide. Faculty from throughout the natural sciences, behavioral sciences, fine arts and humanities teach the seminars. All sections of the course share a common topic and many common readings and experiences, while each instructor adds a unique emphasis. Taking COLL 110f Intersections will automatically satisfy 3 of the total 6 s.h. requirement for Central Foundations credit (see below).

## 6 s.h. of Central Foundations credit - $f$

Courses that carry the $\boldsymbol{f}$ designation are specifically designed to introduce students to 1 ) the basic assumptions and values of the disciplines, and 2) to college-level reading, writing, speaking, listening and critical thinking skills throughout the disciplines. Both instructional approach and course content will emphasize developing these skills, distinguishing these courses from any others - especially those at other colleges or universities - taught on similar subjects. Accordingly, no courses accepted in transfer will be allowed to fulfill the Central Foundations requirement. Normally these courses are taken during the freshman year, but must be completed by the end of the sophomore year. Transfers with sophomore standing are required to take only 3 s.h. of $\boldsymbol{f}$ course work; transfers with junior or higher standing are excused from the $f$ requirement.

## 2 s.h. of Experiential credit - x

Courses (or appropriate service projects and internships) that carry the $\boldsymbol{x}$ designation involve significant contact and interaction with some minority, subculture or international group. Note: This requirement will be waived for students studying abroad or on an approved program in another location (e.g., the Cbicago Metropolitan Center program or W ashington, D.C. intern program) and for international students studying on the Pella campus.

6 s.h. of Cultural Awareness credit - c
Courses that carry the $\boldsymbol{c}$ designation focus on culture as a general concept, a particular culture, subculture or minority culture, or a language other than English and the cultures that speak that language. Note: Most foreign language courses at Central College are designated as courses, and can therefore be applied toward the completion of this requirement.

## 3 s.h. of Non-Western/Minority credit - n

Courses that carry the $n$ designation involve the study of minority, indigenous or non-Western cultures (e.g. Native American/African American/Hispanic American/Asian/African/Middle Eastern topics), or those concerning the history, art, literature, economics, and/or social structures of such cultures.

## 3 s.h. of Arts credit - a

Courses that carry the $\boldsymbol{a}$ designation examine works of art whose essence of creation, depth of expression and impact transcend the routine of daily existence.

## 3 s.h. of Historical Perspective credit - h

Courses that carry the $\boldsymbol{h}$ designation study the related and interconnected phenomena that constitute a culture's development over time.

## 3 s.h. of Mathematical Reasoning credit - m

Courses that carry the $m$ designation focus on quantitative problem solving and the development of mathematical modeling skills.

## 3 s.h. of Religion credit - r

Courses that carry the $\boldsymbol{r}$ designation study the ideas and practices by which humans have sought to come to terms with ultimate reality, (i.e. the relation of the experienced world to a transcendent origin, the moral significance of human behavior, the human predicament and its solution, the destiny of the world).

## 3 s.h. of Scientific Inquiry credit - $q$

Courses that carry the $\boldsymbol{q}$ designation approach science as a dynamic and exploratory discipline, teaching students that hypotheses must be tested against the external reality of the universe.

## 3 s.h. of Social and Behavioral Inquiry credit - $s$

Courses that carry the $\boldsymbol{s}$ designation study human beings as individuals and as members of groups in a variety of social, cultural, psychological, economic, historical and political contexts.

## 3 s.h. of Textual Interpretation credit - $t$

Courses that carry the $\boldsymbol{t}$ designation study written representations and interpretations of the human condition. These courses analyze works which address the meaning of human life, thereby defining and shaping our lives and cultures.

## 6 s.h. in a Core Focus Area

In addition to the initial $3 \mathrm{~s} . \mathrm{h}$. of credit in each of the Core areas labeled $\mathrm{a}, \mathrm{h}, \mathrm{m}, \mathrm{r}, \mathrm{q}, \mathrm{s}$ and t , students must also complete 6 s.h. of credit at the 200 -level or above in any one of those Core areas. Note: Students with a disciplinary/departmental major may not use credits from their major discipline toward meeting this requirement; in addition, no courses used to meet this Core Focus Area requirement may be used to meet any other Core requirement.

## Demonstration of minimum proficiency in a foreign language

Students must demonstrate minimum proficiency in a foreign language, and can do so in one of three ways:

1) Successfully complete one full year (6-8 s.h.) of college-level study of one foreign language. Note: Most foreign language courses at Central College are designated as " c " courses, and therefore can also be applied to meet the 6 s.h. cultural awareness/"c" requirement of the Core.
2) Take the placement exam before beginning course work at Central College and earn a score placing them beyond the first-year language courses. Note: This does not exempt students from the 6 s.h. cultural awareness/"c" requirement of the Core.
3) Take the placement exam before beginning course work at Central College, earn a score placing them in the second semester of the first-year language sequence, and then enroll in and successfully complete the second semester course.
4) Request proficiency testing in a language not taught at Central College. The student must petition the chair of the Cross Cultural Division during the first semester at Central College to take a proficiency exam or interview in the language. The division chair will arrange for testing at another college or university. Costs involved will be the responsibility of the student.

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).

## Core "Double-Counting"

Core designations fall into two general categories:
Group One: $f, x$
Group Two: $c, n, a, h, m, q, r, s, t$
Courses listed with more than one Group Two Core designation can be used to fulfill only one of the Group Two Core requirements, chosen by the student. (Students should contact the Academic Records and Registration office to make alternate Core designation assignments.) Courses listed with both a Group Two and a Group One Core designation can be used to fulfill both of these Core requirements. Additionally, no courses used to meet the Core Focus Area requirement may be used to meet any other Core requirement.

Students with a disciplinary/departmental major may count a maximum of 10 semester hours of credit earned in the major discipline toward satisfying Core requirements. This may include any of the following, provided the total does not exceed 10 s.h.:
up to 6 s.h. applied toward the Central foundations $(f)$ requirement;
up to 2 s.h. applied toward the experiential ( $\boldsymbol{x}$ ) requirement;
up to 4 s.h. applied toward any Group Two Core requirement ( $c, n, a, h, m, q, r, s, t)$
Students with general studies or interdisciplinary majors have no limitations on how many credits earned in the major may count toward the Core.

## Academic Policies

## Academic Appeals

Students who wish to appeal any of the above academic policies must file a petition with the curriculum committee. Forms are available from the academic records and registration office. Rules have been established by faculty in support of good educational practice. Neither negligence nor ignorance of rules is regarded a good reason for granting approval.

## Semester calendar

At Central College, the academic year is divided into two 16 -week semesters and a summer term. Students normally enroll for 15 semester hours of credit each semester, enabling them to complete, on average, 30 semester hours of credit per academic year and 120 semester hours of credit - the minimum required for graduation - throughout four years.

## Application for Graduation

An application for graduation must be filed with the academic records and registration office at least two semesters prior to the awarding of the degree, or no later than the beginning of the student's senior year.

## Commencement

Central College awards the bachelor of arts degree. Seniors who have completed all requirements for graduation shall have their names listed in the commencement program and shall participate in the commencement ceremonies. Seniors within 17 semester hours of completing graduation requirements may participate in the commencement ceremonies upon completing a graduation application card and notifying the Academic Records and Registration office of their intent to participate in commencement.

## Graduation honors

Students who achieve a cumulative grade point average of at least 3.5 may be recommended by the faculty for commencement distinctions. The degree may be granted cum laude for those students with a cumulative GPA of 3.5-3.649, those with magna cum laude for those with a cumulative GPA of 3.65-3.799, and summa cum laude for those with a cumulative GPA of 3.8 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 no later than the beginning of their junior year and complete at least 60 semester hours at Central are eligible for the honors, but only their performance at Central College will be considered.

## Grading system and policies

Central employs the following grading system:

| A | 4.0 grade points per semester hour |
| :--- | :--- |
| A- | 3.7 grade points per semester hour |
| B+ | 3.3 grade points per semester hour |
| B | 3.0 grade points per semester hour |
| B- | 2.7 grade points per semester hour |
| C+ | 2.3 grade points per semester hour |
| 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 grade points per semester hour |
| P (Pass) | not applicable |
| I (Incomplete) | not applicable |
| W (Withdrawal) | not applicable |
| NR (No Record) | not applicable |
| U (Unsatisfactory audit) | not applicable |
| AUD (satisfactory audit) | not applicable |

Grades of P, I, W, NR, AUD and U are not included when calculating grade point average. The final grade point average is based on all work completed at Central College. Grade points earned at other schools are not included in the Central College grade point averages.

## Grade Appeals

The Central faculty have adopted a process by which students may appeal a grade. For details, contact the associate dean.

## Calculation of GPA

To calculate the grade point average (GPA), add the number of grade points earned and divide by the number of semester hours attempted. Example: If you can earn an A , a B , a $\mathrm{B}+$, a B - and a $\mathrm{C}+$ in five 3 -semester-hour courses, your grade point average for the semester would be 2.993 ( 44.9 grade points divided by 15 semester hours) $[1 \times 4.0(\mathrm{GP}) \times 3.0(\mathrm{SH})=12.0$ plus $1 \times 3.0(\mathrm{GP}) \times 3.0(\mathrm{SH})=9.0$ plus $1 \times 3.3(\mathrm{GP}) \times 3.0(\mathrm{SH})=9.9$ plus $1 \times 2.7(\mathrm{GP}) \times 3.0(\mathrm{SH})=7.1$ plus $1 \times 2.3(\mathrm{GP}) \times 3.0(\mathrm{SH})=6.9]$

## Incomplete ("I") grade

Students may request an "incomplete" ("I") grade for a course from the faculty member of a course that the student cannot complete on time due to extenuating circumstances (such as major illness or a death in the family). The incomplete grade " I " is a temporary grade that indicates that work for the course is not complete. The date by which an " I " grade must be replaced by a standard letter grade is to be determined by the course instructor and student, but may not be more than one semester after the last day of the term in which the "I" grade was awarded. If the work is not completed by the agreed-upon date, the grade will automatically be changed to an "F." In extenuating circumstances, requests for an extension beyond one semester can be made to the dean's office. Only the associate dean of academic affairs or the vice president of academic affairs can grant an instructor permission to assign an "I" grade. The instructor must file a written request, including the written approval of the student, with the dean's office. The request must be made prior to the end of the grading period. The dean's office will notify the instructor if permission is granted.

## Withdrawn ("W") grade

A grade of "W" indicates a student has either withdrawn from college or withdrawn from a particular course. The "W" grade is recorded on the transcript, but no credit is given. A student may not withdraw from a course after the end of the 12th week of class.

## Pass ("P")/No Record ("NR") grades

A junior or senior may elect to attempt a maximum total of 20 semester hours outside core, major or minor requirements, and those courses required for certification, on a pass/no record basis. Courses offered on a pass/no record only basis may be used at the discretion of the department to meet major or minor requirements. A student must file for the pass/no record option with the academic records and registration office before the end of the 10 th day of classes. Forms are available in the academic records and registration office. Credit is granted provided the student has earned the equivalent of a ' C ' grade. A 'pass' grade will have no effect on grade point averages. A 'no record' grade carries no credit.

## Dean's list

Students who complete at least 12 semester hours in which grades other than ' P ' are assigned and earn at least a 3.5 grade point average in a given semester are named to the dean's list for that semester.

## Student Classification

| Freshman standing | $0-26$ semester hours |
| :--- | :--- |
| Sophomore standing | $27-53$ semester hours |
| Junior standing | $54-83$ semester hours |
| Senior standing | 84 and above |

## Satisfactory Academic Progress Policy

Central College admits students who we believe have the background, desire and ability to be successful in college and to make satisfactory progress toward the degree. To graduate from Central College a student must earn 120 semester hours of credit and earn a cumulative grade point average of 2.0 and a 2.0 or above in the major. Full-time students who wish to complete the requirements for graduation within four years (eight semesters) must complete an average of 30 credits each year or 15 credits per semester.

The college has established another set of minimal quantitative and qualitative measures that students must achieve to maintain satisfactory academic progress. These standards are less aggressive than those required to complete a degree in four years.

The status of any student who receives a term or cumulative grade point average of less than 2.000 will be reviewed at the end of each semester. Additionally, all students' records will be reviewed at the end of each full academic year of enrollment, defined as two full semesters and one summer. The academic progress committee makes recommendations to the vice president of academic affairs regarding which students are to be warned, placed on probation with aid, allowed to continue with or without aid, suspended or - as a last resort - dismissed.

Full-time students will be placed on probation or considered for dismissal if they are not progressing at the rate indicated below:

## Student must have earned:

23 semester hours at the end of one full academic year
47 semester hours at the end of two full academic years
73 semester hours at the end of three full academic years
100 semester hours at the end of four full academic years
and have a cumulative grade point average of at least:
1.600 after 1 semester
1.700 after 2 semesters
1.800 after 3 semesters
1.850 after 4 semesters
1.900 after 5 semesters
1.950 after 6 semesters
2.000 after 7 semesters

Students will be considered as attending full-time unless they have completed a declaration to attend as a part-time student with the academic records and registration office prior to the end of the drop/add period. Students should contact the student financial planning office to determine financial aid eligibility for less than full-time status. If a student has completed a declaration to attend as a part-time student at any time in their Central enrollment, the student's satisfactory academic progress will be based on the following standards:

Students who earn from 1-23 semester hours must maintain a cumulative grade point average of 1.700, 24-47 hours must maintain 1.850, 48-73 hours must maintain a 1.95 and from 74 or more hours must maintain a 2.000 .

All enrolled students who have triggered a review in any semester will continue to be monitored until completion of their degree. All students are expected to complete their degree within a maximum time frame of 180 attempted credit hours. Attempted hours are those hours for which the student was still enrolled at the end of the drop/add period (first 10 days of the semester). Financial aid is tied to satisfactory academic progress and students in good standing will typically be eligible for financial aid for a total of four academic years. Continuation of financial assistance beyond the fourth year may be considered for students who have previously formalized their intentions to enroll as a part-time student or who have submitted documentation stating the circumstances that either prevented them from completing their degree requirements in the traditional four-year-timeframe or that require them to be enrolled for a semester beyond graduation.

## Academic warning

The academic progress committee will recommend that a letter of academic warning be sent to students to express concern about academic performance. These students will need to make a change in academic performance as they may have started on a slide into academic jeopardy and, as a result, could possibly lose all financial assistance or even be suspended. The following circumstances trigger a letter of warning for students and their adviser:

- Cumulative grade point average is slightly above the minimum cumulative GPA identified in the policy;
- The student has completed an unusually unsuccessful semester;
- The student has withdrawn from courses and is likely to jeopardize satisfactory academic progress based on credits completed; or
- The student's progress is revealing a downward trend, which could place him or her in academic jeopardy if the trend continues, either by virtue of grade point average or in attempted credits completed.


## Academic contract probation

Central College will work closely with students who do not maintain satisfactory academic progress in an attempt to help them overcome initial mistakes. When a student has earned a cumulative grade point average below the level of satisfactory academic progress or completed fewer credits than required, the student will be placed on "contract probation." Contract probation is a one-semester grace period during which students will continue to receive financial aid. Scholarship levels, however, may be adjusted downward based on established GPA requirements.

## The contract probation student must agree to:

- Complete a minimum of 12 semester hours;
- Enroll in courses that are graded (no pass/no record courses); and
- Attend all classes.

The college will:

- Provide financial assistance during this grace semester;
- Monitor student progress in classes; and
- Provide academic support and advising support.

Students who return to satisfactory academic progress after one semester of probation with financial aid will be removed from academic probation. Students who show significant improvement but do not return to satisfactory academic progress may be allowed a second semester of probation with aid at the discretion of the academic progress committee. No student will receive more than two semesters of probation with financial aid. Students who demonstrate limited improvement may be provided a second semester of probation, but without financial aid.

## Academic suspension

Some students may require a firm break from studies before they are able to prioritize their academic goals and achieve a college degree. Generally, students are suspended when they have previously been on contract probation and continue to fall significantly below the satisfactory academic progress standards. Students who have a serious drop in grade point average (including, but not limited to, all failing grades) may be suspended from the college without benefit of a contract probation period. Students who are suspended are not allowed to register for classes and, if previously registered, will be removed from classes. All financial aid and charges for an upcoming term will be canceled and any prepaid accounts will be refunded. A transcript notation will indicate that a student has been suspended for academic reasons.

## Academic dismissal

Students who consistently fail to meet satisfactory academic progress standards will be dismissed from the college. A transcript notation will indicate that a student has been dismissed for academic reasons.

## Appeal of academic suspension or dismissal

Students who have been suspended or dismissed for academic reasons may appeal to the vice president for academic affairs in writing. Permission to continue may be granted if there is evidence of factors beyond the control of the student. Students who successfully appeal a suspension or dismissal decision will be placed on probation without financial aid unless the student has not had one term of probation with financial aid. If the appeal is denied, the suspended student may reapply to the office of admission after one calendar year. The application will be evaluated in light of interim experiences that reflect increased readiness to achieve academically. Students who are dismissed may reapply after sitting out for two semesters (one full academic year). Freshmen may reapply after one semester out of school. Students who reapply have greater likelihood of admittance if they show evidence of growth by successfully completing courses at another institution, securing counseling to resolve personal issues, etc.

## Mitigating circumstances

Central College may set aside the satisfactory standards for an individual student if it is determined that an unusual situation affected the student's progress. The academic progress committee will make this determination on behalf of the student. Mitigating circumstances would include:

- Serious/prolonged student illness;
- Serious injury suffered by the student; or
- Death of a close relative;
- Other circumstances may be considered on a case-by-case basis with supporting documentation.


## Other elements to be considered

Courses that are dropped during the official drop/add period will not appear on the college transcript. Courses from which students withdraw after the $10^{\text {th }}$ day of class and before the end of the $12^{\text {th }}$ week of the semester will appear as a "W" on transcripts. No tuition or fee refunds will be made for course withdrawal after the $10^{\text {th }}$ day of class and aid will be based on credits enrolled at the end of the $10^{\text {th }}$ day of class. Additions after drop/add may incur additional charges, however financial aid will remain based on enrollment status at the end of the drop/add period. Students may not withdraw from a course after the $12^{\text {th }}$ week of school if the course is scheduled to meet the entire semester.

Students who wish to withdraw entirely from the college must complete a withdrawal form in the student life office and must have an exit interview with the dean of student life or an appointed designee and the office of student financial planning. Students living on campus who withdraw from the college must vacate their residence hall room within 24 hours. College housing is for enrolled students only. The courses and term for which the student enrolled will 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.

## Amended student records

Assessment of students' satisfactory academic progress is based on students' official academic records at the time of the progress review. Records which are, at a later date, amended to reflect appropriate changes (for example, when a grade and, consequently, GPA is changed because a student repeated a course [see "Repeating a Course" policy], or when a grade of "I" is replaced by a standard letter grade [see "Grading System and Policies]) are deemed official as of the date they are amended.

## Treatment of transfer courses

All credit accepted for transfer to Central College will be included in all calculations of satisfactory academic progress.

## Treatment of noncredit or remedial course work

Central College neither accepts in transfer nor offers noncredit or remedial course work.

## Disciplinary suspension and dismissal

Students may be suspended or dismissed from the college per college policy. Students who are suspended or dismissed must vacate their rooms within 24 hours. No tuition, room, board or fees will be refunded. If a dismissed student received 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. A transcript notation will indicate that a student has been suspended or dismissed for disciplinary reasons.

## Academic Honesty

The mission statement of Central College charges us to "promote the sensitivity to and appreciation of values essential for students to become effective citizens" at the local, national and international levels. These values include mutual respect and justice. Mutual respect for our colleagues and ourselves requires that we perform our work with integrity. Justice requires adherence to a process that upholds Central College's standards of academic integrity. Justice also requires creating an atmosphere of intellectual safety where individuals know their work is secure from being copied by others or abused in any way. An academic community with a high degree of integrity is essential if Central College is to succeed in its mission and sustain an academic center whose scholarship and graduates are valued.

Integrity in academic performance is about much more than grades earned, it is about how individual members of the academic community have earned their grades. Because you are responsible for and accountable to upholding these standards of integrity, this guide is provided as a resource.

A key component of academic integrity involves taking on the responsibility of being honest in the production of our work as scholars. Academic honesty requires that we do not plagiarize, engage in inappropriate or unauthorized collaborations, cheat, aid others in being academically dishonest, or engage in other activities that are dishonest such as misusing technology or other college resources. Each of these violations of academic honesty threatens the overall integrity of Central College, and all members of our academic community. Thus, these violations cannot and will not be tolerated.

## What to avoid

Plagiarism and/or misuse of ideas from other sources:

- Deliberately representing the work of someone else as your own work.
- Using the ideas, text, formulas, images, or other materials produced by someone else and not acknowledging them as the source.
- Cutting and pasting the work of others into your assignments without acknowledging the source of this material (includes material taken from the web or Internet as well as from books, journals, and mass media).
- Failing to provide proper and complete identification of sources for material incorporated into your own work whether text or graphics.
- Not including proper within text citations and/or proper footnotes or endnotes.
- Not including a full citation on the reference page for each and all sources used in producing your work.

Unauthorized collaborations:

- Working in teams or groups without the instructor's knowledge or permission.
- Turning in the same or very similar paper for multiple assignments without the knowledge and permission of each instructor involved.


## Cheating:

- Copying homework or test answers/responses from other students and turning it in as your own work.
- Use of cell phones, personal data assistants (PDAs), calculators without the instructor's permission to gain an advantage on an exam or course assignment.
- Using unauthorized materials on an exam or assignment.
- Presenting others' work as one's own.
- Obtaining work or unauthorized assistance from another student.
- Obtaining work or unauthorized assistance from another source such as online term papers or help.
- Failing to report miscalculations in grading.

Facilitation of dishonest academic activity:

- Use of technology such as cell phones or the Internet to assist another student in gaining an illicit advantage on an exam or course assignment without the instructor's permission.
- Doing work for or providing work to another student who misrepresents this work as being his or her own.
- Assisting another student to earn a grade that is not by that student's own efforts.
- Failure to report cheating or other dishonest acts by others.
- Allowing others to view your work during exams or assignments, including leaving materials on a public access hard drive or other media.
Improper use of technology:
- Using technology in ways that violate copyrights.
- Downloading copyrighted material from the Internet to avoid purchasing of the same material, i.e., music songs or video material.
- Cutting and pasting material from the Internet into your own work without proper acknowledgement of the source(s).
- Sharing electronic files of copyrighted material with others and not having permission from the copyright holder. Falsification of credentials or grades:
- Presenting false credentials.
- Altering or forging official university documents and/or files.


## Responsibilities for maintaining standards of Academic Honesty

Each member of the Central College community is responsible and accountable for maintaining these standards of academic honesty if the integrity of the college is to be maintained.

Instructors must model academic honesty, as well as provide guidance and monitor academic projects to be certain that works are really created by the student. Course instructors must also be aware of changing laws regarding dishonesty (i.e.copyright violations) in order to avoid problems both for themselves and their students. Should infractions of academic honesty rules occur, it is the duty of the faculty to report and act on any suspected dishonesty in a timely fashion.

Students must know the rules. When in doubt, inquire. Not every situation that can cause problems is covered in this section of the college catalog. Seek out and understand what is considered dishonest (both college rules and general societal rules) for submitting work that is your own and/or to appropriately document the source(s) from which work is taken. Maintain high standards for yourself and others.

Administrators administer the policies that govern reported dishonesty and encourage honesty in every endeavor.

## Procedures for violations of academic standards of integrity

1. In a case of perceived academic dishonesty, the student will be presented with all of the evidence compiled by the instructor within the shortest possible time after the alleged infraction has been identified. The department chair will be notified of the situation before the instructor makes any disposition of the case. If the student denies the allegation, the evidence will be reviewed and evaluated by the department chair.
2. When a student is observed cheating on a test, the faculty member will confront the student as soon as is feasible but before the student leaves the classroom building. The instructor will take custody of the evidence, i.e., notes, and the test. The student may be removed from the course and a failing grade issued. The faculty member will consult with the department chair and the associate dean.
3. Depending on the nature of the offence, the penalty for academic dishonesty ranges from permission to redo the project (if the violation was inadvertent), failing the project, to failing the course. The instructor of the course will determine the penalty in each specific case in consultation with the associate dean.
4. Students may appeal in writing to the associate dean and a hearing will commence to review the evidence presented by the faculty member
5. Every case of academic dishonesty will be reported to the dean of academic services of the college indicating the nature of the offense and the action taken. A letter of probation or warning will be sent to the student and a copy placed in the student's file. A second offense is grounds for dismissal from Central College. Serious violations may result in immediate dismissal. The college will keep all files for 5 years after graduation or withdrawal from Central College.

## Information on academic integrity

For further information about plagiarism and other violations of academic integrity, go to the Geisler Library home page. Under the heading Research Assistance, you will find two specific resources devoted to issues of academic integrity. The first resource titled Citing Resources provides specific information on using the most common academic citation formats to properly cite sources both within the paper and on the reference page(s). The second resource titled Copyright \& Academic Integrity provides information on the proper use of copyrighted material and how to avoid plagiarism of other people's materials.

## Registration

## General information

Students register for courses several months in advance of each semester, and have several opportunities to make changes to their schedules (see below). New freshmen starting in the fall semester generally register for courses during Freshman Orientation in the preceding summer. All students who have not made satisfactory arrangements with the controller's 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.

Students themselves are responsible for registration in 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 withdrawn.

Students who plan on being considered "full-time" (enrolled in at least 12 semester hours in a given semester) for financial aid, athletics, insurance, or any other purpose, must be very aware of the number of credits for which they are enrolled. Students enrolled in fewer than 12 semester hours in any semester will have their financial aid reduced according to state and federal regulations, and student-athletes enrolled in fewer than 12 semester hours will be ineligible for competition in such semesters. It is each student's own responsibility to know when the student has dropped below full-time status and what the ramifications of doing so are.

Students with a documented illness, learning disability or other mitigating circumstances, to be reviewed on a case-bycase basis, may be considered full-time at less than 12 semester hours for purposes other than financial aid and billing. Students should provide documentation in advance to determine an appropriate level of full-time status. This information may also be used to determine a suitable schedule for maintaining satisfactory academic progress.

## Changes in registration

After initially registering for courses in a given semester, students have several opportunities to makes changes to their schedules. Registration change forms are available in the Central Service Center. Policies governing such changes are as follows:

1. Registration changes (withdrawals, additions, substitutions) must be approved by students' academic advisers and, at times, the course instructor(s), as well.
2. Courses from which students withdraw through the 10th class day of a semester will not appear on transcripts.*
3. Registration changes made after the 10th class day of a semester and before the end of the 12 th week of the semester will be assessed a $\$ 25$ late fee; in addition, courses from which students withdraw during this period will appear on transcripts with a grade of "W," and no tuition or fee refunds will be made.*
4. Withdrawal from any courses after the end of the 12 th week of the semester is not permitted.*
5. Under unusual circumstances, a student may appeal to the associate dean of academic services for a waiver of these policies.

* Important : These policies govern courses scheduled to meet throughout an entire semester. For courses that do not meet for the entire semester (for example, 1 s.h. courses such as COLL 105, EXSC 135, MUS 210, and many others):

1. Students may withdraw only through the first week of class without a 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.

## Overload

Students who wish to enroll in more than 17 semester hours of credit in a semester must secure the permission of the associate dean of academic services. Request forms are available in the Academic Records and Registration office.

## Auditing

Students may audit courses by attending class sessions and completing classroom assignments. No examinations are taken and no credit is given. Students may not audit individualized academic experiences, such as a directed study, internship, independent study, etc. Students wishing to audit courses must obtain permission of the instructors prior to enrolling in the courses. Permission forms are available in the Academic Records and Registration office.

## 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 earned for a repeated course will be counted in the student's cumulative grade point average. Previous credit earned will be deleted and final credit for the course will be awarded on the basis of the most recent grade earned.

Students may not repeat a course via directed study unless the student's first attempt at the course was itself a directed study.

Students planning to repeat a course must file with the Academic Records and Registration office a Request to Repeat a Course form before the end of the fourth full week of the semester in which they are repeating the course (or the end of the
second week of a summer term). Students failing to notify the Academic Records and Registration office as stated above will not receive credit for the repeated course(s) except by appeal to the curriculum committee. In the event that permission is granted by the committee, all grades may, at the discretion of the curriculum committee, be used in calculating grade point averages.

## Transfer of credit

## Credit earned at other colleges and universities

College-level, credit-bearing courses taken at other colleges and universities and documented on official transcripts will be considered for transfer to Central College upon request. Credit earned at regionally accredited colleges or universities will be accepted in transfer if grades of at least "C-" are earned in the potential transfer courses and if the courses, as determined by the appropriate Central faculty, can be applied toward a Central College degree. Credit earned at non-regionally accredited institutions may be accepted if the transfer student's first year at Central is completed successfully, as defined by the policies governing academic standing.

Additional policies governing the transfer of credit are as follows:

- Only official transcripts - not photocopies - will be evaluated. Official transcripts are those noted as such by the issuing institution and that are delivered to Central in a sealed envelope.
- A maximum of 66 semester hours (or 100 quarter hours) of transferable credit may be accepted from all twoyear/community colleges attended.
- Grades for courses taken at other institutions are not included in the calculation of a student's Central College grade point average.
- Students transferring to Central who, at their previous institution(s) completed most or all of the courses required for their Central College major may be required to take up to 14 additional semester hours of credit in the major.
- Students currently enrolled at Central College who wish to take a course(s) at another institution and transfer the credit back to Central must first submit a completed Request for Transfer Credit Pre-Approval form, available in the Academic Records and Registration office.
- Credit from courses taken at two-year/community colleges will not be accepted in transfer for students currently enrolled at Central College who have already earned 65 or more semester hours of credit at the time the transfer courses are completed.
- Correspondence, TV/video, internet-based and experiential courses will not be accepted toward meeting any Core requirement.
- No courses accepted in transfer will be allowed to fulfill the Central Foundations (" f ") Core requirement.


## Credit by exam

Central College accepts in transfer selected credit earned through the Advanced Placement (AP) and College-Level Examination (CLEP) programs.

- A minimum score of 3 on all eligible AP exams is required for transfer of credit. A list of eligible AP exams is available from the Academic Records and Registration office.
- A minimum score of 50 on all eligible CLEP exams is required for transfer of credit. A list of eligible CLEP exams is available from the Academic Records and Registration office.


## 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 predicated by sufficient scores on appropriate placement exams. Note: Students are not charged for any credit by proficiency awarded.

## 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: Of the credit by proficiency awarded, a maximum of 4 semester hours may be applied to meet the cultural awareness ("c") Core requirement.
Note: All 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 in MATH 132Pm Calculus and Analytic Geometry II and complete that course with a grade of "C" or better will be awarded 4 semester hours of proficiency credit for MATH 131 m Calculus and Analytic Geometry I.
2. Students who place in MATH 231Pm Multivariable Calculus and complete that course with a grade of "C" or better will be awarded 4 semester hours of proficiency credit for MATH 132m Calculus and Analytic Geometry II and 4 semester hours of proficiency credit for MATH 131m Calculus and Analytic Geometry I.

## Credit by proficiency in computer science

Credit by proficiency in computer science will be awarded as follows:

1. Students who place in COSC 136Pm Computer Programming II and complete that course with a grade of "C" or better will be awarded four semester hours of proficiency credit for COSC 135m Computer Programming I.

## Withdrawal from the college

Students who wish to withdraw entirely from the college must complete a withdrawal form in the student life office and must have an exit interview with the dean of student life or an appointed designee. Students living on campus who withdraw from the college must vacate their dormitory rooms within 24 hours. College housing is for enrolled students only. Students who withdraw from the college and later wish to re-enroll should consult the policies governing re-admission.

When a student has missed all classes for 10 consecutive class days, the college will begin the process to withdraw the student from the college. The student will be notified by registered mail and a student signature procured. Students who are withdrawn from the college must vacate their campus residences within 48 hours of having been withdrawn.

## Transcripts

Central College issues only official transcripts, which are printed on security paper with an embossed seal. Note the following transcript policies:

- Transcripts will not be issued if the student requesting them has outstanding financial obligations at Central College, as determined by the controller's and student financial assistance offices.
- Transcripts will not be issued without payment in advance via check, cash, money order, or Visa/MasterCard.
- 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.
- Regardless of the means by which the transcript will be issued (in person, by mail, or by fax), there is a 48 -hour processing time on all transcript requests.


## Academic Divisions \& Departments

The academic component of Central College is composed of seven academic divisions, most of which are further composed of one or more academic departments. Each division and its departments are listed below:

Applied Arts Division (Rex Shabriari, chair)

Fine Arts Division (Treva Reimer, chair)

- Art Department
- Theatre Department
- Music Department

Behavioral Sciences Division (Jim Zaffiro, chair)

- Communication Studies Department
- Economics/Accounting/Management

Department
Humanities Division (Walter Cannon, chair)

- Political Science Department
- Psychology Department
- Sociology/Anthropology Department

College Division
Cross-Cultural Studies Division (Sam Mate-Kodjo, chair)

- Modern Languages Department
- Library


## Majors

A fundamental graduation requirement for all students is the completion of an academic major. By the end of the sophomore year, students should file a "Declaration of Major" form with the academic records and registration office. Students are required to complete the major requirements in effect at the time the student submits the form. Please see the sections on each major for detailed requirements, including information about various emphases and tracks within some majors.

Three types of majors are offered: disciplinary/departmental majors, interdisciplinary majors and the general studies major.

## Disciplinary/departmental majors

Note: For students completing a disciplinary/ departmental major, no more than 60 s.h. of credit earned in the major discipline may be applied toward the total 120 s.h. of credit required for graduation.

| Accounting | History |
| :--- | :--- |
| Art | International Management |
| Biology | Mathematics |
| Business Management | Mathematics/Computer Science |
| Chemistry | Music |
| Communication Studies | Music Education |
| Computer Science | Philosophy |
| Cultural Anthropology | Physics |
| Economics | Political Science |
| Elementary Education | Psychology |
| English | Religion |
| Exercise Science | Sociology |
| French | Spanish |
| German | Theatre |

## Interdisciplinary majors

Environmental Studies
Individualized Interdisciplinary (see below)
Information Systems
International Studies
Linguistics
Natural Science
Social Science

## Individualized Interdisciplinary Major

Students may design a customized interdisciplinary major with the assistance of faculty members from two departments primarily involved in the major. The major must consist of 50-60 s.h. of courses, and be comprised of lower-, middle-, and upper-level courses. It is in the student's best interest to submit a completed "Interdisciplinary Major Proposal" form to the academic records and registration office by the end of the sophomore year; proposals will not be accepted after the end of the first semester of the junior year.

## General studies major

A general studies major is designed by a student and the faculty member serving as director of the general studies major. Students should submit a completed "General Studies Major Proposal" form to the academic records and registration office by the end of the sophomore year.

## Minors

A number of academic minors - which require in-depth study in a discipline without the breadth of a full major - are also offered, and can be taken in conjunction with one or more majors. Policies governing specific minors are outlined in the sections addressing the majors. As with majors, minors must be officially declared by students. Students must submit a "Declaration of Minor" form to the academic records and registration office.

## 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 (detailed above) 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.

## Faculty advisers

A faculty adviser is assigned to each student admitted to Central. The first year adviser acquaints the student with the curriculum, course requirements, college policies and prepares with the student a class schedule. Throughout the first year, students are encouraged to set appointments with their advisers to discuss career options and plans, academic requirements and opportunities for growth and development at Central College. Academic advisers will refer students to the counseling center for help in resolving personal problems and to other experts on campus for learning more about particular areas of concern.

Students generally declare a major by the end of the second or third semester, and after some experience with the major area of study. Once the major is declared, a new adviser within the department of the major is chosen by the student.

Central faculty informally advise students as well. Students are encouraged to engage faculty in discussions about life goals, career options, major choices and advanced degree programs. Faculty members are not agents of the college, but serve as mentors and guides. The decisions regarding courses and career choices are ultimately the students' responsibility. Students are urged to actively seek information and explore options before finalizing decisions. Advisers are prepared to help students with all phases and components of the academic experience.

## 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

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.

## 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 work experience, directly supervised by a Central faculty member, designed to give students an opportunity to apply principles learned in academic course work in a professional/vocational setting. Offered on a pass/no record only basis. Credit is arranged, but not to exceed 3 s.h. without permission of the associate dean of academic services.

## 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 s.h. of other course work during the co-op semester.

## x97 Internship

Internships are short-term, supervised learning experiences in a practical work setting, under the direction of a professional in the field, and overseen by a faculty person or Central representative. Internships are usually part time during the school year, but can be full time in the summer. Some internships are paid positions, although many are not. In addition to the actual work responsibilities, students will fulfill an academic component, developed by the faculty supervisor. The faculty supervisor will also visit the student on site if possible. Internships vary in credit, from one to six semester hours, based on the work required and the time on the job. Internships may not exceed six semester hours without permission of the associate dean of academic services. As a general rule, 12-14 hours of work at the internship site per week for 14 weeks is worth three semester hours of credit. Internships are graded on a pass/no record basis.

## x98 Research

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

## 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 s.h.

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 numbers in the catalog provide additional information about the courses, as follows:
f Courses which meet the Central Foundations Core requirement
c Courses which meet the cultural awareness Core requirement
$\mathbf{x}$ Courses which meet the experiential Core requirement
n Courses which meet the non-western/minority Core requirement
a Courses which meet the arts Core requirement
h Courses which meet the historical perspective Core requirement
$\mathbf{m}$ Courses which meet the mathematical reasoning Core requirement
q Courses which meet the scientific inquiry Core requirement
r Courses which meet the religion Core requirement
s Courses which meet the social and behavioral inquiry Core requirement
t Courses which meet the textual interpretations Core requirement
I Courses which require instructor permission for registration
$\mathbf{P}$ Courses which have a prerequisite(s) that must be satisfied for registration

## Accounting

Behavioral Sciences Division
Economics, Accounting, and Business Management Department

## Departmental faculty

Debela Birru (chair), Jann Freed, Richard Glendening, Dennis Pedrick, Jaclyn Rundle, Suzanne Wallace. Accounting faculty: Kevin Den Adel, Robert Maurer.

## 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, mathematics and statistics. In upper-level courses, students grow through coverage of a variety of theoretical and applied financial accounting topics, as well as cost, tax and auditing. Computers are used both within and outside the classroom as learning and professional productivity tools, emphasizing the use and preparation of spreadsheets 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 with one of Central's international programs to enhance their development as global citizens, or with Central's Chicago program and the Washington, D.C. program, to pursue an internship (available in Europe, Chicago, Washington, D.C., and regionally) and to become active in various student educational and/or service organizations and other cocurricular activities.

Central's accounting graduates are well qualified, as demonstrated by recent success, 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 the American Institute of Certified Public Accountants (AICPA), at Central or pursue a graduate degree.

## Study abroad opportunities

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

## Accounting Major Requirements (52 s.h. minimum)

1. Complete all of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| MATH | 105 m | Introduction to Statistics (4) |
| BMGT | 251 P | Principles of Management (3) |
| ACCT | 241 | Financial Accounting I (4) |
| ACCT | 242 Pm | Management Accounting I (4) |
| ACCT | 341 P | Financial Accounting II (4) |
| ACCT | 342 P | Financial Accounting III (3) |
| ACCT | 343 Pm | Cost and Management Accounting II (3) |
| ACCT | 344 P | Individual Tax Accounting (3) |
| ACCT | 346 P | Government and Non-Business Accounting (2) |
| ACCT | 441 P | Financial Accounting IV (3) |
| ACCT | 442 P | Auditing (4) |

2. Complete one of the following:

COSC 106 Introduction to Web Programming (3)
COSC 110Pm Introduction to Computer Science (3)
3. Complete one ethics-related course from the Philosophy/Religion department; consult an Accounting faculty member for a list of acceptable courses.

| 4. Complete one of the following: |  |
| :--- | :--- |
| COMM 268c | Intercultural Communication (3) |
| COMM 270P | Public Speaking (3) |
| COMM 340P | Public Relations (3) |
| COMM 342P | Communication in Organizations (3) |
| COMM 364P | Argumentation (3) |

## 5. Participate in the Accounting Seminar (non-credit)

## 6. Complete all requirements for the Communication Skills Endorsement

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

## A note about the CPA exam

Students who wish to take the CPA exam in Iowa are advised to also take BMGT 331P, BMGT 332P, BMGT 361Pm, and ACCT 345P. 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.

## Communication skills endorsement

The department's communication skills requirement has three components: reading and writing, speaking, and professional development. The following are the minimum standards in each area:

## Reading and writing

Students may satisfy the reading and writing requirement in any one of the following ways:
ENGL 101 f Composition with a grade of at least "B"; or
ENGL 120ft Introduction to Literature with a grade of at least "B-"; or
ENGL 201P Technical Writing with a grade of at least "C+"; or
Complete one of the following courses with a grade of at least "C":
ENGL 211-216 200-level English literature course
ENGL 240a The Personal Essay
ENGL 241a Short Story Writing
ENGL 343PI Travel Writing

## Speaking

Students must complete one of the following courses:
COMM 160f Introduction to Communication Studies
COMM 266a Readers Theatre
COMM 268c Intercultural Communication
COMM 270P Public Speaking
COMM 340P Public Relations
COMM 342P Communication in Organizations
COMM 364P Argumentation
or complete significant communication experience approved by the economics/accounting/management department

## Professional development

Students must successfully complete all of the following sessions in the professional development series, offered by the career services office:

1. Job Search Success
2. Resume/Cover Letter Writing
3. Interviewing Strategies
4. Dress for Success
5. Dining Etiquette

It is recommended that students complete this program by the end of their junior year. At the latest, the program should be completed by the end of the fall semester of the senior year.

The only acceptable alternative for students who have failed to attend the regularly scheduled sessions by the career services office will be to complete a 10-page research paper for each unmet requirement. The research paper must include an annotated bibliography containing a minimum of ten credible, authoritative sources. In addition, students will be required to make a 15 -
minute presentation to departmental faculty for each unmet requirement. The research papers and presentations must be completed at least three weeks prior to the beginning of the final exam week of the semester during which the student anticipates graduation.

Business management and international management majors will not be allowed to enroll in a capstone course until all communication skills requirements, including the professional development series, have been completed.

## Final communication skills approval

Successful complete of the aforementioned requirements does not guarantee departmental approval of a student's communication skills requirements. The economics/accounting/management faculty members retain the right to continuously monitor every student's progress and make appropriate referral(s) to the central for academic excellence or elsewhere for additional work.

## Typical sequence of major courses for the accounting major

## Freshman year

ECON 111s Principles of Macroeconomics
ECON 112s Principles of Microeconomics
COSC 106 Introduction to Web Programming or
COSC 110Pm Introduction to Computer Science

## Sophomore year

ACCT 241 Financial Accounting I
ACCT 242Pm Management Accounting I
BMGT 251P Principles of Management
MATH 105m Introduction to Statistics

## Junior and/or senior years

ACCT 341P Financial Accounting II
ACCT 342P Financial Accounting III
ACCT 343Pm Cost and Management Accounting II
ACCT 344P Individual Tax Accounting
ACCT 346P Government and Non-Business Accounting
ACCT 441P Financial Accounting IV
ACCT 442P Auditing
Note: Philosophy/ethics course may be taken any year. Communication course may be taken after the first year. Other sequences of courses are possible to facilitate study abroad or some other off-campus experience. Consult a member of the accounting faculty for information.

## Accounting Minor Requirements (20 s.h. minimum)

1. Complete all of the following:

ACCT 241 Financial Accounting I (4)
ACCT 242Pm Management Accounting I (4)
ACCT 341P Financial Accounting II (4)
ACCT 342P Financial Accounting III (4)
2. Complete one of the following:

ACCT 343Pm Cost and Management Accounting II (3)
ACCT 344P Individual Tax Accounting (3)
ACCT 346P Government and Non-Business Accounting (2)
ACCT 441P Financial Accounting IV (3)
ACCT 442P Auditing (4)
3. Complete one of the following:

COSC 106 Introduction to Web Programming (3)
COSC 110Pm Introduction to Computer Science (3)

## Accounting (ACCT) courses

## 201P Introduction to Not-for-Profit and Government Accounting (3)

Prerequisites: BEHS 285, BMGT 251P. Introduces how accounting information is processed, the financial reporting required, and how accounting information is used to make managerial decisions in not-for-profit and governmental entities. Designed for students with no prior accounting knowledge. Does not count toward the accounting or business management major or minor.

## 241 Financial Accounting I (4)

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. Computer applications including electronic spreadsheets and financial statements retrieved from online sources are emphasized.

## 242Pm Management Accounting I (4)

Prerequisites: ECON 112s and 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.

## 341P Financial Accounting II (4)

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 and liability sections of the balance sheet.

## 342P Financial Accounting III (3)

Prerequisite: ACCT 341P. 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.

## 343Pm Cost and Management Accounting II (3)

Prerequisites: ACCT 242Pm and MATH 105m. 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.

## 344P Individual Tax Accounting (3)

Prerequisite: ACCT 241. Studies the general framework of the determination of income tax for an individual.

## 345P Advanced Taxation (2)

Prerequisites: ACCT 241 and ACCT 344P. Studies the specific tax code for corporations, estates and trusts. Relates the process of converting financial GAAP accounting to reporting under the IRS code.

## 346P Government and Non-Business Accounting (2)

Prerequisite: ACCT 242Pm. 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.

## 3901 Topics (Arr)

Prerequisite: instructor's permission. Selected topics in accounting may be offered, depending upon student and staff interest.

## 397PI Internship (Arr)

Prerequisites: BMGT 251, ACCT 242, junior 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 semester hours total. Pass/no record basis.

## 441P Financial Accounting IV (3)

Pre- or corequisite: ACCT 342P. 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.

## 442P Auditing (4)

Prerequisites: ACCT 341P. Examines public accounting, the attest function, internal control and internal auditing. Emphasizes generally accepted auditing standards, professional ethics and legal responsibilities of the auditor. Studies the auditing environment, planning and performance of the audit, and the reporting standards.

## 499 Independent Study (Arr)

Prerequisite: instructor's permission. An independent research experience for senior majors.

# Anthropology (CUltural) 

Behavioral Sciences Division<br>Sociology / Anthropology Department

## Faculty

Dawn Reece (department chair), Timothy Knickerbocker, Steven Ybarrola

## Statement of philosophy

The sociology/anthropology department offers students the option of choosing between either sociology or cultural anthropology majors.

The cultural anthropology major is structured to provide students with a strong grounding in cultural anthropology within an interdisciplinary framework. The required courses provide the anthropological foundation (e.g. perspectives and methods) of the major, while the tracks furnish broad cross-cultural and international contents for analysis.

The three tracks in the major allow students to choose a particular direction they want to take within the discipline. The General Anthropology track is geared for those students who have a broad interest in cultural anthropology. The Ethnicity and Nationalism track allows students to focus on one of the most important, and least understood, issues of our time. Almost all contemporary states are multiethnic in nature and are often marked by inter-ethnic conflict. Students who choose this track will take courses that will expose them to the analytical tools necessary to understand the complexities of race, ethnicity, and nationalism on a global scale. The Applied Anthropology track provides students the opportunity to develop and refine their research and analytical skills by participating on several research programs and in experiential courses.

## Cultural Anthropology Major/General Track Requirements (33 s.h.)

1. Complete all of the following ( 12 s.h.):

| ANTH | 120 ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| ANTH | 366 Pc | Ethnographic Field Methods (3) |
| ANTH | 462 Pcs | Culture Theory (3) |
| ANTH | 485 P | Seminar in Cultural Anthropology (3) |

2. Complete 21 s.h. of elective courses, of which:

* at least 12 s.h. must be anthropology (ANTH) or sociology (SOC) courses
* up to 9 s.h. may be, upon ANTH faculty approval, from the following list:

| COMM | 268c | Intercultural Communication (3) |
| :--- | :--- | :--- |
| ENGL | 211 nt | Literature of India and the Pacific (3) |
| ENGL | 212 nt | African and Caribbean Literature (3) |
| ENGL | 330 | Principles of Linguistics (3) |
| ENGL | 335 s | Sociolinguistics (3) |
| HIST | 150 h | Latin American Civilization (3) |
| HIST | 171 nh | Modern East Asian Civilization (3) |
| HIST | 180 nh | Modern African Civilization (3) |
| HIST | 262 nh | Mideastern Civilization (3) |
| HIST | 271 nh | History of Modern China (3) |
| HIST | 275 nh | History of Modern Japan (3) |
| MATH | 105 m | Introduction to Statistics (4) or PSYC 335m Fundamentals of Statistics (4) |
| MUS | 114 na | World Music (3) |
| PHIL | 128 nt | Philosophies in the Far East (3) |
| POLS | 120 ns | Politics in Foreign Countries (3) |
| POLS | 140 fs | Introduction to International Politics (3) |
| POLS | 223 hs | Contemporary Europe (3) or POLS 323Ibs Readings in Contemporary Europe (3) |
| PSYC | 334 s | Social Psychology (3) |
| REL | 230 nr | Asian Religions (3) or REL 330Inr Readings in Asian Religions (4) |
| REL | 235 nr | Islam (3) or REL 335Inr Readings in Islam (4) |

## Cultural Anthropology Major/Ethnicity \& Nationalism Track (33 s.h. minimum)

1. Complete all of the following ( $\mathbf{1 8}$ s.h.):

| ANTH | 120ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| ANTH | 265 cs | Ethnicity and Nationalism (3) or ANTH 365Ics Readings in Etbnicity and Nationalism (3) |
| ANTH | 366Pc | Ethnographic Field Methods (3) |
| ANTH | 462Pcs | Culture Theory (3) |
| ANTH | 485P | Seminar in Cultural Anthropology (3) |
| SOC | 236 ns | Minority Groups (3) |

2. Complete an additional 15 s.h. of elective courses chosen, upon ANTH faculty approval, from the following list: ANTH 222ns Cultures Through Film (3)
ANTH 250ns Cultures of the Middle East (3) or ANTH 350 Ins Readings in Cultures of the Middle East (3)
ANTH 267Pxcs Ethnic Encounter (3)
ANTH 498I Wales/Basque Ethnographic Research Project (3)
CRCL 220x The Immigrant Experience (3)
ENGL 215nt African-American Literature (3)
HIST 272nh History of Chinese Minorities (3)
POLS 222nhs African Politics Since 1935 (3) or POLS 322Inhs Readings in African Politics Since 1935 (3)
POLS 225hs Modern Latin America (3) or POLS 325Ihs Readings in Modern Latin America (3)
POLS 350PIx Basque Ethnographic Research Project (3)
REL 233nr The Jewish Experience (3)
SPAN 350Pn Hispanics/Latinos in the United States (3)

## Cultural Anthropology Major/Applied Track (33 s.h. minimum)

1. Complete all of the following:

| ANTH | 120 ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| ANTH | 366 Pc | Ethnographic Field Methods (3) |
| ANTH | 462 Pcs | Culture Theory (3) |
| ANTH | 485 P | Seminar in Cultural Anthropology (3) |

2. Complete 6 s.h. from the following:

| ANTH | 397 I | Internship |
| :--- | :--- | :--- |
| ANTH | 497 I | Internship |
| ANTH | 498 I | Research (i.e. Basque/Wales Ethnographic Research Project, etc.) |
| ANTH | 499 I | Independent Study |

3. Complete 9 s.h. from the following, upon ANTH professor approval:

ANTH 264s Archeology (3)
ANTH 267Pxcs Ethnic Encounter (3)
CRCL 220cx The Immigrant Experience (3)
ENGL 284I Field Methods in Linguistics (3)
ENGL 360 Teaching English as a Second Language (3)
HIST 263h Biblical Archeology (3)
HIST 386PI Public History Seminar (4)
PSYC 270Pcxn Culture and Psychology: Latinos and Latinas in Iowa (3)
Any archeology courses from Trinity College, Wales (e.g. SOC 660, 661; ANTH 710, 711, 712, 713, 790)
4. Complete 6 s.h. from the following, upon ANTH professor approval:

Any ANTH or SOC course

| COMM | 268 cs | Intercultural Communication (3) |
| :--- | :--- | :--- |
| ENGL | 330 | Principles of Linguistics (3) |
| ENGL | 335 | Sociolinguistics (3) |
| HIST | 150 h | Latin American Civilization (3) |
| POLS | 120 ns | Politics in Foreign Countries (3) |
| POLS | 140 fs | Introduction to International Politics (3) |
| PSYC | 334 Ps | Social Psychology (3) |
| REL | 230 nr | Asian Religions (3) or REL 330Inr Readings in Asian Religions (4) |


| REL | 235 nr | Islam (3) or REL 335Inr Readings in Islam (4) |
| :--- | :--- | :--- |
| SPAN | 343Pn | Civilization of Hispanic America (3) |

Note: For all three tracks, international education and honors courses may be applied toward the major upon ANTH faculty approval.

## Communication Skills Endorsement

The Sociology/Anthropology department begins to evaluate each student's reading, writing, and speaking skills one semester after the student declares his/her intention to major in cultural anthropology. All available evidence will be used including results of tests, grades received in courses, and information supplied by department members. Students may be required to demonstrate communication proficiency either by providing a portfolio of their writing or by writing an essay on a broad topic of anthropological significance. Students will receive either a departmental endorsement or an outline of procedures that may include taking composition courses, developmental reading or speaking courses, and working with the skills center.

## Study Abroad and Language

Living in another culture and learning a second language have been important aspects of anthropology from its inception, since learning about another culture means immersing oneself in the local scene and interacting with people in their native language. Also, cultural anthropology majors who have lived in another culture and have a proficiency in a second language will have a wider range of employment opportunities outside of anthropology available to them than majors who do not. Therefore, studying abroad for at least one semester and second language acquisition are strongly encouraged for all cultural anthropology majors.

## Cultural Anthropology Minor (18 s.h.)

Complete ANTH 120ns Introduction to Cultural Anthropology (3), and an additional 15 s.h. of ANTH and/or SOC courses, with at least 6 s.h. at the 300-400 level.

## Anthropology (ANTH) Courses

## 120ns Introduction to Cultural Anthropology (3)

Limited to freshmen and sophomores. Introduction to the field of cultural anthropology. Students will explore human cultural diversity from small-scale hunter-gatherer societies to large-scale industrial societies. Areas covered include ethnicity, gender roles, religion, warfare, and the environment. Special attention is given to the way anthropologists gather and analyze information on different cultures.

161n African-American Culture and History (3)
Surveys the history and culture of the African-American people. Includes the African experience, African-Americans in North America and current issues for African-Americans.

## 222ns Culture Through Film (3)

Films depicting the life ways, values, and beliefs of people from around the world have played an important role in conveying the diversity of human cultures since the inception of cultural anthropology. This course will expose students to a variety of cultures through the analysis of anthropological films and written ethnographic accounts.

## 250ns Cultures of the Middle East (3)

An introduction to the various peoples and cultures of the Middle East, with special attention given to countries of particular importance, such as Israel, Iraq, and Afghanistan.

## 264s Archaeology (3)

Introduces the methods and findings of archaeology. Hands-on experience in excavation techniques will complement classroom study.

## 265cs Ethnicity and Nationalism (3)

We live in a world today where ethnic tensions and conflict have become the norm rather than the exception. Virtually all countries are multi-ethnic in nature, and therefore are susceptible to group mobilization along ethnic lines. This course is a crosscultural, comparative study of the causes of both ethnic conflict and cooperation. Various theories of ethnic conflict/cooperation will be examined using case studies from different parts of the world.

## 266n North American Indians (3)

A survey of the native cultures of North America. Region-by-region analysis will consider ecological adaptations of the American Indians, as well as their modes of social organization and belief systems.

## 267Pxcs Ethnic Encounter (3)

Prerequisite: ANTH 120ns or instructor's permission. In consultation with the professor, students will plan, research, carry out, analyze and produce a final projects resulting from a face-to-face interaction with members of an ethnic minority group in the United States.

## 350Ins Readings in Cultures of the Middle East (3)

Prerequisite: instructor's permission. Offered jointly with ANTH 250ns, covering the same topics, but with additional assignments and readings, along with expectations for advanced discussion and research. Students cannot receive credit for both ANTH 250ns and ANTH 350Ins.

## 365Ics Readings in Ethnicity and Nationalism (3)

Prerequisite: instructor's permission. Offered jointly with ANTH 265cs, covering the same topics but with some separate assignments, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both ANTH 265 cs and ANTH 365Ics.

## 366Pc Ethnographic Field Methods (3)

Prerequisite: ANTH 120ns or instructor's permission. Surveys field methods used by cultural anthropologists, encompassing readings, discussion, and practicum. Methods include interview, participant observation, survey, mapping, archival research, life history and others.

## 367Pn Anthropology of Religion (3)

Prerequisite: ANTH 120ns or instructor's permission. Examines the ways in which religion continues to flourish as a dynamic part of the fabric of single cultures and as an intercultural force, with the power to both unite and divide people. By exploring oral, textual, and state versions of religion, the course will consider how this cultural "universal" is practiced and experienced by local communities around the world. The course will examine how some of the big questions - Who are we? Where did we come from? What is our place in the world? Where are we going? - are answered within and across particular communities and cultural contexts.

## 397/497PI 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 record basis.

## 462Pcs Culture Theory (3)

Prerequisite: ANTH 120ns or instructor's permission. An examination of the history and development of anthropological theory, with emphasis on the contributions of prominent theorists.

## 485P Seminar in Cultural Anthropology (3)

Prerequisite: Anthropology major or instructor's permission. The capstone course designed for cultural anthropology majors. Students will explore issues related to the four fields of American anthropology: physical anthropology, archaeology, linguistic anthropology, and sociocultural anthropology.

## 498 Research in Anthropology (Arr)

Students plan, carry out, and write up original anthropological research projects in an off-campus location, for example, the Basque Ethnographic Research Project.

## 499I Independent Study: Anthropology (Arr)

Designed to permit students to pursue their interest in specialized areas of anthropology in greater depth than is possible in other courses offered by the department. Restricted to upper-class majors.

## Faculty

Tim Frerichs (chair), Brian Roberts, Sam Watson

## Statement of philosophy

Central College's Art Department is rooted in the belief that art functions as a form of communication and that the visual arts are a primary mode of inquiry within a broad liberal arts experience. The acquisition of critical thinking skills, in addition to formal and technical skills, is stressed at both the beginning and advanced levels for both the major and non-major.

The department provides students with a range of experiences with the world of art. In the studio setting, students work firsthand with the materials and techniques necessary to create competent works of art. Emphasizing the elements of art and conceptual development, these classroom situations allow students to work closely with their instructor to realize their aesthetic ideas.

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

## Study abroad opportunities

Art students are encouraged to participate in one of Central's international programs and/or the Chicago metropolitan program. Art courses are available in several of the European centers including Leiden, Merida and Vienna. Students should consult with the department faculty and the office of internships and career services for learning opportunities available through internships with such organizations as galleries and museums. Internships are also an integral part of the Chicago program.

Art courses offered on study abroad programs may apply to the major. Students should consult with the international education office and the art department concerning such courses.

## Art Major Requirements (42 s.h.)

1. Complete all of the following:
ART 130a Drawing I (3)

ART 135a Design I (3)
ART 137a Fundamentals of Three-Dimensional Design (3)
ART 221ah History of Art: Ancient through Medieval (3)
ART 222ah History of Art: Renaissance through Modern (3)
ART 425 I Art Theory and Criticism (3)
ART 430P Senior Seminar in Art (3) - includes senior exbibit
2. Complete 21 s.h. of the following (with a minimum of $3 \mathrm{~s} . \mathrm{h}$. of art history courses):

| ART | 210 | Elementary School Art (3) |
| :--- | :--- | :--- |
| ART | 230 Pa | Printmaking I (3) |
| ART | 231 Pa | Painting I (3) |
| ART | 232 Pa | Ceramics I (3) |
| ART | 234 I | Glassblowing I (3) |
| ART | 235 Pa | Metalsmithing (3) |
| ART | 236 Pa | Drawing II (3) |
| ART | 238 P | Graphic Design (3) |
| ART | 275 Pa | Contemporary Arts in the City* (3) |
| ART | 325 ah | History of Modern Art* (3) |
| ART | 330 Pa | Printmaking II (3) |
| ART | 332 Pa | Ceramics II (3) |
| ART | 334 PIa | Glassblowing II (3) |
| ART | 335 Pa | Painting II (3) |
| ART | 380 na | Studies in Non-Western Art* (3) |
| * art history course |  |  |

## 3. Complete all requirements for the Communication Skills Endorsement

Note: ART 101 fa Introduction to the Visual Arts (3) will not count toward the art major (above) or the art minor (below).
Art Minor Requirements (18 s.h.)

1. Complete 18 s.h. of ART courses, including at least one art history course

## Visual Communication Minor Requirements (21 s.h.)

1. Complete all of the following:

| ART | 130 a | Drawing (3) |
| :--- | :--- | :--- |
| ART | 135 a | Design I (3) |
| ART | 238 P | Graphic Design (3) |
| COMM | 160 f | Introduction to Communication Studies (3) |
| THEA | 273 a | Introduction to Theatrical Design (3) |

2. Complete one of the following:

COSC 106 Introduction to Web Programming (3)
COSC 110Pm Introduction to Computer Science (3)

## 3. Complete at least 3 s.h. of Practicum or Internship, as approved by program coordinator

## Elementary Teaching Licensure - Art

Students seeking teaching licensure in art at the elementary level must, in addition to the above-listed requirements of the art major, take ART 210 Elementary School Art (3). For detailed information on all teaching licensure issues, please contact the licensure officer in the education department.

## Communication skills endorsement

First-year students who indicate their interest in an art major are initially evaluated by means of the reading/writing assessment scores provided at the time of matriculation. Based on that information, students are directed to enroll in basic writing/reading courses, such as ENGL 101 f Composition and ENGL 200 Modes of Argument in Reading and Writing.

As art majors, students are required to enroll in three art history courses that will monitor communication skills by means of classroom discussion, oral presentations, and essays. Students must receive at least a $C$ grade in these courses in order to meet the communication skills requirements of the department.

As senior art majors, students are required to enroll in the senior capstone course (ART 430) which requires daily reading, writing and speaking. Journals are maintained during the semester and are graded for content and style. Students must receive at least a C grade in this course in order to meet the communication skills endorsement of the art department. In addition, students are required to make a formal oral presentation and written commentary in conjunction with their senior exhibitions in order to receive the communication skills endorsement required for graduation.

## Typical sequence of major courses for the art major

Freshman year
ART 130a Drawing I
ART 135a Design I
ART 137a Fundamentals of Three-Dimensional Design
ART 221ah History of Art: Ancient through Medieval or ART 222ah History of Art: Renaissance through Modern (3)

## Sophomore year

200 level studio electives
200 level art history electives

## Junior year

200/300 level studio electives
200/300 level art history electives
ART 425I Art Theory and Criticism

## Senior year

200/300 level studio electives
200/300 level art history electives
ART 430P Senior Seminar in Art

## Art (ART) Courses

101fa Introduction to the Visual Arts (3)
Does not count toward an art major or minor. Analyzes the elements and principles of art by considering an array of works. The primary goal of the course is to gain an appreciation of varied works in diverse media by artists working in different cultural and geographic environments. Promotes college-level skills with emphasis on writing and speaking. Includes field trips to local and regional art museums.

## 130a Drawing I (3)

A foundation studio art course teaching basic drawing skills, composition, and critical skills including art vocabulary sufficient to analyze art works. Primarily focuses on observed drawing skills.

## 135a Design I (3)

A foundation studio art course teaching basic two dimensional design elements and color theory. Emphasizes basic two dimensional studio techniques, visual composition, and critical skills including art vocabulary sufficient to analyze art works.

## 137a Fundamentals of Three-Dimensional Design (3)

A foundation studio art course emphasizing three dimensional design elements and principles. Teaches basic three dimensional studio techniques, visual composition, and critical skills including art vocabulary sufficient to analyze art works.

## 210 Elementary School Art (3)

Discusses various theories concerning children's art and the importance of art education. Prepares students to teach by formulating goals, designing curriculum and examining teaching methods.

## 221ah History of Art: Ancient through Medieval (3)

A survey of Western art from prehistoric times through the Gothic period.

## 222ah History of Art: Renaissance through Modern (3)

A survey of Western art from the 13th century through modern times.

## 230Pa Printmaking I (3)

Prerequisite: ART 130a. Further develops drawing and compositional skills by applying them to various forms of printmaking, varying from relief to intaglio or other forms, dependent on the instructor's choice.

## 231Pa Painting I (3)

Prerequisite: ART 130a. An introduction to painting and working with color, utilizing a medium of the instructor's choice.

## 232Pa Ceramics I (3)

Prerequisite: ART 137a. An introduction to clay as an art medium through a variety of fundamental forming, surface decoration, and firing techniques commonly used by potters and sculptors.

## 233Pa Sculpture I (3)

Prerequisite: ART 137a. An introduction to the materials, processes, and techniques of sculpture. The range of materials could include wood, metal, paper products, and found objects.

## 234Ia 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.

## 235Pa Metalsmithing (3)

Prerequisite: ART 137a. An introduction to the design and fabrication of three-dimensional forms for jewelry, holloware, flatware, and small sculpture.

## 236Pa Drawing II (3)

Prerequisite: ART 130a. A continuation of ART 130a with emphasis on developing conceptual and thematic skills. Explores contemporary and traditional approaches to studio art making.

## 238P Graphic Design (3)

Prerequisite: ART 135a or instructor's permission. This course applies the principles of visual perception to the practice of visual communication. The course will cover historical and applied elements of graphic design.

## 275Pa Contemporary Arts in the City (3)

Prerequisite: sophomore standing. An extensive exploration of the architecture, dance, drama, music, visual arts and other art forms influenced by and available in the city. Uses a broad range of field experiences supported by reading classroom discussion and presentations by recognized authorities. Offered in major cities.

## 325ah History of Modern Art (3)

Concentrates on the modern and contemporary period in Western painting beginning in Europe with Impressionism and proceeding to the present.

## 330Pa Printmaking II (3)

Prerequisite: ART 130a and ART 230P. A continuation of ART 230P. Individually generated projects. Introduction of new techniques appropriate for idea development such as monoprint, screenprint and photo-printmaking. Experimentation of the media expected.

## 332Pa Ceramics II (3)

Prerequisite: ART 232Pa. A continuation of Ceramics I with the addition of developing glazes and more experience in the firing procedures. Emphasis on developing a more personal approach to the medium.

## 333Pa Sculpture II (3)

Prerequisite: ART 233 Pa . A continuation of ART 233 Pa with both individually arranged and structured projects in advanced sculptural concepts and techniques.

## 334PIa Glassblowing II (3)

Prerequisite: ART 234I 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.

## 335Pa Painting II (3)

Prerequisite: ART 231P. An advanced painting course which further develops the student's painting skills by introducing new techniques and a greater in-depth understanding of color, composition and criticism.

## 340P Advanced Studio (3)

Prerequisite: ART 231P or ART 230P. 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.

## 380na Studies in Non-Western Art (3)

Studies the arts and ideas of non-European peoples from Africa, native North America, Pre-Columbian Central and South America, and non-European artists working in contemporary media and contexts. The course will be offered on a two-year rotating basis as follows: fall: Pre-Columbian; spring: Native American; fall: African; spring: contemporary non-European artists. The course may be repeated with different topics.

## 397I 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 record basis.

## 399PI Independent Study (Arr)

Prerequisite: junior 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 semester hours.

## 425I Art Theory and Criticism (3)

Prerequisite: instructor's permission. A study of the ways in which art has been understood throughout history and how perspectives of art change. A consideration of the criticism of the formal elements and contents of art within the context of a specific time and place.

## 430P Senior Seminar in Art (3)

Prerequisite: senior standing and art major. This course is the art major capstone experience. Emphasizes professional presentation and stresses advanced work. A mature body of work is created through the course of the semester and presented during the senior exhibit. Team-taught by art faculty.

## Behavioral Sciences

Behavioral Sciences Division

## The behavioral sciences division

The Behavioral Sciences Division, one of seven academic divisions within the College, offers interdisciplinary courses under the BEHS designation designed to augment departmental courses offered in the behavioral sciences.

## Behavioral Sciences (BEHS) Courses

## 285 Not-for-Profit Seminar (1)

An examination and discussion of not-for-profit management in the United States for students interested in possible careers in this field. Meets once a week with each session devoted to a different aspect of the field. Each topic is explored jointly by students, faculty, and practitioners.

## BiOLOGY

Natural Sciences Division
Biology Department
Faculty
Glenn Barnett (chair), Russell Benedict, Anya Butt, Ellen Du Pre, Dave ErkenBrack, Paul Weihe

## Statement of philosophy

Advances in such critical areas 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 department reflects both of these realities by offering our students a strong foundation in biology without overspecialization. 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. The result has been graduates who meet with success no matter where their life choices take them.

## Student research in biology

The biology department 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 63-acre Carlson-Kuyper Biology Field Station on Lake Red Rock.

## Study abroad opportunities

For decades, the biology department has been at the forefront promoting Central's study abroad programs, and the department will work with biology majors so that they can obtain the benefit of a foreign study experience and still graduate in four years.

## Biology Major Requirements (53 s.h.)

1. Complete all of the following:

| BIOL | 130 q | Diversity of Life (4) |
| :--- | :--- | :--- |
| BIOL | 131 Pq | Introduction to Cells (4) |
| BIOL | 221 Pq | Genetics (4) |
| BIOL | 229 Pq | Principles of Ecology (4) |
| BIOL | 320 Pq | Evolution (4) |
| BIOL | 385 P | Junior Seminar (1) |
| BIOL | 485 P | Senior Seminar (1) |
| CHEM | 131 fq | General Chemistry (5) |
| CHEM | 235 Pq | Organic Chemistry I (4) |
| CHEM | 236 Pq | Organic Chemistry II (4) |

2. Complete at least $\sigma$ s.h. from the following:

Any MATH course numbered 104 or higher
Any COSC course numbered 110 or higher
3. Complete three of the following:

| BIOL | 223 Pq |  | Vertebrate Natural History (4) |
| :--- | :--- | :--- | :--- |
| BIOL | 290 |  | Topics in Biology (4) |
| BIOL | 321 Pq |  | Comparative Vertebrate Anatomy (4) |
| BIOL | 324 Pq |  | Field Botany (4) |
| BIOL | 341 Pq |  | Human Physiology (4) |
| BIOL | 342 Pq | Mammalogy (4) |  |
| BIOL | 345 Pq | Limnology (4) |  |
| BIOL | 361 Pq | Microbiology (4) |  |
| BIOL | 390 | Topics in Biology (4) |  |
| CHEM | 320 P | Biochemistry (4) |  |

4. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

Certification of communication skills for the biology major, encompassing reading, writing, speaking, listening, numeric, bibliographic and computer skills, is accomplished in three steps:
(1) BIOL $130 \mathrm{q}, 131 \mathrm{Pq}$ and 221 Pq . These three courses all have integral components requiring satisfactory communication at a level appropriate for a science major. These include: writing term papers and formal laboratory reports; keeping a research notebook; presenting lab results to classmates; listening to presentations by classmates; conducting literature searches using computer data bases; reading and critiquing reports prepared by classmates; analyzing laboratory data.
(2) BIOL 385P. This seminar is taken after the above courses and provides further evaluation and development of communication skills. If these skills are inadequate for college work the instructor will award a grade of less than C , in which case the student must repeat the seminar. Usually the student should arrange remedial work before rescheduling, and BIOL 385P must be repeated until a grade of at least C is earned. This seminar meets concurrently with BIOL 485P.
(3) BIOL 485P. In this seminar the goal is mastery of those communication skills appropriate for a college graduate with a science major. This seminar is structured as a capstone experience, usually taken in the senior year. It meets concurrently with BIOL 385P and a grade of C or better constitutes certification of the student's communication skills for graduation.

## Typical sequence of courses for the biology major

Fall semester<br>\section*{Freshman year}<br>CHEM131fq General Chemistry<br>BIOL131Pq Introduction to Cells

## Sophomore year

CHEM 236Pq Organic Chemistry II
BIOL 229Pq Principles of Ecology

## Junior year

MATH/COSC requirement
Biology electives
(Study abroad)

## Senior year

BIOL 485P Senior Seminar
Biology electives

## Spring semester

Freshman year
CHEM 235Pq Organic Chemistry I
BIOL130q Diversity of Life

## Sophomore year

BIOL 221Pq Genetics
MATH/COSC requirement
(Study abroad)

## Junior year

BIOL 385P Junior Seminar
Biology electives

## Senior year

BIOL 320P Evolution
Biology electives

## Biology Minor Requirements (24 s.h.)

1. Complete all of the following:

| BIOL | 130 q | Diversity of Life (4) |
| :--- | :--- | :--- |
| BIOL | 131 Pq | Introduction to Cells (4) |
| BIOL | 221 Pq | Genetics (4) |
| BIOL | 229 Pq | Principles of Ecology (4) |
| BIOL | 320 Pq | Evolution (4) |

2. Complete one of the following:

| BIOL | 223 Pq | Vertebrate Natural History (4) |
| :--- | :--- | :--- |
| BIOL | 290 | Topics in Biology (4) |
| BIOL | 321 Pq | Comparative Vertebrate Anatomy (4) |
| BIOL | 324 Pq | Field Botany (4) |
| BIOL | 341 Pq | Human Physiology (4) |
| BIOL | 342 Pq | Mammalogy (4) |
| BIOL | 345 Pq | Limnology (4) |
| BIOL | 361 Pq | Microbiology (4) |
| BIOL | 390 | Topics in Biology (4) |
| CHEM | 320 P | Biochemistry (4) |

## Biology (BIOL) Courses

## 111q Introduction to Human Anatomy and Physiology (4)

A survey of human body function designed for non-biology majors. Begins with simple molecules and follows the ascending levels of human biology through cells and organs up to organ systems (digestion, reproduction, etc.). Investigation culminates with the way each system is controlled and coordinated with other body functions. Laboratories focus on the relationship between structure and function.

## 123q Natural History of the Great Plains (4)

An overview of the natural history of the Great Plains for non-biology majors. Topics will include climate, geology, soils and the ecology of local prairies, woodlands and wetlands. Studies common plants and animals of this region and local ecological problems. This course includes one three-hour laboratory per week which will involve several field trips. A weekend field trip may be offered.

## 130q Diversity of Life (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. One three-hour lab per week.

## 131Pq Introduction to Cells (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. One three-hour lab per week.

## 221Pq Genetics (4)

Prerequisites: BIOL 130q and BIOL 131Pq. An introduction to genetic analysis including coverage of classical and molecular genetics 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, population genetics and speciation. Laboratory will use both classical and molecular techniques to illustrate key concepts. One three-hour lab per week.

## 223Pq Vertebrate Natural History (4)

Prerequisite: BIOL 130q. An overview of vertebrate biology. Lectures will concentrate on the various morphological, physiological and behavioral adaptations vertebrates have for their environments, and the laboratories will cover the structure and identification of the vertebrate groups, with emphasis on local species. Laboratories also include field trips for the observation and collection of local vertebrates; one lab will cover specimen preparation. One three-hour lab per week.

## 229Pq Principles of Ecology (4)

Prerequisites: BIOL 130q and BIOL 131Pq. Analyzes the patterns present, and processes operating, in ecological populations, communities and ecosystems. Emphasis on processes that influence the distribution and abundance of species. Laboratories introduce students to field methods and computer simulations, and allow students to conduct research, analyze data and present their results. One three-hour lab per week.

## 320Pq Evolution (4)

Prerequisite: BIOL 229Pq. An overview of evolution as the unifying principle of the biological sciences, with coverage of the origins of evolutionary thought, population genetics, systematics and paleobiology. Includes laboratory projects on topics such as population genetics, morphometrics and phylogeny reconstruction. One three-hour lab per week.

## 321Pq Comparative Vertebrate Anatomy (4)

Prerequisite: BIOL 130q. 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. One three-hour lab per week.

## 324Pq Field Botany (4)

Prerequisites: BIOL 130q and 131Pq. 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 will introduce the students to methods of plant identification, taxonomy and botanical field studies. One three-hour lab per week.

## 335Pq Functional Histology (4)

Prerequisite: BIOL 131Pq. A systematic survey, including structure and function, of the major animal cells and tissue types, followed by an in-depth, microscopic study of the major organ systems. Students learn the relationship between form and function, develop histological microtechniques and an understanding of health and disease as it relates to changes in tissue.

## 341Pq Human Physiology (4)

Prerequisites: BIOL 130q, BIOL 131Pq and CHEM 241P. 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. One three-hour lab per week.

## 342Pq Mammalogy (4)

Prerequisite: BIOL 130q 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. Students will be required to attend a pre-semester field trip to a more distant site. Labs emphasize anatomy, field biology and identification of mammals, as well as census and capture techniques.

## 345Pq Limnology (4)

Prerequisite: BIOL 229 Pq or instructor's permission. 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.

## 361Pq Microbiology (4)

Prerequisites: BIOL 130q and 131Pq or instructor's permission. The morphology, physiology and taxonomy of bacteria, fungi and viruses. The focus of this course is on prokaryotes although it includes the interaction of microbes with their hosts, with emphasis on the role of microbes as agents of disease. Laboratory includes techniques in culturing, staining and identifying microorganisms. One three-hour lab per week.

## 385P Junior Seminar (1)

Prerequisite: BIOL 221Pq. Students (usually juniors) assist the presentation and discussion of a biological topic of the instructor's choice as a context in which the communication skills of the students are evaluated and developed. Meets concurrently with BIOL 485P.

## 386PI Research Seminar (1)

Prerequisite: instructor's permission. For students planning to do independent research. Students choose research topics, perform background reading and writng and defend a research proposal. Also includes discussion of scientific writing and presenting papers at scientific meetings. Typically taken spring semester of the junior year.

## 397PI Internship in Biology (Arr)

Prerequisite: BIOL 130q, 131Pq 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 record basis.

## 485P Senior Seminar (1)

Prerequisite: BIOL 385P. Students (usually seniors) assist the presentation and discussion of a biological topic of the instructor's choice as a context in which the communication skills of the students are developed, evaluated and certified for graduation.

## 499PI Independent Study in Biology (1-4)

Prerequisite: BIOL 386P and instructor's permission. A research-oriented experience designed to focus on a well-defined problem identified in BIOL 386P. 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 semester hours may be taken pursuant to the major without approval of the department chair.

# Business Management 

Behavioral Sciences Division

Economics, Accounting, and Business Management Department

## Departmental Faculty

Debela Birru (chair), Kevin Den Adel, Jann Freed, Richard Glendening, Robert Maurer, Dennis Pedrick, Jaclyn Rundle, Suzanne Wallace

## Statement of philosophy

Consistent with the mission of Central College, 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 foundation in business with an emphasis in one of four business administration areas: business administration, finance, marketing, and not-forprofit management. An emphasis can also be individually designed to better meet a student's objective. In cooperation with Central College's education department, students can also be certified to teach business classes at the secondary level.

The major enables students to acquire a general understanding in a field that prepares them to compete in a dynamic marketplace. 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.

Central students benefit from multidimensional teaching approaches that facilitate active learning: computer simulations, case studies, presentations, class discussions, and team projects. Each of these various methodologies emphasizes written and oral communication skills.

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 Central's international programs and/or the Chicago Semester Program and the Washington, D.C. program, to explore co-op and internship opportunities, and to participate in student organizations such as the Business Club and the Not-forProfit/Big Hearts-Helping Hands Club. By integrating practical and theoretical experiences, students are prepared to appreciate the global and cultural diversity of the 21 st century.

## Teacher licensure

In cooperation with Central College's education department, the economics, accounting and business management department offers the following licensure options for secondary teachers: (1) social science - economics; (2) business - general and marketing/management. Specific information regarding requirements is available from associate professor Robert Maurer.

## Business Management Major Requirements (52 s.h. minimum)

1. Complete all of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| ACCT | 241 | Financial Accounting (4) |
| ACCT | 242 Pm | Management Accounting (4) |
| MATH | 105 m | Introduction to Statistics (4) |
| MATH | 107 m | Introduction to Finite Math (3) |
| BMGT | 251P | Principles of Management (3) |
| BMGT | 351Ps | Organizational Behavior (3) |
| BMGT | 361 Pm | Corporate Finance (3) |
| BMGT | 371 P | Principles of Marketing (3) |
| BMGT | 381 Pm | Operations Management (3) |

2. Complete one of the following:

COSC 106 Introduction to Web Programming (3)
COSC 110Pm Introduction to Computer Science (3)
3. Complete one of the following:

BMGT 451P Strategic Management (4)
BMGT 453PI Global Strategic Management (4)
BMGT 490P Topics: Small Business \& Entrepreneurship (4)
4. Complete three to five courses from one of the following emphases (contact a departmental faculty member for a list of specific courses in each emphasis):
a) Finance emphasis
b) Business Administration emphasis
c) Marketing emphasis
d) Not-for-Profit Management emphasis
e) Business Education emphasis
f) Individually Designed emphasis

Note: Students may not complete more than one emphasis

## 5. Complete all requirements for the Communication Skills Endorsement

Note: This major may not be declared in combination with either 1) the international management major or 2) the information systems major with the management track.

## Communication skills endorsement

The department's communication skills requirement has three components: reading and writing, speaking, and professional development. The following are the minimum standards in each area:

## Reading and writing

Students may satisfy the reading and writing requirement in any one of the following ways:
ENGL 101f Composition with a grade of at least "B"; or
ENGL 120ft Introduction to Literature with a grade of at least "B-"; or
ENGL 201P Technical Writing with a grade of at least "C+"; or
Complete one of the following courses with a grade of at least "C":
ENGL 211-216 200-level English literature course
ENGL 240a The Personal Essay
ENGL 241a Short Story Writing
ENGL 343PI Travel Writing

## Speaking

Students must complete one of the following courses:
COMM 160f Introduction to Communication Studies
COMM 266a Readers Theatre
COMM 268c Intercultural Communication
COMM 270P Public Speaking
COMM 340P Public Relations
COMM 342P Communication in Organizations
COMM 364P Argumentation
or complete significant communication experience approved by the economics/accounting/management department

## Professional development

Students must successfully complete all of the following sessions in the professional development series, offered by the career services office:

1. Job Search Success
2. Resume/Cover Letter Writing
3. Interviewing Strategies
4. Dress for Success
5. Dining Etiquette

It is recommended that students complete this program by the end of their junior year. At the latest, the program should be completed by the end of the fall semester of the senior year.

The only acceptable alternative for students who have failed to attend the regularly scheduled sessions by the career services office will be to complete a 10-page research paper for each unmet requirement. The research paper must include an annotated bibliography containing a minimum of ten credible, authoritative sources. In addition, students will be required to make a 15 minute presentation to departmental faculty for each unmet requirement. The research papers and presentations must be
completed at least three weeks prior to the beginning of the final exam week of the semester during which the student anticipates graduation.

Business management and international management majors will not be allowed to enroll in a capstone course until all communication skills requirements, including the professional development series, have been completed.

## Final communication skills approval

Successful complete of the aforementioned requirements does not guarantee departmental approval of a student's communication skills requirements. The economics/accounting/management faculty members retain the right to continuously monitor every student's progress and make appropriate referral(s) to the central for academic excellence or elsewhere for additional work.

## Typical sequence of major courses for the business management major

## Freshman year

ECON 111s Principles of Macroeconomics
ECON 112s Principles of Microeconomics
COSC 106 Introduction to Web Programming (or COSC 110Pm )

## Sophomore year

ACCT 241 Financial Accounting I
ACCT 242Pm Management Accounting I
BMGT 251P Principles of Management
MATH 105m Introduction to Statistics
MATH 107m Introduction to Finite Math
Junior and/or senior years
BMGT 351Ps Organizational Behavior
BMGT 361Pm Corporate Finance
BMGT 371P Principles of Marketing
BMGT 381Pm Operations Management
BMGT 451P Strategic Management (or BMGT 453PI)
3-5 emphasis courses (approved by the department)

## Business Management Minor Requirements (23 s.h. minimum)

1. Complete all of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| ACCT | 241 | Financial Accounting I (4) |
| ACCT | 242 Pm | Management Accounting I (4) |
| BMGT | 251P | Principles of Management (3) |

2. Complete one of the following:

BMGT 361Pm Corporate Finance (3)
BMGT 381Pm Operations Management (3)
3. Complete one of the following:

BMGT 351Ps Organizational Behavior (3)
BMGT 371P Principles of Marketing (3)

## Business management (BMGT) courses

## 251P Principles of Management (3)

Prerequisite: sophomore standing. Explores the skills utilized in management, focusing on the six key functions: planning, organizing, leading, controlling, decision-making and staffing. Concepts and methods used in managing people and organizations are examined.

## 331P Business Law I (3)

Prerequisite: junior 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.

## 332P Business Law II (3)

Prerequisite: BMGT 331P. Continues study of the legal process and the public and private law relating to business. Focuses on partnerships, corporations, real property, fiduciaries (estates and trusts) and bankruptcy.

## 335P Not-for-Profit Management (3)

Prerequisites: BEHS 285, BMGT 251P, BMGT 371P, and ACCT 201P or ACCT 241. A course in which students utilize analytical skills to make managerial decisions in not-for-profit organizations. Emphasizes marketing and fund-raising plans.

## 350Px Managing and Valuing Cultural Diversity (3)

Prerequisites: BMGT 251P and junior standing. Emphasizes development of an increased awareness, enhanced skills and increased knowledge about working with people of many differences: race, gender, culture, age, religion, sexual orientation, disability and others.

## 351Ps Organizational Behavior (3)

Prerequisites: BMGT 251P and junior standing. Emphasizes understanding of the behaviors and attitudes of individuals and groups within organizations. Special topics include leadership, motivation, communication, interpersonal relations and intergroup relations.

## 352P Human Resource Management (3)

Prerequisites: BMGT 251P and junior 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 AIDS in the workplace, Affirmative Action, sexual harassment and discrimination.

## 354P Issues in Human Resource Management (3)

Pre-requisite: BMGT 352P. Explores issues related to such topics as recruitment and selection, performance evaluation, training and development, compensation, industrial relations, and international human resource management. A major objective of the course is to acquaint students with important developments and current trends in the area of human resources. The course can be repeated with a different issue.

## 355P Legal and Ethical Environment of Human Resource Management (3)

Pre-requisite: BMGT 352P. Examines the legal framework impacting human resource management systems and practices, and explores the ethical implications of those systems and practices. Topics include: the employment relationship, definitions of fairness in employment practices, compensation structures and practices, working conditions, wrongful discharge, plant closing and downsizing.

## 361Pm Corporate Finance (3)

Prerequisites: ECON 111s and ECON 112s, ACCT 241 and 242Pm, MATH 105m, and junior standing. Introduces financial management with emphasis on the basic tools employed in corporate financial decision-making. Concentrates on topics such as the financing and management of working capital, financial statement analysis, time value of money, valuation concepts and capital budgeting decisions.

362P Principles of Investment (3)
Prerequisites: BMGT 361P and junior standing. Concentrates on capital markets, security analysis and portfolio management. Classical and contemporary theories concerning optimum portfolio construction and asset allocation will be emphasized.

## 363P Advanced Financial Management (3)

Prerequisites: BMGT 361P and junior standing. 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.

## 371P Principles of Marketing (3)

Prerequisites: BMGT 251P and junior standing. 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.

## 372Ps Consumer Behavior (3)

Prerequisites: BMGT 371P and junior standing. Analyzes personal and interpersonal influences on buyer behavior. Topics include perception, dissonance, imagery, lifestyle, culture, social class, the family and marketing communications.

## 373P Marketing Management (3)

Prerequisites: BMGT 371P and junior standing. 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.

## 375P Marketing Research (3)

Prerequisites: MATH 105m, BMGT 251P and BMGT 371P. 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 a marketing research projects. Topics include research design, data acquisition and analysis, creation of research reports and research ethics.

## 381Pm Operations Management (3)

Prerequisites: MATH 105 m , MATH 107 m , and junior 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.

## 390I/490I Topics (Arr)

Prerequisite: instructor's permission. Selected topics in management may be offered, depending upon student and staff interest.

## 397PI Internship (Arr)

Prerequisites: BMGT 251P, ACCT 242Pm, junior 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 semester hours total. Pass/no record basis.

## 451P Strategic Management (4)

Prerequisites: BMGT 351Ps, BMGT 361Pm, BMGT 371P, BMGT 381Pm, and senior standing. A capstone course that utilizes analytical skills to make managerial decisions that determine the long-run performance of an organization in a complex global economy. Includes analysis of business environment, strategy formulation, strategy implementation and evaluation and control.

## 453PI Global Strategic Management (4)

Prerequisite: Completion of all other courses in the major, senior standing and instructor's permission. A capstone course that focuses on the integration of knowledge gained from other courses in the business management and international management programs. Deals primarily with the issues of strategy formulation and implementation in the international arena.

## 496I Co-Op (Arr)

Prerequisite: instructor's permission. A full-time work experience for majors, monitored by Central faculty to meet appropriate academic and professional goals. For full details, see the department chair.

## 499 Independent Study (Arr)

Prerequisite: instructor's permission. An independent research experience for senior majors.

## Chemistry

Natural Sciences Division<br>Chemistry Department

## Faculty

Catherine Haustein (chair), Glenn Barnett, James Shriver, M. Louise Zaffiro

## Statement of philosophy

The chemistry department strives to foster in students an intuitive knowledge of chemistry by emphasizing key concepts and their integration. Since chemistry is inherently experimental, the department is committed to providing students with ample laboratory experience in order to develop the tools necessary to become successful experimentalists. This is accomplished in courses and through individual projects with faculty mentors.

Chemists need to be able to effectively communicate their ideas to their peers and to society. Accordingly, an emphasis on the development of writing and oral skills through laboratory reports, oral presentations and research papers helps our majors gain experience in communication.

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, so chemistry majors receive instruction comparable to that at larger institutions while benefiting from individualized attention that is the hallmark of Central College.

Chemistry is often referred to as the central science. All physical and natural sciences are touched by chemistry. A chemistry major opens the door to such diverse career options as basic research, medicine, pharmacology, public health, biochemistry, teaching, industrial lab work, environmental testing and forensic science. In addition, chemistry majors at Central are eligible for admission to the chemical engineering programs at Washington University in St. Louis and Iowa State University following completion of their junior year.

## Study abroad opportunities

The chemistry department encourages all chemistry students to study abroad. The Option I sequence of courses allows for convenient study abroad in the fall semester of the senior year.

## American Chemical Society certification

What does our American Chemical Society certification mean? According to the American Chemical Society, a department which 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. An ACS approved department will "assure students that they have high quality programs in chemistry. 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...The extra rigor and additional requirements of the certified degree are valued by potential employers and graduate schools alike." (Undergraduate Professional Education in Chemistry Guidelines and Evaluation Procedures, Spring 2003, American Chemical Society Committee on Professional Training)

In connection with our ACS certification, students in our department have on-line access to all American Chemical Society publications.

## Chemistry Major Requirements (54 s.h.)

1. Complete all of the following:

| CHEM | 131fq |
| :--- | :--- |
| CHEM | 235Pq |$\quad$ Oeneral Chemistry (5)

PHYS 112Pmq General Physics II (5)
2. Complete at least $\mathbf{3}$ s. h. from the following:
CHEM 320P Biochemistry (4)

## 3. Complete the Communication Skills Requirements, as detailed below

## American Chemical Society Certified Chemistry Major Requirements (68 s.h.)

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

## 1. Complete all of the above courses required for the Central College chemistry major

2. Complete all of the following:

| CHEM | 320P | Biochemistry (4) |
| :--- | :--- | :--- |
| CHEM | 442 P | Introduction to Instrumental Analysis (1) |
| CHEM | 443P | Analytical Spectroscopy (1) |
| CHEM | 444P | Analytical Chromatography (1) |
| CHEM | 445P | Electrochemistry (1) |
| CHEM | 452P | Advanced Inorganic Chemistry (3) |

3. Complete one of the following:

| CHEM | 430P | Advanced Organic Chemistry (3) |
| :--- | :--- | :--- |
| CHEM | 463P | Advanced Physical Chemistry (3) |
| CHEM | 498PI | Research (3) |

## Communication skills endorsement

The communications skills requirements for the chemistry major are as follows: In the spring of the sophomore year (or upon declaration of the major), the department will make a preliminary judgment with respect to reading, writing and speaking skills based on lab reports, other writing assignments, class presentations and performances on skills tests such as the PSAT, ACT, URE, and reading labs. Students deemed to be weak in one or more skills will be advised of the weakness and possible remedial activities. Diagnostic and self-help materials for writing skills will be made available. Endorsement will be made at the end of CHEM 362P Physical Chemistry II. Additional requirements are as follows:

## Reading

The emphasis for chemistry majors' reading skills will be on comprehension rather than speed. Students with reading problems will be asked to take ENGL 100 Reading and Writing Strategies and/or work on reading at the Center for Academic Excellence. The reading skills requirement should be met by the end of the junior year.

## Writing

Students must perform at a satisfactory level on lab reports and term papers to receive departmental endorsement. Failure to perform at the minimum level will necessitate further work by the student in composition courses and/or at the skills center until the student meets departmental endorsement.

## Speaking

The oral skills of each chemistry major will be evaluated for organization, delivery and use of visual aids. Oral assignments in specified chemistry courses taught by different chemistry faculty members will be used to evaluate this skill. Weaknesses in speaking ability will be pointed out to the student so that remedial work may be undertaken. Endorsement of exit-level writing and oral skills will take place after the student has completed CHEM 362.

## Typical sequence of courses for the chemistry major

## Option I

Fall semester
Freshman year
CHEM 131fq General Chemistry
MATH 131Pm Calculus and Analytic Geometry I
BIOL 131Pq Introduction to Cells

## Sophomore year

CHEM 236Pq Organic Chemistry II
PHYS 111Pmq General Physics I
CHEM 241 Pq Analytical Chemistry

## Junior year

CHEM 362P Physical Chemistry II
CHEM 320P Biochemistry

## Senior year

Study abroad

## Option II

Fall semester
Freshman year
CHEM 108q Chemistry in Context
BIOL 131Pq Introduction to Cells

## Sophomore year

CHEM 241 Pq Analytical Chemistry
MATH 131Pm Calculus and Analytic Geometry I
CHEM 251Pq Inorganic Chemistry

## Junior year

CHEM 236Pq Organic Chemistry II
PHYS 111Pmq General Physics I

## Senior year

CHEM 362P Physical Chemistry II
CHEM 320P Biochemistry

Spring semester

## Freshman year

CHEM 235Pq Organic Chemistry I
MATH 132Pm Calculus and Analytic Geometry II

## Sophomore year

CHEM 251Pq Inorganic Chemistry
PHYS 112Pmq General Physics II CHEM 361P Physical Chemistry I

## Junior year

Advanced electives

## Senior year

Advanced electives

Spring semester
Freshman year
CHEM 131 fq General Chemistry

Sophomore year
CHEM 235Pq Organic Chemistry I
MATH 132Pm Calculus and Analytic Geometry II

Junior year
CHEM 361P Physical Chemistry I
PHYS 112Pmq General Physics II

## Senior year

Advanced electives

## Chemistry Minor Requirements (20 s.h.)

1. Complete all of the following:

| CHEM | 131 fq | General Chemistry (5) |
| :--- | :--- | :--- |
| CHEM | 235 Pq | Organic Chemistry I (4) |
| CHEM | 236 Pq | Organic Chemistry II (4) |
| CHEM | 241 Pq | Analytical Chemistry (4) |

2. Complete at least 3 additional s.h. of CHEM courses numbered 251 or higher

## Chemistry (CHEM) courses

## 108 fq Chemistry in Context (4)

Introduction to the basic principles of chemistry with an emphasis on applications relevant to environmental and other current issues. Recommended for students with no high school chemistry. Develops college-level problem solving, analytical thinking, reading, writing and listening skills. Does not substitute for CHEM 131 fq . One two-hour lab per week.

## 131fq General Chemistry (5)

Prerequisite: High school algebra or Math 103m. Introduces the principles of chemistry for understanding chemical problems and for advanced work in the department. Develops college-level problem solving, analytical thinking, collaborative learning, writing and reading skills. One three-hour lab per week.

## 235Pq Organic Chemistry I (4)

Prerequisite: CHEM 131 fq . 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.

## 236Pq Organic Chemistry II (4)

Prerequisite: CHEM 235Pq. 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.

## 241Pq Analytical Chemistry (4)

Prerequisite: CHEM 131fq. An introduction to analytical chemistry, including acid-base equilibria, complexation, uv-vis spectroscopy and electrochemistry. One three-hour lab per week.

## 251Pq Inorganic Chemistry (4)

Prerequisite: CHEM 131 fq . An introduction to inorganic chemistry including descriptive chemistry, chemical bonding, solubilities, and coordination chemistry. One three-hour lab per week.

## 320P Biochemistry (4)

Prerequisites: BIOL 131Pq, CHEM 236 Pq , and CHEM 241 Pq . Introduces the chemistry and metabolic processes of living organisms. One three-hour lab per week.

## 361P Physical Chemistry I (4)

Prerequisites: CHEM 241Pq, MATH 132Pm. Corequisite: PHYS 112Pmq. Examines matter in various states. Introduction to thermodynamics. One three-hour lab per week.

## 362P Physical Chemistry II (4)

Prerequisite: CHEM 361P. Chemical kinetics, atomic and molecular structure, quantum chemistry and chemical spectroscopy. One three-hour lab per week.

## 430P Advanced Organic Chemistry (3)

Corequisite: CHEM 362P. Theory and practice of synthesis and identification of organic compounds, with an emphasis on selected advanced methodology and techniques. Laboratory focuses on molecular modeling and multi-step synthesis. One threehour lab per week. Usually offered in alternate years.

## 442P Introduction to Instrumental Analysis (1)

Prerequisite: CHEM 362P. An introduction to instrumental methods of chemical analysis including simple electronics, signal to noise ratios and sample preparation. Usually offered in alternate years.

## 443P Analytical Spectroscopy (1)

Corequisite: CHEM 442P. Provides theoretical and laboratory instruction in methods of chemical analysis based on absorption and/or emission of electromagnetic energy. Laboratories will include ultraviolet/visible molecular atomic absorption methods and luminescence. Usually offered in alternate years.

## 444P Analytical Chromatography (1)

Corequisite: CHEM 442P. A survey of analytical methods involving separation of analytes based on their affinities for stationary and mobile phases. Emphasis will be placed on laboratory methods involving gas and high performance liquid chromatography. Usually offered in alternate years.

## 445P Electrochemistry (1)

Corequisite: CHEM 442P. Theoretical and laboratory investigations of electrochemical methods of chemical analysis including potentiometry and voltammetry. Usually offered in alternate years.

## 446P Chemistry Seminar (1)

Discussion of special topics in chemistry, including speakers from graduate and professional schools. Meets once a week for the entire semester. Usually offered in alternate years.

## 452P Advanced Inorganic Chemistry (3)

Prerequisites: CHEM 251 Pq and CHEM 362P. An advanced study of modern theories concerning chemical bonding, bioinorganic and organometallic chemistry. One three-hour lab per week. Usually offered in alternate years.

## 463P Advanced Physical Chemistry (3)

Prerequisite: CHEM 362P. Group theory and its application to chemical problems. Usually offered in alternate years.

## 199I, 299I, 399I 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.

## 397PI/497PI 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 record basis.

## 498PI Research (Arr)

Prerequisites: CHEM 362P and 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.

## College

College Division

## The college division

The College Division offers courses under the COLL designation designed to teach skills and modes of thinking within the context of an interdisciplinary environment. These courses serve to enrich the academic life of students as a foundation to becoming skillful, life-long learners, and are not a part of any major. Each course serves as an elective. All Central faculty may teach in the College Division.

## College division (COLL) courses

## 101I College Success (2)

Prerequisite: instructor's permission. Presents an introduction to college-level academics for Student Support Services (SSS) students by integrating study skills with college-level academic content across the curriculum. Each SSS student's writing, speaking, critical thinking and listening abilities will be assessed and each SSS student will have an Educational Assessment Plan (EAP) developed, allowing remediation/enhancement.

104 ACCESS: Adventure for Central College Experience, Self-Confidence and Success (1)
Examines skills required to maximize the college experience within the liberal arts framework. Examines learning styles, critical thinking, personal responsibility and use of resources. Limited to first-semester students. May not be taken with COLL 101I. Pass/no record basis.

## 105P Library Research (1)

Prerequisite: freshman or sophomore standing, or instructor's permission. A study of print and electronic library resources, research topic selection, research topic suggestions, search strategy formulation, critical evaluation, and ethical and legal uses of information in the humanities, social sciences, natural science and fine arts. Includes an overview of research aids on the Internet.

## 108 Exploring Experience (1)

Intended for exploring freshmen and sophomores. Discussion of career anxiety, uncertainty and vocational indecision. Focuses on career development as a combined process of self discovery and occupational investigation. Examines personal interests, strengths and values as they relate to specific majors and the world of work. Varied opportunities to research requirements and rewards of career fields and to critically reflect on one's compatibility in a number of vocational directions.

## $110 f$ Intersections (3)

Intersections is an interdisciplinary seminar which all first-year students take in the fall semester. It is an exploration of the "intersections" at which disciplines, ideas and events converge, connect and collide. All sections share a common topic and many common readings and experiences, while each instructor adds a unique emphasis. The contributions of varied fields - natural sciences, behavioral sciences, fine arts, humanities - are included. Because this is a Central Foundations (" f ") course, students are introduced to college-level skills of reading, writing, speaking, listening, critical thinking and information literacy.

## 111 Introduction to Computer Applications (1)

Open to freshmen, sophomores or transfers. Reviews word processing, database and electronic spreadsheet. Topics include creating and saving files, editing and formatting text, creating data definitions, sorting and selecting data, defining data formulas, graphing, printing and copying and linking information between applications. Pass/no record basis.

## 115 Introduction to Desktop Publishing (1)

An introduction to using desktop publishing computer software. Topics include layout, typography and software operation. Several sample projects are included. Assumes familiarity with Macintosh or Windows software. Pass/no record basis.

## 116P Introduction to the Internet (1)

Prerequisite: freshman or sophomore standing, or instructor's permission. Introduces students to a variety of resources and skills for the effective use of the Internet. Topics covered include Internet courtesy and safety, acceptable uses, listserves, browsers, search engines, Web-editing software, as well as locating and critically evaluating electronic information in a scholarly environment on the World Wide Web.

117 Introduction to the Internet: Technical Issues (1)
An introduction to technical issues related to using the Internet. May not be taken with COLL 116. Tools include e-mail, Internet browsers, searching devices, and Web page creation software. Topics include network security and safety, finding Internet resources, logging into remote computers, locating and downloading software, decompression techniques, Web page design, links, sound and motion, and connectivity options.

## 118 Introduction to Electronic Presentations (1)

In-depth exploration of electronic presentation software. Projects include creating and presenting slide show presentations using graphics, charts, embedded objects and hyperlinks to the Internet. Covers projection equipment and hardware troubleshooting techniques. Pass/no record basis.

## 285I Interdisciplinary Honors Seminar (1)

Prerequisites: sophomore standing and instructor's permission. An interdisciplinary seminar designed to explore a specific topic or issue from a variety of academic perspectives. In addition to readings and discussions, students will produce a public presentation of some kind at the end of the semester. The seminar will also provide information regarding scholarships and grants for both undergraduate and graduate research. May be repeated.

## 292I Library Practicum (Arr)

Prerequisite: instructor's permission. Involves individualized projects related to library practices, research, technology training or other related areas. May be repeated. Pass/no record basis.

## 293 Interdisciplinary Practicum (Arr)

## 321s Gender, Culture and Knowledge (4)

Examines how gender affects our definitions of society and of knowledge; evaluates the basic premises of the social sciences, humanities, and natural sciences within the framework of feminist theory and scholarship.

## 385CIs Metropolitan Seminar (3)

The seminar surveys major contemporary metropolitan issues and systems. Emphasis is placed on the human dimensions of metropolitan life. May be taken only at the Chicago Metropolitan Center.

## 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.

## 397CI Metropolitan Career Internship (9)

Prerequisite: instructor's permission. Students are given several choices of agencies in which to intern. They select one that seems best suited to their needs. Students work 3-4 full days a week in their placement. An almost unlimited number of placements are available to students in many different academic areas. May be taken only at the Chicago Metropolitan Center. Pass/no record basis.

## 497 Interdisciplinary Internship (Arr)

# Communication Studies 

Behavioral Sciences Division
Communication Studies Department

## Departmental faculty

Dennis Doyle (chair), Marty Feeney, Linda Laine, Richard McGrath

## Statement of philosophy

The Communication Studies program endeavors to provide students with a broad-based exposure to the academic discipline that focuses on human symbolic interaction. In an effort to cultivate critical thinking, clear writing, articulate speaking, and proficiency with technology, our students study communication within interpersonal, group, organizational, public, and mediated contexts. Through a combination of theoretical grounding and practical experience, we strive to prepare our majors for a range of careers, enable them to participate productively in a democratic culture, and instill in them a desire for life-long learning. Course work is supplemented by practica, internships, co-curricular activities, and supervised independent study.

## Communication Studies Major Requirements (38 s.h.)

1. Complete all of the following:

| COMM 160f | Introduction to Communication Studies (3) |
| :--- | :--- |
| COMM 260P | Communication Theory and Research (3) |
| COMM 270P | Public Speaking (3) |

2. Complete at least 2 s.h. of credit (but no more than 6 s.h.) from the following:

COMM 292I Practicum in Communication Services (Arr)
COMM 293I Practicum in Forensics (Arr)
COMM 294I Practicum in Broadcasting (Arr)
COMM 295I Practicum in Print Journalism (Arr)
COMM 296I Practicum in Film and Video Production (Arr)
THEA 292I Practicum in Theatre (Arr)
3. Complete at least 27 s.h. of COMM electives with a minimum of $12 \mathrm{~s} . \mathrm{h}$. at the 300 -level, including at least one course from each of the following groups:
Group I: Mediated Communication
COMM 320Pa Film Criticism (4)
COMM 322P Television Criticism (3)
Group II: Business and Professional Communication
COMM 340P Public Relations (3)
COMM 342P Communication in Organizations (3)
Group III: Applied Communication
COMM 360P Communication Ethics (3)
COMM 362P Environmental Communication (3)
Group IV: Public Communication
COMM 364P Argumentation (3)
COMM 366P Persuasion (3)
Note: Upon departmental approval, 9 s.h. (or three courses) may be taken from areas other than Communication Studies.

## 4. Compile a portfolio comprised of academic and related work

The portfolio should represent skill competencies and accomplishments in areas associated with the communication major and is assembled in consultation with a student's academic adviser. Departmental approval of the portfolio is a prerequisite for graduation.

## 5. Complete all requirements for the communication skills endorsement

Competency in oral communication is demonstrated through the completion of COMM 270P Public Speaking. Written communication skills are assessed by the evaluation of materials contained in a student's portfolio.

## Typical sequence of major courses for the communication studies major

## Freshman year

COMM 160f Introduction to Communication Studies
COMM electives at the 100--200 level
Sophomore year
COMM 260P Communication Theory and Research
COMM 270P Public Speaking
COMM electives at the 100--200 level
Junior year
COMM 292I-296I Practicum
COMM electives at the 200--300 level
Senior year
COMM electives at the 300--400 level
COMM 497P Internship in Communication

## Communication Studies Minor Requirements (21 s.h.)

1. Complete all of the following:

COMM 160f Introduction to Communication Studies (3)
COMM 262Ps Interpersonal Communication (3)
COMM 270P Public Speaking (3)
2. Complete at least 12 s.h. of COMM electives with a minimum of 6 s.h. at the 300 -level Note: No more than 2 s.h. may be from the following: COMM 292I, COMM 293I, COMM 294I, COMM 295I, COMM 296I, or THE A 292I

## Communication studies (COMM) courses

## 120 History of American Cinema (4)

An exploration and analysis of the art of Chaplin, Griffith, Hitchcock and classic films such as Casablanca, High Noon, Bonnie and Clyde, and Invasion of the Body Snatchers. Shared critical responses and oral presentations amplify a century of American cinema. Emphasis on the history of cinematography.

## 140 Photography (3)

Instruction in the basics of photographic arts, including the operation of the camera and photo lab. Emphasis on photojournalism.

## 160f Introduction to Communication Studies (3)

Introduces students to basic assumptions and theories of the communication studies discipline. Surveys fundamental communication contexts, including interpersonal communication, small group communication, public communication, and mass communication. Emphasis on the development of reading, writing, and oral communication skills. Limited to freshman and sophomores.

## 240Ps Understanding Mass Media (3)

Prerequisite: sophomore standing or instructor's permission. Investigates the social, cultural, aesthetic, moral, historical, economic, political, and technological effects of mass media. Stresses application of significant mass communication theories and perspectives.

## 242 Introduction to Journalism (4)

An intensive journalism experience focused on the fundamentals of gathering, writing, and reporting the news. Research skills, interview strategies, and a philosophy of journalism are emphasized. Includes both straight news and feature writing.

## 260P Communication Theory and Research (3)

Prerequisite: sophomore standing or instructor's permission. Probes significant theories of the communication discipline and introduces research methods used in the study of human symbolic interaction. Includes primary research culminating in a proposal for an original study of human communication.

## 262Ps Interpersonal Communication (3)

Prerequisite: sophomore 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.

## 264a Oral Interpretation (3)

Studies aesthetic texts through the solo performance context. Emphasizes the adaptation process used to communicate a textual interpretation through a carefully prepared performance.

## 266a Readers Theatre (3)

Studies aesthetic texts through a group performance context; emphasizes the adaptation process a director utilizes in communicating a textual interpretation through a carefully prepared group performance. Students direct and perform in a variety of group performances.

## 268c Intercultural Communication (3)

Cultural universals and their expressions within specific cultures are examined through a series of case studies. Cross-cultural and Intercultural theories highlight the intersection of cultures at the local level and increase understanding of Native American, Hispanic, Asian, European, and Middle Eastern cultural experiences. Experiential ("x") credit can be obtained concurrently by arrangement with the instructor.

## 270P Public Speaking (3)

Prerequisite: sophomore standing or instructor's permission. Examines principles of effective public discourse while providing the opportunity to improve research skills, develop analytical abilities, increase confidence when giving oral presentations, and acquire proficiency in the use of computer graphics software. Emphasizes the discovery, organization, delivery, and evaluation of information communicated within a public context. Includes both informative and persuasive speeches.

## 292I Practicum in Communication Services (Arr)

Prerequisite: instructor's permission. Offers experience working with college communication centers: college relations, alumni, development, admission, and media center. Student must also have the permission of the appropriate college official. May be repeated. Pass/no record basis.

## 293I Practicum in Forensics (Arr)

Prerequisite: instructor's permission. Provides the opportunity to put into practice performance abilities through co-curricular experiences with individual events in public speaking and/or interpretation. Preparation and presentation of two such events is required per semester. May be repeated. Pass/no record basis.

## 294I Practicum in Broadcasting (Arr)

Prerequisite: instructor's permission. Involves individualized projects in various phases of broadcasting using the campus student radio station (KCUI) as a laboratory. May be repeated. Pass/no record basis

## 295I Practicum in Journalism (Arr)

Prerequisite: instructor's permission. Offers experience in news writing, reporting, editing, and layout design using the campus student newspaper (The Ray) as a laboratory. May be repeated. Pass/no record basis.

## 296 I Practicum in Film \& Video Production (Arr)

Prerequisite: instructor's permission. Offers experience in film and video production, including documentary, narrative storytelling, and advertising formats. Opportunities exist both on and off campus under the supervision of professional personnel. May be repeated. Pass/no record basis.

## 320Pa Film Criticism (4)

Prerequisite: COMM120, COMM240Ps or instructor's permission. Charts and plots a universe of film criticism as a response to the artistic impulses of 100 years of generated celluloid images. Students write weekly film criticisms of significant cinematic moments situated in historical contexts.

## 322P Television Criticism (3)

Prerequisite: COMM 240Ps or instructor's permission. Seminar style approach to the description, interpretation, and evaluation of significant television programs and their underlying themes, cinematic choices, and philosophy. Emphasis on critical thinking, persuasive writing, and creative analysis. Involves weekly oral presentations.

## 340P Public Relations (3)

Prerequisite: junior standing and either COMM 160f, COMM 270P, 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 persuasion campaigns, crisis response, and information management.

## 342P Communication in Organizations (3)

Prerequisite: junior standing or instructor's permission. Examines how organizations function through communication. Presents and applies theories of communication and decision-making. Content areas include creative decision making, forming and functioning within work teams, formal project planning, presentations in organizations, and the creation of organizational reports and information materials.

## 360P Communication Ethics (3)

Prerequisite: junior standing or instructor's permission. Explores the pervasive and complex nature of ethical issues embedded in human communication encounters. Analyzes the principles and perspectives underlying ethical judgments, and examines the communication strategies used to relate these judgments to others. A variety of communication contexts is explored, including interpersonal, organizational, public, and mass mediated.

## 362P Environmental Communication (3)

Prerequisite: junior standing or instructor permission's. Focuses on how social movements utilize persuasion to accomplish essential functions. Surveys history of the American environmental movement while examining primary documents promoting conservation of natural resources. Involves reading and writing case studies which further understanding of environmental advocacy.

## 364P Argumentation (3)

Prerequisite: junior standing or instructor's permission. Focuses on theory and practice of argumentation (reason giving) in various contexts, including legal disputes, political policy deliberations, and organizational problem solving. The role of narrative in argumentation receives special attention. Includes participation in formal academic debate.

## 366P Persuasion (3)

Prerequisite: junior standing or instructor's permission. Surveys history of the study of rhetoric (persuasion) and how it relates to the development of human thought. Introduces and applies critical methods used for the systematic investigation and explanation of persuasive communication. Involves reading and writing case studies which examine advertising and political discourse as representative types of persuasion.

## 497P Internship in Communication (Arr)

Prerequisite: Departmental approval. An applied experience in a communication related setting requiring a minimum of 30 hours for each credit hour earned. Includes conferences with faculty adviser, 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 record basis.

## 499I Independent Study (Arr)

Prerequisite: instructor's permission. Allows students to probe more deeply into an area that they have been prepared for, but in which there are no further advanced courses offered. Prior to registration a research proposal must be submitted for departmental approval. May be repeated.

# Computer Science 

Natural Sciences Division<br>Mathematics/Computer Science Department

## Departmental faculty

Stephen Fyfe (chair), Xi Chen, Matthew Eastin, Robert Franks, Russell Goodman, Allen Hibbard, Mark Johnson, Thomas Linton, Mark Mills, Wendy Weber

## Departmental information

The mathematics/computer science department offers three distinct majors: mathematics, computer science, and a joint mathematics/computer science major (please see appropriate sections of this catalog for information on the mathematics and mathematics/computer science majors). Students who declare either the computer science or mathematics major may not also declare the joint mathematics/computer science major as a second major. Students who declare computer science or mathematics/computer science as their major may not declare an information systems major with an emphasis in computer information systems. Those who wish to combine the disciplines of business and computer science may wish to consider the information systems major. Students seeking a mathematics teaching endorsement should consult the education department.

## Statement of philosophy

The computer science curriculum integrates three different learning methodologies: design, abstraction, and theory. Design is used in the development of software systems to solve problems. Students become familiar with abstraction through programming assignments and experimentation in laboratory activities. Facility with theory is acquired by manipulating symbolic systems. As recommended by the Association for Computing Machinery, the object-oriented programming language Java functions as the introduction to the course of study in computer science. Programming serves as the vehicle for exploring the recurring fundamental concepts of levels of abstraction, efficiency, completeness, evolution of design, complexity of large problems, consistency, conceptual versus formal models, human and machine communication and reusability.

Students work with various computing environments such as Windows and Linux, along with a variety of programming languages such as C++, Perl, SQL, Scheme, and Visual Basic. Internship experiences, which are recommended for majors, provide students with the opportunity to apply their knowledge. These may be obtained locally or through one of Central's international program sites, or through the Chicago Metropolitan Center. Course work can also be acquired in several of the international programs. Additional computing resources are accessible through Central's Internet connection and through departmental servers.

No previous computing experience is required before beginning the computer science program. Many computer science majors participate in the international programs along with co-curricular activities. With this computer science background, students are well prepared to pursue either immediate employment or graduate studies.

## Computer Science Major Requirements (43 s.h.)

1. Complete all of the following:

COSC 110Pm Introduction to Computer Science (3)
COSC 120Pm Software Design (3)
COSC 230Pm Data Structures (3)
COSC $\quad 245 \mathrm{Pm}$ Computer Organization and Architecture (4)
COSC 320P Advanced Software Design (3)
COSC 330Pm Algorithms (3)
COSC 385P Mathematics/Computer Science Junior Seminar (2)
COSC 485P Mathematics/Computer Science Senior Seminar (1)
MATH $\quad 131 \mathrm{Pm}$ Calculus and Analytic Geometry I (4)
3 additional semester hours of MATH courses from MATH 105 m or other MATH courses at the 132 -level or above, excluding MATH 396I/397I
2. Complete one of the following:

COSC 235 Pm Discrete Structures (3)
MATH $\quad 221 \mathrm{Pm}$ Foundations of Mathematics (3)

4. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

The department believes that it is essential that majors in computer science and mathematics are able to speak, read, and write satisfactorily within the discipline. As such, many courses throughout the major include activities that evaluate students' ability to communicate.

The department faculty meet annually to discuss and evaluate each major's communication skills. Students can expect to be evaluated at least once during each academic year. Students who skills in one or more areas (speaking, reading, and writing) are not sufficient must work with her/his adviser to design an improvement plan.

The final evaluation of a student's communication skills occurs in MATH/COSC 385P Mathematics/Computer Science Junior Seminar (2) and MATH/COSC 485P Mathematics/Computer Science Senior Seminar (1). In these courses, students are required to give two oral presentations and write a paper covering the topic used in the second presentation. Reading and research skills are also covered in these courses.

## Typical sequence of major courses for the computer science major

## Freshman year

COSC 110Pm Introduction to Computer Science
COSC 120Pm Software Design
MATH 131Pm Calculus and Analytic Geometry I

## Sophomore year

COSC 230Pm Data Structures
COSC 235Pm Discrete Structures or MATH 221Pm Foundations of Mathematics
COSC 245P Computer Organization and Architecture
COSC elective courses

## Junior year

COSC 385P Mathematics/Computer Science Junior Seminar
COSC elective courses
Mathematics elective

## Senior year

COSC 485P Mathematics/Computer Science Senior Seminar
COSC 320P Advanced Software Design
COSC elective courses

## Computer Science Minor Requirements (23 s.h.)

1. Complete all of the following:

COSC 110Pm Introduction to Computer Science (3)
COSC 120Pm Software Design (3)
COSC 230Pm Data Structures (3)
COSC 330Pm Algorithms (3)
2. Complete one of the following:

COSC 235Pm Discrete Structures (3)
MATH 221 Pm Foundations of Mathematics (3)


## Computer science (COSC) courses

## 106 Introduction to Web Programming (3)

An introduction to programming and web technology. HTML and Web page structure will be introduced. In addition, introductory programming ideas such as sequence, selection, and repetition will be covered. This course is intended for students interested in exploring computer science who do not have a significant quantitative background. Does not count toward the COSC major.

## 110Pm Introduction to Computer Science (3)

Prerequisite: MATH 103Pm or equivalent. 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.

## 120Pm Software Design (3)

Prerequisite: COSC 110Pm. 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.

## 230Pm Data Structures (3)

Prerequisite: COSC 120Pm. 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.

## 235Pm Discrete Structures (3)

Prerequisite: COSC 110Pm. An introduction to the mathematical ideas which are most often used in computer science. Topics covered include recursion and induction, graphs and trees, counting techniques and discrete probability, and prepositional and digital logic.

## 245Pm Computer Organization and Architecture (4)

Prerequisite: COSC 120Pm. 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.

## 255P Programming: "Language" (2)

Prerequisite: COSC 120 Pm . A study of a selected programming language not covered in other Computer Science courses. This course may be repeated with a different language.

## 260P Web Application Development (3)

Prerequisite: COSC 120P and experience with HTML. Studies the tools and techniques used in developing client server applications for the World Wide Web. Topics include the client server application paradigm, scripting and other browser (client) side application tools, CGI and other server side application tools. Offered alternate years.

## 320P Advanced Software Design (3)

Prerequisite: COSC 230Pm. Studies the principles and techniques for methodical construction of quality software.

## 330 Pm Algorithms (3)

Prerequisite: COSC 230Pm. A survey of many advanced programming algorithms. Topics include sorting and searching, string, geometric and graph algorithms. Students will spend a significant amount of time out of class designing, writing and debugging computer programs in programming languages such as Java or C++.

## 355Pm Programming Language Concepts (3)

Prerequisite: COSC 230 Pm . A study of the organization of programming languages including syntax, semantics, data typing, data structuring facilities, exception handling and sequence control. The different language paradigms will be examined; imperative, functional, object-oriented and logic. Offered alternate years.

## 360P Database Systems (3)

Prerequisite: COSC 120Pm. An introduction to the design and theory of database systems. Topics include the entity-relationship model, relational database model, query languages, procedural and nonprocedural paradigms, normal forms, security, distributed databases, and recovery techniques.

## 362Pm Computer Graphics (3)

Prerequisite: COSC 120Pm. Introduction to the principles and techniques of computer graphics programming. Offered alternate years.

## 370Pm Numerical Analysis (3)

Prerequisites: MATH 132Pm and prerequisite/corequisite MATH 210Pm. A treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, matrix methods and numerical solutions to ordinary differential equations. Cross-listed as MATH 370Pm.

## 372P Computer Networks (3)

Prerequisite: COSC 120Pm. A study of local and wide area networks, their design and implementation, digital data communication techniques, protocols and architectures.

## 375P Introduction to Operating Systems (3)

Prerequisite: COSC 230Pm. Introduces fundamental concepts and principles inherent in operating systems, such as processes, concurrency and parallelism, storage management, security and distributed systems. Offered alternate years.

## 385P Mathematics/Computer Science Junior Seminar (2)

Prerequisites: junior standing and a declared major in the mathematics and computer science department. An introduction to the research, reading, and presentation of advanced material in computer science. Cross-listed as MATH 385P.

## 390P/490P Topics: Computer Science (Arr)

Prerequisite: COSC 120Pm. 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.

485P Mathematics/Computer Science Senior Seminar (1)
Prerequisites: senior standing and a declared major in the mathematics and computer science department. Students research and present (orally and in writing) an advanced topic of their choice in computer science. Cross-listed as MATH 485P.

## Cross-Cultural Studies

Cross-Cultural Studies Division

## The cross-cultural studies division

Cross-cultural appreciation has been a hallmark of the Central ethos and tradition. The Cross-Cultural Studies Division seeks to explore a broad variety of cross-cultural programs, while continuing to nurture its traditionally excellent programs in language instruction. The division offers the following courses under the CRCL designation:

## Cross-cultural studies (CRCL) courses

## 117n Chinese Language and Culture (3)

An introduction to Chinese language and skills and structure combined with reading and discussion in English of selected topics on the culture of China.

## 121c Beginning Dutch I (4)

The course develops skills in speaking, reading, writing and understanding Dutch at the novice-high level on the ACTFL scale. Cultural material focuses on the historical and contemporary low countries.

## 122Pc Beginning Dutch II (4)

Prerequisite: CRCL 121c or equivalent. A continuation of the introductory course, with development of speaking, reading, writing and comprehension skills at the intermediate- low level on the ACTFL scale, and further familiarization with the culture of the low countries.

## 131n Beginning Chinese I (4)

Introduces the fundamentals of vocabulary and grammar necessary for the development of reading, writing and conversation skills. Establishes the foundation for the development of basic communicative skills and introduces students to the Chinese world.

## 132Pn Beginning Chinese II (4)

Prerequisite: CRCL 131n. A consolidation of the foundations established in CRCL 131. Continues work in pronunciation, grammar, character writing, sentence structure and vocabulary. Further develops basic communicative skills and a greater cultural awareness of the Chinese world.

## 141n Classical Hebrew Language I (3)

An introduction to the grammar and vocabulary of classical Hebrew with a focus on learning to read elementary Hebrew prose. Attention will be given to the relationship between the Hebrew language and the religion and culture of ancient Israel.

## 142Pn Classical Hebrew Language II (3)

Prerequisite: CRCL 141n. A continuation of CRCL 141n in order to complete the study of the forms and rules of classical Hebrew grammar. Some attention will be given to the reading, writing and speaking of modern Hebrew.

## 210c Introduction to International Studies (3)

Introduction to the complexities and diversity of political, economic, social and cultural interactions of nations and peoples. Prepares students for study abroad and further work in international studies.

## 220cx The Immigrant Experience (3)

An overview of patterns and issues in immigration 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.

## 251c New Testament Greek I (3)

An introduction to the paradigms, grammar and vocabulary of the ancient Greek Koine language of the New Testament, the Jewish Bible in Greek, and related literature, with a focus on reading elementary prose. Attention will be given to the relationship between the Koine language and the religions and cultures of the Early Eastern Roman Empire.

## 252c New Testament Greek II (3)

A continuation of CRCL 251c with a review of its paradigms, grammar and vocabulary. Focus on reading increasingly more sophisticated Koine prose. Continued attention will be given to employing the Koine language to understand the religions and cultures of the Early Eastern Roman Empire, especially the development of early Christianity.

## 283Ix Experiential Module (1-2)

Prerequisite: instructor's permission. Provides for individualized experiential opportunity in an approved off-campus crosscultural 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 record. May be repeated.

## 311Pc Topics in Cross-Cultural Perception and Communication (3)

Open to juniors and seniors or with instructor's permission. A consideration of the philosophical and valuational rationale for international studies, the establishment of a theoretical framework for study in cross-cultural perception and communication and the development of practical techniques for facilitating cross-cultural adjustment.

## Economics

Behavioral Sciences Division
Economics, Accounting, and Business Management Department

## Departmental faculty

Debela Birru (chair), Kevin Den Adel, Jann Freed, Robert Maurer, Dennis Pedrick, Jaclyn Rundle. Economics faculty: Richard Glendening, Suzanne Wallace.

## 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 acquire the ability to 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.

Majors in economics take courses in microeconomics, macroeconomics and econometrics plus a minimum of five additional courses at the 300-400 level. Students are encouraged to study at one of Central's international centers and/or in the Chicago program and to extend their education beyond the classroom through internships, involvement in the Economics Club and other co-curricular activities on campus.

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

## Teacher licensure

In cooperation with Central College's education department, the economics, accounting and business management department offers the following licensure options for secondary teachers: (1) social science - economics; (2) business - general and marketing/management. Specific information regarding requirements is available from associate professor Robert Maurer.

## Economics Major Requirements (43 s.h. minimum)

1. Complete all of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| ECON | 211 Ps | Macroeconomics (3) |
| ECON | 212 Pms | Microeconomics (4) |
| ECON | 311 pm | Econometrics (4) |
| MATH | 105 m | Introduction to Statistics (4) |
| MATH | 131 m | Calculus and Analytical Geometry I (4) |

2. Complete one of the following:

COSC 106 Introduction to Web Programming (3)
COSC 110Pm Introduction to Computer Science (3)
3. Complete five of the following:

| ECON | 222 Ps |  |
| :--- | :--- | :--- |
| Economic Development (3) |  |  |
| ECON | 223 Ps |  |
| Environmental Economics (3) |  |  |
| ECON | 322 Ps | International Economics (3) |
| ECON | 323 Ps | Labor Economics (3) |
| ECON | 324 Ps |  |
| Monetary Theory and the Financial System (3) |  |  |
| ECON | 325 Ps | Public Finance (3) |
| ECON | 326 P | Public Choice (3) |
| ECON | 327 Ps | International Finance (3) |
| ECON 328 P | Economics of Discrimination, Poverty and Public Policy (3) |  |
| ECON 485 PI | Economics Research Seminar (3) |  |
| ECON 499PI | Independent Study (Arr) <br> POLS 241 s | International Political Economy (3) <br> or POLS 341Is Readings in International Political Economy (3) |

## 5. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

The department's communication skills requirement has three components: reading and writing, speaking, and professional development. The following are the minimum standards in each area:

## Reading and writing

Students may satisfy the reading and writing requirement in any one of the following ways:
ENGL 101 f Composition with a grade of at least " B "; or
ENGL 120ft Introduction to Literature with a grade of at least "B-"; or
ENGL 201P Technical Writing with a grade of at least "C+"; or
Complete one of the following courses with a grade of at least "C":
ENGL 211-216 200-level English literature course ENGL 240a The Personal Essay ENGL 241a Short Story Writing ENGL 343PI Travel Writing

## Speaking

Students must complete one of the following courses:
COMM 160f Introduction to Communication Studies
COMM 266a Readers Theatre
COMM 268c Intercultural Communication
COMM 270P Public Speaking
COMM 340P Public Relations
COMM 342P Communication in Organizations
COMM 364P Argumentation
or complete significant communication experience approved by the economics/accounting/management department

## Professional development

Students must successfully complete all of the following sessions in the professional development series, offered by the career services office:

1. Job Search Success
2. Resume/Cover Letter Writing
3. Interviewing Strategies
4. Dress for Success
5. Dining Etiquette

It is recommended that students complete this program by the end of their junior year. At the latest, the program should be completed by the end of the fall semester of the senior year.

The only acceptable alternative for students who have failed to attend the regularly scheduled sessions by the career services office will be to complete a 10-page research paper for each unmet requirement. The research paper must include an annotated bibliography containing a minimum of ten credible, authoritative sources. In addition, students will be required to make a 15 minute presentation to departmental faculty for each unmet requirement. The research papers and presentations must be completed at least three weeks prior to the beginning of the final exam week of the semester during which the student anticipates graduation.

Business management and international management majors will not be allowed to enroll in a capstone course until all communication skills requirements, including the professional development series, have been completed.

## Final communication skills approval

Successful complete of the aforementioned requirements does not guarantee departmental approval of a student's communication skills requirements. The economics/accounting/management faculty members retain the right to continuously monitor every student's progress and make appropriate referral(s) to the central for academic excellence or elsewhere for additional work.

Typical sequence of major courses for the economics major<br>Freshman year<br>ECON 111s Principles of Macroeconomics<br>ECON 112s Principles of Microeconomics<br>MATH 131m Calculus and Analytic Geometry I<br>COSC 106 Introduction to Web Programming or COSC 110Pm Introduction to Computer Science

## Sophomore year

| ECON 211Ps | Macroeconomics |
| :--- | :--- |
| ECON 212Pms | Microeconomics |
| MATH 105m | Introduction to Statistics |

## Junior and/or senior years

ECON 311Pm Econometrics
And other economics courses required in the major

## Economics Minor Requirements (23 s.h. minimum)

1. Complete all of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| ECON | 211 Ps | Macroeconomics (3) |
| ECON | 212 Pms | Microeconomics (4) |
| MATH | 131 m | Calculus and Analytical Geometry I (4) |

2. Complete two of the following:

| ECON | 222 Ps | Economic Development (3) |
| :--- | :--- | :--- |
| ECON | 223 Ps | Environmental Economics (3) |
| ECON | 311 Pm | Econometrics (4) |
| ECON | 322 Ps | International Economics (3) |
| ECON | 323 Ps | Labor Economics (3) |
| ECON | 324 Ps | Monetary Theory and the Financial System (3) |
| ECON | 325 Ps | Public Finance (3) |
| ECON | 326 P | Public Choice (3) |
| ECON | 327 Ps | International Finance (3) |
| ECON | 328 P | Economics of Discrimination, Poverty and Public Policy (3) |

## Economics (ECON) courses

## 111s Principles of Macroeconomics (3)

Introduces the major concepts and applications of macroeconomics theory. Evaluates various policies designed to address the macroeconomic problems of inflation and unemployment.

## 112s Principles of Microeconomics (3)

Introduces the major concepts and applications of microeconomic theory. Examines the decisionmaking of individuals and firms and explores market mechanisms within the context of scarce resources.

## 211Ps Macroeconomics (3)

Prerequisites: ECON 111s and 112s. 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.

## 212Pms Microeconomics (4)

Prerequisites: ECON 112s and MATH 131m. 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.

## 222Ps Economic Development (3)

Prerequisites: ECON 111s and 112s. Discusses a variety of economic theories of development and analyzes various economic and social issues occurring in low-income countries, including their economic relationships with more advantaged countries. Offered alternate years.
223Ps Environmental Economics (3)

Prerequisites: ECON 111s and 112s. Examines economic theory and policy-making within the context of environmental issues and the uses of exhaustible and renewable resources.

## 311Pm Econometrics (4)

Prerequisites: ECON 211Ps or 324Ps and MATH 131 m and 105 m . Studies research project design in economics using regression techniques to analyze and interpret data in light of economic theory.

## 322Ps International Economics (3)

Prerequisites: ECON 111s and 112s. Studies theoretical explanations of international trade and the economic effects of trade policies. Examines the macroeconomic effects of participating in an international capital market.

## 323Ps Labor Economics (3)

Prerequisites: ECON 111s and 112s. Concentrates on the theoretical foundations of the demand for and supply of labor. Analyzes issues specific to labor markets including labor unions, human capital investments and discrimination. Also considers policy issues related to labor markets, including social security, child care and welfare programs.

## 324Ps Monetary Theory and the Financial System (3)

Prerequisite: ECON 111s. 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.

## 325Ps Public Finance (3)

Prerequisite: ECON 112s. Analyzes federal, state, and local taxes as to economic content. Classifications of expenditures, processes of budgeting and debt management are also examined.

## 326P Public Choice (3)

Prerequisites: ECON 111s and ECON 112s. Presents the economic theory of political and governmental processes, including the theory of public goods, club goods, political allocations through majority rule voting, alternatives to majority rule, two-party and multiparty electoral systems. Also considers the issues of rent-seeking and interest group models of politics and the theory of welfare economics.

## 327Ps International Finance (3)

Prerequisite: ECON 111s and ECON 112s. Describes foreign exchange markets, international banking and international capital markets. Economic models of foreign exchange, macroeconomic policy in an international environment and exchange rate policies are examined. The history of exchange rate systems is discussed.

## 328P Economics of Discrimination, Poverty and Public Policy (3)

Prerequisite: ECON 112s. This course examines the allocation of scarce resources and the distributions of wealth and income. Pays particular attention to issues of inequality related to class, race, gender, and ethnicity. Also examines the theoretical foundation, design, implementation, and outcomes of public policies relevant to discrimination and poverty.

## 3901 Topics (Arr)

Prerequisite: instructor's permission. Selected topics in economics may be offered, depending upon student and staff interest.

## 397PI Internship (Arr)

Prerequisites: BMGT 251P, ACCT 242Pm, junior 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 semester hours total. Pass/no record basis.

## 485PI Economics Research Seminar (3)

Prerequisites: ECON 311Pm and instructor's permission. Requires senior economics majors to conduct a research project grounded in economic theory and utilizing econometric methodologies. Typically the research project is a continuation and extension of a project begun in ECON 311Pm. Emphasis on close collaboration between student and department faculty. May be repeated for up to 6 semester hours.

## 499 Independent Study (Arr)

Prerequisite: instructor's permission. An independent research experience for senior majors.

# EdUCATION (ELEMENTARY) 

Applied Arts Division<br>Education Department

## Faculty

Joy Prothero (chair), Darrell Druvenga, Pamela Ewell, Teresa Finken, Philip George, Kris Kilibarda, Rex Shahriari, Esther Streed

## Statement of philosophy

The philosophical foundation of teacher education at Central College is the liberal arts tradition. The following goal statements reflect that commitment and complement the goals of Central College. The graduates of the Central teacher education program will:

- demonstrate integrated knowledge of the content, organization, values, and tools of inquiry for the discipline
- use and model effective communication skills, thinking skills, and creative expression
- understand the developmental characteristics of students and how these characteristics impact all domains of learning and achievement
- understand and appreciate diversity of thought, background, and inherent abilities of learning and life experiences in an interdependent, global society
- plan and implement learning activities that incorporate a variety of instructional and assessment strategies that are equitable, adaptable, and a reflection of best practice in education
- understand the role of technology in education and utilize skills to infuse technology throughout the curriculum
- understand the dynamics of individual and group behavior and implement classroom management strategies that create meaningful learning environments and assist students in the development of self-concept, self-control, and selfmotivation
- develop collaborative relationships that facilitate students' social development and active engagement in learning
- demonstrate a commitment to life-long learning and engage in professional development activities
- demonstrate stewardship, leadership, and ethical responsibility to students, parents, colleagues, and community

The achievement of these goals is based on a commitment to the personal and professional fulfillment of each student. Students receive individualized attention through advising, instruction and supervision of field experiences. Programs at Central College combine the best of traditional educational practice with the latest in innovative contemporary theory.

Field experiences are extensive and developmentally appropriate. Continuous contact with teachers and students in realistic settings enables prospective teachers to successfully transfer educational theory into effective practice. Students also are encouraged to consider the numerous off-campus internship opportunities available at urban and overseas sites.

## Program approval

The Central College teacher education program is approved by the Iowa Department of Education and the North Central Association of Colleges and Secondary Schools. Students successfully completing one of the prescribed programs may be considered candidates for an Iowa Teaching License which 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 or arranging a program of studies to meet the licensure requirements of another state should consult with the Department of Education.

## Admission and retention requirements

Application for the teacher education program is expected during the sophomore year or following EDUC 110f. Students who wish to major in elementary education should complete a major declaration form no later than the sophomore year. Candidates are reviewed at the point of admission, prior to student teaching and before application for licensure.

The criteria commonly used in admission and retention in the teacher education program are:

1. Competence as evidenced by a desired grade point average of $2.7 ; 2.5$ is required;
2. A minimum grade of C - is required in all major courses in elementary education, all required support courses for the elementary education major, all courses that fulfill an elementary minor endorsement program and all professional education courses for elementary and secondary licensure programs;
3. Evidence of a commitment to teaching;
4. Successful completion of field experience assignments;
5. Demonstrated concern for others and desirable personal qualities;
6. Demonstrated competence in basic skills;
7. Recommendation of major department;
8. Recommendations of faculty.

Students may be recommended for licensure after satisfactory completion of course work and student teaching and demonstration of appropriate personal and professional behavior and competencies consistent with the teacher education program goals.

## Study abroad opportunities

The education department encourages students to consider the advantages of study abroad. Specific internships and programs of study in teacher education are available at most overseas sites.

## Endorsements and special programs for Iowa licensure

## Elementary education

The endorsement for teaching kindergarten through grade six may be granted to those who have:

1. A bachelor's degree with a major in elementary education.
2. Support courses from various departments as advised by the education department to meet licensure requirements.
3. An additional licensure endorsement program
4. Received approval of the teacher education committee and the education department for licensure.
5. Fulfilled the departmental communication skills endorsement.

## Elementary Education Major Requirements (45 s.h.)

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 f | Foundations of Education (3) |
| :--- | :--- | :--- |
| EDUC | 215 Px | Human Relations (2) |
| EDUC | 235Ps | Exceptional Children (3) |
| EDUC | 239 P | Psychology in Elementary Education (3) |
| EDUC | 250P | Educational Technology (3) |
| EDUC | 335 P | Teaching of Science and Social Studies (4) |
| EDUC | 337 P | Teaching Language Arts and Reading (3) |
| EDUC | 352P | Teaching of Reading (3) |
| EDUC | 354P | Teaching of Math (3) |
| EDUC | 460PI | Elementary Student Teaching (12) |
| EDUC | 485 P | Senior Seminar in Elementary Education (2) |

## 2. Complete one of the following:

| EDUC | 270 Ps | Child Development (3) |
| :--- | :--- | :--- |
| EDUC | 281 Ps | Developmental Psychology (3) |
| PSYC | 382Ps | Child/Adolescent Development (3) |

3. Complete all Communication Skills Requirements

## Teacher licensure requirements

(in addition to 45 s.h. education major requirements)

1. Complete all elementary education major requirements ( $45 \mathrm{~s} . \mathrm{h}$. -- see above)
2. Complete the following:

ENGL 208P Literature for Children (3)
3. Complete two of the following:

| ART | 210 P | Elementary School Art (3) |
| :--- | :--- | :--- |
| MUS | 241 | Elementary School Music (2) |
| EXSC | 210 P | Teaching Health and Physical Education in Elementary School (3) <br> or EXSC 212P Adapted Physical Education (3) |

4. Complete a $24 \mathrm{~s} . \mathrm{h}$. teacher licensure endorsement program in one of the following areas (please see the education department program guides for specific courses in each endorsement program):
Art Music

Early childhood education
English/language arts
English as a second language
French
German
Health
Mathematics
Middle school

Music
Physical education
Reading
Science
Social science/social studies
Spanish
Special education-strategist I
Speech communication/theatre

## Communication skills endorsement

The communication skills endorsement expectations addressing reading, writing, and speaking for Central College are replicated in one of the Education Department's ten goals for all of its majors. This communication goal is accompanied by seven measurable competencies which more clearly delineate specific expectations.

The initial evaluation of communication skills takes place in EDUC 110 f during freshman or sophomore year. Writing skills are evaluated through writing assignments which 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 education materials. Speaking and listening skills are evaluated in assignments which involve small group discussion, leading large groups, teaching classes, oral presentations, and debates.

Prior to formal admission into teacher education each student must achieve a passing score on the reading and writing components of the College BASE (C-BASE), a standardized, criterion-referenced academic achievement examination.

Communication skills assessment is a continuous process throughout a student's career. All departmental courses required of elementary education majors involve evaluation of class assignments in each skill area, often addressing one or more of the department's competencies.

Final evaluation is normally made during the student teaching semester when students have established that they are able to communicate effectively in the elementary school classroom and complete written and oral projects for the Senior Seminar (EDUC 485P). As a culminating experience, students must present their program portfolio to faculty members and peers.

Students who are deficient in any of the skills areas are required to remediate the deficiencies through the Center for Academic Excellence or in consultation with a member of the department faculty.

## Typical sequence of major courses for the elementary education major

## Freshman year

EDUC 110f Foundations of Education
Endorsement program courses

## Sophomore year

EDUC 215Px Human Relations
EDUC 235Ps Exceptional Children
EDUC 239P Psychology in Elementary Education
EDUC 250P Educational Technology
EDUC 270Ps Child Development or
EDUC 281Ps Developmental Psychology or
PSYC 382Ps Child/Adolescent Development
Endorsement program courses
Junior year
ENGL 208P Literature for Children
EDUC 335P Teaching of Science and Social Studies
EDUC 337P Teaching Language Arts and Reading
EDUC 352P Teaching of Reading
EDUC 354P Teaching of Math
Endorsement program courses

## Senior year

EDUC 460P Elementary Student Teaching
EDUC 485P Senior Seminar
Endorsement program courses

## Secondary education

The endorsement for teaching grades 7-12 is granted to those who have:

1. A bachelor's degree;
2. Completed all requirements in professional secondary education, including supervised teaching;
3. Completed the prescribed amount of preparation in all of the subject area fields for which endorsements are desired. Ordinarily, the candidate completes one teaching major. Though not required, one or more teaching minors are strongly recommended. The subject area methods course, EDUC 451P, must be completed in each endorsement area.
4. Received the recommendation of the teacher education committee and the education department for licensure. Students desiring to acquire licensure to teach at the secondary level must complete the following courses: EDUC 110f, EDUC 215Px, EDUC 235Ps, EDUC 250P, EDUC 374P, EDUC 440P, EDUC 442P, EDUC 450P, EDUC 451P, EDUC 470P, and either EDUC 281Ps or PSYC 382Ps.

## Communication skills endorsement for secondary education program students

Students preparing to teach at the secondary level must pass the communication skills endorsement criteria established by their major departments.

## Art, music, and physical education

K-6 and 7-12 endorsement programs are available in art, music, and physical education. Students may fulfill requirements for programs at both levels and be qualified to teach kindergarten through grade twelve. Consult with the education department regarding specific requirements in each area.

## English as a second language

A K-12 endorsement is available in English as a second language. This program is available to students who complete the elementary education major or the secondary education endorsement program with a major in another area. Consult with the education department for specific requirements.

## Middle school

This program provides a 5-8 endorsement that makes the student eligible to teach English/language arts, mathematics, natural scienc, or social studies at the middle school level. This endorsement is available to students who complete either the elementary or secondary licensure programs.

## Education (EDUC) courses

## 110f Foundations of Education (3)

Focuses on the relationship between education and culture, 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 reading, writing, listening, speaking and research skills. Field experience includes observation at the elementary, middle and high schools. This course is required for admission to the teacher education program.

## 215Px Human Relations (2)

Prerequisite: admission to the teacher education program. Surveys issues in education related to culture, gender, ethnicity, socioeconomic status, and language diversity. Intended to increase awareness of and sensitivity to the diverse groups that make up the student population in schools today. The field experience and cultural exchange will provide opportunities to study and interact with students of diverse cultures and exceptionalities. Taken concurrently with EDUC 250P.

## 220P Language Development and Learning (3)

Prerequisite: admission to the teacher education program. Focuses on understanding the development of language in the child. This study includes phonology, pragmatics, lexicons, syntax, and semantics. A variety of language modes, including oral, written, and non-verbal language, are considered. Particular emphasis is placed on developing communicative competence in school settings. Observation of young children is incorporated in the field experience.

## 235Ps Exceptional Children (3)

Prerequisite: admission to the teacher education program. Presents an overview of many types of exceptionalities in children and adolescents including gifted and talented, developmentally disabled, learning disabled, behavior disorders, physical and health impaired, etc.

## 239P Psychology in Elementary Education (3)

Prerequisite: admission to the teacher education program. 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. Field experience is included.

## 240P Family, School, and Community Relationships (3)

Prerequisite: admission to the teacher education program. Studies interpersonal relationships within the family. Examines external factors affecting the child and family, including the impact of schools, community agencies and other elements in society on developing communicative competence in school settings. Observation of young children is incorporated as part of the course field experience.

## 244P Introduction to Students with Mild/Moderate Disabilities (3)

Prerequisite: EDUC 235. Introduction to the causes and characteristics of specific learning disabilities, mental disabilities, and behavior disorders. Includes an historical perspective of treatment and overview of current trends in educational programming.

## 250P Educational Technology (3)

Prerequisite: admission to the teacher education program. Presents educational technology, computers and media appropriate for teachers. Emphasis on using technology to aid and enhance planning, teaching and evaluation. Field experience included. Additional laboratory experience may be required for students with limited knowledge and skills in educational technology. Taken concurrently with EDUC 215Px.

## 270Ps Child Development (3)

Prerequisite: admission to the teacher education program. A study of principles of growth and development of a child from conception to early adolescence. Application of principles of development related to the emotional, social, intellectual and physical development of the child, with emphasis on application of theories of development in educational and parenting situations.

## 275P Health, Safety and Nutrition (3)

Prerequisite: admission to the teacher education program. Focuses on concepts, policies and programs related to the health, safely and nutrition of children. Emphasizes assessment, implementation and management of health, safety and nutrition practices.

## 281Ps Developmental Psychology (3)

Prerequisite: admission to the teacher education program or instructor's permission. Focus is on basic theories and concepts related to the physical, cognitive and psychosocial development of children and adolescents.

## 290 Selected Topics (Arr)

Varying topics determined by the interest of students and staff. (Does not count toward the major).

## 294I Practicum in Education (Arr)

Prerequisite: instructor's permission. Open to early level students with limited previous experience. A practical experience or project usually involving an educational-type setting.

## 299I Independent Study in Education (Arr)

Prerequisite: instructor's permission. Designed to permit students to pursue special interest to supplement the scheduled departmental offerings.

## 310P Early Childhood Literacy (1)

Prerequisite: admission to the teacher education program. Intended for persons specializing in early childhood education, the course focuses on the acquisition and development of literacy in children from preschool through the early primary grades. Offered in the fall semester.

## 320P 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. Field experiences to exemplary middle school sites are included.

## 322P Early Adolescent Development (3)

Prerequisite: admission to the teacher education program. Focuses on significant theories and concepts related to the physical, cognitive, and psychosocial development of youth from ages 10 to 15 .

## 330P Diagnosis and Assessment of Exceptional Learners (3)

Prerequisite: EDUC 235. Methods for collection and use of academic and behavioral data for the educational diagnosis, assessment and evaluation of special education pupils.

## 332P Teaching Children with Mild and Moderate Disabilities (2)

Prerequisite: EDUC 244P. Examines appropriate management techniques, teaching strategies, and curriculum development for elementary learning disabled and behavior disordered students.

## 335P Teaching of Science and Social Studies (4)

Prerequisite: admission to the teacher education program. Presents methods and materials for teaching elementary school science and social studies. Emphasis is on lesson planning, unit development, critical thinking, and problem solving through hands-on activities, and strategies for assessment in the content areas. Field experience is included. Taken concurrently with EDUC 337P and ENGL 208P.

## 337P Teaching Language Arts and Reading (3)

Prerequisite: admission to the teacher education program. A process approach for developing teaching methods which integrate listening, speaking, writing and reading throughout the curriculum. Emphasis will be placed on the interactive nature of language arts and reading. Field experience is included. Taken concurrently with EDUC 335P and ENGL 208P.

## 352P Teaching of Reading (3)

Prerequisite: admission to the teacher education program. A study of elementary school reading instruction which is defined as integrating theories of learning, language, and literacy. Methods and materials for a comprehensive reading program, techniques of assessment and recent research are examined and evaluated. Field experience included. Taken concurrently with EDUC 354P.

## 354P Teaching of Mathematics (3)

Prerequisite: admission to the teacher education program. 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 and a broad range of content. Field experience included. Taken concurrently with EDUC 352P.

## 360P Methods for Instructional Strategist 1: Mild and Moderate (2)

Prerequisite: EDUC 235Ps. A K-6 methods and strategies course covering models for providing curricular and instructional methodologies to educate students with mild disabilities.

## 362P Consultation Strategies (2)

Prerequisite: EDUC 235Ps. Methods and strategies for working with parents, regular classroom teachers, paraprofessionals, support personnel and others involved in special education.

## 374P Behavior and Classroom Management (2-3)

Prerequisite: EDUC 235Ps. 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. The two-hour portion is required of all students in the teacher education program. The additional one-hour portion is required for all special education endorsements and is recommended for all prospective teachers.

## 383P Field Experience in Special Education (1)

Prerequisites: Admission to 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 field experience is required for the special education endorsement. This one-credit course may be completed up to three times in different settings.

## 420P Early Childhood Education I (3)

Prerequisite: admission to the teacher education program. Focus is on prekindergarten-kindergarten programs in the areas of organization, curriculum development, instructional planning, strategies and methods. Topics include guidance and evaluation of young children and assessment of program effectiveness. A pre-student teaching field experience in a variety of sites is a vital component of the course. Taken concurrently with EDUC 421P.

## 421P Early Childhood Education II (3)

Prerequisite: admission to the teacher education program. A continuation of the study of critical areas related to pre-kindergarten and kindergarten education that was initiated in EDUC 420P. The student teaching experience involves extensive opportunities for practical application of knowledge and skills. Close supervision is provided by experienced cooperating teachers and college supervisors. Taken concurrently with EDUC 420P.

## 425P Transitional/Vocational Collaboration for the Student With Special Education Needs (1)

Prerequisite: admission to the teacher education program. Covers sources of services, organizations, and networks, including career, vocational and transitional support to post-school settings, for individuals with mild and moderate disabilities, to maximize opportunities for decision-making and full participation in the community.

436P Educational Services for Students with Mild and Moderate Disabilities (2)
Prerequisite: EDUC 235Ps. A course on providing educational services to the student with mild disabilities. Includes current trends and issues, basic theoretical and practical approaches, educational alternatives, implication of federal and states statutes and the importance of the multidisciplinary team in providing educational programming.

## 438PI Reading Disabilities and Field Experience (6)

Prerequisite: admission to the teacher education program. A study of reading disabilities dealing with the identification and remediation of specific reading deficiencies. The course includes the study of methods, materials and assessment for providing remedial reading instruction and includes a clinical field experience in reading disabilities.

## 440P Psychology in Secondary Education (2)

Prerequisite: admission to the teacher education program and major department approval. 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 is included. Taken concurrently with EDUC 442P and 374P.

## 442P Reading in the Content Area-Secondary (1)

Prerequisite: admission to the teacher education program. Examines methods for teaching reading in subject-matter areas. Emphasis on learning specific instructional strategies to enhance secondary students' ability to learn from content assignments. Taken concurrently with EDUC 440P.

## 448P Elementary General Methods (2)

Prerequisite: admission to the teacher education program and EDUC 239P. Intended for students who seek licensure only in K-6 Art, K-6 Music, or K-6 Physical Education. Instructional strategies and classroom methods appropriate to teachers of K-6 special areas will be analyzed. Upon completion of course, EDUC 464PI will be completed.

## 450P Secondary General Methods (2)

Prerequisites: admission to the teacher education program and EDUC 440P. 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. Field experiences are included.

## 451P Secondary Special Methods (1)

Prerequisites: admission to the teacher education program and EDUC 440P. 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. Taken concurrently with student teaching and EDUC 486P.

458P Special Methods: Teaching Foreign Language in the Elementary School (1)
Prerequisites: admission to the teacher education program and instructor permission. A pre-professional course designed to prepare elementary education majors to teach foreign language in grades K-6. Emphasis is on practice and analysis of performance. Offered in the fall only.

## 460P Elementary Student Teaching (12)

Prerequisites: blocks 1, 2 and 3 and approval of the teacher education program. Students will observe, assist and teach in elementary school classrooms under the guidance of the classroom teacher, the school principal and the college supervisor. Taken concurrently with EDUC 485P. Pass/no record basis.

## 461P Elementary Intern Teaching (Arr)

Prerequisites: blocks 1, 2 and 3 and approval of the teacher education committee. An experience as a teaching intern with close supervisory assistance from the local school district as well as from the college staff. Pass/no record basis.

## 462PI Elementary Student Teaching (6)

Prerequisites: teacher education committee approval. Supervised observation and teaching in regular K-6 classroom. Taken concurrently with EDUC 468P. Pass/no record basis.

464P Elementary Student Teaching in Subject Area (12)
Prerequisite: approval of the teacher education committee. Supervised observation and teaching experience for students who only seek endorsement in elementary art, music or physical education. Pass/no record basis.

## 466P Elementary Student Teaching in Subject Area (6)

Prerequisite: approval of the teacher education committee. Supervised observation and teaching experience for students who seek endorsement in both elementary and secondary art, music or physical education. Taken concurrently with EDUC 476P. Pass/no record basis.

## 468PI K-6 Mild and Moderate Disabilities Student Teaching (6)

Prerequisites: teacher education committee approval. Supervised observation and teaching in K-6 multicategorical resource room for students with mild disabilities. Taken concurrently with EDUC 462P and 485P. Pass/no record basis.

## 469PI 7-12 Mild and Moderate Disabilities Student Teaching (2)

Prerequisites: teacher education committee approval. Supervised observation and teaching in 7-12 multicategorical resource room for students with mild disabilities. Taken concurrently with EDUC 462PI, 468PI and 485P. Pass/no record basis.

## 470P Secondary Student Teaching (12)

Prerequisite: approval of the teacher education committee. Students observe, serve as teaching assistants and take responsibility for teaching in grades 7-12 under the guidance of their college supervisor, the classroom teacher and the school principal. Taken concurrently with EDUC 451P and 486P. Pass/no record basis.

## 471P Secondary Intern Teaching (Arr)

Prerequisite: approval of the teacher education committee. An experience as a teaching intern with close supervisory assistance from the local school district as well as from the college staff. Pass/no record basis.

## 476P Secondary Student Teaching in Subject Area (6)

Prerequisite: approval of the teacher education committee. Supervised observation and teaching experience for students who seek endorsement in both elementary and secondary art, music or physical education. Taken concurrently with EDUC 466P. Pass/no record basis.

## 485P Senior Seminar in Elementary Education (2)

Prerequisite: approval of the teacher education committee. 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 an action research project at the conclusion of student teaching, and will engage in a variety of planned professional development opportunities. Taken concurrently with EDUC 460P or EDUC 462PI and EDUC 466P. Pass/no record basis.

## 486P Professional Development Seminar-Secondary (1)

Prerequisite: approval of the teacher education committee. 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. This course is taken concurrently with student teaching. Pass/no record basis.

## ENGLISH

Humanities Division
English Department

## Faculty

Mary Stark (chair), Linda Blatt, Walter Cannon, Michael Harris, Arthur Johnson, Kimberly Koza, John Miller, David Purnell, Keith Ratzlaff

## Statement of philosophy

The field of English studies is concerned both with the interpretation and production of a variety of texts. The discipline provides students with a range of critical approaches to reading the world of words - literary and non-literary texts alike - and it offers formal instruction in various kinds of writing: poetry, fiction, and non-fiction. The English department is keenly interested in developing the intellectual potential of all majors: students are encouraged to be critically engaged with texts and with the classroom audience by writing and speaking perceptively and persuasively. The department offers a thorough and flexible curriculum of English courses which prepares students for graduate and professional schools, for high school and elementary school teaching, for teaching abroad and for the business world. The department also offers a writing minor and concentration within the English major as well as an endorsement in English as a second language for K-12. Most important, English majors receive the preparation to be culturally informed and critically conscious citizens.

English majors are expected to begin with a series of courses which survey English and American literature, but the curriculum is not entirely Euro-centric: students are encouraged to take world literature, modern Asian novel and post-colonial literature. In addition, students should take courses which feature major authors such as Shakespeare, Milton and Chaucer, or major topics and fields, such as literary criticism, film and literature and linguistics, or major genre studies such as drama, poetry, fiction and nonfiction. Students are also encouraged to take courses in supporting fields such as history and philosophy, and to pursue competency in a modern foreign language.

## Study Abroad Opportunities

Students are encouraged to study abroad, especially at Central's sites in London or Carmarthen, Wales. On the London program students may study contemporary as well as Shakespearean theatre, English literature, art and architecture, history, and politics. In addition, students may take courses at other universities and may participate in an appropriate internship: editing/publishing, journalism, theatre or education, to name just a few. On the Wales program, students enroll at Trinity College and may take a wide range of courses including creative writing, Anglo-Welsh literature, or Elizabethan and Jacobean literature.

## English Major Requirements (37 s.h.)

1. Take both of the following:

ENGL 251t British Literature I (3)
ENGL 346t Shakespeare (3)
2. Take two of the following:

ENGL 236t American Literature I (3)
ENGL 237t American Literature II (3)
ENGL 252t British Literature II (3)
ENGL 253t British Literature III (3)
3. Take five of the following (two of which must be 300-level courses):

ENGL 211nt Literature of India and the Pacific (3)
ENGL 212nt African and Caribbean Literature (3)
ENGL 213t Nature Writing and Environmental Literature (3)
ENGL 214t Literature by Women (3)
ENGL 215nt African-American Literature (3)
ENGL 216nt American Ethnic Literature (3)
ENGL 245a British Novel (3)
ENGL 247t American Novel (3)
ENGL 248t Comedy (3)
ENGL 249t Poetry (3)
ENGL 260ct Irish Literature (3)
ENGL 361t World Literature I (3)

ENGL 362t World Literature II (3)
ENGL 371t Medieval Literature (3)
ENGL 372t Renaissance Literature (3)
ENGL 373t Studies in 17th and 18th Century Literature (3)
ENGL $374 \mathrm{t} \quad$ Studies in $19^{\text {th }}$ Century Literature (3)
ENGL 375 t Studies in $20^{\text {th }}$ Century Literature (3)
ENGL 376t Literary Criticism (3)
4. Take one of the following:

ENGL 240a The Personal Essay (3)
ENGL 241a Short Story Writing (3)
ENGL 340Pa Writing Women's Lives (3)
ENGL 343PI Travel Writing (3)
ENGL 344 Writing for Non-Profit Organizations (3)
5. Take one of the following:

ENGL 330 Principles of Linguistics (3)
ENGL 331h History of the English Language (3)
ENGL 332 Advanced English Grammar (3)
ENGL 360 Teaching English as a Second Language (3)
6. Take one of the following:

ENGL 425t Seminar in American Literature (4)
ENGL 426t Seminar in British Literature (4)
7. Complete all requirements for the Communication Skills Endorsement

## English Major with Additional Emphasis in Writing (52 s.h.)

1. Complete all requirements for the English major listed above (37 s.h.)
2. Complete one of the following (in addition to those taken above):

ENGL 240a The Personal Essay (3)
ENGL 241a Short Story Writing (3)
ENGL 340Pa Writing Women's Lives (3)
ENGL 343PI Travel Writing (3)
ENGL 344 Writing for Non-Profit Organizations (3)
3. Complete three of the following (in addition to those taken above):

COMM 242 Introduction to Journalism (4)
ENGL 201P Technical Writing (3)
ENGL 240a The Personal Essay (3)
ENGL 241a Short Story Writing (3)
ENGL 242a Poetry Writing (3)
ENGL 293PI Practicum in Technical Writing (3)
ENGL 340Pa Writing Women's Lives (3)
ENGL 342a Advanced Poetry Writing (3)
ENGL 343PI Travel Writing (3)
ENGL 344 Writing for Non-Profit Organizations (3)
ENGL 710W Creative Writing (3) offered in Wales
ENGL 712W Feature Writing (3) offered in Wales
ENGL 797L Internship (arr) offered in London
4. Complete one of the following:

ENGL 497PI Internship in Writing (3)
ENGL 499I Independent Studies in English (3)

## Communication skills endorsement

At the time students declare their intent to major in English, the department will evaluate their writing, reading, speaking, and
critical thinking skills for the first time. Students will submit a portfolio of at least two papers which demonstrate analytical skills (other types of papers may also be included). The department will also use other available evidence of skills development, including results of tests and information supplied by faculty with whom students have taken courses. Students with communication problems will receive an outline of remedial procedures and may be asked to resubmit their portfolios periodically. A critical demonstration of skills development occurs during the required seminar (ENGL 425, ENGL 426), which includes a major project involving reading, writing, and speaking. The department conducts a final portfolio review during the senior year over a minimum of five analytical papers, including the seminar paper. Passing the final portfolio review is necessary to receive the communication skills endorsement.

## Typical sequence of major courses for the English major

## Freshman and sophomore years

ENGL survey courses
ENGL 251t British Literature I

## Junior year

ENGL genre, period and issue studies courses
ENGL advanced writing course
Study abroad
Teaching major/minors should also take: ENGL 222 Literature for Young Adults and ENGL 320 Teaching Writing

## Senior year

ENGL 346t Shakespeare
ENGL language study course
ENGL seminar course

## English Minor Requirements (21 s.h.)

1. Take four of the following (with at least one course addressing literature before 1850 and at least one 300-level course)
ENGL 211nt Literature of Indian and the Pacific (3)
ENGL 212nt African and Caribbean Literature (3)
ENGL 213t Nature Writing and Environmental Literature (3)
ENGL 214t Literature by Women (3)
ENGL 215nt African-American Literature (3)
ENGL 216nt American Ethnic Literature (3)
ENGL 236t American Literature I: 1620-1890 (3)
ENGL 237t American Literature II: 1890-Present (3)
ENGL 245a British Novel (3)
ENGL 247t American Novel (3)
ENGL 248t Comedy (3)
ENGL 249t Poetry (3)
ENGL 251t British Literature I: 800-1660 (3)
ENGL 252t British Literature II: 1660-1850 (3)
ENGL 253t British Literature III: 1850-Present (3)
ENGL 260ct Irish Literature (3)
ENGL 361t World Literature I (3)
ENGL 362t World Literature II (3)
ENGL 371t Medieval Literature (3)
ENGL 372t Renaissance Literature (3)
ENGL 373 t Studies in 17th and 18th Century Literature (3)
ENGL 374t Studies in $19^{\text {th }}$ Century Literature (3)
ENGL 375t Studies in $20^{\text {th }}$ Century Literature (3)
ENGL 376t Literary Criticism (3)
2. Take one of the following:

ENGL 240a The Personal Essay (3)
ENGL 241a Short Story Writing (3)

ENGL 340Pa Writing Women's Lives (3)
ENGL 343PI Travel Writing (3)
ENGL 344 Writing for Non-Profit Organizations (3)
3. Take one of the following:

ENGL 330 Principles of Linguistics (3)
ENGL 331h History of the English Language (3)
ENGL 332 Advanced English Grammar (3)
ENGL 360 Teaching English as a Second Language (3)
3. Take one of the following:

ENGL 346t Shakespeare (3)
ENGL 425t Seminar in American Literature (4)
ENGL 426t Seminar in British Literature (4)
Note: Students seeking a teaching minor must also take ENGL 222 amd ENGL 320; teaching minors should also take either ENGL 332 or ENGL 360 to fulfill the language study requirement.

## Writing Minor Requirements (18 s.h.)

1. Complete four of the following:

COMM 242 Introduction to Journalism (4)
ENGL 201P Technical Writing (3)
ENGL 240a The Personal Essay (3)
ENGL 241a Short Story Writing (3)
ENGL 242a Poetry Writing (3)
ENGL 342a Advanced Poetry Writing (3)
ENGL 343PI Travel Writing (3)
ENGL 340Pa Writing Women's Lives (3)
ENGL 344 Writing for Non-Profit Organizations (3)
ENGL 710W Creative Writing (3) offered in Wales
ENGL 712W Feature Writing (3) offered in Wales
2. Complete an individualized component (with a maximum of 6 semester hours in experiential work) designed in consultation with the Minor Coordinator. The component focuses intentionally on the writing process and will include a combination of academic work such as practica, internships, study abroad courses, computer modules, summer writing workshops, etc.

## 3. Produce a writing portfolio in the senior year.

## English courses for licensure in secondary education

Students should take either ENGL 332 or 360 to fulfill the language study requirement.
$\begin{array}{lll}\text { ENGL } & 222 & \text { Literature for Young Adults (1) } \\ \text { ENGL } 320 & \text { Teaching Writing (2) } \\ \text { EDUC } & \text { 451P } & \text { Secondary Special Methods (1) } \\ \text { Plus } 12 \text { s.h. of Secondary Student Teaching }\end{array}$
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.

## Endorsement in English as a second language K-12

The ESL endorsement for grades K-12 requires 24 semester hours of course work in ESL, including teaching ESL, applied linguistics, bilingual education, language in culture, the nature of language, and language acquisition. In addition, an ESL practicum of 45 contact hours in the classroom must be completed. A list of required courses is available from the Education department.

## English (ENGL) courses

## 100 Reading and Writing Strategies (4)

An introduction to college-level reading and writing skills emphasizing their connections within academic contexts. Includes college-level reading strategies, expressive writing, expository writing, review of English grammar and rhetoric, and analysis of textbook and literary/historical sources. Meets three times per week with additional out-of-class instruction. Does not count toward the major.

101f Composition (3)
Emphasizes essay writing, including argumentative and persuasive prose based on the critical reading of various texts. Promotes the development of college-level skills with emphasis on speaking, writing and analytical thinking. Does not count toward the major.

## 120ft Introduction to Literature (3)

Introduction to the study of literature through the examination of narration, drama, poetry, metaphor and intertextuality. Promotes college-level skills with emphasis on speaking, writing and analytical thinking.

## 200 Modes of Argument in Reading and Writing (2)

Develops critical reading skills by analyzing argumentative and narrative prose. Emphasizes methods of evaluating arguments and writing arguments in response to reading selections. Does not count toward the major.

## 201P Technical Writing (3)

Prerequisite: sophomore standing. Review of usage of English language. Instruction and practice writing summaries, letters, memoranda, reports and proposals. Emphasis on clarity and precision. Practice in collecting, organizing, and writing practical and theoretical information. Scientific or business background not necessary. Does not count toward the major.

## 208P 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.

## 211nt Literature of India and the Pacific (3)

Surveys major contemporary anglophone writers from India and/or the Pacific. Emphasis on Naipaul, Rushdie, Narayan, Desai, Ondaatje, Grace, White and Keneally.

## 212nt African and Caribbean Literature (3)

Surveys major contemporary anglophone writers from Africa and/or the Caribbean. Emphasis on Achebe, Emecheta, Soyinka, Fugard, Gordimer, Kincaid and Walcott.

## 213t Nature Writing and Environmental Literature (3)

Studies the literary tradition of nature as a source of inspiration for many poets, novelists and essayists. Explores writings and films concerned with the contemporary endangered environment. Readings include Wordsworth, Shelley, Keats, Thoreau, Dickinson, Whitman, Burroughs, Muir, Carson, Ehrlich, Abbey, Markandaya, and Hertsgaard. Emphasis is placed on ecological literacy.

## 214t Literature by Women (3)

Studies British, American and world literature by women, with attention to thematic and stylistic concerns of women's literary traditions. Includes writers such as C. Bronte, Chopin, Woolf, Hurston, Lessing, Rich, Morrison and Walker.

## 215nt African-American Literature (3)

Explores the tradition of African-American writing, from slave narratives, to the experimental writings of the Harlem Renaissance, to the social realist novels of the 1940s and contemporary fiction and poetry. Emphasis on Douglass, Hughes and Morrison.

## 216nt American Ethnic Literature (3)

Studies a variety of contemporary writings (fiction, non-fiction, drama and poetry) from various American ethnic literary traditions such as African American, Asian American, Hispanic American and Native American.

## 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.

## 236t American Literature I: 1620-1890 (3)

Studies major figures and movements of American literature from the origins through Realism. Emphasis on 19th Century fiction-Hawthorne, Melville, Poe, Thoreau and Twain.

## 237t American Literature II: 1890-Present (3)

Studies major figures and movements in American literature from Naturalism to the present. Emphasis on Crane, Faulkner, Fitzgerald, Hemingway, James and the post-war novel.

## 240a The Personal Essay (3)

Instruction, practice and experimentation in the art of the personal essay. Readings include both contemporary and historical examples of the form.

## 241a Short Story Writing (3)

Instruction, practice and experimentation in the short story with readings by 20 th-century American authors.

## 242a Poetry Writing (3)

A workshop course focusing on both formal and free styles of poetry writing. Readings include poetry and essays by contemporary poets.

## 245a British Novel (3)

Analyzes the traits of style of major British novelists of the $18^{\text {th }}, 19^{\text {th }}$, and $20^{\text {th }}$ centuries. Emphasis on Fielding, Austen, Dickens and Woolf.

## 247t American Novel (3)

Studies major novels of 19th- and 20th-century American writers such as Melville, Hawthorne, James, Cather, Faulkner and Morrison.

## 248t Comedy (3)

Studies great plays from the history of comedy by writers such as Jonson, Moliére, Sheridan, Shaw and Ionesco. In some semesters the topic may be tragedy instead.

## 249t Poetry (3)

Focuses on longer, complete poetic works from a range of authors and time periods, and attempts to place these works in their critical, artistic and historical contexts.

## 251t British Literature I: 800-1660 (3)

Studies major figures from the Beowulf poet to Milton. The major emphasis is on Chaucer, Spenser, Donne and Milton. In addition, students develop skills in reading, interpreting and criticizing literature, using secondary materials, writing critical papers and contributing to class discussions.

## 252t British Literature II: 1660-1850 (3)

Studies major figures, excluding most novelists, from the Age of Reason, the Romantic period and the early Victorian era. Emphasis on Swift, Pope, Wordsworth, Keats, Tennyson and Arnold.

## 253t British Literature III: 1850-Present (3)

Studies major figures from the late Victorian period to the present day. Emphasis on Hardy, Yeats, Joyce, Woolf and Lessing.

## 260ct Irish Literature (3)

Studies the major literary artists in Ireland. Authors studied include Swift, Wilde, Shaw, Yeats, Joyce, Beckett, Heaney, Boland and McGuckian.

## 284I Field Methods in Linguistics (3)

Prerequisite: instructor's permission. Methodology of the study of language directly from contact with a native speaker or speakers of a language not regularly offered in the college curriculum.

## 293PI Practicum in Technical Writing (2)

Prerequisite: ENGL 201P and instructor's permission. Offers the student experience in writing for local companies and organizations. Incorporates advanced skills needed in the business world: writing press releases and annual reports, doing technical layout, and writing for advertising. Does not count toward major.

## 320 Teaching Writing (2)

Focuses on both the theory and practice of teaching writing. General areas of study include rhetoric, invention, structure, style and pedagogy. In addition to becoming conscious of their own writing process, students will gain practical experience in helping others to write.

## 330 Principles of Linguistics (3)

Presents the fundamentals of the science of linguistics and an overview of the major sub-fields of the discipline. The major focus is on the solution of problems in phonology and morphology, and on collateral work in areas selected with consideration for any special needs and interests of class members.

## 331h History of the English Language (3)

Issues in the internal and external history of the English language are considered in light of larger patterns of interrelationship between language and society.

## 332 Advanced English Grammar (3)

Studies intensively the theory and structure of English grammar and the changing views thereof. Designed primarily for those who plan to teach English or English as a second language in the elementary and secondary schools.

## 333 Phonetics and Phonemics (3)

A detailed study of speech sounds, production mechanisms and the structuring of sounds in language. Ear training as well as practice in phonetic and phonemic transcription will be stressed. Field techniques will be considered.

## 335s Sociolinguistics (3)

A survey of key issues in sociolinguistic inquiry based on case studies of topics such as language maintenance and shift, bilingualism and biculturalism, the language of ethnic and other minority groups, language contact and language conflict.

## 340Pa Writing Women's Lives (3)

Prerequisite: sophomore standing or instructor's permission. A course open to all students with an interest in Women's Studies and nonfiction writing. Links instruction and experimentation in autobiographical narrative, biography, and the personal essay with discussion of issues in contemporary feminist thought. Readings focus on work by and about women, both famous and little-known.

## 342a Advanced Poetry Writing (3)

ENGL 242a is recommended. A course for students with experience in writing poetry that links writing to contemporary discussions in poetic thought. Readings focus on contemporary poetry and on essays of the craft and theory of poetry writing.

## 343PI Travel Writing (3)

Prerequisite: significant cross-cultural experience in domestic or foreign off-campus programs and instructor's permission. A course in nonfiction writing that studies strategies for writing the essay in general and the cross-cultural and travel essay in particular. Readings will include both historical and contemporary examples of the travel essay.

## 344 Writing for Non-Profit Organizations (3)

Instruction in and practice of writing designed to extend the concept of community, and to incorporate "service learning." Students write for community organizations, social service agencies and other not-for-profit groups and associations.

## 346t Shakespeare (3)

Studies the major comedies, histories and tragedies, with some background readings in Shakespeare's England as it affected the theatre.

360 Teaching English as a Second Language (3)
An introduction to the theory and practice of teaching English as a second or foreign language. Designed for those who plan to teach English here or abroad.

## 361t World Literature I (3)

Studies major figures of world literature from the Greeks to the Renaissance. Emphasis on Homer, Sophocles and Dante. Excludes British and American writers.

## 362t World Literature II (3)

Studies major figures of world literature from the Renaissance to the present day. Emphasis on Moliere, Flaubert, Dostoevsky and Kafka. Excludes British and American writers.

## 371t Medieval Literature (3)

Studies major works from the Middle English period such as The Canterbury Tales, Sir Gawain and the Green Knight, Piers Plowman, Le Morte Darthur; dramatic works such as the Wakefield and Chester cycles; The Lais of Marie de France; and collections of lyrics.

## 372t Renaissance Literature (3)

Studies major figures and works from the English Renaissance such as The Faerie Queen, the metaphysical poets, nonShakespearean drama and prose works such as Utopia and Leviathan.

373t Studies in 17th and 18th Century Literature (3)
Studies major figures and works from Restoration and 18th-century literature such as Wycherly, Congreve, Dryden, Pope, Swift, Goldsmith, Johnson, Fielding and Sheridan.

374t Studies in 19th Century Literature (3)
Studies major works by British Romantic and Victorian authors such as Wordsworth, Byron, P.B. and Mary Shelley, Charlotte and Emily Bronte and Tennyson.

## 375t Studies in 20th Century Literature (3)

Studies works by major figures of 20th-century literature in English such as Conrad, Joyce, Woolf, Yeats, Auden, Faulkner, O'Connor, Wright, Lessing, Pynchon, Rich, Rushdie, Gordimer, Achebe and Walcott.

## 376t Literary Criticism (3)

Studies various theoretical perspectives of literary criticism from mimetic to postmodern with practice in applied criticism.

## 392PI ESL Practicum (Arr)

Prerequisites: 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.

## 192I, 292I, 392I, 492I Practicum in English (Arr)

## 397PI Internship: Teaching English as a Second Language (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 internship site and student population. This course is not intended as a practicum for teaching licensure.

## 425t Seminar in American Literature (4)

A specialized investigation into a specific and limited topic selected by the instructor. Each seminar will focus on the student's critical and research abilities to produce a major analytic project.

## 426t Seminar in British Literature (4)

A specialized investigation into a specific and limited topic, such as Chaucer or Milton. Each seminar will focus on the student's critical and research abilities to produce a major analytic project.

## 497PI Internship in Writing (Arr)

Prerequisite: junior 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 record basis.

## 199I, 299I, 399I, 499 I 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.

# ENVIRONMENTAL STUDIES 

Interdisciplinary Major

Faculty<br>Paul Weihe, Jim Zaffiro (co-directors), Anya Butt, Matthew Eastin

## Statement of philosophy

Environmental studies is an interdisciplinary major which provides students with an understanding of environmental relationships and the relationship between human and natural systems. Students will gain a broad understanding of global and local environmental issues. Students select either the environmental science track or the global environmental policy track and work with an adviser to plan their programs.

Strongly recommended for both tracks: At least one semester of study abroad and an internship experience. Central has developed an extensive network of internship opportunities at the local, state, national, and international levels. Some are in conjunction with study abroad programs or the Chicago Metropolitan Program. In most cases credit toward the major may be arranged. Students are urged to discuss internship interests and possibilities with their track director early in their college careers to ensure a thorough search for appropriate opportunities and to increase chances of placement.

## Computer literacy requirement (both tracks)

All environmental studies majors must demonstrate computer literacy (as determined by track adviser) or complete one of the following courses:
COSC 106 Introduction to Web Programming (3) or
COSC 110Pm Introduction to Computer Science (3) or
COLL 111 Introduction to Computer Applications (1) or
COLL 116 Introduction to the Internet (1)

## Communication skills endorsement (both tracks)

The Environmental Studies faculty believes it essential for all majors to be able to effectively speak, read, write, and think critically within the context of their ES course work. For this reason, many required courses and electives include assignments and activities that evaluate students' communication skills proficiency.

The ES faculty meets annually to discuss and evaluate each major's communication skills development. Students can expect to be assessed at least once during each academic year. Students whose skills are judged to be weak or insufficient in one or more areas (speaking, reading, writing) will be directed to design a communication skills improvement plan with his or her academic advisor and to have the plan approved by the student's ES track director.

Final pre-graduation evaluation of students' communication skills occurs in NASC 480PI, Environmental Studies Seminar (3). Two requirements of this common capstone course are a major paper and an oral public presentation of the research results reported in the paper. The quality of these assignments, as judged by the ES faculty, determines whether or not ES majors have successfully satisfied the communication skills (writing, speaking) requirements.

## The Environmental Science Track

Given the synergistic physical system of Earth, governed by complex interrelated processes involving the geosphere, atmosphere, hydrosphere and biosphere, this track focuses on understanding and analyzing the relevant interactions of chemical, physical, biological and dynamical processes within the environment. Properly addressing environmental problems requires the ability to analyze these complex systems within the context of socio-cultural, economic and political factors influencing the decisionmaking process.

Through course work, supervised independent research, career-focused internships, experiential and service learning opportunities, students gain a comprehensive ability to address environmental issues by exploration and direct application of skills. During the program, students can elect an emphasis in either more biological, chemical or geoscience applications.

Career opportunities for environmental science are expanding rapidly. Individuals with a strong chemical background will have opportunities in a number of industries, including agribusiness, looking for entry level (B.A.) individuals with strong analytical skills for water, air, biological or soil analyses for toxic substances. Opportunities for those with a biological emphasis exist in areas of wetlands monitoring, restoration, and delineation; habitat restoration; monitoring the biological effects of solid waste management; reserve and park design and management; and environmental education and technical writing about environmental issues. Individuals with an emphasis on the earth sciences have opportunities in surveying and mapping environmental
phenomena; monitoring water quality; addressing issues associated with resource extraction and habitat restoration following extraction; natural hazard delineation; and any of the numerous applications of Geographic Information Systems (GIS) in local and national, public and private services.

## Environmental Studies Major/ <br> Environmental Science Track Requirements (59 s.h. minimum)

1. Complete all of the following:

| BIOL | 130 q | Diversity of Life (4) |
| :--- | :--- | :--- | :--- |
| BIOL | 131 Pq | Introduction to Cells (4) |
| BIOL | 229 Pq | Principles of Ecology (4) |
| CHEM | 131 fq | General Chemistry (5) |
| CHEM | 241 Pq | Analytical Chemistry (4) |
| MATH | 105 m | Introduction to Statistics (4) |
| NASC | 120 q | Introduction to Environmental Science (4) |
| NASC | 210 q | Introduction to GIS (3) |
| NASC | 480 PI | Environmental Studies Seminar (3) |

2. Complete two of the following:

COMM 362P Environmental Communication (3)
ECON 223Ps Environmental Economics (3)
POLS 233hs American Environmental History and Policy (3) or
POLS 333Ihs Readings in American Environmental History and Policy (3)
POLS 242s Global Environmental Politics (3) or
POLS 342Is Readings in Global Environmental Politics (3)
3. Complete one of the following:

NASC 125q Geology (3)
NASC 237q Physical Geography (4)
3. Complete one of the following:
$\begin{array}{lll}\text { ECON } & 111 \mathrm{~s} & \text { Principles of Macroeconomics (3) } \\ \text { ECON } & 112 \mathrm{~s} & \text { Principles of Microeconomics (3) }\end{array}$
4. Complete at least 12 s.h. of credit from the following:

BIOL 123q Natural History of the Great Plains (4)
BIOL $\quad 221 \mathrm{Pq}$ Genetics (4)
BIOL $\quad 223 \mathrm{Pq}$ Vertebrate Natural History (4)
BIOL 224 Pq General Botany (4)
BIOL $\quad 324 \mathrm{Pq}$ Field Botany (4)
BIOL 345 Pq Limnology (4)
BIOL 361 Pq Microbiology (4)
CHEM 235Pq Organic Chemistry I (4)
CHEM 236Pq Organic Chemistry II (4)
CHEM 251Pq Inorganic Chemistry (4)
CHEM 320P Biochemistry (4)
CHEM 442P Introduction to Instrumental Analysis (1)
CHEM 443P Analytical Spectroscopy (1)
CHEM 444P Analytical Chromatography (1)
CHEM 445P Electrochemistry (1)
CHEM 446P Analytical Chemistry Seminar (1)
NASC 222Iq Field Studies (3) or
NASC 322PIq Advanced Field Studies (3)
PHYS 101Pmq Introductory Physics I (4)
PHYS 102Pmq Introductory Physics II (4)
PHYS 111Pmq General Physics I (5)
PHYS 112Pmq General Physics II (5)
400 level internship by arrangement
Note: Study abroad courses may also apply as electives

## 5. Satisfy the Computer Literacy Requirement

## 6. Complete all requirements for the Communication Skills Endorsement

## The Global Environmental Policy Track

This track emphasizes examination of political, economic, and social/cultural aspects of the human impact on the natural environment, while still grounding students in fundamentals of the natural and earth sciences. Students explore governmental and non-governmental structures, processes, actors, and policies relating to the environment at the global, national, and local levels. Course work is supplemented and enriched by supervised independent research, career-focused internships, experiential and service learning opportunities.

Study abroad and foreign language proficiency, at the intermediate level or higher, are strongly recommended. In addition, most competitive environmental policy graduates also have strong backgrounds in the natural and earth sciences, economics, and statistics, GIS, and computing. Career opportunities in this important and rapidly growing field include a diverse variety of interesting positions in environmental protection and policy for a wide variety of government agencies and departments at the national, state, and local levels; work with international governmental and nongovernmental organizations that address issues of poverty and environmental degradation; international education; agricultural economics, rural development, resource management, and land use planning.

## Environmental Studies Major/ <br> Global Environmental Policy Track Requirements (59 s.h.)

1. Complete all of the following:

| BIOL | 130 q | Diversity of Life (4) |
| :--- | :--- | :--- |
| CHEM | 131 fq | General Chemistry (5) |
| ECON | 111 s | Principles of Macroeconomics (3) |
| ECON | 112 s | Principles of Microeconomics (3) |
| ECON | 223 Ps | Environmental Economics (3) |
| MATH | 105 m | Introduction to Statistics (4) |
| NASC | 120 q | Introduction to Environmental Science (4) |
| NASC | 210 q | Introduction to GIS (3) |
| NASC | 237 q | Physical Geography (4) |
| NASC | 480 PI | Environmental Studies Seminar (3) |
| POLS | 233 hs | American Environmental History and Policy (3) <br> or POLS 333Ibs Readings in American Environmental History and Policy (3) <br> POLS |
| 242 s | Global Environmental Politics (3) <br> or POLS 342Is Readings in Global Environmental Politics (3) |  |

2. Complete one of the following:

| POLS | 250 Ps | Methods of Political Research (3) |
| :--- | :--- | :--- |
| SOC | 350 Ps | Methods of Social Research (4) |

3. Complete 9 s.h. of the following elective courses (with at least 6 s.h. of these at the 200 -level or above):

| ANTH | 120 ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- | :--- |
| BEHS | 285 | Not-for-Profit Seminar (1) |
| BIOL | 131 Pq | Introduction to Cells (4) |
| BIOL | 229 Pq | Principles of Ecology (4) |
| BIOL | 345 Pq | Limnology (4) |
| COMM | 268 c | Intercultural Communication (3) |
| COMM | 362 P | Environmental Communication (3) |
| ECON | 323Ps | Labor Economics (3) |
| ECON | 325Ps | Public Finance (3) |
| ENGL | 201P | Technical Writing (3) |
| ENGL | 213 t | Nature Writing and Environmental Literature (3) |
| NASC | 125 q | Geology (3) |
| PHIL | 245 t | Environmental Ethics (3) |
| POLS | 140 fs | Introduction to International Politics (3) |
| POLS | 241 s | International Political Economy (3) |

SOC 310Ps Science, Technology and Society (3)
SOC 344s Conflict Resolution (3)
400 level internship by arrangement
Note: Study abroad courses may also apply as electives
4. Satisfy the Computer Literacy Requirement
5. Complete all requirements for the Communication Skills Endorsement

Note: Strongly recommended for students in the global environmental policy track is foreign language competency at the intermediate, mid-level proficiency level (usually the equivalent of two years of study).

## Environmental Studies Minor Requirements (24 s.h.)

1. Complete all of the following:

NASC 120q Introduction to Environmental Science (4)
NASC 210q Introduction to GIS (3)
POLS 233hs American Environmental History and Policy (3) or
POLS 333Ihs Readings in American Environmental History and Policy (3)
2. Complete one of the following:

ECON 111s Principles of Macroeconomics (3)
ECON 112s Principles of Microeconomics (3)
3. Complete at least 11 s.h. of additional electives with the approval of the Environmental Science co-directors and advisor

# Exercise Science 

Applied Arts Division

Department of Exercise Science

## Faculty

David Pavlat (chair), Gary Boeyink, Richard Bowzer, Leslie Duinink, Pam Richards, John Roslien, Douglas West

## Statement of philosophy

Exercise science has shifted from an education-centered program to one that encompasses a broad spectrum of movement, health science and health care management. As a result, majors in Central's exercise science department move from student to professional through mastery of information, use of scientific methodology, pre-service educational experiences and, frequently, an internship/practicum in a variety of professional settings. At this level of involvement students become active learners and acquire the skills necessary to meet the challenges of tomorrow's world. Existing assessment tools, a comprehensive body of knowledge, and communication skills are developed and utilized in a problem-solving environment.

Departmental focus is aimed at improvement of performance and maintenance of physical, social and cognitive well-being. Graduates know how to respond, adjust, and adapt to exercise; analyze and evaluate individual physiological 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, interested others, and the profession at large.

In addition to the exercise science major (with three emphases), the department also offers an exercise science minor, a secondary education minor in health education, and courses that lead to an athletic coaching endorsement.

## The exercise science major emphases

The exercise science major features three emphases: 1) physical education, 2) health promotion, and 3) athletic training (students can also pursue the emphasis in athletic training with additional course work required to sit for the NATABOC certification exam). Students choose to fulfill the requirements of one of these emphases. Each emphasis shares a common set of courses: BIOL 111q, EXSC 149f, EXSC 151, EXSC 253 (or EXSC 255), EXSC 345P, EXSC 356P, EXSC 357P, and EXSC 460P.

## Notes about the athletic training emphasis

Students wishing to prepare for the National Athletic Trainers Association Board of Certification (NATABOC) examination and become a NATABOC certified athletic trainer (ATC) should select the Exercise Science/Athletic Training major. Currently, Central's Athletic Training Education Program (ATEP) has been granted candidacy from the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT). This is a first step in obtaining accreditation through the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Certified athletic trainers have evolved to become the health care professionals for the physically active. They have duties that involve expertise in the science of exercise that require written and oral communication skills, and they must also be eager to excel under diverse circumstances. ATCs must be able to care for patients from varied populations, skill levels, and levels of competition, and to perform duties in multiple environments. Therefore, the primary objective of the Central College Athletic Training Education Program is to prepare entry-level athletic trainers for future challenges. Athletic training program students are provided with clinical experiences that develop and enhance their skills. These experiences are an extension of the academic classroom and allow students to master clinical proficiencies and competencies.

To receive an application or get more information regarding this program, contact John Roslein, program director, or go to www.central.edu.

## Communication skills endorsement

Each major's academic adviser provides materials for an initial communication skills screening (via a review of ACT exam results, an audit of completed college courses, or some other means). Initial screening results are communicated to students in writing, with problem areas identified and prescriptions provided. As an alternative procedure, individualized prescriptions - typically, required work with the staff in the Center for Academic Excellence - may be contracted by the department. Following completion of the prescription, students take a standardized test such as College BASE. Final communication skills endorsement is considered once the student has completed those courses (identified above) required of all EXSC majors.

## Exercise Science/Physical Education Major Requirements (42 s.h.)

1. Complete all of the following:

| BIOL | 111 q | Introduction to Human Anatomy and Physiology (4) |
| :--- | :--- | :--- |
| EXSC | 123 | Fundamentals of Dance (1) |
| EXSC | 135 | Fundamentals of Cardiovascular Endurance (1) |
| EXSC | 136 | Fundamentals of Muscular Strength (1) |
| EXSC | 149 f | Foundations of Health and Exercise Science (3) |
| EXSC | 151 | First Aid and Sports Injuries (3) |
| EXSC | 212 P | Adapted Physical Education (3) |
| EXSC | 214 | Methods of Teaching Sports Skills (3) |
| EXSC | 253 P | Human Anatomy-Kinesiology: Lower (4) |
|  |  | or EXSC 255P Human Anatomy-Kinesiology: Upper (4) |
| EXSC | 356 P | Operation \& Management of Exercise and Sports Medicine Facilities (3) |
| EXSC | 357 P | Fitness Assessment and Exercise Prescription (4) |
| EXSC | 460 P | Exercise Physiology (3) |
| EXSC | 462 P | Motor Learning (3) |

3. Complete two of the following:

| EXSC | 241 P | Fundamentals and Theory of Baseball and Softball (3) |
| :--- | :--- | :--- |
| EXSC | 242 P | Fundamentals and Theory of Track and Field (3) |
| EXSC | 243 P | Fundamentals and Theory of Basketball (3) |
| EXSC | 244 P | Fundamentals and Theory of Football (3) |
| EXSC | 246 P | Fundamentals and Theory of Soccer (3) |
| EXSC | 248 P | Fundamentals and Theory of Volleyball (3) |

## 4. Complete all requirements for the Communication Skills Endorsement

## Teaching Licensure

Students seeking K-6 licensure must complete EXSC 210 Methods in Elementary School plus all other licensure requirements. Students seeking 7-12 licensure must complete EDUC 451 Secondary Special Methods: Exercise Science plus all other licensure requirements. Students seeking K-12 licensure must complete both methods courses, plus all other licensure requirements. See the education major section of this catalog or contact the EXSC department for complete information.

A typical four-year schedule for the EXSC/Physical Education major<br>Freshman year<br>BIOL 111q Human Anatomy and Physiology<br>EXSC 149 f Foundations of Health and Exercise Science<br>EXSC 151 First Aid and Sport Injuries<br>EXSC 123 Fundamentals of Dance<br>EXSC 135 Fundamentals of Cardiovascular Endurance<br>EXSC 136 Fundamentals of Muscular Strength<br>Core courses and electives

## Sophomore year

EXSC 253P Human Anatomy-Kinesiology: Lower or EXSC 255P Human Anatomy-Kinesiology: Upper
EXSC 212P Adapted Physical Education
EXSC 214 Methods of Teaching Sports Skills
Two physical education fundamental and theory courses
Core courses and electives

## Junior year

EXSC 356P Operation \& Management of Exercise and Sports Medicine Facilities
EXSC 357P Fitness Assessment \& Exercise Prescription
Core courses and electives

## Senior year

EXSC 460P Exercise Physiology
EXSC 462P Motor Learning
EDUC 450P Secondary General Methods

Student teaching
Core courses and electives

## Health education minor requirements (28 s.h.)

Note: Completion of a minor in health education includes the requirements for the 7-12 teaching endorsement.

1. Complete all of the following:

| EXSC | 110 | Introduction to Stress Management (3) |
| :--- | :--- | :--- |
| EXSC | 151 | First Aid and Sport Injuries (3) |
| EXSC | 160 | Personal Health (3) |
| EXSC | 234 P | Sports Nutrition (3) |
| EXSC | 260 | Substance Abuse (3) |
| EXSC | 261 | Community Health (2) |
| EXSC | 262 | Consumer Health (2) |
| EXSC | 363 P | Human Sexuality (3) |
| SOC | 242Ps | Sociology of the Family (3) |
| Complete $\underline{\text { one }}$ of the following: |  |  |
| EDUC | 281Ps | Developmental Psychology (3) |
| PSYC | 382Ps | Child and Adolescent Development (3) |

## Athletic coaching endorsement requirements

1. Students must hold, or be eligible for, a teacher's license with one of the teaching endorsements
2. Complete one of the following:

| BIOL | 101 q | General Biology (4) |
| :--- | :--- | :--- |
| BIOL | 111 q | Introduction to Human Anatomy and Physiology (4) |
| BIOL | 131 q | Introduction to Cells (4) |

3. Complete one of the following:

| EDUC | 281 Ps | Developmental Psychology (3) |
| :--- | :--- | :--- |
| PSYC | 382Ps | Child and Adolescent Psychology (3) |

4. Complete 13 s.h. from the following:

EXSC $151 \quad$ First Aid and Sport Injuries (3)
EXSC 213 Principles of Coaching (3)
EXSC 253P Human Anatomy-Kinesiology: Lower (4)
EXSC 255P Human Anatomy-Kinesiology: Upper (4)
EXSC 460P Exercise Physiology (3)
EXSC 462P Motor Learning (3)
5. Complete two of the following:

EXSC 241P Fundamentals and Theory of Baseball/Softball (3)
EXSC 242P Fundamentals and Theory of Track and Field (3)
EXSC 243P Fundamentals and Theory of Basketball (3)
EXSC 244P Fundamentals and Theory of Football (3)
EXSC 246P Fundamentals and Theory of Soccer (3)
EXSC 248P Fundamentals and Theory of Volleyball (3)

## Exercise Science/Health Promotion Major Requirements (44 s.h.)

1. Complete all of the following:

| BIOL | 111 q | Introduction to Human Anatomy and Physiology (4) |
| :--- | :--- | :--- |
| EXSC | 135 | Fundamentals of Cardiovascular Endurance (1) |
| EXSC | 136 | Fundamentals of Muscular Strength (1) |
| EXSC | 149 f | Foundations of Health and Exercise Science (3) |
| EXSC | 151 | First Aid and Sport Injuries (3) |
| EXSC | 160 | Personal Health (3) |
| EXSC | 253 P | Human Anatomy-Kinesiology: Lower (4) |


|  |  | or EXSC 255P Human Anatomy-Kinesiology: Upper (4) |
| :--- | :--- | :--- |
| EXSC | 356P | Operations \& Management of Exercise and Sports Medicine Facilities (3) |
| EXSC | 357 P | Fitness Assessment and Exercise Prescription (4) |
| EXSC | 358P | Principles of Personal Training (3) |
| EXSC | 460P | Exercise Physiology (3) |
| BMGT | 251P | Principles of Management (3) |
| BMGT | 371P | Principles of Marketing (3) |

2. Complete 6 s.h. from the following:

| EXSC | 110 | Introduction to Stress Management (3) |
| :--- | :--- | :--- |
| EXSC | 124 | Fundamentals of Golf (1) |
| EXSC | 129 | Fundamentals of Tennis (1) |
| EXSC | 134 | Fundamentals of Racquetball (1) |
| EXSC | 216 P | Sport and Exercise Psychology (3) |
| EXSC | 234 P | Sports Nutrition (3) |
| EXSC | 260 | Substance Abuse (3) |
| EXSC | 261 | Community Health (2) |
| EXSC | 262 | Consumer Health (2) |
| EXSC | 363 P | Human Sexuality (3) |
| EXSC | 497PI | Internship (3) |
| PSYC | 250 P | Health Psychology (3) |

3. Complete all requirements for the Communication Skills Endorsement

## A typical four-year schedule for the EXSC/Health Promotion major

## Freshman year

BIOL 111q Introduction to Human Anatomy and Physiology
EXSC 110 Introduction to Stress Management
EXSC 135 Fundamentals of Cardiovascular Endurance
EXSC 136 Fundamentals of Muscular Strength
EXSC 149 Foundations of Health and Exercise Science
EXSC 151 First Aid and Sports Injuries
EXSC 160 Personal Health
Core courses and electives

## Sophomore year

EXSC 216P Sport and Exercise Psychology
EXSC 234P Sports Nutrition
EXSC 253P Human Anatomy-Kinesiology: Lower or EXSC 255P Human Anatomy-Kinesiology: Upper
BMGT 251P Principles of Management
PSYC 250Ps Health Psychology
PSYC 260 Substance Abuse
EXSC 283PI Field Experience
Core courses and electives

## Junior year

BMGT 371P Principles of Marketing
EXSC 261 Community Health
EXSC 262 Consumer Health
EXSC 356P Operation \& Management of Exercise and Sports Medicine Facilities
EXSC 357P Fitness Assessment and Exercise Prescription
EXSC 358P Principles of Personal Training
Core courses and electives

## Senior year

EXSC 460P Exercise Physiology
EXSC 363 Human Sexuality
EXSC 497PI Internship

Electives in business management
Core courses and electives

## Exercise Science/Athletic Training Major Requirements (57 s.h.)

1. Complete all of the following:

| BIOL | 111 q | Introduction to Human Anatomy and Physiology (4) |
| :--- | :--- | :--- |
| EXSC | 149 f | Foundations of Health and Exercise Science (3) |
| EXSC | 151 | First Aid and Sport Injuries (3) |
| EXSC | 217 I | CPR for the Professional Rescuer (1) |
| EXSC | 223 P | Level 1: Clinical Rotation I (1) |
| EXSC | 224 P | Level 1: Clinical Rotation II (1) |
| EXSC | 234 P | Sports Nutrition (3) |
| EXSC | 253 P | Human Anatomy-Kinesiology: Lower (4) |
| EXSC | 255 P | Human Anatomy-Kinesiology: Upper (4) |
| EXSC | 260 | Substance Abuse (3) |
| EXSC | 272 P | Athletic Injury Assessment: Lower (3) |
| EXSC | 273 P | Athletic Injury Assessment: Upper (3) |
| EXSC | 323 P | Level 2: Clinical Rotation I (1) |
| EXSC | 324 P | Level 2: Clinical Rotation II (1) |
| EXSC | 356 P | Operation \& Management of Exercise and Sports Medicine Facilities (3) |
| EXSC | 357 P | Fitness Assessment and Exercise Prescription (4) |
| EXSC | 376 P | Therapeutic Exercise (3) |
| EXSC | 377 P | Therapeutic Modalities (3) |
| EXSC | 423 P | Level 3: Clinical Rotation I (2) |
| EXSC | 424 P | Level 3: Clinical Rotation II (2) |
| EXSC | 460 P | Exercise Physiology (3) |
| EXSC | 461 P | Exercise Physiology Lab (2) |

2. Complete all requirements for the Communication Skills Endorsement

## A typical four-year schedule for an EXSC/Athletic Training major

## Freshman year - fall semester

EXSC 149f Foundations of Health and Exercise Science
EXSC 151 First Aid and Sports Injuries
Core courses and electives

## Freshman year - spring semester

BIOL 111q Introduction to Human Anatomy \& Physiology
Core courses and electives

## Sophomore year - fall semester

EXSC 217I CPR for the Professional Rescuer
EXSC 223P Level 1: Clinical Rotation 1
EXSC 253P Human Anatomy-Kinesiology: Lower
EXSC 272PI Athletic Injury Assessment: Lower
Core courses and electives

## Sophomore year - spring semester

EXSC 224P Level 1: Clinical Rotation 2
EXSC 234P Sports Nutrition
EXSC 255P Human Anatomy-Kinesiology: Upper
EXSC 260 Substance Abuse
EXSC 273PI Athletic Injury Assessment: Upper
Core courses and electives

## Junior year - fall semester

EXSC 323P Level 2: Clinical Rotation 1

EXSC 356P Operation and Management of Exercise and Sports Medicine Facilities
EXSC 377P Therapeutic Modalities
Core courses and electives
Junior year - spring semester
EXSC 324P Level 2: Clinical Rotation 2
EXSC 357P Fitness Assessment \& Exercise Prescription
EXSC 376P Therapeutic Exercise
Core courses and electives

## Senior year - fall semester

EXSC 423P Level 3: Clinical Rotation 1
EXSC 460P Exercise Physiology
EXSC 461P Exercise Physiology Lab
Core courses and electives

## Senior year - spring semester

EXSC 424P Level 3: Clinical Rotation 2
Core courses and electives

## Exercise Science Minor Requirements (23 s.h.)

1. Complete all of the following:

| EXSC | 149 f | Foundations of Exercise Science (3) |
| :--- | :--- | :--- |
| EXSC | 151 | First Aid and Sports Injuries (3) |
| EXSC | 253 P | Human Anatomy-Kinesiology: Lower (4) or EXSC 255P Human Anatomy-Kinesiology: Upper (4) |
| EXSC | 345P | Theory and Research Methods of Health and Exercise Science (3) |
| EXSC | 356P | Operations \& Management of Exercise and Sports Medicine Facilities (3) |
| EXSC | 357P | Fitness Assessment and Exercise Prescription (4) |
| EXSC | 460 P | Exercise Physiology (3) |

## Exercise science (EXSC) courses

## 110 Introduction to Stress Management (3)

An in-depth exposure to stress management including psychological, physiological, emotional and behavioral dimensions. Emphasis will be placed on the holistic treatment of stress and on developing the skills to manage personal stress as well as to assist others.

## 123 Fundamentals of Dance (1)

This course covers the popular and traditional dance forms. Students learn folk, square, country, Spanish and ballroom techniques. Learning to move to basic rhythmic patterns is emphasized.

## 124 Fundamentals of Golf (1)

Intended for beginning and intermediate golfers. Students will learn the basic golf strokes, use of various clubs, strategies, rules and etiquette.

## 129 Fundamentals of Tennis (1)

Introduces the basic skills of tennis with emphasis on the development of sound strokes and the knowledge of strategy, rules and etiquette necessary to play the game and enjoy it as a spectator.

## 134 Fundamentals of Racquetball (1)

Intended for beginning and intermediate players. Course covers the basic strokes (forehand, backhand, volley, serve, overhead), rules and etiquette needed to play the game and enjoy it as a spectator.

## 135 Fundamentals of Cardiovascular Endurance (1)

Development of a cardiovascular endurance program using a variety of aerobic training techniques and activities.

## 136 Fundamentals of Muscular Strength (1)

Development of a muscular strength program using an variety of strength training techniques and activities.

## 149f Foundations of Health and Exercise Science (3)

Introduction to physical education as health promotion and exercise science. Historical background, contemporary issues of the discipline, role of sports and health in society and trends for the future are topics covered.

## 151 First Aid and Sports Injuries (3)

Introduces first-aid measures for typical work, athletic and school situations. Provides skills and theory in athletic training topics through lab, observation and lecture. Covers injury prevention, injury evaluation, primary care, education and rehabilitation along with equipment use and counseling common to the athletic setting.. Provides American Red Cross Certification for Workplace First Aid and Adult CPR.

## 160 Personal Health (3)

Introduction to the multiconceptual approach to personal health. Encourages individuals to take self-responsibility through informed choices on a daily basis. Includes strategies to modify daily health habits.

## 210P Methods of Teaching Health and Physical Education for Elementary School (3)

Prerequisite: sophomore standing or instructor's permission. Intended for elementary education majors. Acquaints students with physical activities for elementary school child, objectives and methods of organization of physical education, developmental characteristics of children, first aid, CPR, micro-teaching and curriculum development of health and physical education. May be used to meet one of the elementary education requirements for state licensure.

## 212P Adapted Physical Education (3)

Prerequisite: sophomore standing. Considers developmental, remedial and corrective programs in physical education; emphasizes adaptation to special needs beyond the regular physical education program.

## 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.

## 214P Methods of Teaching Sports Skills (3)

Prerequisite: sophomore standing. Presents a variety of methods aimed at teaching both individual and team sports. Students learn basic methods and strategies essential to the teaching of these activities to students in a class setting. Activities covered may include: archery, badminton, racquetball, outdoor recreational activities, soccer, softball, flag football, basketball and volleyball.

## 216P Sport and Exercise Psychology (3)

Prerequisite: PSYC 122s or PSYC 210s. Explains the basic concepts and principles in sport and exercise psychology. Demonstrates how to apply the principles in counseling, teaching, coaching, and fitness instruction.

## 217 I CPR for the Professional Rescuer (1)

Prerequisite: instructor's permission. Provides the professional rescuer with the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of respiratory and cardiac emergencies until more advanced medical help can arrive. Pass/no record.

## 223P Level 1: Clinical Rotation 1 (1)

Prerequisites: Admission to ATEP, BIOL 111q, EXSC 149 f and EXSC 151, or instructor permission. The course will cover a variety of topics from Basic First Aid, Professional Rescuer CPR, AED and an assortment of administrative issues. The material covered is vital for an entry level ATS. Rotations are designed to expose students to fall sports in a structured environment.
Students will spend a maximum of two weeks with each sport. During that time students need to familiarize themselves with the rules, equipment and idiosyncrasies of each sport.

## 224P Level 1: Clinical Rotation 2 (1)

Prerequisites: EXSC 223P or instructor permission. The purpose of this course is to further students' clinical skills and to expose them to spring sports in a structured environment. Students will spend a minimum of two weeks with each sport. During that time students need to familiarize themselves with the rules, equipment and idiosyncrasies of each sport.

## 234P Sports Nutrition (3)

Prerequisite: BIOL 111q. An introduction to sports nutrition concepts, analysis of functions, deficiencies, sourses and utilization of nutrients, current controversies and fads. Application of nutrition principles to specific health needs and to sports performance.

## 241P Fundamentals and Theory of Baseball and Softball (3)

Prerequisite: sophomore standing. Covers basic offensive and defensive skills, theory, strategy, rules and psychology of coaching baseball and softball.

## 242P Fundamentals and Theory of Track and Field (3)

Prerequisite: sophomore standing. Studies the methods for teaching the mechanics of track \& field events; examines the training concepts and theories for various events; and deals with the organization and operation of a track meet.

## 243P Fundamentals and Theory of Basketball (3)

Prerequisite: sophomore standing. Basketball skills and strategies appropriate for coaching basketball. Students will learn the basic fundamentals of the game of basketball both offensively and defensively. Also includes fundamental theory, offensive and defensive plays, game strategy, rules, conditioning and psychology of coaching basketball.

## 244P Fundamentals and Theory of Football (3)

Prerequisite: sophomore standing. Studies the basic fundamentals and techniques for each position in the game of football. This will be followed by an overview of the different offensive and defensive philosophies of modern day football plus game strategy. The psychology of coaching football will also be covered along with the development of a conditioning program.

## 246P Fundamentals and Theory of Coaching Soccer (3)

Prerequisite: sophomore standing. Teaches basic skills of competitive soccer including game strategies and rules. Students perform skills and learn methods of teaching and coaching.

## 248P Fundamentals and Theory of Volleyball (3)

Prerequisite: sophomore standing. Covers basic skills, theory, strategy, rules and psychology of coaching volleyball through lab and lecture.

## 253P Human Anatomy-Kinesiology: Lower (4)

Prerequisites: BIOL 111q. Examines the structure and function of the skeletal, muscular and articular system below the waist. Applications are made to help the teacher/coach, athletic trainer/physical therapist, and physician evaluate human movement.

## 255P Human Anatomy-Kinesiology: Upper (4)

Prerequisites: BIOL 111q. Examines the structure and function of the skeletal, muscular and articular system above the waist. Applications are made to help the teacher/coach, athletic trainer/physical therapist, and physician evaluate human movement.

## 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.

## 261 Community Health (2)

Encompasses basic facts and principles of community health at the local, state, national and international levels, including the relationships between public health departments, voluntary agencies and school health programs.

## 262 Consumer Health (2)

Reviews today's complex health marketplace. Provides factual information and useful guidelines that will enable students to intelligently select health products and services.

## 272P Athletic Injury Assessment: Lower (3)

Prerequisite: EXSC 151. Provides the student with the knowledge and skills to evaluate common injuries occurring in lower extremities of the musculoskeletal system. Initial treatment, rehabilitation and taping techniques are explored.

273P Athletic Injury Assessment: Upper (3)
Prerequisite: EXSC 151. Provides the student with the knowledge and skills to evaluate common injuries occurring in upper extremities of the musculoskeletal system. Initial treatment, rehabilitation and taping techniques are explored.

## 283PI Field Experience: Exercise Science (Arr)

Prerequisites: sophomore standing and instructor's permission. A practical experience under the direct supervision of a certified individual.

## 284PI Field Experience: Coaching (Arr)

Prerequisite: instructor's permission. Practical experience under the direct daily supervision of a certified coach.

## 323P Level 2: Clinical Rotation 1 (1)

Prerequisites: EXSC 223P, 224P, 272P and 273P, or instructor permission. The purpose of this course is to provide athletic training students a fall clinical rotation assignment in a controlled and supervised environment. The students will be expected to practice, demonstrate, refine and apply competencies gained in previous settings. The students will attend practices and events as assigned; assist in pre- and post-practice treatment and care of injuries; provide practice supervision; evaluate and provide treatment and rehabilitation of injuries. The students will also demonstrate appropriate communication skills with other health care professionals working with their team.

## 324P Level 2: Clinical Rotation 2 (1)

Prerequisites: EXSC 223P, 224P, 272P and 273P, or instructor permission. The purpose of this course is to provide athletic training students a spring clinical rotation assignment in a controlled and supervised environment. The students will be expected to practice, demonstrate, refine and apply competencies gained in previous settings. The student will attend practices and events as assigned; assist in pre- and post-practice treatment and care of injuries; provide practice supervision; evaluate and provide treatment and rehabilitation of injuries. The students will also demonstrate appropriate communication skills with other health care professionals working with their team.

## 345P Theory and Research Methods of Health and Exercise Science (3)

Prerequisite: EXSC 149f and junior standing. Examines basic research design and involves students in a common research experience and communication of research results.

## 356P Operations and Management of Exercise and Sports Medicine Facilities (3)

Prerequisite: junior standing and EXSC 149f. Offers an in-depth study of the administration and management of exercise and sports medicine facilities. Specific areas of inquiry include health promotion, athletics, intramurals, physical education and athletic training.

## 357P Fitness Assessment and Exercise Prescription (4)

Prerequisite: junior standing, EXSC 135 or EXSC 136. Assessment of physiological fitness levels and development of individualized exercise prescriptions.

## 358P Principles of Personal Training (3)

Prerequisites: EXSC 135, EXSC 136, and EXSC 357P. Explains individualized fitness programs, business and legal issues for personal trainers and develops personality and communication attributes of trainers.

## 361P Biomechanics (4)

Prerequisite: junior 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.

## 363P Human Sexuality (3)

Prerequisite: junior standing. Explores the physiological, psychological and sociological dimensions of human sexuality, focusing on how sexuality influences the quality of life throughout the human lifespan. Offered alternate years.

## 376P Therapeutic Exercise (3)

Prerequisites: EXCS 151, 272P and 273P. Develops individual exercise programs used in injury rehabilitation. Discusses range of motion, resistance exercise, aerobic exercise, stretching, and joint mobilization for all major regions of the body. Special populations will also be considered. Includes the physiological effects, indications and contra-indications for use of exercise in a rehabilitative setting. Classroom and laboratory time will be combined to provide a balanced look at the use of exercise in rehabilitation.

## 377P Therapeutic Modalities (3)

Prerequisites: EXSC 151, 272P, 273P. Applies the most common therapeutic modalities used in the rehabilitative setting. Discusses documentation in depth, patient safety, phases of rehabilitation, the inflammation process as it relates to therapeutic modalities, wound repair, thermal agents, hydrotherapy, electrotherapy and other contemporary therapeutic modalities. Indications, contra-indications and actual use will be discussed and practiced. Classroom and laboratory time will be combined to provide the student with a more complete understanding of therapeutic modalities.

## 3901 Topics (Arr)

Prerequisite: instructor's permission. Offered as needed to cover the interest of staff and students when these cannot be accommodated by regular offerings.

## 395 Athletic Team Assignment:

$\qquad$ (1)

Provides the student athletic trainer with a team assignment in a controlled and supervised environment. The student will practice, demonstrate, refine and apply competencies gained in previous settings. The student will attend all practices and events as assigned; assist pre- and post-practice treatment and care of injuries; provide practice supervision; evaluation and provide treatment for and rehabilitation of injuries. The student will also demonstrate appropriate communication skills with other health care professionals working with their team. The course may be repeated with a different sub-designation, depending on the sport being covered.

## 399I Independent Study (Arr)

Prerequisite: instructor's permission. Designed to permit students to pursue individual interests in specialized areas of physical education.

## 423P Level 3: Clinical Rotation 1 (2)

Prerequisites: EXSC 323P, 324P, 376P and 377P, or instructor permission. Senior level review and evaluation of clinical competencies and proficiencies. Extensive content in organization and administration of athletic training programs.

## 424P Level 3: Clinical Rotation 2 (2)

Prerequisites: EXSC 323P, 324P, 376P and 377P, or instructor permission. Senior level review and evaluation of clinical competencies and proficiencies. Extensive content in organization and administration of athletic training programs.

## 460P Exercise Physiology (3)

Prerequisites: junior standing and a biology lab course. Examines principles of physiology involved with both the acute and chronic effects of exercise.

461P Exercise Physiology Lab (2)
Prerequisite or corequisite: EXSC 460P. A lab-oriented class that helps put exercise physiology theories into practice.
462P Motor Learning (3)
Prerequisite: junior standing. Examines principles of skill acquisition related to motor skill performance; includes teaching and coaching methods.

## 487P Senior Research (3)

Prerequisite: completion of PED 245P or instructor's permission. Students prepare and present a research proposal that includes a written report and an oral presentation and discussion of their work.

## 397/497PI 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 record basis.

## Fine Arts

Fine Arts Division

## The fine arts division

The Fine Arts Division, one of seven academic divisions within the college, offers interdisciplinary courses under the FA designation designed to augment departmental courses offered throughout the college.

## Fine arts division (FA) courses

## 200Ca Fine Arts in the City (3)

An intensive exploration of the architecture, dance, drama, music, visual arts and other art forms influenced by and available in the city. Uses a broad range of field experiences supported by reading, classroom discussion and presentations by recognized authorities. Offered in Chicago only.

## French

Cross-Cultural Studies Division
Modern Languages Department

## Faculty

Roger Pieroni (department chair), Patricia B. Westphal

## Departmental statement of philosophy

The department of modern languages 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. All on-campus courses include laboratory sessions with native-speakers or advanced speakers of the target language and are supported by co-curricular activities in the language, including the language house program and social activities. 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 majors in the department of modern languages (especially those seeking secondary teaching licensure) are expected to spend one year - or at least one semester - in one of Central's programs in Granada, Spain; Merida, Mexico; Paris, France; or Vienna, Austria. Before departure, students should review with their adviser those courses offered abroad which can be used to meet major requirements, and a preliminary plan of study should be filed with the adviser. Students must make effective use of their time and experience abroad in order to reach the proficiency levels required of the major. Students seeking a minors in the department are encouraged to study abroad as well.

## Teaching licensure

Students seeking teaching licensure must secure information from the department of modern languages and the department of education concerning departmental and state requirements. Requirements for students seeking teaching licensure are not necessarily identical to those of the general major/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.

## French major statement of philosophy

Because a language and its culture are inextricably linked, the French department sees the study of language as encompassing much more than course work. In addition to classes taught exclusively in French and providing ample opportunity to master the language, distinct courses are also offered in literature, civilization, translation and business. Extending beyond the classroom walls, the French program at Central College also involves the opportunity to live in the French House, to have frequent contact with native French assistants and to live and study in Paris. Taking full advantage of the program prepares students for a broad range of options after graduation, among which are the world of international business, education and graduate school.

## Study abroad opportunities

It is strongly recommended that majors spend at least one academic year studying in the Central College Abroad Paris program. At least one semester's study in Paris is required for students planning to teach French. All courses offered in the Central College Abroad Paris program at the 700-800 level apply toward the French major.

## French Major Requirements (27 s.h. minimum)

## 1. Complete either:

- 27 semester hours in FREN courses numbered 321 or higher on the Pella campus (or at the 700-800 level on the Paris program), or
- 35 semester hours in FREN courses numbered 221 or higher, or
- 43 semester hours in FREN courses numbered 121 or higher

2. Included in the hours taken above must be all of the following:

- 6 semester hours in French literature courses
- 3 semester hours in French civilization courses
- 4 semester hours in FREN 490Pct or equivalent


## 3. Complete all requirements for the Communication Skills Endorsement

Note: Students who attend the introductory programs in Paris (two semesters) can complete the French major by taking, on the Pella campus, a minimum of 15 semester hours in the French department including 6 semester hours in literature and 4 semester hours at the 400 -level approved by the department.

## Communication skills endorsement

All students at Central College are expected to demonstrate communication skills appropriate for their major(s). In addition to modern language skills, students in the department are expected to offer evidence of a high level of proficiency in English. Students should satisfy this requirement as soon as they declare their major, if at all possible before the end of the sophomore year. Approved oral and written work in English prepared for, or in connection with, courses in the major may be used to document skills. One faculty member is designated to certify communication skills for the department and to prescribe remediation when necessary.

## Typical sequence of major courses for the French major

## Freshman year

Begin at highest level of competence
FREN 121c Beginning French I
FREN 122Pc Beginning French II or
FREN 221Pc Intermediate French I
FREN 222Pc Intermediate French II or
FREN 321Pc Advanced Conversation and Composition I
FREN 322Pc Advanced Conversation and Composition II

## Sophomore year

Continue the next highest language sequence
FREN 221Pc Intermediate French I
FREN 222Pc Intermediate French II or
FREN 321Pc Advanced Conversation and Composition I
FREN 322Pc Advanced Conversation and Composition II
FREN 333Pch French Civilization or
FREN 343Pct Early French Literature: Middle Ages and Renaissance
FREN 344Pct French Literature of the 17th and 18th Centuries
FREN 345Pct 19th Century French Literature
FREN 346Pct 20th Century French Literature

## Junior year

If FREN 322Pc or 333Pch is completed in the sophomore year, study abroad is strongly recommended.

## Senior year

If FREN 333Pc is completed in the junior year, study abroad is strongly recommended. If student has returned from abroad, take FREN 490Pct.

## French Minor Requirements

## 1. Complete either.

- 20 semester hours of FREN courses numbered 121 or higher, or
- 10 semester hours of FREN courses numbered 322 or higher taken at Central.

Note: The combination of the introductory and regular programs in Paris also meets requirements for a minor.

## French (FREN) courses

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.

105 French Phonetics and Phonics (1)
Taught in French, but open to all students. Intensive ear and speech training to improve pronunciation.

## 106t French Film: An Introduction (3)

Films that have defined and shaped French culture are analyzed as texts. Films are subtitled and course is taught in English. Emphasizes speaking and writing. Does not count toward the French major or minor.

## 121c Beginning French I (4)

A broad-based course developing skill in speaking, reading, writing and understanding spoken French. The cultural element stresses contemporary France.

## 122Pc Beginning French II (4)

Prerequisite: FREN 121c. A continuation of the introductory course. Offers further development of skills in all areas and study of contemporary France.

## 221Pc Intermediate French I (4)

Prerequisites: FREN 122Pc, placement. A continuation of FREN 122Pc. Carries the students in French closer to mastery of the skills of understanding, speaking, reading and writing the language. Includes a study of selected aspects of French culture.

## 222Pc Intermediate French II (4)

Prerequisite: FREN 221Pc or instructor's permission. A continuation of FREN 221Pc. Carries the students in French closer to mastery of the skills of understanding, speaking, reading and writing the language, with emphasis on increasing reading skills. Includes a study of selected aspects of French culture.

## 309Pc French Conversation (1)

Prerequisite: FREN 222Pc or instructor's permission. Does not count toward the major. An opportunity for students to maintain speaking skills. Small groups discuss articles and clips from contemporary media.

## 310Pc Listening Comprehension (1)

Prerequisite: FREN 222Pc or instructor's permission. Students develop or maintain listening comprehension skills in language lab setting, using authentic aural documents from French culture.

## 321Pc Advanced Conversation and Composition I (4)

Prerequisite: FREN 222Pc, placement, or instructor's permission. Develops a solid understanding of the syntax of oral and written French. Stresses growth in reading, writing and speaking skills, while providing some background on contemporary French life and culture.

## 322Pc Advanced Conversation and Composition II (4)

Prerequisite: FREN 321Pc or instructor's permission. Primary stress is on perfecting French language skills. Includes an introduction to literature as well as relevant culture and civilization topics.

## 326Pt Reading in French Film (4)

Prerequisite: FREN 322Pc. Offered jointly with FREN 106t, which is taught in English. Students in FREN326Pt will conduct their discussions, write their papers, and do supplementary readings in French. The course content is the analysis of a number of French films which have defined and shaped French culture. Discussion and writing are emphasized.

## 329Pc The Language House Experience I (1)

Prerequisite: Departmental approval for living in the French House. Credit awarded in the spring for students who live in the house for the entire academic year. Requires participation in regular house activities and special events, use of French as the primary language of communication in the house, and a formal presentation in French to house residents and department faculty in spring semester. May be repeated once (FREN 330Pc) for a maximum of two credits.

## 330Pc The Language House Experience II (1)

Prerequisite: Departmental approval for living in the French House. The second year's experience in the language house. See FREN 329c.

## 333Pch French Civilization (3)

Prerequisite: FREN 322Pc or instructor's permission. Study of the development of French civilization, the ways and customs of the French people from their origins to the 20th century.

343Pct Early French Literature: Middle Ages and Renaissance (4)
Prerequisite: FREN 322Pc or instructor's permission. Study of representative excerpts and texts from the Medieval and Renaissance periods by authors such as Marie de France, Chrétien de Troyes, François Villon, Rabelais, Montaigne and Ronsard. Offered alternate years.

344Pct French Literature of the 17th and 18th Centuries (4)
Prerequisite: FREN 322Pc or instructor's permission. Study of representative excerpts and texts from the 17th and 18th centuries by authors such as Descartes, Molière, Madame de Sévigné, Montesquieu, Voltaire and Rousseau. Offered alternate years.

## 345Pct 19th Century French Literature (3)

Prerequisite: FREN 322Pc or instructor's permission. Study of representative texts from the 19th century by authors such as Chateaubriand, Hugo, Balzac, Flaubert, Zola, Baudelaine and Mallarmé. Offered alternate years.

## 346Pct 20th Century French Literature (3)

Prerequisite: FREN 322Pc or instructor's permission. Study of representative texts from the 20 th century by authors such as Valéry, Ionesco, Camus, Sartre, Sarraute, Le Clézio and Ernaux. Offered alternate years.

## 352Pc French for Business (3)

Prerequisite: FREN 322Pc or instructor's permission. Introduction to the language of French business and economics, including a contrastive study of the cultural and methodological aspects of business in France and the United States. Credit cannot be received for this course and FREN 862F or FREN 864F (Business French) in Paris.

353PIt Translation-French (3)
Prerequisite: FREN 322Pc or instructor's permission. Introduction to the theory and techniques of translation. Translation of contemporary literary and non-literary texts from English to French and French to English.

410P Advanced French Grammar (1)
Prerequisite: Enrollment in or completion of one college-level French literature course. Review of grammar through written exercises.

490Pct Topics in Francophone Literatures and Civilization (4)
Prerequisite: Study in Paris or instructor's permission. Study of the Francophone cultures and literatures through analysis of texts and films of Québec, the French West Indies and North and West Africa.

## 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.

## 497PI Internship-French (Arr)

Prerequisite: Completion of a year of study on the Paris program with a minimum GPA of 3.00 and instructor's permission. The internship provides an opportunity for the student to explore a career option in the major field of study. Pass/no record basis.

## 499PI Independent Study-French (Arr)

Prerequisite: one literature course and instructor's permission. Designed for majors who wish to investigate some area of individual interest not covered by courses offered in the department. Number of credits determined by the scope of the study undertaken. Offered any semester with the permission of the head of the department.

Note: In addition to the above, all courses offered in the Central College Abroad Paris program at the 700-800 level apply toward the French major.

## General Studies

Interdisciplinary Major

## Faculty

Michael Schrier, director

## Statement of philosophy

The general studies major is designed to permit the creation of an integrated, interdisciplinary major with both breadth and depth. Unlike other interdisciplinary majors which may combine two or more departments within the same academic division, the general studies major requires substantial work in at least three divisions. The flexibility of the major can make it an excellent preparation for a variety of graduate school programs and professional careers.

## Study abroad opportunities

All courses taken abroad can be included in the general studies major.

## General Studies Major Requirements (78-80 s.h.)

## 1. Complete either:

- 26 s.h. of credit in each of three academic divisions or
- 20 s.h. of credit in each of four academic divisions

Note: Courses that will not count toward the major are:
COMM 160f Introduction to Communication Studies (will meet the communication skills requirement, however)
ENGL 101f Composition (will meet the communication skills requirement, however)
ENGL 100 Reading and Writing Strategies
HUM 101P Introduction to American Language and Civilization
MATH 103m College Algebra

## 2. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

An initial evaluation of skills will be based on the student's performance in Central Foundations (" $f$ ") courses, supplemented by the student's scores on standardized tests such as ACT, SAT or the Nelson-Denny Reading Test. The student's progress will be monitored chiefly through his/her academic performance and consultation with faculty if problems appear.
To gain final communication skills endorsement in the general studies major, a student must:

1. achieve a grade of B- or better in ENGL 201P Technical Writing or ENGL 240a The Personal Essay
2. achieve a grade of B- or better in one of the following courses: COMM 160 f Introduction to Communication Studies, COMM 264a Oral Interpretation, COMM 270P Public Speaking, or COMM 262Ps Interpersonal Communication

# German Studies 

Cross-Cultural Studies Division
Modern Languages Department

## Faculty

Roger Pieroni (department chair), Silvia Rode, Philip E. Webber

## Departmental statement of philosophy

The department of modern languages 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. All on-campus courses include regular conversation sessions with native-speakers or advanced speakers of the target language and are supported by co-curricular activities in the language, including the language house program and social activities. 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 majors in the department of modern languages (especially those seeking secondary teaching licensure) are expected to spend one year - or at least one semester - in Central's study abroad program in Vienna, Austria. Before departure, students should review with their adviser those courses offered abroad which can be used to meet major requirements, and file a preliminary plan of study with the adviser. Students must make effective use of their time and experience abroad in order to reach the proficiency levels required of the major. Students seeking a minor in the department are encouraged to study abroad as well.

## Teaching licensure

Students seeking teaching licensure must secure information from the department of modern languages and the department of education concerning departmental and state requirements. Requirements for students seeking teaching licensure are not necessarily identical to those of the general major/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 major statement of philosophy

Students completing the German Studies major may choose from three emphasis areas: literature, language, or cultural history. At the heart of each student's major program is study in a German-speaking country, typically as a participant in the Central College Germany/Austria program. Graduating majors are expected to demonstrate skills in German comparable to those of persons qualified to do advanced work at a German or American university. The ultimate aim of the program goes beyond the acquisition of linguistic competence, however, to laying the foundations for active and responsible world citizenship. German majors are encouraged to plan early for participation in the Central College Germany/Austria program.

## German Studies Major Requirements (32 s.h.)

Note: All majors are expected to study in Gernany or a German-speaking country, and to bave skills in German comparable to those of persons qualified to do advanced work and receive admission to a German university. Students are advised to confer with the department regarding the best sequence of course work to fulfill major requirements, and the courses in Vienna which may be applied toward departmental requirements. Whenever possible, the civilization requirement should be met before going abroad.

## 1. Complete 32 s.h. of GERM courses at the 300 level or higher

2. Complete all of the following ( 23 s.h.):

GERM 321Pc Advanced German I (4) or equivalent
GERM 322Pc Advanced German II (4) or equivalent
6 s.h. in German language beyond GERM 322Pc
3 s.h. in German literature, taught in German (at the Pella campus or abroad)
3 s.h. in German civilization or cultural history (at the Pella campus or abroad)
3 s.h. in an approved advanced language, literature, or cultural history course taken as a capstone course on the Pella campus
after returning from the study abroad program (may be waived for students whose last semester prior to graduation is spent in Central's Vienna program)

## 3. Complete 9 s.h. in one of the following emphases:

Literature emphasis: 9 s.h. chosen in consultation with the major adviser from offerings on the Pella campus or in Vienna; at least 6 s.h. must be taught in German.
Language emphasis: 9 s.h. chosen in consultation with the major adviser from approved linguistics courses in Vienna, and/or from courses in the linguistics track in Central College's English Department.
Cultural history emphasis: 9 s.h. chosen in consultation with the major adviser from offerings in German, the humanities, social sciences, and/or fine arts.

## 4. Complete all requirements for the Communication Skills Endorsement

## Double Counting

A course may fulfill more than one requirement for the major (for example, a course taken after returning from Vienna might also count toward completion of an emphasis area), but that will not reduce the total number of hours required for the major, or the number of hours required in individual areas of the major, as stipulated above.

## Communication skills endorsement

All students at Central College are expected to demonstrate communication skills appropriate for their major(s). In addition to modern language skills, students in the department are expected to offer evidence of a high level of proficiency in English. Students should satisfy this requirement as soon as they declare their major, and if at all possible before the end of the sophomore year. Approved oral and written work in English prepared for, or in connection with, courses in the GERM major may be used to document skills. Each language area has at least one faculty member designated to certify communication skills for the department and to prescribe remediation when necessary.

## Non-major support courses

During the year abroad, majors may take support courses in the civilization of Austria. See the department for a statement concerning the civilization and literature courses in Vienna which may count toward major requirements. On campus, majors are encouraged to start a second major or to get strong minors in areas of interest (e.g., business, communications, linguistics, various pre-professional curricula, etc.); students are particularly encouraged to pursue work in another language, literature, or area of cultural studies.

## Additional information

1. A second foreign language and second major are both recommended. Also available is a single semester or summer study for 8 weeks or 12 weeks at the Goethe Institut in Germany. The Goethe Institut program can serve beginners in German as well as advanced students. Details may be obtained from the office of international education.
2. Each incoming student must take a placement test before enrolling at her/his appropriate level of competence. Final placement decision is made by the department on the basis of previous language study and/or performance on a placement test. Usually the adviser can get a good preliminary recommendation from the department chair. During the initial three weeks of the first semester of study, the student may move to a higher or lower level according to the recommendation of the language instructor.
3. Students with prior foreign language knowledge will be granted advanced placement credit according to college policy. Students should consult with the department chair regarding the policy on which credits count toward graduation, the major and teacher certification.
4. Specific information on the requirements for the minor and/or the teaching major/minor in German can be secured from the department. Requirements for students seeking teaching certification are not necessarily identical with those of the general major/minor. The department is especially stringent in its expectation that candidates for teacher certification study abroad.
5. The department wishes to work closely with majors studying abroad; all students are asked to obtain statements on file with the department concerning specific offerings in Vienna which may count toward the major.

## Typical sequence of courses for the German major

## Freshman year

Begin at highest level of competence
GERM 121c Beginning German I or
GERM 122Pc Beginning German II
GERM 221PC Intermediate German I or

GERM 222Pc Intermediate German II: Composition/Conversation
or other appropriate advanced course work.

## Sophomore year

If completed GERM 322Pc or higher, eligible for year's study abroad. Otherwise, continue the next highest language sequence, GERM 221, 222 or 321, 322 or other appropriate advanced course work including 361.

## Junior year

If completed GERM 322Pc or higher as a sophomore, should take year's study abroad. Students who began German at Central College may apply to study abroad as juniors.

## Senior year

If completed GERM 322Pc or 333 as a junior, should take year's study abroad. If returned from abroad, complete at least one departmentally approved advanced course.

## German Studies Minor Requirements

1. Complete at least GERM 321Pc (4) and GERM 322Pc (4) (or equivalent), with the highest two courses for the minor taken at Central College, or at Central's program in Vienna.
2. Achieve the equivalent of intermediate-high proficiency in all skills as demonstrated in an oral exam with a faculty member (ACTFL scale)

Note: Special requirements apply for teacher certification.

## German (GERM) Courses

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.

## 121c 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.

## 122Pc Beginning German II (4)

Prerequisite: GERM 121c 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.

## 221Pc Intermediate German I (4)

Prerequisite: GERM 122Pc or equivalent. Offers intensive practice in spoken and written language, reading in a variety of texts and review of grammar. Background material on contemporary German life and culture.

## 222Pc Intermediate German II: Composition/Conversation (4)

Prerequisite: GERM 221Pc or equivalent. Offers intensive practice in spoken and written language, reading in a variety of texts and review of grammar. Background material on contemporary German life and culture. Special emphasis on composition and conversation.

## 321Pc Advanced German I (4)

Prerequisite: GERM 222Pc or equivalent. Intensive review and practice of all fluency skills, combined with a broad introductory survey of the German cultural and literary heritage.

## 322Pc Advanced German II (4)

Prerequisite: GERM 321Pc or equivalent. A continuation of GERM 321Pc. Continued intensive review and practice of all fluency skills, combined with a broad introductory survey of the German cultural and literary heritage.

## 329Pc The Language House Experience I (1)

Prerequisite: Departmental approval to live in the German house. Credit awarded in the spring for students who live in the language house for the entire academic year. Requires participation in regular house activities and special events, use of German as the primary language of communication in the house and a formal presentation in German to house residents and department faculty in spring semester. May be repeated once (GERM 330Pc) for a maximum of two credits.

## 330Pc The Language House Experience II (1)

Prerequisite: Departmental approval to live in the German house. The second year's experience in the German house. Same description as GERM 329Pc.

## 331ct Introduction to German Literature (3)

An introductory survey of German literary works, authors, terminology, genre and the development of the literary heritage. Taught in English, with appropriate assignments for students wishing to count this course toward the German Studies major.

## 332ct Masterworks of German Literature (3)

Studies a selection of major authors representing the main periods and genres. Taught in English, with appropriate assignments for students wishing to count this course toward the German Studies major.

## 342ct Literary Analysis (3)

An in-depth study of distinctive works of various genres of German literature. Taught in English, with appropriate assignments for students wishing to count this course toward the German Studies major.

## 351Pc Advanced German Grammar (3)

Prerequisite: Adequate proficiency in German. Historical perspectives on the development of German grammar, an overview of techniques for analysis of the language and application of the systematic patterns which characterize the current language. Taught in English, with appropriate assignments for students wishing to count this course toward the German Studies major.

## 352Pc German for Business (3)

Prerequisite: GERM 322Pc or instructor's permission. Introduction to the language of German business and economics, including a comparative/contrastive overview of various German and American business systems, and domestic and international aspects. Emphasis on business language proficiency.

## 353Pc History of the German Language (3)

Prerequisite: Adequate proficiency in German. Development of the German language is considered in light of larger patterns of interrelationship between language and society. Texts of cultural-historical significance are used to illustrate evolving patterns of language change. Taught in English, with appropriate assignments for students wishing to count this course toward the German Studies major.

## 361ch German Cultural History (3)

Advanced study of German civilization, emphasizing developments in language, literature, philosophy, the arts, traditions, institutions and customs from the early stages to the present. Taught in English, with appropriate assignments for students wishing to count this course toward the German Studies major. Taught concurrently with HIST 261ch. Students cannot receive credit for both GERM 361ch and HIST 261ch.

## 390 Topics in German (3)

Offered as needed to meet student needs and interests when these cannot be accommodated by regular offerings. Taught in English, 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.

## 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. May be repeated. Pass/no record basis.

## 497I 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 record basis.

## 4991 Independent Study-German (Arr)

Open to qualified students with departmental approval.

## History

Humanities Division<br>History Department

Faculty
Michael Schrier (chair), Chia Ning, Lori Witt

## Statement of philosophy

The history department believes that one of the most important ways in which people establish who they are is through an accounting of what they have done over time. Since all human activities provide resources for this understanding, the history department includes in the study of history all social and cultural activities in which people have engaged. History is more than past politics. To insure that its students have the opportunity to know the variety that characterizes the human experience, the history department offers courses in all periods from ancient to modern and in most regions, including the Middle East, Africa, Asia, Europe and America.

Since history involves more than the simple setting forth of facts, the department exposes its students to the variety of interpretations and arguments that have characterized historians' study. It also seeks to make them aware of the difficulties in coming to agreement in these matters. The department intends that engagement in such investigation assists students in developing their reasoning skills, as well as advanced reading and writing skills, which provides excellent preparation for graduate and professional study.

In addition to the standard major, the history department offers two options which lead either to certification in secondary education or an emphasis in public history. Course work in cultural anthropology, archaeology, art history, cultural and historical geography, and environmental studies is encouraged depending on individual student interests.

## Study abroad opportunities

All history courses taken abroad can be used for the major.

## History Major Requirements (38 s.h.)

1. Complete all of the following:

| HIST | 120fh | Early Western Civilization (3) |
| :--- | :--- | :--- |
| HIST | 121fh | Modern Western Civilization (3) |
| HIST | 385 I | History Seminar (4) |
| HIST | 386 I | Public History Seminar (4) |

## 2. Complete three of the following:

| HIST | 226 h | Foundations of American Nationalism (3) |
| :--- | :--- | :--- |
| HIST | 227 h | The Emerging United States (3) |
| HIST | 228 h | Origins of Modern America (3) |
| HIST | 229 h | Recent United States (3) |

3. Complete one of the following:

| HIST | 150 h | Latin American Civilization (3) |
| :--- | :--- | :--- |
| HIST | 170 nh | Early East Asian Civilization (3) |
| HIST | 171 nh | Modern East Asian Civilization (3) |
| HIST | 180 nh | African Civilization (3) |



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Public History Emphasis requirements
    * Complete one of the following courses:
    HIST 237h American Environmental History (3)
    HIST 238h The American Frontier and West (3)
    * Complete two of the following courses:
    HIST 263h Biblical Archaeology (3)
    ANTH 264s Archaeology (3)
    ANTH 120ns Introduction to Cultural Anthropology (3)
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ART 221ah History of Art: Ancient through Medieval (3) or ART 325ah History of Modern Art (3)

* Complete the following course:

HIST 497I Internship: Public History (3) or department-approved 3 s.h. equivalent
5. Complete all requirements for the Communication Skills Endorsement

Note: No more than 3 s.h. of HIST 497I can count toward the major
Note: HIST 130h and HIST 131b will not count toward the major

## Communication skills endorsement

Evaluation in all skills is based on students' performance in HIST 385I and 386I. This two-course sequence requires extensive writing and reading in addition to development of research skills, and the student must receive a minimum grade of "C" for the course to obtain departmental recommendation for graduation with a history major. Preliminary evaluations of all skills are made when evaluating the student's performance in the western civilization sequence, which is classified as central foundations (" $f$ ") course work. The student's skills will be continually monitored through subsequent course work in the major. If serious problems are apparent as a result of the preliminary evaluation, or if endorsement is not earned after completion of HIST 385I-386I, students will be asked to undertake a remedial program devised in consultation with the adviser.

## History Minor Requirements (24 s.h.)

1. Complete 24 s.h. of HIST credit, including the following:

- three courses in American history
- three courses in world history.

Note: The bistory minor will not meet the state if Iowa requirements for teaching certification in bistory as a minor field.

## Typical sequence of required courses for the history major

Freshman year<br>HIST 120fh Early Western Civilization<br>HIST 121fh Modern Western Civilization<br>One or two classes chosen from:<br>HIST 132fh Issues in American History<br>HIST 226h Foundations of American Nationalism<br>HIST 227h The Emerging United States: 1787-1877<br>HIST 228h The Origins of Modern America 1877-1932<br>HIST 229h Recent United States<br>HIST 150h Latin American Civilization<br>HIST 170nh Early East Asian Civilization<br>HIST 171nh Modern East Asian Civilization or<br>HIST 180nh Modern African Civilization<br>Core courses and electives<br>\section*{Sophomore year}<br>Two or three classes from:<br>HIST 226h Foundations of American Nationalism<br>HIST 227h The Emerging United States 1787-1877<br>HIST 228h The Origins of Modern America 1877-1932<br>HIST 229h Recent United States<br>and one from:<br>HIST 150h Latin American Civilization<br>HIST 170nh Early East Asian Civilization<br>HIST 171nh Modern East Asian Civilization or<br>HIST 180nh Modern African Civilization<br>Junior year<br>HIST 385I History Seminar

HIST 386I Public History Seminar
History electives
Core courses and electives

## Senior year

HIST 386I Public History Seminar
History electives
Core courses and electives

## Secondary education teaching licensure

Students seeking secondary education teaching licensure must, in addition to completing all education (EDUC) courses required for licensure, complete $38 \mathrm{~s} . \mathrm{h}$. of history credit, including:

- HIST 120fh, HIST 121fh, HIST 226h, HIST 227h, HIST 228h, and HIST 229h
- Either HIST 150h, HIST 170nh, HIST 171nh or HIST 180nh
- two world history electives
- one American history elective
- HIST 385I and HIST 386I

In addition, students seeking teaching licensure must earn a GPA of 3.0 in the history major

## History (HIST) courses

## 120fh Early Western Civilization (3)

Provides an overview of Western civilization from approximately 4000 B.C. to 1789 with particular emphasis on the nature of historical interpretation and the question of continuity and change in western history. Promotes the development of college-level skills, with emphasis on writing and analytical thinking based on careful reading of some of the classics of the western intellectual tradition.

## 121fh Modern Western Civilization (3)

Provides an overview of Western civilization from approximately 1789 to present with particular emphasis on the nature of historical interpretation and the question of continuity and change in western history. Promotes the development of college-level skills with emphasis on writing and analytical thinking based on the careful reading of some of the classics of the western intellectual tradition.

## 150h Latin American Civilization (3)

Provides an overview of Latin American civilization from 1400AD to the present, with special attention paid to the processes of colonization, the struggle for independence and modernization. The course focuses on the roles of the institutions of church, state and the military in each of those processes.

## 170nh Early East Asian Civilization (3)

Explores the historical foundations of Asian civilization from the earliest times to the 15 th century with special emphasis on China and Japan.

## 171nh Modern East Asian Civilization (3)

Explores the development of Asian civilization from the 15th century to the present with special emphasis on comparing the histories of China and Japan.

## 180nh Modern African Civilization (3)

An interdisciplinary survey of cultures and life in modern Africa. Emphasis on sub-Saharan African history, art, political economy, women, development and society.

## 210Ch History of Religion in Urban America (3)

Offered only at the Chicago Metropolitan Center. Previous course work in American history is helpful but not required. Analyses various approaches to religious social engagement in American urban history from the Colonial era to the present, and the changing social context and the relationship between that context and the social engagement of religious people. Topics include religious responses to the market economy, race relations, gender roles and the relationship of church and state.

## 222nhs African Politics Since 1935 (3)

A comparative historical analysis of African countries' political institutions and processes, from the early nationalist period to the present. Special focus on political, economic, and foreign policy problems and strategies of independent African countries. Cross-listed as POLS 222nhs.

## 223hs Contemporary Europe (3)

A survey of European history and politics since WWII, with emphasis on the process of political economic and cultural integration within the European Union. Special attention is paid to political and socioeconomic change in Great Britain, France and Germany in the context of the development of the European Union. Students also analyze postwar political and socioeconomic development in a European country of personal interest. Cross-listed as POLS 223hs.

## 224h Readings in European History (3)

Designed to permit the student to select one of four countries-Spain, England, Germany or France-for intensive study through a program of reading and small group discussion. Some knowledge of European history is useful but not essential for taking this course. May be repeated with a different topic.

## 225hs Modern Latin America (3)

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. Cross-listed as POLS 225hs.

## 226h Foundations of American Nationalism (3)

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.

## 227h The Emerging United States: 1787-1877 (3)

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.

## 228h The Origins of Modern America: 1877-1932 (3)

Examines the transformation of the United States from Reconstruction to the New Deal when the nation evolved from isolation and pre-industrial values and institutions to a modern country characterized by industrialization, immigration, urbanization and international diplomacy.

## 229h Recent United States (3)

An examination of the major political, economic, social, cultural and diplomatic trends from the New Deal through the Vietnam era. Major areas of consideration will include the Great Depression and New Deal, the assumption of the international responsibilities of World War II and the Cold War, the civil rights movement, Vietnam, and the Counterculture.

## 230nhs Africa, Asia, and Latin America in World Affairs (3)

A comparative historical and institutional analysis of post-1945 African, Asian, and Latin American states' foreign policies. Special attention given to the colonial roots of post-independence, foreign economic, diplomatic, and military policies of each case. Focus will be on domestic sources of foreign policy. Cross-listed as POLS 230nhs.

## 233hs American Environmental History and Policy (3)

Investigates the history and politics of American environmental issues from Colonial times to the present. Introduces major governmental and non-governmental actors and policy-making bodies in the environmental arena at the national, state, and local levels. Analyzes major environmental policies. Cross-listed as POLS 233hs.

## 235hs The U.S. in World Affairs (3)

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. Cross-listed as POLS 235hs.

## 236h Oral History in Iowa (3)

An introduction to the methodology of oral history, this course teaches students to record life history interviews with narrators of their choice, and to transcribe, index and obtain approval so they can be archived for the purposes of public and local history in Iowa. Course context is provided by a survey of Iowa history and field trips to oral history archives and museums in the state. Students have the opportunity to participate in existing oral history projects.

## 238h The American Frontier and West (3)

An examination of the role of the frontier in American history in economic, social, cultural and political areas from the emergence of European cultures on the Atlantic seaboard and the Borderlands Southwest to the contributions of today's modern TransMississippi West.

240h World War and the Shaping of the $20^{\text {th }}$ Century (3)
A detailed examination of World War I and World War II. The causes and actual combat of both wars will be discussed and, for World War II, careful attention will be paid to the rise of Nazism, the Holocaust, and the Nuremberg trials. The ultimate goal is to investigate how these two wars shaped the twentieth century.

## 241h The USSR (3)

A political and social history, beginning with the prelude to the 1917 revolution, discussing the continuities and discontinuities in the development of the Soviet state and society and ending with the dissolution of the Soviet Union in 1989.

## 250hr American Religious Thought (3)

Studies the historical development of religious and ethical thought in America. The course will focus on such issues as Puritanism, church-state separation, the Social Gospel, Fundamentalism, liberation theologies, modern evangelicalism. Cross-listed as REL 250 hr .

## 252hr The Reformation (3)

Studies the religious movements in 16th-century Europe which 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. Crosslisted as REL 252 hr .

## 253hr Medieval Christendom (3)

Explores the idea of a Christian society (Christendom) which emerged in the European Middle Ages. Topics will include: the rise of the papacy and its conflicts with secular rulers; the Crusades; chivalric and monastic ideals; theology; religious art and architecture; heresy and dissent. Cross-listed as REL 253hr.

## 254hr The Early Church (3)

Studies the history of the early church within the context of ancient Judaism and the Roman Empire through the middle of the fifth century A.D. Particular attention is given to the development of a Christian "orthodoxy" from the diversity of early Christian thought. Cross-listed as REL 254hr.

## 261ch German Cultural History (3)

A study of German cultural history emphasizing developments in literature, philosophy, the arts, institutions and customs from the early stages to the present. Taught concurrently with GERM 361ch. Students cannot receive credit for both GERM 361ch and HIST 261ch.

## 262nh Mideastern Civilization (3)

An introductory survey of Mideastern history from the Ancient Near East to the present, with particular emphasis on the 19th and 20th centuries. Offered alternate years.

## 263h Biblical Archaeology (3)

Examines the history and culture of the Bible lands through the medium of archaeology. Introduces basic archaeological theory and field methods and surveys the archaeological periods of ancient Israel and Palestine from the first permanent settlements in the Neolithic era to the destruction of the first temple in 586 B.C.E.

## 271nh History of Modern China (3)

Surveys the history of China from the Qing Dynasty to the present with special emphasis on social, economic, political and cultural issues in Modern China.

## 272nh History of Chinese Minorities (3)

Examines the relationship of Han-Chinese and non-Han minorities, comparing their societies and governments. Discusses the contributions of northern and southern minorities. Explores the problems in present-day Chinese society and politics. Offered alternate years.

## 275nh History of Modern Japan (3)

Studies Japan's development toward modern statehood in the 19th century and continues with the economic, social, cultural and political life of 20th-century Japan.

## 280nh African History (3)

An introductory survey of African history from ancient Egypt to the present, with emphasis on the period between 1450 and 1960.

## 322Inhs Readings in African Politics Since 1935 (3)

Prerequisite: instructor's permission. Offered jointly with HIST 222nhs but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both HIST 222nhs and HIST 322Inhs. Cross-listed as POLS 322Inhs.

## 323Ihs Readings in Contemporary Europe (3)

Prerequisite: instructor's permission. Offered jointly with HIST 223 hs but with some additional readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both HIST 223hs and HIST 323Ihs. Crosslisted as POLS 323Ihs.

## 325Ihs Readings in Modern Latin America (3)

Prerequisite: instructor's permission. Offered jointly with HIST 225 hs , but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both HIST 225hs and HIST 325hs. Crosslisted as POLS 325Ihs.

## 330Inhs Readings in Africa, Asia, and Latin America in World Affairs (3)

Prerequisite: instructor's permission. Offered jointly with HIST 230nhs but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both HIST 230nhs and HIST 330Inhs. Cross-listed as POLS 330Inhs.

333Ihs Readings in American Environmental History and Policy (3)
Prerequisite: instructor's permission. Offered jointly with HIST 233hs but with some separate readings, sessions and expectations for advanced discussion and research. Students cannot receive credit for both HIST 233hs and HIST 333Ihs. Cross-listed as POLS 333Ihs.

335Ihs Readings in U.S. in World Affairs (3)
Prerequisite: instructor's permission. Offered jointly with HIST 235hs, but with some separate readings, sessions and expectations for advanced discussion and research. Students cannot receive credit for both HIST 235hs and HIST 335Ihs. Cross-listed as POLS 335Ihs.

## 341h The USSR (3)

Offered jointly with HIST 241h but with some separate readings and other assignments. Students cannot receive credit for both HIST 241 h and HIST 341h.

## 385 Seminar I-History (4)

Prerequisites: history major and instructor's permission. Examines the nature of historical inquiry and methodology.

## 386I Public History Seminar (4)

Prerequisites: history major and instructor's permission. Examines the various fields of public history including archival theory and practice, documentary editing, historic preservation and restoration, museology, administration, oral, community and corporate history. Open to majors only, students should complete an appropriate number of history courses before enrolling in this seminar, which is normally offered fall semester of the junior or senior years.

## 497I 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 record basis.

499I Independent Study-History (Arr)
Prerequisite: instructor's permission.

## Humanities

Humanities Division

## The humanities division

The Humanities Division, one of seven academic divisions within the college, offers interdisciplinary courses under the HUM designation designed to augment departmental courses offered in the humanities.

## Humanities (HUM) courses

101P Introduction to American Language and Civilization (4 or 8)
Open only to international students. Presents principles and provides extensive practice in American patterns of written and oral expression, offers practice in the reading laboratory and directs an extensive program of readings and discussion on selected topics in American Civilization. Required of all entering international students.

## 102P Introduction to American Language and Civilization II (4 or 8)

A continuation of HUM 101P. Open only to international students. Presents principles and provides extensive practice in American patterns of written and oral expression, offers practice in the reading laboratory and directs an extensive program of readings and discussion on selected topics in American Civilization. Required of all entering international students.

## Individualized Interdisciplinary Major

## The individualized interdisciplinary major

The individualized interdisciplinary major was created for students whose academic interests and goals can be best met outside the structure of any single disciplinary/departmental major, any combination of majors, or any combination of major(s) and minor(s).

Students may design a customized interdisciplinary major with the assistance of faculty members from two departments primarily involved in the major. The major must consist of 50-60 s.h. of courses, and be comprised of lower-, middle-, and upper-level courses. It is in the student's best interest to submit a completed "Interdisciplinary Major Proposal" form to the academic records and registration office by the end of the sophomore year; proposals will not be accepted after the end of the first semester of the junior year.

# Information Systems 

Behavioral Sciences Division<br>Interdisciplinary Major

## Departmental faculty

Stephen Fyfe, Robert Maurer (co-directors)

## Statement of philosophy

Students desiring a technical specialty within either business management or accounting or an applied area of computer science will find the interdisciplinary information systems major of interest. The major offers a common core of courses, devised to meet student needs as the disciplines continue to change, and three emphases: accounting information systems (AIS), computer information systems (CIS), or management information systems (MIS).

Accounting information systems gives students exposure to computing and the other fields within business, focusing on the various aspects of accounting. A similar situation occurs with management information systems, surveying the different fields within the business management area. The student in the computer information systems track receives the core economics, accounting, business management background and has the applied courses of computer science such as COSC 255P Programming: Cobol, COSC 275P Computer Networking, and COSC 325P Database Systems.

Internships are strongly recommended. They may be obtained through locally or regionally located businesses and organizations, through one of Central's international program sites or through the Chicago Metropolitan Center. This experience provides the student with rich learning opportunities and puts course work into practice.

## Information Systems Major Requirements (52 s.h. minimum)

1. Complete all of the following:

| ACCT | 241 | Financial Accounting I (4) |
| :--- | :--- | :--- | :--- |
| ACCT | 242 Pm | Management Accounting I (4) |
| BMGT | 251 P | Principles of Management (3) |
| COSC | 110 Pm | Introduction to Computer Science (3) |
| COSC | 120 Pm | Software Design (3) |
| COSC | 230 Pm | Data Structures (3) |
| COSC | 255 P | Programming: COBOL (2) |
| COSC | 360 P | Database Systems (3) |
| COSC | 372 P | Computer Networks (2) |
| ECON | 111 s | Principles of Macroeconomics (3) |
| ECON | 112 s | Principles of Microeconomics (3) |
| MATH | 105 m | Introduction to Statistics (4) |

2. Complete one of the following:

| PHIL | 121 ft | Ethics (3) |
| :--- | :--- | :--- | :--- |
| PHIL | 122 f | Social Issues (3) |
| PHIL | 244 t | Business Ethics (3) |
| PHIL | 245 | Environmental Ethics (3) |
| PHIL | 286 Ch | Values and Vocations (3) |

3. Complete all requirements for one of the following emphases:

* Accounting information systems (AIS) emphasis:

ACCT 341P Financial Accounting II (4)
ACCT 342P Financial Accounting III (3)
ACCT 343P Cost and Management Accounting II (3)
ACCT 442P Auditing (4)

* Computer information systems (CIS) emphasis:

COSC 235Pm Discrete Structures (3)
COSC 320P Advanced Software Design (3)
COSC 330Pm Algorithms (3)
COSC 375Pm Introduction to Operating Systems (3)

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* Management information systems (MIS) emphasis:
BMGT 351Ps Organizational Behavior (3)
BMGT 361Pm Corporate Finance (3)
BMGT 371P Principles of Marketing (3)
BMGT 381Pm Operations Management (3)
MATH 107m Introduction to Finite Mathematics (3)
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## 4. Complete all requirements for the Communications Skills Endorsement

## Communication skills endorsement

The department's communication skills requirement has three components: reading and writing, speaking, and professional development. The following are the minimum standards in each area:

## Reading and writing

Students may satisfy the reading and writing requirement in any one of the following ways:
ENGL 101f Composition with a grade of at least "B"; or
ENGL 120ft Introduction to Literature with a grade of at least "B-"; or
ENGL 201P Technical Writing with a grade of at least "C+"; or
Complete one of the following courses with a grade of at least "C":
ENGL 211-216 200-level English literature course
ENGL 240a The Personal Essay
ENGL 241a Short Story Writing
ENGL 343PI Travel Writing

## Speaking

Students must complete one of the following courses:
COMM 160f Introduction to Communication Studies
COMM 266a Readers Theatre
COMM 268c Intercultural Communication
COMM 270P Public Speaking
COMM 340P Public Relations
COMM 342P Communication in Organizations
COMM 364P Argumentation
or complete significant communication experience approved by the economics/accounting/management department

## Professional development

Students must successfully complete all of the following sessions in the professional development series, offered by the career services office:

1. Job Search Success
2. Resume/Cover Letter Writing
3. Interviewing Strategies
4. Dress for Success
5. Dining Etiquette

It is recommended that students complete this program by the end of their junior year. At the latest, the program should be completed by the end of the fall semester of the senior year.

The only acceptable alternative for students who have failed to attend the regularly scheduled sessions by the career services office will be to complete a 10-page research paper for each unmet requirement. The research paper must include an annotated bibliography containing a minimum of ten credible, authoritative sources. In addition, students will be required to make a 15minute presentation to departmental faculty for each unmet requirement. The research papers and presentations must be completed at least three weeks prior to the beginning of the final exam week of the semester during which the student anticipates graduation.

Business management and international management majors will not be allowed to enroll in a capstone course until all communication skills requirements, including the professional development series, have been completed.

## Final communication skills approval

Successful complete of the aforementioned requirements does not guarantee departmental approval of a student's communication skills requirements. The economics/accounting/management faculty members retain the right to continuously monitor every student's progress and make appropriate referral(s) to the central for academic excellence or elsewhere for additional work.

## 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 or a mathematics/computer science major. Information systems majors with the MIS emphasis cannot also declare a business management major.

# International Management 

Behavioral Sciences Division
Economics, Accounting, and Business Management Department

## Departmental Faculty

Debela Birru (chair), Kevin Den Adel, Jann Freed, Richard Glendening, Robert Maurer, Dennis Pedrick, Jaclyn Rundle, Suzanne Wallace

## Statement of philosophy

The purpose of the international management major at Central College is to acquaint students with the cultural, economic, legal, financial, and sociological aspects of engaging in international business. The program focuses on the integration of knowledge from business management, economics, and foreign languages as well as other areas in the liberal arts. Majors are required to study abroad in one of our foreign language programs (Granada, Paris, Vienna) for at least one semester; an internship may be included in their international experience. The overseas study strengthens Central students' understanding of the international environment and the complexities involved in international transactions. Central's overall goal is aimed at creating an environment that fosters personal growth and intellectual maturity so that Central's students can prepare themselves for advanced studies and career opportunities.

## International Management Major Requirements (51 s.h. minimum)

1. Complete all of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| ECON | 322 Ps | International Economics (3) |
| ACCT | 241 | Financial Accounting (4) |
| ACCT | 242 Pm | Management Accounting (4) |
| MATH | 105 m | Introduction to Statistics (4) |
| MATH | 107 m | Introduction to Finite Math (3) |
| BMGT | 251 P | Principles of Management (3) |
| BMGT | 361 Pm | Corporate Finance (3) |
| BMGT | 371 P | Principles of Marketing (3) |
| BMGT | 381Pm | Operations Management (3) |
| BMGT | 453PI | Global Strategic Management (4) |

2. Complete one of the following:

COSC 106 Introduction to Web Programming (3)
COSC 110Pm Introduction to Computer Science (3)
3. Complete one year (two courses) of advanced foreign language study at the 321 level or higher
4. Complete a minimum of one semester of study abroad at one of Central's foreign language study abroad programs (Granada, Paris, Vienna). Study abroad for one full year is strongly recommended.
5. Complete all requirements for the Communication Skills Endorsement

Note: This major may not be declared in combination with the business management major.
Note: The following departmental courses contain significant material of direct interest to international management majors: ECON 222, ECON 324, and ECON 327.

## Communication skills endorsement

The department's communication skills requirement has three components: reading and writing, speaking, and professional development. The following are the minimum standards in each area:

## Reading and writing

Students may satisfy the reading and writing requirement in any one of the following ways:
ENGL 101 f Composition with a grade of at least " B "; or
ENGL 120ft Introduction to Literature with a grade of at least "B-"; or

ENGL 201P Technical Writing with a grade of at least "C+"; or
Complete one of the following courses with a grade of at least "C":
ENGL 211-216 200-level English literature course
ENGL 240a The Personal Essay
ENGL 241a Short Story Writing
ENGL 343PI Travel Writing

## Speaking

Students must complete one of the following courses:
COMM 160f Introduction to Communication Studies
COMM 266a Readers Theatre
COMM 268c Intercultural Communication
COMM 270P Public Speaking
COMM 340P Public Relations
COMM 342P Communication in Organizations
COMM 364P Argumentation
or complete significant communication experience approved by the economics/accounting/management department

## Professional development

Students must successfully complete all of the following sessions in the professional development series, offered by the career services office:

1. Job Search Success
2. Resume/Cover Letter Writing
3. Interviewing Strategies
4. Dress for Success
5. Dining Etiquette

It is recommended that students complete this program by the end of their junior year. At the latest, the program should be completed by the end of the fall semester of the senior year.

The only acceptable alternative for students who have failed to attend the regularly scheduled sessions by the career services office will be to complete a 10-page research paper for each unmet requirement. The research paper must include an annotated bibliography containing a minimum of ten credible, authoritative sources. In addition, students will be required to make a 15 minute presentation to departmental faculty for each unmet requirement. The research papers and presentations must be completed at least three weeks prior to the beginning of the final exam week of the semester during which the student anticipates graduation.

Business management and international management majors will not be allowed to enroll in a capstone course until all communication skills requirements, including the professional development series, have been completed.

## Final communication skills approval

Successful complete of the aforementioned requirements does not guarantee departmental approval of a student's communication skills requirements. The economics/accounting/management faculty members retain the right to continuously monitor every student's progress and make appropriate referral(s) to the central for academic excellence or elsewhere for additional work.

## Typical sequence of major courses for the international management major

## Freshman year

ECON 111s Principles of Macroeconomics
ECON 112s Principles of Microeconomics
COSC 106 Introduction to Web Programming (or COSC 110Pm )
200/300-level foreign language courses

## Sophomore year

ACCT 241 Financial Accounting I
ACCT 242Pm Management Accounting I
BMGT 251P Principles of Management
MATH 105 m Introduction to Statistics

MATH 107m Introduction to Finite Math
300-level foreign language courses

## Junior and/or senior years

Foreign language study abroad-minimum of one semester
ECON 322Ps International Economics
BMGT 361Pm Corporate Finance
BMGT 371P Principles of Marketing
BMGT 381Pm Operations Management
BMGT 453PI Global Strategic Management

# International Studies 

Interdisciplinary Major

## Faculty

Sam Mate-Kodjo, Keith Yanner, Jim Zaffiro (co-directors)

## Statement of philosophy

International studies is an interdisciplinary major which develops international understanding of historical and contemporary world issues through basic course work in international issues, a focus on a particular world region, and proficiency in a foreign language and study abroad. The program seeks to encourage cross-cultural sensitivity and emphasizes the interrelatedness of cultural, linguistic, political, social, economic, environmental and aesthetic issues in a particular region of the world. Students choose to pursue either the West European studies (WES) track, the Latin American studies (LAS) track, or the African Studies (AFS) track of the major, and are assigned to an area studies director to plan their programs.

## Study abroad

Students are required to enroll at least one semester in an appropriate Central study abroad program or another program approved by the appropriate international studies track director and the college. Because the overseas experience is so vital to proper preparation for active participation in an international environment, students should confer with their area studies director early in their college careers to plan for the best combination of home and overseas course work to fulfill major requirements.

## Communication skills endorsement

A student must pass two Central foundation courses with an average of 2.7 or better or earn a B- or better in the senior seminar to earn the major's communication skills endorsement.

## International Studies Major/African Studies Track Requirements (45 s.h. plus language proficiency - French strongly recommended)

1. Complete all of the following:

| ANTH | 120ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| CRCL | 210 c | Introduction to International Studies (3) |
| HIST | 180 nh | Modern African Civilization (3) |

2. Complete one of the following:

HIST 280nh African History (3)
POLS 222nhs African Politics Since 1935(3) or POLS 322Inhs Readings in African Politics Since 1935(3)
3. Complete one of the following:

ANTH 366Pc Ethnographic Field Methods (3)
FREN 490Pct Topics in Francophone Literature and Civilization (3)
NASC 480PI Environmental Studies Seminar (3)
POLS 489PIs Research Seminar (3)
4. Complete $\mathbf{3 0}$ s.h. of African Studies electives from the list below; selections must be approved by the track director at the time of major declaration. See track director for updated list.

| ANTH | 161n | African-American Culture and History (3) |
| :--- | :--- | :--- |
| ANTH | 462Pcs | Culture Theory (3) |
| ART | 380na | Studies in Non-Western Art (3) |
| BMGT | 453PI | Global Strategic Management (4) |
| COMM | 268c | Intercultural Communication (3) |
| CRCL | 311Pc | Topics in Cross-Cultural Perception and Communication (3) |
| ECON | 111s | Principles of Macroeconomics (3) |
| ECON | 112s | Principles of Microeconomics (3) |
| ECON | 222Ps | Economic Development (3) |
| ECON | 322Ps | International Economics (3) |
| ENGL | 212nt | African and Caribbean Literature (3) |
| ENGL | 215 nt | African-American Literature (3) |
| ENGL | 284 I | Field Methods in Linguistics (3) |
| ENGL | 330 | Principles of Linguistics (3) |


| ENGL | 335 s | Sociolinguistics (3) |
| :--- | :--- | :--- |
| ENGL | 362 t | World Literature (3) |
| FREN | 333 Pch | French Civilization (3) |
| FREN | 352 Pc | French for Business (3) |
| MUS | 114 na | World Music (3) |
| POLS | 120 ns | Politics in Foreign Countries (3) |
| POLS | 140 fs | Introduction to International Politics (3) |
| POLS | 241 s | International Political Economy (3) |
| POLS | 242 s | Global Environmental Politics (3) or POLS 342Is Readings in Global Environmental Politics (3) |
| POLS | 244 s | Int'l Law \& Organizations (3) or POLS 344Is Readings in Int'l Law \& Organizations (3) |
| REL | 235 nr | Islam (3) or REL 335Inr Readings in Islam (3) |
| SOC | 236 Pns | Minority Groups (3) |

5. Demonstrate proficiency in a foreign language at the intermediate-high level (ACTFL scale)
6. Complete all requirements for the Communication Skills Endorsement

## International Studies Major/Latin American Studies Track Requirements (46 s.h. plus language proficiency)

1. Complete all of the following:

| ANTH | 120ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| CRCL | 210 c | Introduction to International Studies (3) |
| HIST | 150 h | Latin American Civilization (3) |

2. Complete one of the following:

| POLS | 120 ns | Politics in Foreign Countries (3) |
| :--- | :--- | :--- |
| POLS | 140 fs | Introduction to International Politics (3) |

3. Complete one of the following senior seminars:

ANTH 366Pc Ethnographic Field Methods (3)
HIST 385P Seminar I History (4)
POLS 489PIs Research Seminar (3)
A senior seminar in a foreign language
4. Complete 31 s.h. of Latin American studies electives from the list below; selections must be approved by the track director at the time of major declaration. See track director for updated list. Courses taken in Spain may apply; all courses taken in Yucatan apply.
COMM 268c Intercultural Communication (3)
CRCL 311Pc Topics in Cross Cultural Perception and Communication (3)
ECON 222Ps Economic Development (3)
ECON 322Ps International Economics (3)
ENGL 360 Teaching English as a Second Language (3)
MUS 208na Studies in Music (1)
POLS 225hs Modern Latin America (3) or POLS 325Ibs Readings in Modern Latin America (3)
POLS 230nhs Africa, Asia, and Latin America in World Affairs (3) or POLS 330Inhs Readings in Africa, Asian, and Latin America in W orld Affairs (3)
POLS 244s International Law and Organizations (3) or POLS 344Is International Law and Organization (3)
REL 398PIx Cross Cultural Ministry Internship ** (2)
SOC 236Pns Minority Groups (3)
SPAN 342Pnt Modern Spanish American Literature (3)
SPAN 343Pn Civilization of Hispanic America (3)
SPAN 350Pn Hispanics/Latinos in the U.S. (3)
SPAN 361Pct Studies in Hispanic Literature ** (3)
Note: ** Assumes appropriate topic - consult major director
5. Demonstrate proficiency in a foreign language at the intermediate-high level (ACTFL scale)
6. Complete all requirements for the Communication Skills Endorsement

## International Studies Major/West European Studies Track Requirements (46 s.h. plus language proficiency)

1. Complete all of the following:

ANTH 120ns Introduction to Cultural Anthropology (3)
CRCL 210c Introduction to International Studies (3)
HIST 121fh Western Civilization (3)
2. Complete one of the following:

| POLS | 120 ns | Politics in Foreign Countries (3) |
| :--- | :--- | :--- |
| POLS | 140 fs | Introduction to International Politics (3) |

3. Complete one of the following:

ANTH 366Pc Ethnographic Field Methods (3)
HIST 385P Seminar I History (4)
POLS 489PIs Research Seminar (3)
A senior seminar in a foreign language
4. Complete $\mathbf{3 1}$ s.h. of West European studies electives from the list below; selections must be approved by the track director at the time of major declaration. See track director for updated list. Courses taken abroad may apply.
ANTH 462Pcs Culture Theory (3)
ART 221ah History of Art: Ancient through Medieval (3)
ART 222ah History of Art: Renaissance through Modern (3)
ART 325ah History of Modern Art (3)
BMGT 374P International Marketing (3)
COMM 268c Intercultural Communication (3)
CRCL 311Pc Topics in Cross Cultural Perception and Communication (3)
ECON 111s Principles of Macroeconomics (3)
ECON 112s Principles of Microeconomics (3)
ECON 222Ps Economic Development (3)
ECON 322Ps International Economics (3)
ENGL 248t Comedy (3)
ENGL 252t British Literature II: 1660-1850 (3)
ENGL 253t British Literature III: 1850-Present (3)
ENGL 284I Field Methods in Linguistics (3)
ENGL 330 Principles of Linguistics (3)
ENGL 335s Sociolinguistics (3)
ENGL 346t Shakespeare (3)
ENGL 360 Teaching English as a Second Language (3)
ENGL 361t World Literature I (3)
ENGL 374t Studies in 19th Century Literature (3)
ENGL 375t Studies in 20th Century Literature (3)
FREN 333Pch French Civilization (3)
FREN 343Pct Early French Literature: Middle Ages and Renaissance (4)
FREN 344Pct French Literature of the 17th and 18th Centuries (4)
FREN 345Pct 19th Century French Literature (3)
FREN 346Pct 20th Century French Literature (3)
FREN 352Pc French for Business (3)
FREN 490Pct Topics in Francophone Literature and Civilization ** (4)
GERM 332Pct Masterworks of German Literature (3)
GERM 352Pct German for Business (3)
GERM 353Pc History of the German Language (3)
GERM 361Pch German Cultural History (3) or HIST 262ch German Cultural History (3)
HIST 120fh Early Western Civilization (3)
HIST 223hs Contemporary Europe (3) or HIST 323Ibs Readings in Contemporary Europe (3)
HIST 224 h Readings in European History (4)
HIST 241h The USSR (3) or HIST 341h The USSR (3)
HIST 252 hr The Reformation (3) or REL 252hr The Reformation (3)
HIST 253 hr Medieval Christendom (3) or REL 253 br Medieval Christendom (3)
HIST 254 hr The Early Church (3) or REL 254br The Early Cburch (3)

| MUS | 209 xa | Studies in Music (1) |
| :--- | :--- | :--- |
| PHIL | 221 t | Classical Thought (3) |
| PHIL | 222 t | Modern Thought (3) |
| PHIL | 225 t | Modern Continental Philosophy (3) |
| PHIL | 240 t | Political Philosophy (3) |
| POLS | 223 hs | Contemporary Europe (3) or POLS 323Ibs Readings in Contemporary Europe (3) |
| POLS | 230 nhs | Africa, Asia, and Latin America in World Affairs (3) or POLS 330Inhs Readings in Africa, Asia and Latin |
|  |  | America in World Affairs (3) |
| POLS | 241 s | International Political Economy (3) |
| POLS | 242 s | Global Environmental Politics (3) or POLS 342Is Readings in Global Environmental Politics (3) |
| POLS | 244 s | International Law and Organizations (3) or POLS 344Is Readings in International Law and Organization (3) |
| REL | 233r | The Jewish Experience (3) |
| REL | 270r | Christianity and Culture (3) or REL 370Ir Readings in Christianity and Culture (4) |
| SOC | 236Pns | Minority Groups (3) |
| SPAN | 332Pct | Modern Spanish Literature (3) |
| SPAN | 485Pct | Seminar: Spanish Literature (3) |
| SPAN | 490Pc | Topics in Spanish Culture and Civilization (3) |
| Note: ** Assumes appropriate topic |  |  |

5. Demonstrate proficiency in a foreign language at the intermediate-high level (ACTFL scale)
6. Complete all requirements for the Communication Skills Endorsement

Typical sequence of courses for the international studies major

## Freshman year

Language courses
Core courses

## Sophomore Year

Language courses
Study Abroad

Junior Year
AFS/LAS/WES courses
Study abroad
Core courses
Senior Year
AFS/LAS/WES courses
Senior language seminar

## International Studies Minor Requirements (24 s.h. plus language proficiency)

1. Complete all of the following:

| ANTH | 120ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| CRCL | 210 c | Introduction to International Studies (3) |
| HIST | 121 fh | Modern Western Civilization (3) |

2. Complete one of the following:

POLS 120s Politics in Foreign Countries (3)
POLS 140fs Introduction to International Politics (3)
3. Complete 12 s.h. of area studies electives, all from either the AFS, WES or LAS track electives list
4. Demonstrate proficiency in a foreign language at the intermediate-mid level (ACTFL scale)
5. Study abroad for at least one semester

## Linguistics

Humanities Division<br>Interdisciplinary Major

## Faculty

Philip E. Webber (director), David Purnell

## Statement of philosophy

The linguistics major is designed to prepare students for a variety of situations in which systematic language analysis is necessary. At times, a strong theoretical grounding is necessary, as in the field of computational linguistics. In other activities, such as teaching English as a second or foreign language, the emphasis is on application. Many tasks (field translation, area studies, work with less frequently taught languages) require both. Some specialties, such as ethnolinguistics, demand collateral work in the social sciences; others, such as the history of the English language, are best served by broad and extensive studies in the humanities; persons intending to pursue further training for professions in speech pathology and remediation need adequate preparation in the natural sciences. In some instances, extensive work in computer science may be necessary. For all these reasons, there is no single fixed curriculum required for the linguistics major. It is imperative, however, that students be trained in all areas of linguistic science, with a choice of specific course work reflecting individual interests, aspirations and talents.

## Study abroad opportunities

Linguistics majors are encouraged to plan early for participation in one of Central College's nationally recognized study programs in Europe, Mexico, or China.

## Linguistics Major Requirements (47 s.h. minimum)

1. Complete the following course:

ENGL 330 Principles of Linguistics (3)
2. Complete 12 s.h. of the following (approved in consultation with the director):

CRCL 311Pc Topics in Cross-Cultural Perception and Communication (3)
ENGL 284I Field Methods in Linguistics (3)
ENGL 331h History of the English Language (3)
ENGL 332 Advanced English Grammar (3)
ENGL 333 Phonetics and Phonemics (3)
ENGL 335s Sociolinguistics (3)
ENGL 360 Teaching English as a Second Language (3)
ENGL 397PI Internship: Teaching English as a Second Language (3)
ENGL 399I Independent Studies in English (Arr)
ENGL 499I Independent Studies in English (Arr)
or a phonetics course (Arr) from the Paris international studies program
3. Complete one course from each of the following two groups:

Group I:
BIOL 111q Introduction to Human Anatomy and Physiology (4) or
PSYC 239Ps The Brain and Behavior (3)
Group II:
PHIL 125m General Logic (3) or
one COSC course (at least 3 s.h.) approved by the director
4. Complete one director-approved anthropology course, such as:

SOC 236Pns Minority Groups (3)
ANTH 266n North American Indians (3)
ANTH 120ns Introduction to Cultural Anthropology (3)
5. Complete one psychology course (from the education or psychology department)
6. Complete 12 s.h. of electives chosen in consultation with the director
7. Complete at least 8 semester hours in a foreign language or demonstrate a reading knowledge in a second

## language.

## 8. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

At the time a student declares the major in linguistics (normally before or during the sophomore year) the student's writing, reading, speaking and critical thinking skills will be evaluated by the department. Upon applying to become a linguistics major, students will submit a portfolio of at least two pieces of writing produced in college-level classes which demonstrate their ability to write effectively. Additional evidence, such as a grade of C or better in courses labeled Central foundations and textual interpretation, will be considered as evidence of the student's reading, speaking and critical thinking skills at the time of application for the major.

Skills assessment is a continuous process throughout a student's course work in the major. Subsequent writing assignments in the major may include reading reports, lesson plans, term papers, and research papers. Reading skills are assessed by the evaluation of a student's written response, in classes and seminars, to assigned material. Oral skills are evaluated during the many oral presentations made in the linguistics track courses (see requirements for the major).

Final evaluation of a student's communication skills is usually made in the spring of a student's junior year. Students who are deficient in any of the skills areas are required to remediate the deficiencies through the Center for Academic Excellence or in consultation with a member of the department faculty. Individual contracts may be drawn up specifying steps the student must take to meet the requirements.

## Linguistics Minor Requirements (18 s.h.)

Complete 18 s.h. in linguistics. Typically courses would include ENGL 330 Principles of Linguistics, ENGL 331 History of the English Language, ENGL 332 Advanced English Grammar, ENGL 360 Teaching English as a Second Language, or others approved by the program directors.

## English as a Second Language Teaching Endorsement

An English as a second language teaching endorsement is available. A parallel program is also available for those preparing to teach English as a second language outside the public schools. Both constitute a specialized, ESL-focused linguistics minor. Specific information may be obtained from the linguistics faculty.

## Additional information

Recommendations: study of a less commonly taught language, plus a course in computer science, if not already taken in fulfillment of requirement 3 above. The student should learn about several languages so that the concepts of comparative linguistics become meaningful. The student will ideally become familiar not only with the field of language itself, but also with supporting disciplines such as psychology, philosophy and anthropology.

Students wishing to focus their studies on an area of specialization such as teaching English as a second language, computer assisted language analysis, missionary field work, languages not conventionally taught in the college curriculum, ethnographic or anthropological linguistics or language and logic are encouraged to consult early with the linguistics faculty to plan required and elective courses which meet special needs.

## Typical sequence of required courses for the linguistics major

Note: Since many linguistics majors study abroad (and indeed are encouraged to do so), it is entirely possible that a student may choose, in consultation with the directors of the linguistics program, to begin the course work in linguistics prior to the junior year.

## Freshman year

Philosophy course
Foreign language courses

## Sophomore year

Philosophy course
2 foreign language courses
Anthropology course

## Junior year

Two linguistics courses
Psychology course

## Senior year

Three linguistics courses

# MATHEMATICS 

Natural Sciences Division<br>Mathematics/Computer Science Department

## Departmental faculty

Stephen Fyfe (chair), Xi Chen, Matthew Eastin, Robert Franks, Russell Goodman, Allen Hibbard, Mark Johnson, Thomas Linton, Mark Mills, Wendy Weber

## Departmental information

The mathematics/computer science department offers three distinct majors: mathematics, computer science, and a joint mathematics/computer science major (please see appropriate sections of this catalog for information on the mathematics and mathematics/computer science majors). Students who declare either the computer science or mathematics major may not also declare the joint mathematics/computer science major as a second major. Students who declare computer science or mathematics/computer science as their major may not declare an information systems major with an emphasis in computer information systems. Students who declare mathematics as a major may not declare the joint mathematics/computer science major as a second major. Those who wish to combine the disciplines of business and computer science may wish to consider the information systems major. Students seeking a mathematics teaching endorsement should consult the education department.

## Statement of philosophy

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 to a non-technical audience. The mathematics faculty is committed to developing these skills in all of our students.

At the heart of the mathematics major are courses in algebra and real analysis, two of the main branches of contemporary mathematics. All majors study one of these for a full year. Other course requirements are flexible, allowing students to obtain teacher certification, gain practical experience in an internship or go overseas on one of Central's international programs. During the junior and senior years, the seminar provides a capstone experience in which each student makes oral and written presentations to the entire department.

Whether teaching, in graduate school, or in the workplace, graduates with a liberal arts major in mathematics have the tools they need for success.

## Mathematics credit by proficiency

For information on earning credit by proficiency in mathematics, please see the "Credit by Proficiency" section of this catalog.

## Mathematics Major Requirements (46 s.h.)

1. Complete all of the following:

| COSC | 110Pm | Introduction to Computer Science (3) |
| :--- | :--- | :--- |
| MATH | 131 Pm | Calculus and Analytic Geometry I (4) |
| MATH | 132Pm | Calculus and Analytic Geometry II (4) |
| MATH | 210Pm | Intro to Computer Algebra Systems (1) |
| MATH | 221Pm | Foundations of Mathematics (3) |
| MATH | 231Pm | Multivariable Calculus (3) |
| MATH | 240Pm | Linear Algebra (4) |
| MATH | 385P | Mathematics/Computer Science Junior Seminar (2) |
| MATH | 421Pm | Abstract Algebra I (3) |
| MATH | 431Pm | Real Analysis I (3) |
| MATH | 485P | Mathematics/Computer Science Senior Seminar (1) |

2. Complete one of the following:

MATH 422Pm Abstract Algebra II (3)
MATH 432Pm Real Analysis II (3)
3. Complete 12 s.h. of the following electives*:

| MATH 250Pm Differential Equations (3) |
| :---: |
| MATH 270Pm Mathematical Modeling (3) |
| MATH 310Pm Geometry (3) |
| MATH 341Pm Mathematical Probability (3) |
| MATH 342Pm Mathematical Statistics (3) |
| MATH 370Pm Numerical Analysis (3) |
| MATH 422Pm Abstract Algebra II (3) |
| MATH 432Pm Real Analysis II (3) |
| MATH 390/490 Topics in Mathematics (3) |
| * Note: For students seeking certification to teach math impossible to schedule, the 12 s.b. of electives should cons MATH 310Pm is recommended for a mathematics te |

## 4. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

The department believes that it is essential that majors in computer science and mathematics are able to speak, read, and write satisfactorily within the discipline. As such, many courses throughout the major include activities that evaluate students' ability to communicate.

The department faculty meet annually to discuss and evaluate each major's communication skills. Students can expect to be evaluated at least once during each academic year. Students who skills in one or more areas (speaking, reading, and writing) are not sufficient must work with her/his adviser to design an improvement plan.

The final evaluation of a student's communication skills occurs in MATH/COSC 385P Mathematics/Computer Science Junior Seminar (2) and MATH/COSC 485P Mathematics/Computer Science Senior Seminar (1). In these courses, students are required to give two oral presentations and write a paper covering the topic used in the second presentation. Reading and research skills are also covered in these courses.

## Typical sequence of courses for the math major

## Freshman year

COSC 110Pm Introduction to Computer Science
MATH 131Pm Calculus and Analytic Geometry I
MATH 132Pm Calculus and Analytic Geometry II
Central core courses and electives

## Sophomore year

MATH 231Pm Multivariable Calculus
MATH 221Pm Foundations of Mathematics
MATH 240Pm Linear Algebra
MATH 210Pm Introduction to a Computer Algebra System
Central core courses and electives

## Junior year

MATH 385P Mathematics/Computer Science Junior Seminar
MATH 421Pm Abstract Algebra I* and
MATH 422Pm Abstract Algebra II* or
MATH 431Pm Real Analysis I* and
MATH 432Pm Real Analysis II*
Two courses from:
MATH 250Pm Differential Equations*
MATH 370Pm Numerical Analysis*
MATH 310Pm Geometry*
MATH 390/490 Topics: Mathematics*
Central core courses and electives

## Senior year

MATH 485P Mathematics/Computer Science Senior Seminar

MATH 421Pm Abstract Algebra I* and
MATH 422Pm Abstract Algebra II* or
MATH 431Pm Real Analysis I* and
MATH 432Pm Real Analysis II*
Two courses from:
MATH 270Pm Mathematical Modeling*
MATH 341Pm Mathematical Probability*
MATH 342Pm Mathematical Statistics*
Central core courses and electives

* Offered in alternate years.


## Mathematics Minor Requirements (21 s.h.)

1. Complete all of the following:

MATH 131Pm Calculus and Analytic Geometry I (4)
MATH 132Pm Calculus and Analytic Geometry II (4)
MATH 221Pm Foundations of Mathematics (3)
MATH 240Pm Linear Algebra (4)
2. Complete an additional 6 s.h. of MATH courses numbered 230 or above, excluding MATH 396I and 397I.

## Mathematics Teaching Minor Requirements (24-25 s.h.)

1. Complete all of the following:

COSC 110Pm Introduction to Computer Science (3)
MATH 131m Calculus and Analytic Geometry I (4)
MATH 132Pm Calculus and Analytic Geometry II (4)
MATH 221Pm Foundations of Mathematics (3)
MATH 240Pm Linear Algebra (4)
2. Complete either:

MATH 341Pm Mathematical Probability (3) and
MATH 342Pm Mathematical Statistics (3)
OR
MATH 105 m Introduction to Statistics (4) and
3 additional s.h. of MATH courses numbered 230 or above, excluding MATH 396I and 397I.

## Mathematics (MATH) courses

## 100Pm Mathematical Concepts (3)

Prerequisite/corequisite: EDUC 110f. Studies sets, logic, and the basic structure of the number systems. Particularly designated for the preparation of elementary teachers. Does not count toward the mathematics major.

## 102 fm 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. Develops problem-solving, analytical thinking, critical reading and writing skills. Explores the use of mathematics to better understand the world. Does not count toward the major.

## 103Pm College Algebra (3)

Prerequisite: two years of high school math at the algebra and above level. Essentials of algebra, including linear and quadratic equations and inequalities, polynomial functions and graphing. Does not count toward the major.

## 105m Introduction to Statistics (4)

Methods of organization, analysis, representation and the interpretation of data with applications to various fields. Does not count toward the major.

## 107m Introduction to Finite Mathematics (3)

Prerequisite: two years of high school mathematics. Graphing of equations and inequalities, elementary treatment of vectors and matrices, introduction to linear programming, selected applied topics. Does not count toward the major.

109Pm Pre-Calculus (3)
Prerequisite: MATH 103Pm or equivalent. 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.

## 131Pm Calculus and Analytic Geometry I (4)

Prerequisite: usually, 4 years of college bound mathematics or MATH 109Pm. An introduction to differential calculus of functions of one variable. Covers concepts, mechanics, and applications of the derivative with an introduction to integral calculus.

## 132Pm Calculus and Analytic Geometry II (4)

Prerequisite: MATH 131Pm or equivalent. An introduction to the integral calculus 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.

## 210Pm Introduction to a Computer Algebra System (1)

Prerequisite: MATH 131Pm (MATH 132Pm recommended), or permission of instructor. Corequisites: COSC 106 or COSC 110 Pm . Topics include the interface to the operating systems, basic syntax, use of the built-in functions, writing functions, graphics and programming in the language of the computer algebra system. Pass/no record basis.

## 221Pm Foundations of Mathematics (3)

Prerequisites: MATH 131Pm and sophomore standing. Studies fundamental mathematical methods and objects: introductory logic, methods of proof, sets, functions, relations and infinities.

## 231Pm Multivariable Calculus (3)

Prerequisite: MATH 132Pm or equivalent. Studies the principles, methods and applications of calculus in 3 or more dimensions.

## 240Pm Linear Algebra (4)

Prerequisite: MATH 131Pm. Studies matrices, vector spaces and linear mappings.

## 250Pm Differential Equations (3)

Prerequisites: MATH 132Pm and prerequisite/corequisite MATH 210Pm, or permission of instructor. Solution of ordinary differential equations and systems of first order linear equations, qualitative analysis of differential equations and introduction to numerical techniques.

## 270Pm Mathematical Modeling (3)

Prerequisites: MATH 210Pm, 231Pm. Studies techniques for developing and interpreting mathematical models in several contexts such as: graphical models, proportionality, optimization, dynamic systems, probability, simulation and Markov processes.

## 310Pm Geometry (3)

Prerequisites: MATH 221Pm, or permission of instructor. An emphasis will be placed on the axiomatic approach to geometry. Geometries considered may include finite, Euclidean, non-Euclidean and projective.

## 341Pm Mathematical Probability (3)

Prerequisites: MATH $132 \mathrm{Pm}, 240 \mathrm{Pm}$. Includes axiomatic approach to probability, sample spaces and the study of distribution functions

## 342Pm Mathematical Statistics (3)

Prerequisite: MATH $231 \mathrm{Pm}, 341 \mathrm{Pm}$. Continuation of 341 Pm . Study of distribution functions, estimation techniques and hypothesis testing.

## 370Pm Numerical Analysis (3)

Prerequisites: MATH 132Pm and prerequisite/corequisite MATH 210 Pm . A treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, matrix methods and numerical solutions to ordinary differential equations. Cross-listed as COSC 370 Pm .

## 385P Mathematics/Computer Science Junior Seminar (2)

Prerequisites: junior standing and a declared major in the mathematics and computer science department. An introduction to the research, reading, and presentation of advanced material in computer science. Cross-listed as COSC 385P.

## 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.

## 3961 Co-op Internship: Math/Computer Science (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 record basis.

## 397I Internship: Math/Computer Science (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 record basis.

## 421Pm Abstract Algebra I (3)

Prerequisites: MATH 221 Pm and MATH 240 Pm , or permission of instructor.. Introduction to abstract mathematical systems, groups, rings and fields.

## 422Pm Abstract Algebra II (3)

Prerequisite: MATH 421Pm, or permission of instructor. Continues the study of abstract mathematical systems, groups rings and fields.

431Pm Real Analysis I (3)
Prerequisites: MATH 132Pm and MATH 221Pm, or permission of instructor. A theoretical study of functions of a real variable with emphasis on precise definitions and rigorous proofs.

## 432Pm Real Analysis II (3)

Prerequisites: MATH 431Pm, or permission of instructor. A theoretical study of functions of a real variable with emphasis on precise definitions and rigorous proofs. A continuation of MATH 431Pm.

## 485P Mathematics/Computer Science Senior Seminar (1)

Prerequisites: senior standing and a declared major in the mathematics and computer science department. Students research and present (orally and in writing) an advanced topic of their choice in computer science. Cross-listed as COSC 485P.

# Mathematics/Computer Science 

Natural Sciences Division<br>Mathematics/Computer Science Department

## Departmental faculty

Stephen Fyfe (chair), Xi Chen, Matthew Eastin, Robert Franks, Russell Goodman, Allen Hibbard, Mark Johnson, Thomas Linton, Mark Mills, Wendy Weber

## Departmental information

The mathematics/computer science department offers three distinct majors: mathematics, computer science, and a joint mathematics/computer science major (please see appropriate sections of this catalog for information on the mathematics and mathematics/computer science majors). Students who declare either the computer science or mathematics major may not also declare the joint mathematics/computer science major as a second major. Students who declare computer science or mathematics/computer science as their major may not declare an information systems major with an emphasis in computer information systems. Students who declare mathematics/computer science as a major may not declare either mathematics or computer science as a second major. Those who wish to combine the disciplines of business and computer science may wish to consider the information systems major. Students seeking a mathematics teaching endorsement should consult the education department.

## Mathematics/Computer Science credit by proficiency

For information on earning credit by proficiency in mathematics and computer science, please see the "Credit by Proficiency" section of this catalog.

## Additional information

The college also offers an information systems major, which combines computer science with accounting and business management courses.

## Mathematics/Computer Science Major Requirements (53 s.h.)

1. Complete all of the following:

| COSC | 110 Pm | Introduction to Computer Science (3) |
| :--- | :--- | :--- |
| COSC | 120 Pm | Software Design (3) |
| COSC | 230 Pm | Data Structures (3) |
| COSC | 245Pm | Computer Organization and Architecture (4) |
| COSC | 330 Pm | Algorithms (3) |
| MATH | 131Pm | Calculus and Analytic Geometry I (4) |
| MATH | 132 Pm | Calculus and Analytic Geometry II (4) |
| MATH | 210Pm | Intro to a Computer Algebra System (1) |
| MATH | 231Pm | Multivariable Calculus (3) |
| MATH | 240Pm | Linear Algebra (4) |
| MATH | 385P | Mathematics/Computer Science Junior Seminar (2) |
| MATH | 421Pm | Abstract Algebra I (3) |
| MATH | 485P | Mathematics/Computer Science Senior Seminar (1) |

2. Complete one of the following:

| COSC | 235 Pm | Discrete Structures (3) |
| :--- | :--- | :--- |
| MATH | 221 Pm | Foundations of Mathematics (3) |

3. Complete one of the following MATH electives:

| MATH | 310Pm | Geometry (3) |
| :--- | :--- | :--- |
| MATH | 341Pm | Mathematical Probability (3) |
| MATH | 342Pm | Mathematical Statistics (3) |
| MATH | 370 Pm | Numerical Analysis (3) |
| MATH | 422Pm | Abstract Algebra II (3) |
| MATH | 431Pm | Real Analysis I (3) |
| MATH | 432Pm | Real Analysis II (3) |
| MATH | $390 / 490$ | Topics in Mathematics (3) |

4. Complete one of the following COSC electives:

| COSC | 260 P | Web Application Development (3) |
| :--- | :--- | :--- |
| COSC | 320 P | Advanced Software Design (3) |
| COSC | 355 Pm | Programming Language Concepts (3) |
| COSC | 360 P | Database Systems (3) |
| COSC | 375 Pm | Introduction to Operating Systems (3) |
| COSC | 390 P | Topics in Computer Science (3) |
| COSC | 490 P | Topics in Computer Science (3) |

5. Complete an additional 6s.h. of COSC or MATH electives

* Note: For students seeking certification to teach mathematics, the 9 s.b. of total electives should include both MATH 341Pm and MATH 342 Pm . When this is impossible to schedule, the 9 s.b. of electives should consist of $M A T H 105 \mathrm{~m}$ and 3 s.h. semester hours from the each of the MATH and COSC elective lists above. Also, MATH 310Pm is recommended for a mathematics teaching endorsement.

6. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

The department believes that it is essential that majors in computer science and mathematics are able to speak, read, and write satisfactorily within the discipline. As such, many courses throughout the major include activities that evaluate students' ability to communicate.

The department faculty meet annually to discuss and evaluate each major's communication skills. Students can expect to be evaluated at least once during each academic year. Students who skills in one or more areas (speaking, reading, and writing) are not sufficient must work with her/his adviser to design an improvement plan.

The final evaluation of a student's communication skills occurs in MATH/COSC 385P Mathematics/Computer Science Junior Seminar (2) and MATH/COSC 485P Mathematics/Computer Science Senior Seminar (1). In these courses, students are required to give two oral presentations and write a paper covering the topic used in the second presentation. Reading and research skills are also covered in these courses.

Typical sequence of courses for the mathematics/computer science major<br>Freshman year<br>MATH 131Pm Calculus and Analytic Geometry I<br>MATH 132Pm Calculus and Analytic Geometry II<br>COSC 110Pm Introduction to Computer Science<br>COSC 120Pm Data Structures<br>MATH 210Pm Introduction to a Computer Algebra System<br>Central core courses and electives

## Sophomore year

COSC 235Pm Discrete Structures or MATH 221Pm Foundations of Mathematics
MATH 240Pm Linear Algebra
MATH 230Pm Data Structures
COSC 245P Computer Organization and Architecture
Central core courses and electives

## Junior year

COSC 330Pm Algorithms
MATH 385P Mathematics/Computer Science Junior Seminar
MATH 231Pm Multivariable Calculus
Mathematics elective
Computer science elective
Central core courses and electives

## Senior year

COSC 485P Mathematics/Computer Science Senior Seminar
MATH 421Pm Abstract Algebra I - Offered on an alternate-year basis
Mathematics or computer science elective
Central core courses and electives

## Music

Fine Arts Division
Department of Music

## Faculty

David Williams (chair), Evan Feldman (associate chair), Mark Babcock, Carol lei Breckenridge, Gabriel Espinosa, Mark Hartman, Raymond Martin, Anne Petrie

## Statement of philosophy

The music department is committed to providing a foundation for music majors for their life work as performers, music scholars, music teachers, church musicians or other music professionals. At the same time, the department encourages the exposure of music majors to a wide range of academic areas outside the arts, including science, religion and the humanities, and to other cultures in order to help them gain a better understanding of themselves and the world around them. Recognizing the value of music study in other cultures, the department is committed to making study abroad at one of Central's international campuses possible for music majors.

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 music department stresses academic integrity in all aspects of the music curriculum through faculty dedication to the discipline. 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 major, each student must pass an audition to indicate aptitude and prospects for success including competence in at least one major performance area.

## Study abroad opportunities

Music study abroad opportunities exist at Central College's centers in London, Vienna, Paris, Granada, Merida and Carmarthen. Music faculty advisers will work carefully with music majors to coordinate departmental requirements with study abroad.

## Music Major Requirements (43 s.h.)

1. Complete all of the following:

| MUS | 114 na | World Music (3) |
| :--- | :--- | :--- |
| MUS | 120 | Theory and Aural Skills I (5) |
| MUS | 125 P | Theory and Aural Skills II (5) |
| MUS | 211 Pa | Music History I (3) |
| MUS | 212 Pa | Music History II (3) |
| MUS | 221 P | Theory III (2) |
| MUS | 222 P | Applied Theory III (2) |
| MUS | 233 P | Theory IV (2) |
| MUS | 234 P | Applied Theory IV (2) |
| MUS | 240 | Music Technology (1) |
| MUS | 330 P | Advanced Literature Seminar (2) |
| MUS | 331 P | Conducting (2) |

2. Complete one of the following:

MUS 208na Studies in Music (1)
MUS 209xa Studies in Music (1)
MUS 210ca Studies in Music (1)
3. Complete $\boldsymbol{8}$ s.h. of applied lessons (MUSL) in the primary area of music study
4. Complete $\underline{2}$ s.h. of applied lessons (MUSL) in a secondary area of music study

Note: MUS 117I, 118I, 217I or 2181 may count as secondary area courses
5. Maintain continuous enrollment in a major ensemble (MUSG)

Note: Major ensembles are MUSG 220Ia, 221Ia, 222Ia, 223Ia, 224Ia, 225Ia, 228Ia

## 6. Pass a piano proficiency exam <br> Note: Students must maintain continuous enrollment in keyboard classes (MUS 117I, 118I, 217I, 218I) until the piano proficiency exam is passed.

## 7. Present a senior recital (or other approved significant senior project)

8. Complete all requirements for the communication skills and departmental skills endorsements

## Optional major emphases

Optional emphases (comprising course work above and beyond all requirements listed above) are available within the music major in the following areas: arts management, church music, music history/literature, theory/composition, performance, piano pedagogy, piano accompanying/chamber music, early keyboard, and jazz studies. See the department chair for details.

## Communication skills and departmental skills endorsements

In order to be certified for graduation, a music or music education major must show competency in communication skills: reading, writing, and speaking. The reading component will be evaluated by a reading comprehension test centering around a music article selected by the music faculty; the writing component will be evaluated through the first music history paper; the speaking component will be evaluated by an oral presentation, either for two music faculty members, or within a music course. Remediation, if needed, will take place through individualized programs set up through the Center for Academic Excellence.

Additionally, in order to be certified for graduation, a music or music education major must pass tests in theory fundamentals, aural skills, and piano proficiency. Remediation, if needed, will take place through theory courses (for theory fundamentals and aural components), and beginning and/or intermediate keyboard classes (for piano proficiency).

Music majors are required to attend 12 recitals or concerts per semester. At least eight of these must be Central College music department-sponsored events; the remaining four may be outside events approved by the student's academic adviser. Attendance at concerts by guest artists of special significance may be 100 percent required. Music majors are required to participate in at least one major ensemble per semester. A solo performance is required each semester on the departmental recital, semester-end juries, or their equivalent. A senior recital of one-half hour is required.

## Typical sequence of courses for the music major

Note: Some upper level courses are taught in alternate years, causing variations in this sequence.

## Fall semester

Freshman year
MUS 101 Fundamentals of Musicianship
MUS 114na World Music
MUS 117I Beginning Keyboard I
MUS 120 Theory and Aural Skills I
MUSL lessons
MUSG performance group*
Core courses and electives

## Sophomore year

MUS 211a Music History I
MUS 217I Intermediate Keyboard I
MUS 221P Theory III
MUS 222P Applied Theory III
MUSL lessons
MUSG performance group*
Core courses and electives
Junior year
MUS 331P Conducting
MUSL lessons
MUSG performance group*
Core courses and electives

Spring semester<br>Freshman year<br>MUS (choice) Studies in Music<br>MUS 118I Beginning Keyboard II<br>MUS 125P Theory and Aural Skills II<br>MUSL lessons<br>MUSG performance group*<br>Core courses and electives

## Sophomore year

MUS 212a Music History II
MUS 218I Intermediate Keyboard II
MUS 233P Theory IV
MUS 224P Applied Theory IV
MUSL lessons
MUSG performance group*
Core courses and electives
Junior year
MUS 330 Advanced Literature Seminar
MUSL lessons
MUSG performance group*
Core courses and electives

| Senior year | Senior year |
| :--- | :--- |
| MUSL lessons | MUSL lessons |
| MUSG performance group* | MUSG performance group* |
| Core courses and electives | Core courses and electives |

*at least one MUSG participation course must be in the student's primary performance area

## Music Minor Requirements (27 s.h.)

1. Complete all of the following:

| MUS | 114na | World Music (3) |
| :--- | :--- | :--- |
| MUS | 120 | Theory and Aural Skills I (5) |
| MUS | 125 P | Theory and Aural Skills II (5) |
| MUS | 211a | Music History I (3) |
| MUS | 212 a | Music History II (3) |

2. Complete 4 s.h. of applied lessons (MUSL)
3. Complete 4 s.h. of music electives (MUS/MUSG/MUSL)

## Music (MUS) courses

## 111a Music in Time (3)

An introduction to the study of music through exploring a particular style or historical period, including social and cultural influences on the music. This course is designed primarily for the non-music major as an introduction to creative listening.

## 112fa Art of Music (3)

A study of art music in the Western tradition with an emphasis on developing listening skills. Extensive writing is incorporated. Emphasizes the creative process; students respond to music through listening to live performances and recorded musical works both independently and in class.

## 114na World Music (3)

Explores the music of world cultures which 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.

## 117I Beginning Keyboard I (1)

Prerequisite: instructor's permission. Designed to cover the fundamentals of playing a keyboard instrument, including sightreading, harmonization, transposition, aural development, repertoire and technique.

## 118I Beginning Keyboard II (1)

Prerequisite: instructor's permission. Designed to cover the fundamentals of playing a keyboard instrument, including sightreading, harmonization, transposition, aural development, repertoire and technique.

## 120 Theory and Aural Skills I (5)

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.

## 125P Theory and Aural Skills II (5)

Prerequisite: MUS 120. A continuation of MUS 120.

## 130I Jazz Theory I (2)

Prerequisite: instructor permission. Addresses chord construction and notation, scales, chord function and substitution and tune analysis. Keyboard skills and ear training in jazz progressions will be included.

## 208na Studies in Music (1)

A musical study with a non-Western, minority, and/or indigenous focus.

## 209xa Studies in Music (1)

Provides a study of music with an experiential component.

## 210ca Studies in Music (1)

Provides a study of one aspect of music, such as a particular genre, composer or historical style.

## 211a Music History I (3)

The study of musical development from pre-Christian antiquity to 1750 , with emphasis on the Middle Ages, Renaissance and Baroque.

## 212a Music History II (3)

The study of musical development from 1750 to the present, with emphasis on the Classical, Romantic, Impressionistic and Modern periods.

## 217 I Intermediate Keyboard I (1)

Prerequisite: instructor's permission. Furthers the student's progress in acquiring fundamentals of playing a keyboard instrument, including sight-reading, harmonization, transposition, aural development, repertoire and technique.

## 218I Intermediate Keyboard II (1)

Prerequisite: instructor's permission. Furthers the student's progress to acquire fundamentals of playing a keyboard instrument, including sight-reading, harmonization, transposition, aural development, technique, ensemble playing, repertoire and hymnplaying.

## 221P Theory III (2)

Prerequisites: MUS 125P. A continuation of Theory and Aural Skills II.

## 222P Applied Theory III (2)

Prerequisite: MUS 125P. A continuation of Theory and Aural Skills II. Taken concurrently with Theory III.

## 225 Italian Diction (.5)

Principles of Italian pronunciation for singers, using the International Phonetic Alphabet to represent the sounds of Italian. Singing and piano accompanying are integral components of the course. No prior study of Italian is required.

## 226 German Diction (.5)

Principles of German pronunciation for singers, using the International Phonetic Alphabet to represent the sounds of German. Singing and piano accompanying are integral components of the course. No prior study of German is required.

## 227 French Diction (.5)

Principles of French pronunciation for singers, including using the International Phonetic Alphabet to represent the sounds of French. Singing and piano accompanying are integral components of the course. No prior study of French is required.

## 230PI Jazz Theory II (2)

Prerequisite: MUS 130I and instructor permission. Continues content and skill development of Jazz Theory I.

## 233P Theory IV (2)

Prerequisite: MUS 221P. A study of the formal structures in tonal music.

## 234P Applied Theory IV (2)

Prerequisites: MUS 221P and MUS 222P. Includes composition and improvisation in a variety of styles, as well as basic arranging techniques.

## 240 Music Technology (1)

An introduction to computer software available for the music idiom.

## 241 Elementary School Music (2)

Presents basic music skills for the general classroom teacher. Provides insight into the methodology of Orff and Kodály through participation. Emphasis on the cultural and social values of music that can enhance the general classroom environment.

## 317a Church Music (1)

A study of the heritage and scope of church music through readings, discussions and performances. Hymnody is a strong component. Available to non-music majors without prerequisite.

## 321P Counterpoint (2)

Prerequisite: MUS 221P and MUS 222P. A study of the contrapuntal techniques as they were applied primarily from the 16th through the 18th centuries.

## 323P Orchestration (1)

Prerequisite: MUS 222P. Studies the techniques of arranging music for instrumental ensembles.

## 324I Methods and Materials of Instrumental Literature (1)

Prerequisites: Instructor permission. Primarily for instrumental music education majors this course provides a survey of instrumental literature for elementary through professional levels. Particular emphasis is placed on literature for the school instrumental music director.

## 328I Methods and Materials of Choral Literature (1)

Prerequisites: Instructor permission. Primarily for vocal music education students, this course provides a study of the various choral music forms and representative works of particular use to school choral music directors.

## 330P Advanced Literature Seminar (2)

Prerequisites: MUS 233P, MUS 211a, MUS 212a. Provides the opportunity for upper-level music students to research and present selected topics from the literature of genres such as orchestral, chamber, symphonic, concerto, art song, opera and oratorio.

## 331P Conducting (2)

Prerequisites: MUS 123P and 124P. A study of fundamental conducting techniques, both choral and instrumental.

## 332P Advanced Choral Conducting (2)

Prerequisite: MUS 331P. Advanced conducting with emphasis on choral music and techniques of choir development.

## 333PI Advanced Instrumental Conducting (2)

Prerequisites: MUS 331P and instructor's permission. Advanced conducting with emphasis on instrumental music and techniques of ensemble development.

## 334 Marching Band Techniques (1)

Studies the materials, organization and methods for charting marching band shows for school programs.

## 335 Jazz Band Techniques (1)

Studies the materials, organization and methods for teaching improvisation to musicians in jazz programs.

## 340I Piano Pedagogy (2)

Prerequisite: instructor's permission. A course designed to introduce the student to the principles and techniques of teaching the piano. The course includes an examination of current piano methods, as well as observation of piano teaching.

## 341P Vocal Pedagogy (2)

Prerequisite: two semesters of private voice study. An introduction to the teaching of singing. Topics covered include the structure and function of the vocal mechanism; principles of good vocal technique; methods of teaching voice; and sources of repertoire for beginning voice students.

## 342P Methods for Elementary Music (3)

Prerequisites: MUS 125P. Meets the requirement for professional teaching certification for elementary music education majors or minors. Systematic methodology is based primarily on the principles of Orff and Kodály. Includes recorder instruction.

## 343 Instrumental Methods: Single Reeds (1)

Designed as a basic methods course for prospective instrumental music teachers. Each student in the class learns to play the instruments included in the course and the basic techniques of teaching the instruments. Other information relating to effective teaching (e.g., history of the instruments, selection of instruments, repertoire) is also addressed.

## 344 Instrumental Methods: Flute and Double Reeds (1)

See above.

## 345 Instrumental Methods: Upper Brass (1)

See above.

## 346 Instrumental Methods: Lower Brass (1)

See above.

## 347 Instrumental Methods: Violin and Viola (1)

See above.
348 Instrumental Methods: Cello and Double Bass (1)
See above.

## 349 Instrumental Methods: Percussion (1)

See above.

## 481PI Church Music Field Experience (1)

Prerequisites: Appropriate number of applied lessons in the primary performance field, MUS 317a, and instructor's permission. Consists of supervised service playing and/or choral conducting in an area church, the site to be chosen collaboratively between the student and the supervising music faculty member.

482PI Piano Pedagogy Field Experience (1)
Prerequisites: MUS 340I and instructor's permission. Designed to provide students the opportunity to gain supervised teaching experience.

## 483P Vocal Pedagogy Field Experience (1)

Prerequisites: MUS 341P. Provides actual teaching experience in a supervised environment along with a biweekly seminar.

## 484P Elementary Music Field Experience (1)

Prerequisite: MUS 342P. A practicum for providing actual teaching experience in a supervised environment along with a weekly seminar.

## 397/497PI 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 record basis.

## 499I Independent Study (Arr)

Prerequisite: instructor's permission. Research in approved topics. May be repeated on demand.

## Music groups (MUSG)

## 220Ia 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.

## 221a Central College-Community Band (.5)

Open to all woodwind, brass, and percussionists without audition, performs concerts annually. Repertoire includes different classical style periods as well as popular band music. Ensemble includes community members. Students, faculty and local area instrumentalists are eligible for membership.

## 222Ia A Cappella Choir (.5)

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 a number of occasions throughout the school year and makes a concert tour each spring.

## 223Ia Symphonic Wind Ensemble (.5)

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.

## 224Ia Central College-Community Orchestra (.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.

## 225Ia 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.

## 226Ia 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.

## 227Ia Chamber Singers (.5)

Prerequisite: instructor's permission. 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 and music theater productions.

## 228Ia Ensemble: Accompanying (.5)

Prerequisite: instructor's permission. Primary keyboard ensemble in the music department. Gives keyboard students the opportunity to develop their skills as piano accompanists, under the supervision of a keyboard instructor.

## 229Ia Piano Ensemble (.5)

Prerequisite: instructor's permission. Open by audition to pianists accompanying through the music department. Offered during spring semester, the ensemble culminates in a concert of piano ensemble literature.

## Music lessons (MUSL)

## 1xx Applied Lessons (1)

## 1xxI Applied Lessons (1)

Prerequisite for voice, piano, harpsichord, composition and improvisation: instructor's permission. Private applied lessons at the MUSL 100 level provide the student with individualized instruction of one half-hour per week in the registered instrumental or vocal area. The course includes the study of musicianship, technique and performance appropriate to the student's level and ability. Over the course of several semesters, the student will study works from all major historical styles applicable to a particular instrument or voice. The student is required to attend one departmental recital per semester of lessons. For beginning voice students, music reading ability is normally a prerequisite. Beginning piano students take MUS 117I, 118I, 219I and 218I. Private applied lessons are available in the areas of voice, brass, keyboard, percussion, strings, woodwinds, and jazz improvisation. Class lessons are available at the discretion of the instructor; a minimum of three persons is necessary to constitute a class, which meets for 50 minutes per week at 1 semester hour credit.

## 3xxI Applied Lessons (2)

Prerequisite: instructor's permission. Private applied lessons at the MUSL 300 level provide the student with individualized instruction of one hour per week in the registered instrumental or vocal area. The course includes intensive study of musicianship, technique and performance. Over the course of several semesters, the student will study works from all major historical styles applicable to a particular instrument or voice. Students are required to attend one departmental recital per semester. Private applied lessons are available in the areas of voice, brass, keyboard, percussion, strings, woodwinds, and jazz improvisation.

# Music Education/Elementary <br> Music Education/Instrumental <br> Music Education/Vocal 

Fine Arts Division
Department of Music
Faculty
David Williams (chair), Evan Feldman (associate chair), Mark Babcock, Carol lei Breckenridge, Gabriel Espinosa, Mark Hartman, Raymond Martin, Anne Petrie

## Departmental statement of philosophy

Please consult the music major section of this catalog.

## Music education majors

The department of music offers three distinct tracks in music education: Elementary music education, instrumental music education (with teaching licensure options in K-12 and 7-12), and vocal music education (with teaching licensure options in K12 and 7-12).

All three music education majors share a common set of courses comprising $33 \mathrm{~s} . \mathrm{h}$. of credit. That common set of courses is listed below followed by all additional requirements for each specific major.

## Study abroad opportunities

Music study abroad opportunities exist at Central College's centers in London, Vienna, Paris, Granada, Merida and Carmarthen. Music faculty advisers will work carefully with music education majors to coordinate departmental requirements with study abroad.

## Requirements for all Music Education Majors (33 s.h.)

1. Complete all of the following:

| MUS | 114na | World Music (3) |
| :--- | :--- | :--- |
| MUS | 120 | Theory and Aural Skills I (5) |
| MUS | 125 P | Theory and Aural Skills II (5) |
| MUS | 211 Pa | Music History I (3) |
| MUS | 212Pa | Music History II (3) |
| MUS | 221P | Theory III (2) |
| MUS | 222 P | Applied Theory III (2) |
| MUS | 233 P | Theory IV (2) |
| MUS | 234 P | Applied Theory IV (2) |
| MUS | 240 | Music Technology (1) |
| MUS | 330 P | Advanced Literature Seminar (2) |
| MUS | 331 P | Conducting (2) |

2. Complete one of the following:

| MUS | 208na | Studies in Music (1) |
| :--- | :--- | :--- |
| MUS | 209xa | Studies in Music (1) |
| MUS | 210ca | Studies in Music (1) |

3. Complete all major-specfic requirements for one of the following music education majors:

- Instrumental music education (choose either K-12 or 7-12 teaching licensure)
- Vocal music education (choose either K-12 or 7-12 teaching licensure)
- Elementary music education

4. Maintain continuous enrollment in a major ensemble (MUSG)

Note: Primary ensembles are MUSG 220Ia, 221Ia, 222Ia, 223Ia, 224Ia, 225Ia, 228Ia. The student is exempt from this requirement during the student teaching semester.
5. Pass a piano proficiency exam

Note: Students must maintain continuous enrollment in keyboard classes (MUS 117I, 118I, 217I, 218I) until the piano proficiency exam is passed. A music education major will not be recommended for entry into student teaching until the piano proficiency exam is passed.
6. Present a senior recital (or other approved significant senior project)
7. Complete all requirements for the communication skills and departmental skills endorsements

## Elementary Music Education Major Requirements (60 s.h.)

1. Complete all common requirements listed above ( 33 s.h.)
2. Complete all of the following:

| MUS | 341P | Vocal Pedagogy (2) |
| :--- | :--- | :--- |
| MUS | 342 P | Methods for Elementary Music (3) |
| MUS | 484 P | Elementary Music Field Experience (1) |

3. Complete three of the following:

Note: wind, string and percussion courses must each be included
MUS 343 Instrumental Methods: Single Reeds (1)
MUS 344 Instrumental Methods: Flute and Double Reeds (1)
MUS 345 Instrumental Methods: Upper Brass (1)
MUS 346 Instrumental Methods: Lower Brass (1)
MUS 347 Instrumental Methods: Violin and Viola (1)
MUS 348 Instrumental Methods: Cello and Double Bass (1)
MUS 349 Instrumental Methods: Percussion (1)
4. Complete $\underline{8}$ s.h. of applied lessons (MUSL) in the primary area of music study
5. Complete 2 s.h. of applied lessons (MUSL) in a secondary area of music study Note: MUS 117I, 118I, 217 I or 218 I may count as secondary area courses
6. Complete $\underline{2 s . h}^{\text {s.h. of applied lessons (MUSL) in keyboard or guitar }}$
7. Complete 6 s.h. of music (MUS/MUSG/MUSL) electives

## Instrumental Music Education Major Requirements - K-12 licensure (60.5 s.h.)

1. Complete all common requirements listed above ( 33 s.h.)
2. Complete all of the following:

| MUS | 323P | Orchestration (1) |
| :--- | :--- | :--- |
| MUS | 324 I | Methods and Materials of Instrumental Literature (1) |
| MUS | 333 PI | Advanced Instrumental Conducting (2) |
| MUS | 334 | Marching Band Techniques* (1) |
| MUS | 335 | Jazz Band Techniques* (1) |
| MUS | 342 | Methods for Elementary Music (3) |
| MUS | 484P | Elementary Music Field Experience (1) |
| EDUC | 451P | Secondary Special Methods (1) |
| MUSG | 226Ia | Chamber Ensemble (.5) |

3. Complete six of the following:

Note: wind, string, and percussion courses must each be included
MUS 343 Instrumental Methods: Single Reeds (1)

MUS 344 Instrumental Methods: Flute and Double Reeds (1)
MUS 345 Instrumental Methods: Upper Brass (1)
MUS 346 Instrumental Methods: Lower Brass (1)
MUS 347 Instrumental Methods: Violin and Viola (1)

| MUS | 348 | Instrumental Methods: Cello and Double Bass (1) |
| :--- | :--- | :--- |
| MUS | 349 | Instrumental Methods: Percussion (1) |

4. Complete $\boldsymbol{8}$ s.h. of applied lessons (MUSL) in the primary area of music study
5. Complete 1 s.h. of applied lessons (MUSL) in a secondary area of music study Note: MUS 117I, 118I, 217I or 2181 may count as secondary area courses
6. Complete 1 s.h. of applied lessons in voice

Note: Students anticipating careers not including marching bands or jazz ensembles may substitute equal bours of elective credits for these courses.

## Instrumental Music Education Major Requirements - 7-12 licensure (60 s.h.)

1. Complete all common requirements listed above ( 33 s.h.)
2. Complete all of the following:

| MUS | 323P | Orchestration (1) |
| :--- | :--- | :--- |
| MUS | 324 | Methods and Materials of Instrumental Literature (1) |
| MUS | 333 PI | Advanced Instrumental Conducting (2) |
| MUS | 334 | Marching Band Techniques* (1) |
| MUS | 335 | Jazz Band Techniques* (1) |
| EDUC | 451P | Secondary Special Methods (1) |
| MUSG | 226Ia | Chamber Ensemble (.5) |

3. Complete six of the following:

| MUS | 343 | Instrumental Methods: Single Reeds (1) |
| :--- | :--- | :--- |
| MUS | 344 | Instrumental Methods: Flute and Double Reeds (1) |
| MUS | 345 | Instrumental Methods: Upper Brass (1) |
| MUS | 346 | Instrumental Methods: Lower Brass (1) |
| MUS | 347 | Instrumental Methods: Violin and Viola (1) |
| MUS | 348 | Instrumental Methods: Cello and Double Bass (1) |
| MUS | 349 | Instrumental Methods: Percussion (1) |

4. Complete $\underline{8 \text { s.h. of applied lessons (MUSL) in the primary area of music study }}$
5. Complete 2 s.h. of applied lessons (MUSL) in a secondary area of music study

Note: MUS 117I, 118I, 217I or 2181 may count as secondary area courses
6. Complete 3.5 s.h. of music (MUS/MUSG/MUSL) electives

Note: Students anticipating careers not including marching bands or jaž ensembles may substitute equal hours of elective credits for these courses.

## Vocal Music Education Requirements - K-12 licensure (60 s.h.)

1. Complete all "common" requirements listed above ( 33 s.h.)
2. Complete all of the following:

| MUS | 225 | Italian Diction (.5) |
| :--- | :--- | :--- |
| MUS | 226 | German Diction (.5) |
| MUS | 227 | French Diction (.5) |
| MUS | 328 P | Methods and Materials of Choral Literature (1) |
| MUS | 332P | Advanced Choral Conducting (2) |
| MUS | 341P | Vocal Pedagogy (2) |
| MUS | 342P | Methods for Elementary Music (3) |
| MUS | 483P | Vocal Pedagogy Field Experience (1) |
| MUS | 484P | Elementary Music Field Experience (1) |
| EDUC | 451P | Secondary Special Methods (1) |

3. Complete one of the following:

| MUS | 343 |  | Instrumental Methods: Single Reeds (1) |
| :--- | :--- | :--- | :--- |
| MUS | 344 |  | Instrumental Methods: Flute and Double Reeds (1) |
| MUS | 345 |  | Instrumental Methods: Upper Brass (1) |
| MUS | 346 | Instrumental Methods: Lower Brass (1) |  |
| MUS | 347 | Instrumental Methods: Violin and Viola (1) |  |
| MUS | 348 | Instrumental Methods: Cello and Double Bass (1) |  |
| MUS | 349 | Instrumental Methods: Percussion (1) |  |

4. Complete $\underline{8 \text { s.h. }}$ of applied lessons (MUSL) in the primary area of music study; if the primary area is not voice, the student must additionally take 4 s.h. of applied lessons in voice
5. Complete 2 s.h. of applied lessons (MUSL) in keyboard or guitar

Note: MUS 117I, 118I, 217 I or 2181 may be counted as keyboard applied lessons
6. Complete 3.5 s.h. of music (MUS/MUSG/MUSL) electives

## Vocal Music Education Major Requirements - 7-12 licensure (60 s.h.)

1. Complete all "common" requirements listed above (33 s.h.)
2. Complete all of the following:

| MUS | 225 | Italian Diction (.5) |
| :--- | :--- | :--- |
| MUS | 226 | German Diction (.5) |
| MUS | 227 | French Diction (.5) |
| MUS | 328P | Methods and Materials of Choral Literature (1) |
| MUS | 332P | Advanced Choral Conducting (2) |
| MUS | 341P | Vocal Pedagogy (2) |
| MUS | 383P | Vocal Pedagogy Field Experience (1) |
| EDUC | 451P | Secondary Special Methods (1) |

3. Complete one of the following:

| MUS | 343 | Instrumental Methods: Single Reeds (1) |
| :--- | :--- | :--- | :--- |
| MUS | 344 | Instrumental Methods: Flute and Double Reeds (1) |
| MUS | 345 | Instrumental Methods: Upper Brass (1) |
| MUS | 346 | Instrumental Methods: Lower Brass (1) |
| MUS | 347 | Instrumental Methods: Violin and Viola (1) |
| MUS | 348 | Instrumental Methods: Cello and Double Bass (1) |
| MUS | 349 | Instrumental Methods: Percussion (1) |

4. Complete $\underline{8 \text { s.h. of applied lessons (MUSL) in the primary area of music study; if the primary area is not voice, the }}$ student must additionally take 4 s .h. of applied lessons in voice
5. Complete 2 s.h. of applied lessons (MUSL) in keyboard or guitar Note: MUS 117I, 118I, 217 I or 2181 may be counted as keyboard applied lessons
6. Complete 7.5 s.h. of music (MUS/MUSG/MUSL) electives

## Communication skills and departmental skills endorsements

All communication skills and music skills requirements must be passed before the student can be certified for graduation. Within the communications skills area, the reading component will be evaluated by a reading comprehension test centering on a music article selected by the music faculty; the writing component will be evaluated through the first music history paper; the oral component will be evaluated by an oral presentation, either for two music faculty members or within a music course. Remediation, if needed, will take place through individualized programs set up through the Center for Academic Excellence.
Music skills areas requiring evaluation are as follows: theory fundamentals, aural skills and piano proficiency. Remediation, if needed, will take place through theory courses (for theory fundamentals and aural skills), and beginning and/or intermediate keyboard classes (for piano proficiency.) All music skills areas must be passed before the student can be certified for graduation.

The piano proficiency exam must be passed before the student will be recommended for student teaching.
Music education majors are required to attend 12 recitals or concerts each semester, with the exception of the student teaching semester. At least 8 must be Music Department-sponsored; the remaining 4 may be non-Music Department concerts with approval of the academic adviser. Attendance at concerts by guest artists of special significance may be required of all music majors. Music majors are required to participate in at least one major ensemble per semester, except during the student teaching semester. A solo performance is required each semester on the departmental recital, semester-end juries, or their equivalent. A senior recital of one-half hour is required.

## Music Education Minors

The music department offers three distinct minors in music education: elementary music education, instrumental music education, and vocal music education. These minors satisfy the licensure requirement for elementary concentrations in music.

## Elementary Music Education Minor Requirements (33 s.h.)

1. Complete all of the following:

| MUS | 114 na | World Music (3) |
| :--- | :--- | :--- |
| MUS | 120 | Theory and Aural Skills I (5) |
| MUS | 125 P | Theory and Aural Skills II (5) |
| MUS | 211 Pa | Music History I (3) |
| MUS | 212 Pa | Music History II (3) |
| MUS | 331 P | Conducting (2) |
| MUS | 342 P | Methods for Elementary Music (3) |
| MUS | 349 | Percussion Methods (1) |
| MUS | 484 P | Elementary Music Field Experience (1) |

2. Complete one of the following

| MUS | 208na | Studies in Music (1) |
| :--- | :--- | :--- |
| MUS | 209 xa | Studies in Music (1) |
| MUS | 210 ca | Studies in Music (1) |

3. Complete three of the following:

| MUS | 343 | Instrumental Methods: Single Reeds (1) |
| :--- | :--- | :--- | :--- |
| MUS | 344 | Instrumental Methods: Flute and Double Reeds (1) |
| MUS | 345 | Instrumental Methods: Upper Brass (1) |
| MUS | 346 | Instrumental Methods: Lower Brass (1) |
| MUS | 347 | Instrumental Methods: Violin and Viola (1) |
| MUS | 348 | Instrumental Methods: Cello and Double Bass (1) |
| MUS | 350 | Instruments for Vocalists (1) |

4. Complete $\underline{3 \text { s.h. }}$ of applied lessons (MUSL), $\underline{1 \text { s.h. of which must be in voice }}$
5. Pass the departmental theory fundamentals, aural skills, and piano proficiency evaluations

## Instrumental Music Education Minor Requirements (31 s.h.)

1. Complete all of the following:

| MUS | 114 na | World Music (3) |
| :--- | :--- | :--- |
| MUS | 120 | Theory and Aural Skills I (5) |
| MUS | 125 P | Theory and Aural Skills II (5) |
| MUS | 211 Pa | Music History I (3) |
| MUS | 212 Pa | Music History II (3) |
| MUS | 331 P | Conducting (2) |
| MUS | 333 P | Advanced Instrumental Conducting (2) |

2. Complete one of the following

MUS 208na Studies in Music (1)

| MUS | 209xa | Studies in Music (1) |
| :--- | :--- | :--- |
| MUS | 210 ca | Studies in Music (1) |

3. Complete three of the following:

| MUS | 343 | Instrumental Methods: Single Reeds (1) |
| :--- | :--- | :--- |
| MUS | 344 | Instrumental Methods: Flute and Double Reeds (1) |
| MUS | 345 | Instrumental Methods: Upper Brass (1) |
| MUS | 346 | Instrumental Methods: Lower Brass (1) |
| MUS | 347 | Instrumental Methods: Violin and Viola (1) |
| MUS | 348 | Instrumental Methods: Cello and Double Bass (1) |
| MUS | 349 | Percussion Methods (1) |

4. Complete 3 s.h. of applied lessons (MUSL)

Note: Up to 1 s.h. of MUS 117I, 118I, 217 I and 218I may count as applied lessons
5. Complete 1 s.h. of of music (MUS/MUSG/MUSL) electives
6. Pass the departmental theory fundamentals, aural skills, and piano proficiency evaluations

## Vocal Music Education Minor Requirements (32 s.h.)

1. Complete all of the following:

| MUS | 114 na | World Music (3) |
| :--- | :--- | :--- |
| MUS | 120 | Theory and Aural Skills I (5) |
| MUS | 125 P | Theory and Aural Skills II (5) |
| MUS | 211 Pa | Music History I (3) |
| MUS | 212 Pa | Music History II (3) |
| MUS | 331P | Conducting (2) |
| MUS | 328P | Methods and Materials of Choral Literature (1) |
| MUS | 332P | Advanced Choral Conducting (2) |
| MUS | 341P | Vocal Pedagogy (2) |
| MUS | 483PI | Vocal Pedagogy Field Experience (1) |

2. Complete one of the following

| MUS | 208na | Studies in Music (1) |
| :--- | :--- | :--- |
| MUS | 209xa | Studies in Music (1) |
| MUS | 210ca | Studies in Music (1) |

3. Complete two of the following:

| MUS | 225 | Italian Diction (.5) |
| :--- | :--- | :--- |
| MUS | 226 | German Diction (.5) |
| MUS | 227 | French Diction (.5) |

4. Complete 3 s.h. of applied lessons (MUSL)

Note: Up to 1 s.h. of MUS 117I, 118I, 217 I and 218I may count as applied lessons
5. Pass the departmental theory fundamentals, aural skills, and piano proficiency evaluations

## Music (MUS/MUSG/MUSL) Courses

For course descriptions, please see the "Music" section of this catalog.

## Natural Science

Natural Sciences Division<br>Interdisciplinary Major

Faculty
Louise Zaffiro (director)

## Statement of philosophy

The natural science major offers the opportunity to develop knowledge and skills in several disciplines. This major is particularly appropriate for prospective natural science teachers at the secondary level. The natural science major is also available for students who desire a broad background in the natural sciences as preparation for a variety of career options and graduate or professional school.

## Natural Science Major Requirements (56-59 s.h.)

1. Complete all of the following:

| BIOL | 130 q | Diversity of Life (4) |
| :--- | :--- | :--- |
| BIOL | 131 Pq | Introduction to Cells (4) |
| BIOL | 221 P | Genetics (4) |
| BIOL | 229 Pq | Ecology (4) |
| CHEM | 131 fq | General Chemistry (5) |
| CHEM | 235 Pq | Organic Chemistry I (4) |
| CHEM | 241 Pq | Analytical Chemistry (4) |
| CHEM | 251 Pq | Inorganic Chemistry (4) |
| MATH | 131 Pm | Calculus and Analytic Geometry I (4) |
| MATH | 132 Pm | Calculus and Analytic Geometry II (4) |
| PHYS | 111 pmq | General Physics I (5) |
| PHYS | 112 Pmq | General Physics II (5) |
| PHYS | 331 P | Advanced Laboratories (2) |

2. Complete either $\mathbf{A}$ or $\mathbf{B}$ below:

| A. PHYS | 211 P | Electronics I (3) and |
| :--- | :--- | :--- |
| PHYS | 212 P | Electronics II (3) |
| B. | PHYS | 221 Pq | Modern Physics (3)

3. Complete all requirements for the Communication Skills Endorsement

Note: The following courses are not required but are strongly recommended:
BIOL $320 \mathrm{Pq} \quad$ Evolution (4)
CHEM 361P Physical Chemistry I (4)
or CHEM 320P Biochemistry (4)
COSC 106 m Computing Concepts (3)
or COSC 135 m Computer Programming I (4)

## Communication skills endorsement

Natural Science majors are required to meet the communication skills endorsement requirements of the chemistry department. Note: endorsement of exit-level writing and oral skills will take place after the student has completed PHYS 331P.

## Natural sciences (NASC) division courses

## 110 Pq Concepts in Natural Science (4)

Prerequisities: Admission to the teacher education program. A study of the process of science and the knowledge accumulated by this process. A unified approach to selected topics in science: includes physical, biological and earth sciences. One lab per week.

## 120q Introduction to Environmental Science (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.

## 125q Geology (3)

Restricted to freshmen and sophomores. Introduces elementary principles of physical geology including identification of common minerals and rocks, plate tectonics, and landforming processes. Includes labs and extensive use of geologic and topographic maps.

## 200Pq Nature of Science (2-3)

Prerequisite: sophomore standing. Interdisciplinary course. No laboratory. Designed for students who plan to concentrate in disciplines other than the natural sciences. The approach to problem-solving which has developed in the physical and biological sciences and the relation of science to other human experiences are explored through reading and discussion of a variety of source publications. Emphasis depends on instructor.

## 210q Introduction to GIS (3)

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, entry, analysis and display into a GIS, as well as creating and managing GIS projects. One two-hour lab per week.

## 222Iq Field Studies (3)

Prerequisite: instructor's permission. An extended field trip to explore the natural history, science or environment of another geographic region. Examines the natural and socio-cultural conditions, including extensive outdoor fieldwork. Can be repeated for credit if a different location is visited. NASC 222Iq and NASC 322Iq cannot be taken at the same geographical location.

## 237q Physical Geography (4)

Explores how the earth's natural systems work (climatic, hydrosphere, biosphere, soils and land forming), their interrelationships and how they work to create natural regions.

## 299PI Independent Study (Arr)

Prerequisite: a previous course in the natural sciences. An introduction to research focusing on a well-defined topic in the natural sciences. Research will be supervised by a professor in the division.

## 322PIq Advanced Field Studies (3)

Prerequisite: Any BIOL, CHEM, NASSC, or PHYS course numbered 110 or higher and instructor's permission. An extended field trip to explore the natural history, science or environment of another geographic region. Examines the natural and sociocultural conditions, including extensive outdoor field work. Students will conduct an experimental investigation and present a research report. Can be repeated for credit if a different location is visited. NASC 222Iq and NASC 322Iq cannot be taken at the same geographic location.

## 480PI Environmental Studies Seminar (3)

Prerequisite: senior environmental studies major or instructor's permission. Examines current environmental issues from an interdisciplinary perspective. Specific topics will depend on the interests of the students and instructor(s).

## Not-for-Profit Management

Interdisciplinary Program

## 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, Department of Human Resources, Des Moines Playhouse, Iowa Arts Council, Iowa Department of Economic Development, Lutheran Social Services, Fair Haven Nursing Home, Girl Scouts of America, 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 program 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.

Students who fulfill program requirements will receive a letter of completion from the Not-For-Profit Management Council.

## Not-for-Profit Management Program Requirements (20-21 s.h.)

Note: Courses may be counted for both the student's major or minor and the not-for-profit program.

1. Complete all of the following:

| ACCT | 201P | Introduction to Not-for-Profit and Government Accounting (3) |
| :--- | :--- | :--- |
| BEHS | 285 | Not-for-Profit Seminar (1) |
| BEHS | 397P | Internship in Not-for-Profit Management (3) |
| BMGT | 251P | Principles of Management (3) |
| BMGT | 371P | Principles of Marketing (3) |
| BMGT | 435P | Not-for-Profit Management (3) |

2. Complete one of the following:

BMGT 351Ps Organizational Behavior (3)
BMGT 352P Human Resource Management (3)
ENGL 344 Writing for Non-Profit Organizations (3)
Students are also required to submit to the Not-For-Profit Management Council a proposal for an interest area of at least twelve (12) semester hours along with a rationale for how the courses offer a coherent program that will prepare the student for a career in a specialized sphere of not-for-profit management. These interest area courses usually will be selected from the student's major. Students with any major may apply. Students who could benefit from a not-for-profit program include those with majors in art, communication/theatre, English, exercise science, general studies, history, music, philosophy, religion, political science, psychology, and sociology/anthropology. For examples of possible interest areas, students may contact Dr. Jaclyn Rundle.

## 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 Action, Kinship, Big Hearts-Helping Hands Club, 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 with Central's programs to take advantage of the numerous opportunities for international internships available in not-for-profit agencies. Excellent internship opportunities are also available in the Chicago Metropolitan Program and in Washington, D.C. at the Washington Center.

## Phillosophy

Humanities Division

Philosophy/Religion Department
Faculty
David E. Timmer (department chair), Michael Patzia, A. Chadwick Ray

## Statement of philosophy

The educational mission of the philosophy and religion department is to serve the Central Core and both the philosophy and religion majors. The department takes seriously its obligation to introduce to all students philosophy and religion as humanities disciplines. All courses at the 100 - and 200 -level are open to and designed for students at different stages of their general education, yet the department also seeks to offer a balanced array of courses for majors and minors.

Course offerings in philosophy introduce students to logic, the history of western philosophy, a sample of important areas of philosophical investigation and applied philosophy. In every philosophy course, the careful analysis and construction of arguments is emphasized. Reading and discussion of primary sources is preferred to textbook summaries in most courses.

## Philosophy Major Requirements (30 s.h.)

1. Take all of the following:

| PHIL | 125 m | General Logic (3) |
| :--- | :--- | :--- |
| PHIL | 221 t | Classical Thought (3) |
| PHIL | 222 t | Modern Thought (3) |

2. Take an additional 21 s.h. of PHIL courses, with at least 12 s.h. of those at the 200 -level or above

## 3. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

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 adviser at least two philosophy papers that they have submitted in courses during the preceding two terms. The adviser will review the student's progress with colleagues in the department as appropriate and then discuss with the student his or her development of communication skills. The discussion should indicate any deficiencies so that the student is clear on what sorts of improvement are desirable. A student with serious deficiencies should receive from the adviser, at least two semesters before anticipated graduation, a written statement of remedial measures to be taken. The department may endorse a student's communications skills before the junior year. After a major's skills are endorsed, further submission of papers for skills review is optional.

## Philosophy Minor Requirements (15 s.h.)

1. Take the following:

PHIL 125m General Logic (3)
2. Take one of the following:

| PHIL | 221 t | Classical Thought (3) |
| :--- | :--- | :--- |
| PHIL | 222 t | Modern Thought (3) |

3. Take 3 s.h. from the following:

| PHIL | 228 nt | Asian Philosophy (3) |
| :--- | :--- | :--- |
| PHIL | 240 t | Political Philosophy (3) |
| PHIL | 245 t | Environmental Ethics (3) |
| PHIL | 260 t | Metaphysics (3) |
| PHIL | 261 t | Moral Philosophy (3) |
| PHIL | 262 | Philosophies of the Sciences (3) |
| PHIL | 264 t | Theory of Knowledge |
| PHIL | 360 It | Readings in Metaphysics (4) |

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PHIL 361It Readings in Moral Philosophy (4)
PHIL 399I Independent Study (Arr)
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4. Take an addition 6 s.h. of PHIL courses, with at least 3 s.h. of those at the 200 -level or above

## Philosophy/Religion Minor Requirements (18 s.h.)

Students must take 18 semester hours of PHIL and REL courses, selected to focus on a particular theme such as great ideas, beliefs and values, or the Christian faith. The philosophy/religion department must approve the minor, both as to thematic focus and to the courses used to satisfy it.

Students wishing to complete such a minor should have a minor adviser within the department. With department approval, one course from outside the department and outside the student's first major may be used to count toward the minor.

## Critical Thinking Minor Requirements (18 s.h.)

1. Complete 18 s.h. of approved minor courses, including those required as stated below
2. Complete at least one advanced-level 3 s.h. theory or methodology course from the student's major field (subject to departmental approval)
3. Complete at least one of the following:

| PHIL | 125 m | General Logic (3) |
| :--- | :--- | :--- |
| PHIL | 221 t | Classical Thought (3) |
| COMM | 318 | Persuasion (3) |

4. Complete at least two of the following:

PHIL 221t Classical Thought (3)
PHIL 222t Modern Thought (3)
PHIL 223t Contemporary Philosophy (3)
PHIL 228nt Asian Philosophy (3)
REL 230r Asian Religions (3)
REL 272r Modern Christian Thought (3)
5. Complete one of the following (if needed to earn 18 s.h. total):

| PHIL | 120 ft | Introduction to Philosophy |
| :--- | :--- | :--- |
| PHIL | 121 ft | Ethics |
| REL | 112 fr | The Christian Heritage |
| REL | 255 r | Christian Ethics |

## Philosophy (PHIL) courses

## 120ft Introduction to Philosophy (3)

An examination of four significant philosophical issues, typically including one social issue (e.g., the morality of capital punishment), ethical relativism and objectivity, relationship between human freedom and the scientific outlook, and rationality of belief in God). Develops analytical thinking, critical reading and writing and sensitivity to argumentation.

## 121ft Ethics (3)

The course examines two questions which have exercised moral philosophers in the West at least since the time of Plato: Are assessments of moral right and wrong any more than expressions of personal or group preferences? What is the proper relation between morality and the law in a society that values highly the rights and interests of individuals? The course promotes collegelevel skills especially writing and analytical reading.

## 122f Social Issues (3)

Addresses issues that create conflicts and controversies in contemporary society such as the legality and morality of abortion, the death penalty, homosexuality, and pornographic material. Promotes college-level skills, especially writing and analytical reading.

## 125m General Logic (3)

Introduces the analysis of arguments, including such topics as the uses of language, definitions, fallacies, and the rules of valid deductive inference in syllogistic arguments. Designed to help students with reasoning processes.

## 126ft Aesthetics (3)

Can aesthetic assessments be true or false? Or are such assessments merely expressions of individual preferences? This course examines the nature and importance of aesthetic judgement. It draws on established classics and contemporary efforts by philosophers, artists, critics, among others. Promotes college-level skills, especially writing and analytical reading.

## 127ft Meaning of Life (3)

Explores the concept of the meaning of life through alternative theories of the basis of value; nihilist, existentialist, rationalist, religious and naturalist selections are studied. Emphasizes critical reading and thinking, presentation and assessment of arguments in speech and on paper.

## 128nt Philosophies in the Far East: China and Japan in Comparison (3)

Introduces the philosophical development of China and Japan from the same Confucian tradition. Explores the different interpretation and dynamics of East Asian traditional thought which have influenced modern China and modern Japan. Discusses Western viewpoints on East Asian philosophy.

## 221t Classical Thought (3)

A study of the major classical thinkers in Western philosophy, from the pre-Socratics through the Middle Ages, with emphasis on Plato, Aristotle and Aquinas.

## 222t Modern Thought (3)

A study of selected thinkers and movements shaping the modern western tradition. The focus will be on the work of Descartes, Locke, Berkeley Hume and Kant.

## 223t Contemporary Philosophy (3)

An examination of recent thinkers and trends in philosophy. The philosophical schools and movements studied may include Existentialism, Pragmatism, Postmodernism, Deconstructionism, and Feminism. Topics will vary but may include the nature of the self, bases of ethics, and our relationship to society and God. At least one prior course in philosophy is recommended.

## 225t Modern Continental Philosophy (3)

A survey of the history of continental philosophy from Hegel to the present, with emphasis on Hegel, Nietzsche, Herdegger, and the post-Herdeggerians. No formal prerequisites.

## 228nt Asian Philosophy (3)

A survey of the major streams of thought in the Asian tradition including Confucianism, Taoism, Hinduism and Buddhism. Key philosophical concepts such as reality, knowledge, self and ethics will be examined and compared with traditional Western viewpoints.

## 240t Political Philosophy (3)

A historical survey of Western political thinkers from Plato to the present, with emphasis on changing cultural/historical contexts.

## 244t Business Ethics (3)

Applied philosophy focusing on issues especially relevant to the business world such as affirmative action; product liability; obligations of advertisers; whistle-blowing; the social responsibility of business; privacy; sex discrimination.

## 245t Environmental Ethics (3)

Examines a variety of moral and social issues regarding the relationship between human beings and non-human nature. Issues include the rights of non-humans, ecological obligations to future generations, the value of diversity of life, land use and vegetarianism, obligations to feed the world, and dominion vs. stewardship.

## 260t Metaphysics (3)

This course explores the extent to which the distinctions we draw have any basis independent of us (i.g. mind and body, person and world, causes and non-causes, etc.).

## 261t Moral Philosophy (3)

A survey of major theories of normative ethics, principally concerning the nature of the basis of moral judgments. Aristotelian, Kantian and utilitarian traditions will be studied.

## 262 Philosophy of the Sciences (3)

Discusses philosophical problems raised by modern science, technology and human freedom. Concerns the fundamental shifts that have taken place in the understanding of physical, biological, social and historical sciences, social and historical sciences, social responsibility and the sciences.

## 264t Theory of Knowledge (3)

Drawing on classical sources, the course will focus on philosophical attempts to describe the nature of ordinary everyday knowledge, religious knowledge, moral knowledge, and scientific knowledge, and the differences that distinguish them.

## 286Ct Values and Vocations (3)

Field work in contemporary values issues and discussions of their moral, aesthetic and religious implications for a life and world view. To be taken in Chicago.

## 323t Readings in Contemporary Philosophy (4)

Offer jointly with PHIL 223t and covering the same topics but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both PHIL 223t and PHIL 323t.

## 360It Readings in Metaphysics (4)

Offered jointly with PHIL 260t and covering the same topics but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 260 t and 360It.

## 361It Readings in Moral Philosophy (4)

Offered jointly with PHIL 261t and covering the same topics but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both PHIL 261t and 361It.

## 362It Readings in Philosophy of the Sciences (3)

Offered jointly with PHIL $262 t$ and covering the same topics but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both PHIL 262t and 362It.

## 390 Topics in Philosophy (Arr)

Varying topics determined by the interests of students and the staff. May be repeated for credit.

## 399I Independent Study (Arr)

## 397/497PI Internship (Arr)

Prerequisite: departmental approval and instructor 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 record basis.

## Physics

Natural Sciences Division
Pbysics Department

## Faculty

Viktor Martisovits (chair), Xi Chen, Wenli Guo

## Statement of philosophy

The physics program at Central College is a four-year program that prepares students for graduate school and research, or jobs in engineering and other technical areas. It is the major that is the foundation for most of the engineering specialties in Central's engineering 3-2 dual-degree programs with Washington University in St. Louis, the University of Iowa, and Iowa State University. Our mission is to teach physics theory, problem-solving skills, and experimental techniques with an emphasis on science as a method for learning about the world. We prepare our students to be able to reason from the general fundamental principles to specific applications in physics. A student trained in physics will be able to work in a variety of specialties. We see ourselves as part of an academic community contributing a unique piece of a larger world picture. We see physics as a part of the western scientific tradition that has influenced all aspects of our life and culture.

## Study abroad opportunities

Students majoring in physics have been able to study abroad with careful planning. The London University program may permit students to take some courses in the physics major abroad.

## Physics Major Requirements (55 s.h.)

| 1. Complete all of the following: |  |  |
| :--- | :--- | :--- |
| PHYS | 111Pmq | General Physics I (5) |
| PHYS | 112Pmq | General Physics II (5) |
| PHYS | 221Pq | Modern Physics I (3) |
| PHYS | 331P | Advanced Labs (4) (2 semesters) |
| CHEM 131fq | General Chemistry (5) |  |
| MATH | 131Pm | Calculus and Analytic Geometry I (4) |
| MATH | 132Pm | Calculus and Analytic Geometry II (4) |
| MATH | 231Pm | Multivariable Calculus (3) |
| MATH | 250Pm | Differential Equations (3) |

2. Complete 19 s.h. from the following elective courses:

| PHYS | 211 P |  | Electronics I (3) |
| :--- | :--- | :--- | :--- |
| PHYS | 212 P |  | Electronics II (3) |
| PHYS | 222 Pq |  | Modern Physics II (3) |
| PHYS | 321 P |  | Electricity and Magnetism I (3) |
| PHYS | 322 P |  | Optics (3) |
| PHYS | 324 P |  | Thermodynamics (3) |
| PHYS | 326 P |  | Analytical Mechanics (4) |
| PHYS | 328 PI |  | Engineering Problems (4) |
| PHYS | 412 P |  | Quantum Mechanics (4) |
| PHYS | 421 P |  | Electricity and Magnetism II (3) |

## 3. Complete all requirements for the Communication Skills Endorsement

## Communications skills endorsement

The communication skills goals of the physics department are to prepare our students to be able to read the technical and mathematical literature used in physics and to be able to explain physical concepts in a clear and logical fashion both in writing and speaking. Difficulties that arise in oral communication occur typically in public speaking situations and are best addressed by practice provided in speech classes. Early evaluation of skills is done in PHYS 111Pmq. Skill in reading physics texts is evaluated through normal chapter tests in which comprehension of test questions and text material is required to pass. Writing skills are evaluated through laboratory reports and tests; both require a formal writing style. Speaking skills are evaluated through personal conversations with the students by the physics faculty during normal conversation involving technical matters.

Monitoring and remedial opportunities occur in each physics course in that tests and personal discussions with the students provide us with information that is used to advise students about any changes that must be made to improve their communication skills. Occasionally students are assigned short presentations to give to a class. Enrollment in PHYS 331P for two semesters is required of all physics majors. Each student must be able to communicate orally on a one-to-one basis with the instructor of the class regarding technical problems arising from experiments performed individually.

All graduating physics majors know how to read technical material, if slowly. Since speed is not a concern, no specific reading endorsement is required. PHYS 331P has sufficiently high standards of technical writing that passing both semesters with a C or better is an endorsement of a student's writing skills. The formal requirement needed to obtain a departmental endorsement in speaking is to pass COMM 160 f Intro to Communication Studies or COMM 270P Public Speaking with a grade of C or better.

## Physics Minor Requirements (18 s.h.)

1. Complete all of the following:

| PHYS | 111 Pmq | General Physics I (5) |
| :--- | :--- | :--- |
| PHYS | 112 Pmq | General Physics II (5) |
| PHYS | 221 Pq | Modern Physics I (3) |
| PHYS | 331 P | Advanced Laboratories (2) |

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

Note: The following courses are recommended for physics minors:
COSC 110Pm Introduction to Computer Science
MATH 240Pm Linear Algebra.

## Physics (PHYS) courses

## 101Pmq Introductory Physics I (4)

Prerequisite: high school algebra. Studies fundamental physics and laboratory techniques necessary for understanding science and its relation to everyday experiences. One 3-hour lab required per week.

102Pmq Introductory Physics II (4)
Prerequisite: high school algebra, PHYS 101Pmq. A continuation of Introductory Physics I. One 3-hour lab required per week.

## 106Pq Introductory Astronomy (3)

Prerequisite: high school algebra. A descriptive course dealing with the celestial sphere, physical properties of the solar system, stars and galaxies. This course is open to all liberal-atts 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. Approximately six night viewing sessions are included, when conditions are good.

## 111Pmq General Physics I (5)

Corequisite: MATH 131 m . A thorough basic course in all branches of physics with an emphasis on mathematical analysis. Designed for engineering and science majors. Required for advanced physics courses. One 3-hour lab per week.

## 112Pmq General Physics II (5)

Prerequisite: PHYS 111Pmq. Corequisite: MATH 132Pm. A continuation of PHYS 111Pmq. Required for advanced physics courses. One 3-hour lab per week.

## 204Pq Energy and Environment (3)

Prerequisite: sophomore standing. 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.

## 211P Electronics I (3)

Prerequisite: PHYS 112Pmq. Basic theory of operation of diodes and transistors are covered, together with their use in simple circuits. Simple circuits in the form of integrated circuits are then used to build more elaborate circuits such as amplifiers, counters and timers, and then their outputs are measured under varying conditions. A major goal of this course is to enable the student to
use modern electronic laboratory instruments with a basic understanding of how they work. Two class sessions and one 3-hour laboratory session per week.

## 212P Electronics II (3)

Prerequisite: PHYS 211P. Continuation of PHYS 211. Typical topics are operational amplifiers, oscillators, digital electronics, and analog and digital measurements. In laboratory, circuits are assembled by students and measurements are taken under varying conditions. Two class sessions and one three-hour laboratory session per week.

## 221Pq Modern Physics I (3)

Prerequisite: PHYS 112Pmq, MATH 231Pm recommended. Introductory quantum mechanics and relativity theory and their application to the study of the structure of atoms and molecules.

## 222Pq Modern Physics II (3)

Prerequisite: PHYS 221Pq. Continuation of PHYS 221. 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.

## 321P Electricity and Magnetism I (3)

Prerequisites: PHYS 112Pmq and MATH 231Pm. Electronics, electrostatics, magnetostatics and Maxwell's equations.

## 322P Optics (3)

Prerequisites: PHYS 112Pmq and MATH 231Pm. Physical optics of electromagnetic radiation, including Fraunhofer and Fresnel diffraction, physical and Fourier interferometers and lasers.

## 324P Thermodynamics (3)

Prerequisites: PHYS 112Pmq and MATH 231Pm. First and second laws of thermodynamics, thermodynamic potentials, and an introduction to kinetic theory and statistical mechanics.

## 326P Analytical Mechanics (4)

Prerequisites: PHYS 112Pmq and MATH 231Pm; MATH 250 recommended. Dynamics of particles and rigid bodies, including satellite motion. Lagrange's equations and Hamilton's equations. Develops facility in the application of mathematical formulas to the investigation of physical phenomena.

## 328PI Engineering Problems (4)

Prerequisites: MATH 231Pm and PHYS 112Pmq and instructor's permission. Series solutions of differential equations, Bessel's equation, Legendre's equation; orthogonal functions; the Laplace transform and applications; differential and integral calculus; Fourier series; solutions of partial differential equations of mathematical physics.

## 331P Advanced Laboratories (2)

Corequisite: any advanced physics course with no laboratory component. Two semesters required for a major. Quantitative experiments involving data collection and analysis done as accurately as possible, often with the aid of microcomputers. A laboratory investigation of all major branches of physics with an emphasis on experimental design and procedures in a research atmosphere of independent thinking.

## 412P Quantum Mechanics (4)

Prerequisites: PHYS 222Pq and PHYS 326P. The Schrodinger equation, hydrogen atom, simple harmonic oscillator, expectation values, eigenvalues, eigenfunctions, operators.

## 421P Electricity and Magnetism II (3)

Prerequisite: PHYS 321P. This is a continuation of PHYS 321. Maxwell's equations, electromagnetic waves and relativistic fields.

## 397/497PI Internship (Arr)

Prerequisites: 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 record basis.

## 498 I Tutorial Research (Arr)

Prerequisites: PHYS 222Pq and instructor's permission. Intensive library and laboratory or theoretical research in topics of special interest to advanced students.

## Political Science

Behavioral Sciences Division
Political Science Department

## Faculty

Keith Yanner (chair), Don Racheter, Jim Zaffiro

## Statement of philosophy

The political science program is designed to prepare students for a wide variety of careers in government, politics, business, law, mass media, and education. Students learn about governmental structures and processes and how individuals and groups participate in and are affected by politics at the local, national, and global levels. Students learn how to participate effectively in civic and community life. Through systematic study of government and public policy within the context of the liberal arts, students acquire the skills and habits of mind to become life-long learners. Course work is supplemented and enriched by supervised independent research, study abroad experiences, career-focused internships, experiential and service learning opportunities.

The political science major features three distinct tracks: the American government, politics and policy track; the global politics and policy track; and the political economy track. Also, note that many courses taken while studying abroad meet POLS major requirements in all three tracks.

## Political Science Major/ <br> American Government, Politics \& Policy Track Requirements (39-41 s.h.)

1. Complete all of the following American politics courses:

POLS 110fs Introduction to American Politics (3)
POLS 216s Citizen Politics (3) or POLS 316Is Readings in Citizen Politics (3)
POLS 261t American Political Philosophy (3) or PHIL 240t Political Pbilosophy (3)
2. Complete four of the following:

| POLS | 215 s | Media and American Politics (3) <br> or POLS 315Is Readings in Media and American Politics (3) |
| :---: | :--- | :--- | :--- |
| POLS | 217 s | Legislative Politcs (3) <br> or POLS 317Is Readings in Legislative Politics (3) |
| POLS | 218 s | Judicial Politics (3) <br> or POLS 318Is Readings in Judicial Politics (3) |
| POLS | 233 hs | American Environmental History and Policy (3) <br> or POLS 333Ihs Readings in American Environmental History and Policy (3) <br> The U.S. in World Affairs (3) |
| or POLS 335Ihs Readings in The U.S. in World Affairs (3) |  |  |

3. Complete both courses in one of the following research emphases:

MATH 105 m Introduction to Statistics (4) and
POLS 250Ps Methods of Political Research (3)
$\underline{\text { or }}$
ANTH 120ns Introduction to Cultural Anthropology (3) and
ANTH 366Pc Ethnographic Field Methods (3)
or
MATH 105 m Introduction to Statistics (4) and
ECON 311Pm Econometrics (4)
4. Complete three of the following elective courses:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- | :--- |
| ECON | 326 Ps | Public Choice (3) |
| ECON | 328 P | Economics of Discrimination, Poverty, and Public Policy (3) |
| HIST | 228 h | The Origins of Modern America (3) |
| HIST | 229 h | Recent United States History (3) |

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POLS 233hs American Environmental History and Policy (3)
                or POLS 333Ibs Readings in American Environmental History and Policy (3)
POLS 235hs The U.S. in World Affairs (3)
                or POLS 335 Ibs Readings in The U.S. in W orld Affairs (3)
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5. Complete the following senior capstone seminar:

POLS 489Ps Research Seminar in Political Science (3)
6. Complete all requirements for the Communication Skills Endorsement

## Political Science Major/ Global Politics and Policy Track Requirements (39-41 s.h.)

1. Complete all of the following:
POLS 140fs Introduction to International Politics (3)

POLS 235hs The U.S. in World Affairs (3) or POLS 335Ibs Readings in The U.S. in World Affairs (3)
POLS 261t American Political Philosophy (3)
or PHIL 240 t Political Pbilosophy (3)
2. Complete two of the following comparative politics/world region elective courses:

| POLS | 120ns | Politics in Foreign Countries (3) |
| :--- | :--- | :--- |
| POLS | 222 nhs | African Politics Since 1935(3) <br> or POLS 322Inhs Readings in African Politics Since 1935 (3) |
| POLS | 223 hs | Contemporary Europe (3) |
| or POLS 323Ibs Readings in Contemporary Europe (3) |  |  |

3. Complete two of the following international politics/global policy elective courses:
POLS 226s Political Violence and Terrorism (3)
or POLS $326 I s$ Readings in Political Violence and Terrorism (3)
POLS 230nhs Africa, Asia, and Latin America in World Affairs (3) or POLS 330Inhs Readings in Africa, Asia, and Latin America in W orld Affairs (3)
POLS 241s International Political Economy (3) or POLS 341Is Readings in International Political Economy (3)
POLS 242s Global Environmental Politics (3)
or POLS 342Is Readings in Global Environmental Politics (3)
POLS 244s International Law and Organizations (3)
or POLS 344Is Readings in International Law and Organizations (3)
4. Complete both courses in one of the following research emphases:

MATH 105 m Introduction to Statistics (4) and
POLS 250Ps Methods of Political Research (3)
or
ANTH 120ns Introduction to Cultural Anthropology (3) and
ANTH 366Pc Ethnographic Field Methods (3)
or
MATH 105 m Introduction to Statistics (4) and
ECON 311Pm Econometrics (4)
5. Complete three of the following interdisciplinary elective courses:

| ANTH | 120ns | Introduction to Cultural Anthropology (3) |
| :--- | :--- | :--- |
| ANTH | 361Pcs | Comparative Perspectives on Ethnic Conflict (3) |
| COLL | 321s | Gender, Culture and Knowledge (4) |
| COMM | 268c | Intercultural Communication (3) |
| COMM | 362P | Environmental Communication (3) |
| ECON | 111s | Principles of Macroeconomics (3) |
| ECON | 223Ps | Environmental Economics (3) |


| ECON | 322Ps | International Economics (3) |
| :--- | :--- | :--- |
| PSYC | 334 Ps | Social Psychology (3) |
| SOC | 344 s | Conflict Resolution (3) |

6. Complete the following senior capstone seminar: POLS 489Ps Research Seminar in Political Science (3)
7. Complete all requirements for the Communication Skills Endorsement

## Political Science Major/ Political Economy Track Requirements (42-44 s.h.)

1. Complete all of the following:

| POLS | 110 fs | Introduction to American Politics (3) <br> or POLS 140fs Introduction to International Politics (3) |
| :---: | :---: | :--- |
| POLS | 241 s | International Political Economy (3) <br> or POLS 341Is Readings in International Political Economy (3) |
| POLS | 261 t | American Political Philosophy (3) <br> or PHIL 240t Political Pbilosophy (3) |

2. Complete three of the following:

| ECON | 111 s | Principles of Macroeconomics (3) |
| :--- | :--- | :--- | :--- |
| ECON | 112 s | Principles of Microeconomics (3) |
| ECON | 211Ps | Macroeconomics (3) |
| ECON | 212 Pms | Microeconomics (4) |

3. Complete both courses in one of the following research emphases:
MATH 105 m Introduction to Statistics (4) and

POLS 250Ps Methods of Political Research (3)
or
ANTH 120ns Introduction Cultural Anthropology (3) and
ANTH 366Pc Ethnographic Field Methods (3)
or
MATH 105 m Introduction to Statistics (4) and
ECON 311Pm Econometrics (4)
4. Complete three of the following:

| POLS | 120ns | Politics in Foreign Countries (3) |
| :---: | :---: | :---: |
| POLS | 216s | Citizen Politics (3) |
|  |  | or POLS 316Is Readings in Citizen Politics (3) |
| POLS | 217s | Legislative Politics (3) |
|  |  | or POLS 31715 Readings in Legislative Poltics (3) |
| POLS | 218s | Judicial Politics (3) |
|  |  | or POLS 318Is Readings in Judicial Politics (3) |
| POLS | 222nhs | African Politics Since 1935 (3) |
|  |  | or POLS 322Inhs Readings in African Politics Since 1935 (3) |
| POLS | 223hs | Contemporary Europe (3) |
|  |  | or POLS 323Ibs Readings in Contemporary Europe (3) |
| POLS | 225hs | Modern Latin America (3) |
|  |  | or POLS 325Ihs Readings in Modern Latin America (3) |
| POLS | 226s | Political Violence and Terrorism (3) |
|  |  | or POLS 326Is Readings in Political Violence and Terrorism (3) |
| POLS | 230nhs | Africa, Asia, and Latin America in World Affairs (3) |
|  |  | or POLS 330Inhs Readings in Africa, Asia, and Latin America in World Affairs (3) |
| POLS | 233s | American Environmental Politics and Policy (3) |
|  |  | or POLS 33315 Readings in American Environmental Politics and Policy (3) |
| POLS | 235hs | The U.S. in World Affairs (3) |
|  |  | or POLS 335Ibs Readings in The U.S. in World Affairs (3) |

POLS 244s International Law and Organizations (3)
or POLS 344Is Readings in International Law and Organizations (3)
5. Complete two of the following:

| ECON | 222 Ps | Economic Development (3) |
| :--- | :--- | :--- | :--- |
| ECON | 223 Ps | Environmental Economics (3) |
| ECON | 322 Ps | International Economics (3) |
| ECON | 323 Ps | Labor Economics (3) |
| ECON | 324 Ps | Monetary Theory and Finance Systems (3) |
| ECON | 325 Ps | Public Finance (3) |
| ECON | 326 Ps | Public Choice (3) |
| ECON | 327 Ps | International Finance (3) |
| ECON | 328 Ps | Economics of Discrimination, Poverty and Public Policy (3) |

6. Complete one of the following senior capstone seminars:

ECON 485PI Economics Research Seminar (3)
POLS 489Ps Research Seminar in Political Science (3)

## 7. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

Writing skills competency is demonstrated via departmental approval of submitted student writing samples. Oral communication skills competency is demonstrated via successful completion of a major public presentation during POLS 489Ps.

## Political Science Minor Requirements (18 s.h.)

1. Complete one of the following:

| POLS | 110 fs | Introduction to American Politics (3) <br> Media and American Politics (3) |
| :--- | :--- | :--- |
| POLS | 215 s | 216 s | | or POLS 315Is Readings in Media and American Politics (3) |
| :--- |
| Citizen Politics (3) |
| or POLS 316Is Readings in Citizen Politics (3) |

2. Complete one of the following:

| POLS | 140fs | Introduction to International Politics (3) <br> POLS |
| :--- | :--- | :--- |
| 230nhs | Africa, Asia, and Latin America in World Affairs (3) <br> or POLS 330Inhs Readings in Africa, Asia, and Latin America in W orld Affairs (3) <br> POLS | 235 hs |
| The U.S. in World Affairs (3) |  |  |
| or POLS 335Ihs Readings in The U.S. in World Affairs (3) |  |  |

3. Complete one of the following:

POLS 120ns Politics in Foreign Countries (3)
POLS 222nhs African Politics Since 1935(3)
or POLS 322Inhs Readings in African Politics Since 1935 (3)

| POLS | 223 hs | Contemporary Europe (3) <br> or POLS 323Ibs Readings in Contemporary Europe (3) |
| :--- | :--- | :--- |
| POLS | 225 hs | Modern Latin America (3) <br> or POLS 325Ibs Readings in Modern Latin America (3) |
| POLS | 226 s | Political Violence and Terrorism (3) <br> or POLS 326Is Readings in Political Violence and Terrorism (3) |
| POLS | 230 nhsAfrica, Asia, and Latin America in World Affairs (3) <br> or POLS 330Inbs Readings in Africa, Asia, and Latin America in W orld Affairs (3) |  |

## 4. Complete any three additional POLS courses at the 300-level or higher (9 s.h.)

## Political science (POLS) courses

Note: Some courses may be taken at either the 200 or 300 level. Majors and potential majors should enroll at the 300 level. For all such courses the 300-level version requires separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive 200- and 300-level credit for the same course.

## 110fs Introduction to American Politics (3)

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. Promotes development of college-level skills in listening, reading, writing and speaking. This course may be used for teacher certification.

## 120ns Politics in Foreign Countries (3)

An introduction to politics in foreign countries with an emphasis on the non-Western world. Students choose the countries they study; one must be located in Africa, Asia, Latin America, or the Middle East. Emphasizes cross-national comparative analysis, short essay writing and current world events in the context of citizenship.

## 140fs Introduction to International Politics (3)

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.

## 185 Pre-Law Seminar (2)

An examination and discussion of the legal profession in the United States for students interested in legal studies. Meets once a week for two hours with each session devoted to a particular aspect of the legal profession. Each topic is explored jointly by students, faculty and attorneys.

## 211 Understanding the Civil Court Process I (4)

An examination of the civil court process in the United States with practical application through participation in several rounds of intercollegiate mock trial using a civil case. Instruction and critiques provided by attorneys as well as educators. Offered alternate years with POLS 213.

## 212P Understanding the Civil Court Process II (3)

A continuation of POLS 211. Limited to students who have successfully completed POLS 211 or with instructor's permission. Offered alternate years with POLS 214.

## 213 Understanding the Criminal Court Process I (4)

An examination of the criminal court process in the United States with practical application through participation in several rounds of intercollegiate mock trial using a criminal case. Instruction and critiques will be provided by attorneys as well as educators. Offered alternate years with POLS 211.

## 214P Understanding the Criminal Court Process II (3)

A continuation of POLS 213. Limited to students who have successfully completed POLS 213 or with instructor's permission. Offered alternate years with POLS 212.

## 215s Media and American Politics (3)

An examination of the interactions of media and politics. Topics covered include ownership, regulation, access, bias, socialization, campaigns, governing, national security, and public policy.

## 216s Citizen Politics (3)

An examination of the forms of citizen participation in politics. Topics covered include political parties, interest groups, public opinion, voting, and elections. Discussion will be directed toward assessing the impact of such activity upon the formation of public policy, and implications for the maintenance of democratic government will be explored.

## 217s Legislative Politics (3)

An examination of parliamentary and legislative behavior focusing on the United States Congress. Consideration will be from a systems perspective with attention to the interrelationships between the legislature and the other parts of the political system.

## 218s Judicial Politics (3)

An examination of the judicial branch of the federal government and of state and local judiciaries. Consideration will be from a political, rather than a legal perspective, and systems theory will be applied to highlight the interrelationships between the judiciary and the other parts of the political system.

## 222nhs African Politics Since 1935 (3)

A comparative historical analysis of African countries' political institutions and processes, from the early nationalist period to the present. Special focus on political, economic, and foreign policy problems and strategies of independent African countries. Cross-listed as HIST 222nhs.

## 223hs Contemporary Europe (3)

A survey of European history and politics since WWII, with emphasis on the process of political economic and cultural integration within the European Union. Special attention is paid to political and socioeconomic change in Great Britain, France and Germany in the context of the development of the European Union. Students also analyze postwar political and socioeconomic development in a European country of personal interest. Cross-listed as HIST 223hs.

## 225hs Modern Latin America (3)

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. Cross-listed as HIST 225hs.

## 226s Political Violence and Terrorism (3)

Students learn about different types of political violence prevalent in the world today (terrorism and counter terrorism, armed struggle, assassinations and coups, revolution). Focuses on particular case studies as well as general theories of human estrangement, non-conformity, rebellion and revolution. Some attention is given to strategies for ending violence. Most case studies come from the non-Western world.

## 230nhs Africa, Asia, and Latin America in World Affairs (3)

A comparative historical and institutional analysis of post-1945 African, Asian, and Latin American states' foreign policies. Special attention given to the colonial roots of post-independence, foreign economic, diplomatic, and military policies of each case. Focus will be on domestic sources of foreign policy. Cross-listed as HIST 230nhs.

## 233hs American Environmental History and Policy (3)

Investigates the history and politics of American environmental issues from Colonial times to the present. Introduces major governmental and non-governmental actors and policy-making bodies in the environmental arena at the national, state, and local levels. Analyzes major environmental policies. Cross-listed as HIST 233hs.

## 235hs The U.S. in World Affairs (3)

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. Cross-listed as HIST 235hs.

## 241s International Political Economy (3)

Provides analysis of the politics of international trade and finance. Focuses on political institutions such as the World Bank, the International Monetary Fund, the General Agreement on Tariffs and Trade (GATT), and the European Union. Topics include the politics of economic integration, free trade vs. protectionism, development in poor nations, and the debt crisis.

## 242s Global Environmental Politics (3)

A policy-oriented overview of political dimensions of selected global environmental issues. Examines roles of international, governmental, and non-governmental organizations.

## 244s International Law and Organizations (3)

Examines major international legal principles and organizations in a changing global system. Emphasis on the United Nations system, European Union system, and other selected political, economic, environmental, and military security organizations. Examines the role of non-governmental organizations (NGOs) in world politics. Also examines issues of peace and conflict resolution.

## 250Ps Methods of Political Research (3)

Prerequisites: a course in both social and behavioral inquiry and statistics. Students learn to define a research problem and to formulate and test hypotheses using a variety of qualitative and quantitative methods. To successfully complete the course students must submit a proposal for a research project that includes a thorough literature review on a topic of personal interest in political science, a set of well-formulated hypotheses based on the literature review, and a defensible research design to test those hypotheses with adequate data and appropriate methodological techniques.

## 261t American Political Philosophy (3)

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.

## 286 Seminar: Foreign Service in Government (Arr)

Intended to give students interested in foreign service exposure to specific paths such interests might take. Preparation for the Foreign Service Examination included.

## 315Is Readings in Media and American Politics (3)

Prerequisite: instructor's permission. Offered jointly with POLS 215, but with separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 215 and 315.

## 316Is Readings in Citizen Politics (3)

Offered jointly with POLS 216, but with separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 216 and 316.

## 317Is Readings in Legislative Politics (3)

Prerequisite: instructor's permission. Offered jointly with POLS 217s but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 217 s and 317 s .

## 318Is Readings in Judicial Politics (3)

Prerequisite: instructor's permission. Offered jointly with POLS 218s but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 218s and 318s.

## 322Inhs Readings in African Politics Since 1935 (3)

Prerequisite: instructor's permission. Offered jointly with POLS 222nhs but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 222nhs and 322Inhs. Crosslisted as HIST 322Inhs.

## 323Ihs Readings in Contemporary Europe (3)

Prerequisite: instructor's permission. Offered jointly with POLS 223hs but with some additional readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 223hs and POLS 323Ihs. Cross-listed as HIST 323Ihs.

## 325Ihs Readings in Modern Latin America (3)

Prerequisite: instructor's permission. Offered jointly with POLS 225hs, but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 225hs and 325hs. Cross-listed as HIST 325Ihs.

## 326Is Readings in Political Violence and Terrorism (3)

Prerequisite: instructor's permission. Offered jointly with POLS 226s but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 226s and 326Is.

## 330nhs Readings in Africa, Asia, and Latin America in World Affairs (3)

Prerequisite: instructor's permission. Offered jointly with POLS 230nhs but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 230nhs and POLS 330Inhs. Cross-listed as HIST 330Inhs.

## 333Ihs Readings in American Environmental History and Policy (3)

Prerequisite: instructor's permission. Offered jointly with POLS 233 hs but with some separate readings, sessions and expectations for advanced discussion and research. Students cannot receive credit for both POLS 233hs and POLS 333Ihs. Cross-listed as HIST 333Ihs.

## 335Ihs Readings in The U.S. in World Affairs (3)

Prerequisite: instructor's permission. Offered jointly with POLS 235hs, but with some separate readings, sessions and expectations for advanced discussion and research. Students cannot receive credit for both POLS 235hs and POLS 335Ihs. Cross-listed as HIST 335Ihs.

## 341Is Readings in International Political Economy (3)

Prerequisite: instructor's permission. Offered jointly with POLS 241 but with some separate readings, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 241 and 341.

## 342Is Readings in Global Environmental Politics (3)

Prerequisite: instructor's permission. Offered jointly with POLS 242 but with some separate assignments, sessions, and expectations for advanced discussion and research. Students cannot receive credit for both POLS 242 and 342I.

344Is Readings in International Law and Organizations (3)
Prerequisite: instructor's permission. Offered jointly with POLS 244s, but with some separate readings, sessions, and expectations for advanced discussion and research. A prior course in political science such as POLS 110fs or POLS 140fs is recommended. Students cannot receive credit for both POLS 244s and POLS 344Is.

## 350PIx Basque Ethnographic Research Project (3)

Prerequities: an introductory course in anthropology or political science, intermediate Spanish, instructor's permission. Taken in conjunction with 3 semester hours of ANTH 498, this course provides a 6 -semester hour field research experience in the Basque country of Spain. The project is offered every other summer and requires students to immerse themselves in Basque society and try to understand ethnic identity and its links to politics and ideology from a native perspective.

## 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.

## 3961 Co-op (Arr)

Off-campus work experience with governmental, legal, and business organizations. Each co-op must have prior approval of the department or pre-law adviser. No more than 3 semester hours may count toward a major or minor in political science. Pass/no record basis.

## 397I 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 semester hours may count toward a major or minor in political science. Pass/No record basis.

## 398I Participant Research (Arr)

May be taken only in conjunction with POLS 396I, 397I or 496I. Credit is earned upon completion of a supervised research project undertaken during an approved intern program. This course should be taken by political science major doing internships. Students in other departments may arrange research credit in those departments.

## 3991 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.

## 489Ps Research Seminar (3)

Prerequisite: POLS 250Ps, SOC 350Ps or ANTH 366. Designed to give junior and senior political science majors an opportunity to develop research skills and pursue the substantive interests acquired throughout their studies in the discipline-a capstone course. The seminar will be student led, with each student taking responsibility for one week of the course. Students will compile a bibliography of the major works in their topic of interest, assign readings in that topic for the rest of the class and then lead the seminar discussion of that topic. In addition, students will build on skills acquired in the methods course by developing or redesigning a research project on their topic of interest.

## 497PI Legal Internship (Arr)

Prerequisites: POLS 285, POLS 313. For senior pre-law students only, usually taken in the summer between the junior and senior years or during the senior year. Each intern works in the setting that reflects his or her interests in law. Each internship must have the prior approval of the pre-law adviser. No more than 3 semester hours may count toward a major or minor in political science. Pass/no record basis.

## PSYCHOLOGY

Behavioral Sciences Division<br>Psychology Department

## Faculty

Peggy Fitch (chair), Maria Carla Chiarella, James Schulze, Edmond Willis

## Statement of philosophy

The curriculum of the psychology department 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, study abroad programs, and the Chicago Metropolitan Program.

## Study abroad opportunities

Students are strongly encouraged to participate in international studies programs.

## Psychology Major Requirements (36 s.h.)

1. Complete one of the following:

PSYC 122s General Psychology (3)
2. Complete all of the following:

| PSYC | 220 Ps | Psychological Investigations (3) |
| :--- | :--- | :--- |
| PSYC | 335 m | Fundamentals of Statistics (4) |
| PSYC | 348 P | Experimental Psychology (3) |
| PSYC | 480 PI | Capstone Research (3) |

3. Complete 20 s.h. of PSYC elective courses
4. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

An initial evaluation of a student's writing, reading, speaking, information literacy, computer skills, and critical thinking skills occurs in PSYC 220Ps and recommendations about ways to enhance skill development are made to the student. Subsequently, students who declare a major in psychology are evaluated by individual faculty and referred to the Center for Academic Excellence as needed for additional skill development. Each semester the psychology faculty discuss the status of each student's skills and make recommendations as needed to the student for skills improvement. Final evaluation and certification normally occur during the senior year after the student has completed PSYC 480PI Capstone Research (3) and PSYC 336P SPSS for Psychological Research (1), which involve substantial writing, reading, information literacy, critical thinking, computer skills, and both informal and formal speaking components (including a presentation at a departmental research symposium).

## Psychology Minor Requirements (18 s.h.)

## 1. Complete 18 s.h. of PSYC courses

Note: Students wishing to earn a minor should seek advising from a member of the psychology department early in the development of their program.

# Typical sequence of major courses for the psychology major <br> Freshman year <br> PSYC 122s General Psychology 

## Sophomore year

PSYC 220Ps Psychological Investigations
Psychology electives

## Junior year

PSYC 335 m Fundamentals of Statistics
PSYC 348P Experimental Psychology
PSYC 480PI Capstone Research
Psychology electives

## Senior year

Psychology electives, including internship

## Recommended (not required) non-major support courses

The psychology department recommends the following courses to psychology majors seeking to earn non-major ("general") elective credits.

| BIOL | 111 P | Human Anatomy and Physiology |
| :--- | :--- | :--- |
| BIOL | 221 Pq | Genetics |
| EXSC | 160 | Personal Health |
| EXSC | 260 | Substance Abuse |
| MATH | 102 fm | Survey of Contemporary Mathematics |
| MATH | 103 m | College Algebra |
| MATH | 109 Pm | Pre-Calculus |
| MATH | 131 Pm | Calculus and Analytic Geometry I |
| PHIL | 120 ft | Introduction to Philosophy |
| PHIL | 121 ft | Ethics |
| PHIL | 122 f | Social Issues |
| All 100-300 level SOC and ANTH courses |  |  |

## Psychology (PSYC) Courses

## 122s 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 and cognition, motivation, psychopathology, and social psychology.

## 210s Elementary Principles of Behavior (3)

Presents the basic principles of behavior derived from the experimental analysis of behavior. Illustrations and applications of the principles are considered in detail at the individual, group and cultural levels.

## 220Ps Psychological Investigations (3)

Prerequisite: PSYC 122s, or 210s. 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.

## 225Ps Theories of Personality (3)

Prerequisite: sophomore standing and PSYC 122s, or 210s. Surveys major personality theories including their theoretical assumptions, historical development, and empirical support. Contrasts the main theoretical approaches to understanding the individual.

## 231Ps Psychopathology (3)

Prerequisite: sophomore standing and PSYC 122s, or 210s. Surveys psychological disorders and abnormal behaviors including symptoms, causes, and treatments. Integrates biological, psychological, and social influences. Introduces diagnostic criteria for major disorders.

## 239Ps The Brain and Behavior (3)

Prerequisite: PSYC 122s, or 210s or instructor's permission. Presents an in-depth overview of the basic concepts of neuropsychology. Areas of study include philosophical and scientific antecedents of neuropsychology, origins of contemporary neuropsychology, evolutionary psychology, perception, memory, language, the neuron (synapse and neuropharmacology), human behavioral neuropsychology, brain development and plasticity, clinical neuroscience and ethical considerations.

## 250Ps Health Psychology (3)

Prerequisite: sophomore standing and PSYC 122s, or 210s or instructor's permission. Examines current data and theory about the interplay of physiological, psychological, and social factors in health and illness.

## 270Pcxn Culture and Psychology: Focus on Latinos and Latinas in Iowa (3)

Prerequisites: sophomore standing and either PSYC 122s, or 210s or instructor's permission. Explores current perspectives and theories about Latino/a culture at both the individual and group levels. Topics include the importance of history, communication and interaction styles, individualism, the importance of the family, gender-related roles, religion and spiritual values, death, time, as well as social issues such as immigration, education, employment, health and family concerns. Students will have significant faceface interactions with members of Iowa's Latino/a community, both in-class and off-campus.

## 283PIx Service-Learning in Psychology (1)

Prerequisite: PSYC 122s, or 210s and permission of instructor. Students engage in course-related service activities in the community. Both written and oral reflection exercises will be used to help students integrate experience with course content. Students may earn up to 3 semester hours of combined 283PIx/284PI credit. Requires participation in diversity training and orientation seminar unless previously completed. Can be taken as PSYC 284PI without the " $x$ " component.

## 334Ps Social Psychology (3)

Prerequisites: junior standing or instructor's permission and PSYC 122s, or 210s. Examines contemporary theories and data about the relationships between social and cultural factors, individual psychological processes, and behavior; topics include person perception, social cognition, attitude formation and change, persuasion, conformity, obedience, aggression, friendship and love, altruism, and conflict resolution.

## 335m 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, probability, hypothesis testing, correlation, tests of differences, several models of analysis of variance, and nonparametric alternatives, including chi square. Instruction in computer-assisted data analysis is provided.

## 336P SPSS for Psychological Research (1)

Corequisite: concurrent enrollment in PSYC 480PI. Students learn how to use SPSS to input data, save and retrieve data, make data transformation, conduct analyses, manipulate and understand output, and create and edit graphs. Pass/no record basis.

## 340P Cognitive Psychology (3)

Prerequisites: junior standing or instructor's permission and PSYC 122s, or 210s; PSYC 220Ps recommended. 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.

## 348P Experimental Psychology (3)

Prerequisites: junior standing or instructor's permission, PSYC 220Ps and previous or concurrent enrollment in PSYC 335m, 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.

## 381P Psychology of Parenting and Teaching (3)

Prerequisites: junior standing or instructor's permission. Considers the application of psychological principles in education and childrearing practices. Emphasis is placed on examining the factors that promote and interfere with psychological health. Particular attention is given to the consequences of strategies involving reinforcement and punishment, and to issues of freedom and responsibility.

## 382Ps Child \& Adolescent Development (3)

Prerequisites: junior standing or instructor's permission and PSYC 122s, or 210s; cannot receive credit for this course and EDUC 270 Ps or 281 Ps. Covers theory and research on physical, cognitive, social, and emotional development from conception through adolescence.

## 384Ps Adult Development \& Aging (3)

Prerequisites: junior standing or instructor's permission and PSYC 122s, or 210s. Covers theory and research on physical, cognitive, social, and identity development from early through late adulthood. Includes issues related to work, family, mental health, death \& grieving, and social policy for the elderly.

## 385P Principles of Counseling (3)

Prerequisites: junior standing and PSYC 225Ps or 231Ps or instructor's permission. An exploration of the therapy process, with emphasis on the impact of the therapist's values and beliefs, the importance of the therapist's self knowledge, discussion of ethical issues, and supervised role-play of basic counseling skills.

## 387PI Rational-Emotive Behavior Therapy (2)

Prerequisites: junior standing and PSYC 122s, or 210 s and instructor's permission. An in-depth exploration of the theory, philosophy, and application of Rational Emotive Behavior Therapy, an insight- and action oriented form of therapy that integrates cognitive, emotive, and behavioral approaches as change agents.

## 397PI Internship: Psychology (Arr)

Prerequisites: junior 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. Amount of credit is determined according to the extent of the experiences, not to exceed 6 semester hours in the 35 semester hour minimum. Students considering an internship should confer with the department to receive consultation and guidelines. Pass/no record basis.

## 457P History and Systems of Psychology (4)

Prerequisites: junior standing and PSYC 122s or instructor's permission. Traces the history of the development of basic concepts and approaches in modern psychology. Presents an overview of historical systems and theories, as well as contemporary trends in the field.

## 480PI Capstone Research: Topic (3)

Prerequisites: PSYC 335m, PSYC 348P, and instructor's permission. Students design and implement individual research projects on applied, cognitive, cultural, developmental, personality 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 standards. This course may be repeated.

## 485PI Seminar: Person-centered Psychology (3)

Prerequisites: junior standing and instructor's permission. This course deals with the self theory of Carl Rogers and the implications of person-centered philosophy for personal growth, for relationships in a variety of contexts, and for society at large. It is an open discussion seminar with emphasis on personal experiencing and encountering others in a group setting.

## 486P Psychological Tests and Assessment (4)

Prerequisite: Senior standing, PSYC 335 m 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.

## 498PI Senior Research (Arr)

Prerequisite: Senior standing and instructor's permission. May be repeated for a maximum of three terms. Supervised professional level research directed by staff member. Each senior is assisted by three to five freshmen who have expressed interest in direct participation in research activities.

## 199I, 299I, 399I, 499I 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.

## Religion

Humanities Division
Pbilosophy/Religion Department

## Faculty

David E. Timmer (department chair), J. Brummel, Terrence J. Kleven, Thomas A. Kopecek

## Statement of philosophy

The educational mission of the philosophy and religion department is to serve the Central Core and both the philosophy and religion majors and minors. The department takes seriously its obligation to introduce to all students philosophy and religion as humanities disciplines. All courses at the 100 - and 200 -level are open to and designed for students at different stages of their education, yet the department also seeks to offer a balanced array of courses for majors and minors.

Course offerings in religion cover biblical studies, the history of Christian thought, world religions (Judaism, Islam, and South and East Asian religions), religious ethics and theology. Nearly all courses contain a strong emphasis on the historical development of religious ideas and practices. Students are taught to interpret texts rather than to amass pre-interpreted information. In addition to the standard religion major, a major with an additional Christian ministries emphasis is also offered. Since the core religion requirement is connected with the college's identity as a liberal arts college in the Christian tradition, the department offers a wide variety of courses which introduce students to the sources and development of the Christian tradition, with other religious traditions presented on their own terms, not in relation to Christianity.

## Religion Major Requirements (30 s.h.)

30 semester hours of REL courses or other approved courses with at least eight hours at the 300 level, including:

1. Complete at least one of the following:

| REL | 110 fr | Old Testament History and Religion (3) |
| :--- | :--- | :--- |
| REL | 111 r | New Testament and Early Christianity (3) |
| REL | 210 r | The Prophets (3) |
| REL | 211 r | The Writings (3) |
| REL | 216 r | The Gospels and Jesus (3) <br>  <br> REL |
| 310Ir | Or REL 316Ir Readings in The Gospels and Jesus (3) |  |
| REL | 311Ir | Readings in The Prophets (4) The Writings (4) |

2. Complete at least one of the following:
REL 112fr The Christian Heritage (3)

REL 250hr American Religious Thought (3)
REL 252hr The Reformation (3)
REL 253hr Medieval Christendom (3)
REL 254hr The Early Church (3)
3. Complete at least one of the following:

| REL | 230nr | Asian Religions (3) |
| :--- | :--- | :--- |
| REL | 233nr | The Jewish Experience (3) |
| REL | 235nr | Islam (3) |
| REL | 330Inr | Readings in Asian Religions (4) |
| REL | 335Inr | Readings in Islam (4) |

4. Complete at least one of the following:

REL 255r Christian Ethics (3)
REL 270r Christianity and Culture (3)
REL 272r Modern Christian Thought (3)
REL 355Ir Readings in Christianity Ethics (4)
REL 370Ir Readings in Christianity and Culture (4)
REL 372Ir Readings in Modern Christian Thought (4)

## 5. Complete the following:

REL 499I Independent Study (Arr)
6. Complete REL electives (as necessary to earn a total of $30 \mathrm{~s} . \mathrm{h}$. of major courses)

Note: Up to 4 semester hours of the following courses may be counted as religion major electives (check with the department for more details)
HIST 262h Mideastern Civilization (3)
HIST 263h Biblical Archaeology (3)
Any PHIL course except PHIL $125 m$

## 7. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

The skills endorsement of the philosophy and religion department indicates that the student who completes a major in either philosophy or religion can verbally communicate at the high level appropriate for the recipient of a bachelor of arts degree in core areas of a liberal-arts curriculum.

To insure achievement at the required level, the communication performance of philosophy and 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 adviser. Where appropriate, evaluation and recommendation will continue through the course work in the major until such time as the appropriate faculty (philosophy or religion) are satisfied that the student is consistently performing at the desired level.

## Pre-Ministry Program

Central College continues the emphasis of the Christian tradition in general, and the Reformed tradition in particular, to prepare students for a life of service to God and community, and to prepare some students for a 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. In addition to pastoral and vocational counseling by the chaplain, the director of the Christian ministries emphasis of the religion major, and other faculty members, there are three courses designed specifically for students who are considering vocations in the ministry. These courses are REL 285PI Pre-Ministerial Seminar, REL 220 Worship in the Christian Tradition, and REL 286P Doctrines and Ministry. 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 do ministry internships in churches and church-related organizations either locally or through some type of internship program conducted elsewhere. Students may also choose to receive spiritual discipling 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.

## Christian Ministries Emphasis

In addition to earning a religion major, students may choose to earn a Christian ministries emphasis of the major. To earn this emphasis, students must complete all major requirements (above) as well as the following courses:

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REL 220 Worship in the Christian Tradition (3)
REL 272r Modern Christian Thought (3)
    or take REL \(372 r\) Readings in Modern Christian Thought (4)
REL 285PI Pre-Ministerial Seminar (Arr)
REL 397PI The Ministry Internship (Arr)
    or take REL 398Pix Cross-Cultural Ministry Internship (2)
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In addition, REL 286P Doctrines and Ministry (3) is recommended. Contact the Christian ministries emphasis coordinator for more details.

## Typical sequence of courses for the religion major

There are no required courses with prerequisites, and therefore no typical sequence. The department recommends that at least two "readings" courses at the 300 -level be taken during the junior and senior years, and that REL 499 Independent Study be taken during the senior year.

## Religion Minor Requirements (18 s.h.)

Complete $18 \mathrm{~s} . \mathrm{h}$. of REL courses with at least $12 \mathrm{~s} . \mathrm{h}$. of those at the 200-300 level, including: at least 3 hours in each of three of the following areas: biblical studies; history of Christianity; comparative religious traditions; religious ethics and theology, and culture.

## Philosophy/Religion Minor Requirements (18 s.h.)

Students must take 18 semester hours of PHIL and REL courses, selected to focus on a particular theme such as great ideas, beliefs and values, or the Christian faith. The philosophy/religion department must approve the minor, both as to thematic focus and to the courses used to satisfy it.

Students wishing to complete such a minor should have a minor adviser within the department. With department approval, one course from outside the department and outside the student's first major may be used to count toward the minor.

## Recommended courses outside the department

The department recommends course work in other disciplines of the humanities division (philosophy, English literature, history), as well as foreign languages and relevant areas of the social sciences.

## Religion (REL) courses

## 110fr Old Testament History and Religion (3)

Examines the Old Testament/Hebrew Bible in its original ancient Near Eastern cultural and historical context as a library of theological literature. Considers the modern relevance of the Old Testament as scripture for Christianity and Judaism as well as theological questions arising from the Scriptural texts. Develops critical reading and listening abilities, writing skills and verbal self-expression.

## 111r New Testament and Early Christianity (3)

This course introduces students to early Christian thought and experience from the New Testament through the fourth century. The emphasis is on the development of Christianity from its earliest Jewish form to the classical form attained in the late Roman Empire.

## 112fr The Christian Heritage (3)

Offers an understanding of the evolution of Christianity in response to various historical and cultural settings. Students examine liturgy, theology, hymns, art and architecture. Promotes development of college-level skills, especially writing and analytical reading.

## 210r The Prophets (3)

Studies selected passages from the second division of the Old Testament (Tanakh in Judaism), consisting of Joshua through II Kings, Isaiah, Jeremiah, Ezekiel and the Twelve Minor Prophets. Through a careful study of selected texts, the course explores the significance of these books for an understanding of the history of ancient Israel and for the history and teachings of Judaism and Christianity.

## 211r 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.

## 216r The Gospels and Jesus (3)

Introduces modern Christian perspectives on Jesus. Studies the traditions about Jesus in the pre-gospel period, the portrayals of Jesus and salvation in the New Testament gospels, and the modern so-called "quest for the historical Jesus".

## 220 Worship in the Christian Tradition (3)

Introduces the student to the origins and history of Christian worship from the Old Testament period to the present. Examines various aspects of worship, including orders of service, church architecture and music, reflecting on their historical and theological dimensions. Includes field trips to observe religious services.

## 230nr Asian Religions (3)

Focuses on four religions from South and East Asia: Hinduism, Buddhism, Taoism and Confucianism, with some attention to other Asian traditions. Readings demonstrate the vigor of Asian religious ideas and practices to the present. Discusses the interaction between religion, culture and politics.

## 233nr The Jewish Experience (3)

The meaning of the Jewish experience is studied through its expression in the prayers, rituals and religious reflections of Jews throughout history. Topics considered will include the meaning of Torah, the confrontation of tradition and modernity, the significance of the Holocaust and Zionism.

## 235nr 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) the rise of militant, fundamentalist Islam as a political force.

## 250hr American Religious Thought (3)

Studies the historical development of religious and ethical thought in America. The course will focus on such issues as Puritanism, church-state separation, the Social Gospel, Fundamentalism, liberation theologies, modern evangelicalism. Cross-listed as HIST 250hr.

## 252hr The Reformation (3)

Studies the religious movements in 16th-century Europe which 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. Crosslisted as HIST 252hr.

## 253hr Medieval Christendom (3)

Explores the idea of a Christian society (Christendom) which emerged in the European Middle Ages. Topics will include: the rise of the papacy and its conflicts with secular rulers; the Crusades; chivalric and monastic ideals; theology; religious art and architecture; heresy and dissent. Cross-listed as HIST 253hr.

## 254hr The Early Church (3)

Studies the history of the early church within the context of ancient Judaism and the Roman Empire through the middle of the fifth century A.D. Particular attention is given to the development of a Christian "orthodoxy" from the diversity of early Christian thought. Cross-listed as HIST 254hr.

## 255r Christian Ethics (3)

An examination of Christian ethical thought and its application to contemporary moral issues. After a survey of contemporary ethical theory, we will focus on concepts specific to Christian ethics (Jesus, Scripture, salvation), and then on concrete areas of moral concern (sexuality, marriage, abortion, euthanasia).

## 270r Christianity and Culture (3)

Explores the problem of the Christian's responsibility to and impact on culture. After examining the wide variety of responses to this problem in the Christian tradition, we will investigate contemporary Christian responses to selected social, political and cultural issues.

## 272r Modern Christian Thought (3)

Studies leading trends in modern Christian thought using a comparative approach.

## 274r World Christianity (3)

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.

## 285PI 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.

## 286P Doctrines and Ministry (3)

Prerequisite: one course in Bible or Christianity or instructor's permission. Studies the doctrinal statements of representative Christian denominations with attention to the nature and practice of ministry. Designed for students who are contemplating professional Christian service. The course serves as a vital link between the practical and the intellectual training that is necessary to conduct ministry.

## 310Ir Readings in The Prophets (4)

Prerequisite: instructor's permission. Offered jointly with REL 210r and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 210r and 310Ir.

## 311Ir Readings in The Writings (4)

Prerequisite: instructor's permission. Offered jointly with REL 211r and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 211 r and 311Ir.

## 316Ir Readings in The Gospels and Jesus (4)

Prerequisite: instructor's permission. Offered jointly with REL 216r and covering the same topics, but with some separate assignments, session and expectations for advanced discussion and research. Students cannot receive credit for both 216 r and 316Ir.

## 330Inr Readings in Asian Religions (4)

Prerequisite: instructor's permission. Offered jointly with REL 230r and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 230 nr and 330Inr.

## 335Inr Readings in Islam (4)

Prerequisite: instructor's permission. Offered jointly with REL 235 r and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 235nr and 335Inr.

## 355Ir Readings in Christian Ethics (4)

Prerequisite: instructor's permission. Offered jointly with REL 255 r and covering the same topics but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 255 r and 355Ir.

## 370Ir Readings in Christianity and Culture (4)

Prerequisite: instructor's permission. Offered jointly with REL 270r and covering the same topics but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 270r and 370Ir.

## 372Ir Readings in Modern Christian Thought (4)

Prerequisite: instructor's permission. Offered jointly with REL 272r and covering the same topics, but with some separate assignments, sessions and expectations for advanced discussion and research. Students cannot receive credit for both 272 r and 372Ir.

## 390 Topics in Religious Studies (Arr)

Varying topics determined by the interests of students and the staff. May be repeated for credit.

## 397PI The Ministry Internship (Arr)

Prerequisites: 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 which exposes the student to some aspect of ministry. Ideally it occurs in the summer between the junior and senior 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 record basis.

## 398PIx Cross-Cultural Ministry Internship (2)

Prerequisites: two courses in religion with at least one at the 200-300 level and instructor's permission. This course is similar to REL 397 except that the supervised work experience will expose the student to a culture or subculture different from the student's. The student will be asked to write about the cross-cultural aspects of the ministry experience.

## 497I 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 record basis.

## 499I Independent Study (Arr)

Prerequisite: instructor's permission. Designed to give an opportunity for the major or interdisciplinary concentration student to do extensive research and reading in an area of choice. The study includes a project in which the student integrates research and reading with learning as a whole. Offered any semester with the permission of the chair of the department.

## Social Science

Behavioral Sciences Division
Interdisciplinary Major

## Faculty

Jim Zaffiro (director)

## 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.

## Social Science Major Requirements (45-47 s.h.)

Note: A minimum GPA of 3.0 in the major is required before a student can be recommended for student teaching.

1. Complete all courses from each of three of the areas below:

| American bistory (16 s.h.) |  |  |
| :--- | :--- | :--- |
| HIST | 226 h | Foundations of American Nationalism (3) |
| HIST | 227 h | The Emerging United States (3) |
| HIST | 228 h | Origins of Modern America (3) |
| HIST | 229 h | Recent United States (3) |
| HIST | 386 I | Public History Seminar (4) |
| World bistory (16 s.h.) |  |  |


| PSYC | 220 Ps | Psychology Investigations (3) |
| :--- | :--- | :--- |
| PSYC | 231 Ps | Psychopathology (3) |
| PSYC | 334 Ps | Social Psychology (3) |
|  |  |  |
| Sociology (15 s.h.) |  |  |
| SOC | 120 s | Principles of Sociology (3) |
| SOC | 225 Ps | Social Problems (3) |
| SOC | 236 Pns | Minority Groups (3) |
| SOC | 241 Ps | Crime and Delinquency (3) |
| SOC | 242 Ps | Sociology of the Family (3) |

## Communication skills endorsement

Two Central foundations (" $f$ ") courses must be passed with a grade of B- or better. In addition, the student and major adviser 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.

## Sociology

Behavioral Sciences Division
Sociology/ Anthropology Department

## Faculty

Dawn Reece (chair), Dale De Wild, Jon Witt

## Statement of philosophy

The sociology/anthropology department offers students the option of choosing between a major in sociology and a major in cultural anthropology majors.

Sociology seeks to understand society and the many ways people organize their social interactions around recurring patterns. The basic questions of the discipline of sociology are 1 ) why do people act the way they act? and 2 ) why do people think the way they think? The answers to these questions are guided by the theories, macro and micro, and methods, qualitative and quantitative, appropriate to the discipline. Society is the context of everything we experience including ourselves. The vast majority of our thoughts, feelings, and interactions revolve around other people, both as individuals and as groups.

The ability to understand how societies are ordered, maintained and changed will better equip students to live in a rapidly changing, increasingly diversified and sometimes chaotic world. Rather than focusing narrowly on career preparation in a limited number of skills, we believe that the ability to apply general principles of analysis will provide students with greater flexibility for career options.

## Study abroad opportunities

In an increasingly global economy, skills in cross-cultural analysis and understanding are increasingly valuable. The department strongly encourages sociology and anthropology students to take advantage of Central College's study abroad programs. Our students frequently chose London, Wales or Mexico. Some anthropology students also conduct research in the Basque Studies Program, a Central College summer program in Spain, or the Ethnographic Research Program in Wales.

## Communication skills endorsement for the sociology major

The department begins to evaluate each student's reading, writing and speaking skills one semester after the student declares his/her intention to major in sociology. All available evidence will be used including results of tests, grades received in courses and information supplied by department members. Students may be required to demonstrate communication proficiency either by providing a portfolio of their writing or by writing an essay on a broad topic of sociological significance. Students will receive either a departmental endorsement or an outline of procedures that may include taking composition courses, developmental reading or speaking courses, and working with the skills center.

## Sociology Major Requirements (35 s.h.)

1. Complete all of the following:

| SOC | 120 s | Principles of Sociology (3) |
| :--- | :--- | :--- |
| MATH | 105 m | Introduction to Statistics (4) or PSYC 335Pm Fundamentals of Statistics (4) |
| SOC | 350 Ps | Methods of Social Research (4) or POLS 250Ps Methods of Political Research (4) |
| SOC | 450 Ps | Sociological Theory (3) |
| SOC | 485 P | Senior Seminar (3) |

2. Complete an additional 18 s.h. of sociology (SOC) or anthropology (ANTH) elective courses (at least 3 of these 18 s.h. must be at the 300-400 level)

Note: SOC 397PI will not count toward the major
Note: All 200-level SOC courses are open to freshmen

## 3. Complete all requirements for the Communication Skills Endorsement

## Typical sequence of major courses for the sociology major

## Freshman year

SOC 120s Principles of Sociology
SOC/ANTH electives-200 level
COLL 111 Introduction to Computer Applications

## Sophomore year

SOC/ANTH electives 200-300 level
Study abroad

## Junior year

MATH 105m Introduction to Statistics
SOC 350Ps Methods of Social Research
(Note: the above two courses should be taken in the same year.)
SOC/ANTH 200-400 level electives
Senior year
SOC 397PI Internship
SOC 450Ps Sociological Theory
SOC/ANTH 300-400 level electives
SOC 485P Senior Seminar

## Sociology Minor Requirements (18 s.h.)

1. Complete 18 s.h. of SOC and/or ANTH courses, with at least 6 s.h. at the 300-400 level.

## Sociology (SOC) courses

120s 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.

## 225Ps Social Problems (3)

Prerequisite: SOC 120s 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 which can then be used to analyze and critique contemporary society.

## 234Ps Urban Sociology (3)

Prerequisite: SOC 120s or instructor's permission. As the international marketplace and economic competition continue to cause cities to sprawl and change, large segments of the urban population in every country struggle to survive. This course will consider some of the cultural, organizational, social psychological, political and economic causes and consequences of urbanization.

## 236Pns Minority Groups (3)

Prerequisite: SOC 120s or instructor's permission. Examines the relationship between American racial and ethnic minority groups and the dominant society. Gives special attention to the particular histories of different minority groups and social theories that have been used to explain majority/minority relations in the United States.

## 240P The Criminal Justice System (3)

Prerequisite: SOC 120s. An examination of the criminal justice system in America. Offers an overview of the structure and functions of law enforcement, courts and corrections with a focus on legal, structural and social issues that confront the criminal justice system today.

## 241Ps Crime and Delinquency (3)

Prerequisite: SOC 120s or instructor's permission. A theoretical overview of the causes of crime, and an examination of issues that are being debated by scholars and public officials regarding criminal justice and corrections policies.

## 242Ps Sociology of the Family (3)

Prerequisite: SOC 120s 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.

## 310Ps Science, Technology and Society (3)

Prerequisite: SOC 120s or instructor's permission. Provides an overview of research on the sociological analysis of science as a social institution. Focus will be on how scientific claims are established as fact, on the impact of science and technology in the modern world, and on their impact on social relationships.

## 320Ps Sociology of Gender (3)

Prerequisite: SOC 120s 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.

## 325Ps Social Movements (3)

Prerequisite: SOC 120s or instructor's permission. Exploration of protest movements of various types-political, ethnic, religious, cultural or moral. Focus will be on common social dynamics among such movements. Offered alternate years.

## 336Ps Status and Inequality in Social Life (3)

Prerequisite: SOC 120s or instructor's permission. An examination of the distribution of economic, social and cultural resources such as income, wealth, education, social networks, etc. The analysis will include how possession of such resources determines status in society, including both opportunities for and obstacles to social mobility.

## 342Ps Sociology of Religion (3)

Prerequisite: SOC 120s or instructor's permission. Examines the impact which 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.

## 344s Conflict Resolution (4)

An analysis of the escalation of interpersonal and intergroup conflict and an application of the principles and practices that assist in transforming conflicts away from destructive, win/lose battles and toward a problem-solving process that is more likely to yield win/win, jointly-determined outcomes.

## 350Ps Methods of Social Research (4)

Prerequisites: MATH 105m or its equivalent; SOC 120s or instructor's permission. 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.

## 397PI 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. Does not count toward the 35 semester hours required for the major. Pass/no record basis.

## 450Ps Sociological Theory (3)

Prerequisite: five courses in the department. Provides analysis of the major theorists of sociology (Marx, Weber, Durkheim, etc) and the major questions they ask. The focus will be on learning the content of various theoretical models and on application of such models to critique contemporary society.

## 485P Senior Seminar-Sociology (3)

Prerequisites: SOC 350Ps and 450Ps or instructor's permission. Capstone course that involves students in applied research, as well as guided discussion and written analysis, to consolidate and apply their sociology and liberal-arts course work to the analysis of real world social problems.

## 499I Independent Study: Sociology (Arr)

Prerequisite: instructor's permission. Designed to permit students to pursue their interests in specialized areas of sociology in greater depth than is possible in other courses offered by the department. This course is not a substitute for other department courses. Restricted to majors with departmental approval.

## Spanish

Cross-Cultural Studies Division
Modern Languages Department

## Faculty

Roger Pieroni (department chair), Samuel Mate-Kodjo, Allison Krogstad, Carol Wallace

## Departmental statement of philosophy

The department of modern languages 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. All on-campus courses include laboratory sessions with native-speakers or advanced speakers of the target language and are supported by co-curricular activities in the language, including the language house program and social activities. 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 majors in the department of modern languages (especially those seeking secondary teaching licensure) are expected to spend one year - or at least one semester - in one of Central's programs in Granada, Spain; Merida, Mexico; Paris, France; or Vienna, Austria. Before departure, students should review with their adviser those courses offered abroad which can be used to meet major requirements, and a preliminary plan of study should be filed with the adviser. Students must make effective use of their time and experience abroad in order to reach the proficiency levels required of the major. Students seeking a minor in the department are encouraged to study abroad as well.

## Teaching licensure

Students seeking teaching licensure must secure information from the department of modern languages 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 statement of philosophy

Spanish majors are expected to spend at least a semester with Central's program in Granada, Spain, Merida, Mexico, or in an equivalent, approved program. Here the student builds on the foundation established on campus, improves language proficiency and enhances cultural understanding.

All majors must demonstrate their proficiency on an oral examination in Spanish to be administered by departmental members during the senior year. The goal is to achieve the equivalent of an advanced rating according to the scale established by the American Council on the Teaching of Foreign Languages.

## Spanish Major Requirements (30-46 semester hours)

## 1. Complete:

- 30 s.h. of SPAN courses numbered 321 or higher on the Pella campus (or 30 s.h. of SPAN courses at the 700 level or higher in Spain); or
- 34 s.h. of SPAN courses numbered 222 or higher; or
- 42 s.h. of SPAN courses numbered 122 or higher

2. Included in the hours taken above must be all of the following:

- SPAN 323Pct Introduction to Hispanic Literature (3) or its equivalent
- A minimum of $3 \mathrm{~s} . \mathrm{h}$. in civilization or culture taught in Spanish
- A minimum of 3 s.h. in peninsular literature (Spain)
- A minimum of $3 \mathrm{~s} . \mathrm{h}$. in Spanish American literature
- A 3 s.h. 400 -level senior seminar course taken on the Pella campus upon return from studying abroad

3. Achieve the equivalent of the advanced level in all skills (ACTFL scale) as demonstrated in an oral exam

## 4. Complete all requirements for the Communication Skills Endorsement

## Communication skills endorsement

All students at Central College are expected to demonstrate communication skills appropriate for their major(s). In addition to modern language skills, students in the department are expected to offer evidence of a high level of proficiency in English. Students should satisfy this requirement as soon as they declare their major, if at all possible before the end of the sophomore year. Approved oral and written work in English prepared for, or in connection with, courses in the major may be used to document skills. Each language area has at least one faculty member designated to certify communication skills for the department and to prescribe remediation when necessary.

## Typical sequence of courses for the Spanish major

## Freshman year

Begin at highest level of proficiency by placement.
SPAN 121c Beginning Spanish I
SPAN 122Pc Beginning Spanish II
or
SPAN 221Pc Intermediate Spanish I
SPAN 222Pc Intermediate Spanish II
or
SPAN 321Pc Advanced Spanish: Grammar, Composition and Conversation I
SPAN 322Pc Advanced Spanish: Grammar, Composition and Conversation II
SPAN 323Pct Introduction to Hispanic Literature

## Sophomore year

Continue the next highest level.
SPAN 221Pc Intermediate Spanish I
SPAN 222PcIntermediate Spanish II
or
SPAN 321Pc Advanced Spanish: Grammar, Composition and Conversation I
SPAN 322Pc Advanced Spanish: Grammar, Composition and Conversation II
SPAN 323Pct Introduction to Hispanic Literature

## Junior year

SPAN 321Pc Advanced Spanish: Grammar, Composition and Conversation I
SPAN 322Pc Advanced Spanish: Grammar, Composition and Conversation II
SPAN 323Pct Introduction to Hispanic Literature
or study abroad

## Senior year

Study abroad
and/or senior capstone course

## Spanish Minor Requirements

1. Complete at least two SPAN courses at the 300 level or above
2. Achieve the equivalent of intermediate-high proficiency in all skills as demonstrated in an oral exam with a faculty member (ACTFL scale)

## Additional information

Departmental offerings that meet graduation requirements: Students may meet the language proficiency requirement by scoring at the intermediate low level on the ACTFL proficiency scale, or by placing at the intermediate (SPAN 221) level on the Spanish placement exam, or by completing SPAN 122Pc with a grade of $C$ or better. Non-Spanish majors may earn up to 6 credits for the cultural awareness Core requirement with any Spanish courses numbered 121 or higher.

## Spanish (SPAN) courses

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.

## 121c 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-high level of the ACTFL scale.

## 122Pc Beginning Spanish II (4)

Prerequisites: SPAN 121c, placement or instructor's permission. Includes essential grammar and vocabulary. Foundation for the development of listening comprehension, conversation, reading and cross-cultural skills at the equivalent of the intermediate-low level of the ACTFL scale.

## 221Pc Intermediate Spanish I (4)

Prerequisite: successful completion of SPAN 122Pc 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.

## 222Pc Intermediate Spanish II (4)

Prerequisite: successful completion of SPAN 221Pc or equivalent, or instructor's permission. 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.

## 321Pc Advanced Spanish: Grammar, Composition \& Conversation I (4)

Prerequisite: successful completion of SPAN 222Pc or equivalent, or placement. Continues development of reading, writing, speaking and listening comprehension skills. Aims to have students attain intermediate high 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.

## 322Pc Advanced Spanish: Grammar, Composition \& Conversation II (4)

Prerequisite: successful completion of SPAN 321Pc or equivalent or instructor's permission. Continues development of reading, writing, speaking and listening comprehension skills. Students must attain intermediate high on the ACTFL scale for all four language skills by the end of the course.

## 323Pct Introduction to Hispanic Literature (3)

Prerequisite: successful completion of SPAN 321Pc or equivalent, or instructor's permission. May be taken concurrently with SPAN 322Pc. Designed for beginning Spanish majors. Studies selected poems and short stories and importance of cultural context for full comprehension of each work. Students will write short critical papers in Spanish. By the end of the course, students are expected to reach intermediate high on the ACTFL scale for the four language skills. Required for Spanish major.

## 329Pc The Language House Experience I (1)

Prerequisites: departmental approval to live in the Spanish house. Credit awarded in the spring for students who live in the language house for the entire academic year. Requires participation in regular house activities (including attendance at the Spanish language table) and special events, use of Spanish as the primary language of communication in the house, and a formal presentation in Spanish to house residents and departmental faculty in the spring. May be repeated once (enroll for SPAN 330Pc) for a maximum of two credits.

## 330Pc The Language House Experience II (1)

Prerequisites: departmental approval to live in the Spanish house. The second year's experience in the language house. Same description as SPAN 329Pc.

## 332Pct Modern Spanish Literature (3)

Prerequisite: SPAN 323Pc or equivalent. Focuses on various authors and genres in the modern literature of Spain, and the culture 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. Offered alternate years.

## 342Pnt Modern Spanish American Literature (3)

Prerequisite: SPAN 323 or equivalent. Focuses on various authors and genres in the modern literature of Spanish 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. Offered alternate years.

## 343Pn Civilization of Hispanic America (3)

Prerequisite: successful completion of SPAN 323Pct or equivalent, placement or instructor's permission. 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.

## 350Pn Hispanics/Latinos in the United States (3)

Prerequisite: successful completion of SPAN 323Pct or equivalent, placement or instructor's permission. 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.

## 361Pct Studies in Hispanic Literature (3)

Prerequisite: SPAN 323Pct or equivalent, or instructor's permission. Offered occasionally to meet student needs and interests in the literature of the Spanish-speaking world. Continues to develop the students' language skills in order to meet the proficiency goals required of all majors.

## 485Pct Seminar: Spanish Literature (3)

Prerequisites: two Spanish courses numbered 332 or higher. Emphasizes selected Spanish authors. Achievement of departmental proficiency requirements for majors must be demonstrated by the end of the course. Offered alternate years.

## 486Pnt Seminar: Spanish American Literature (3)

Prerequisites: Two Spanish courses at the 332 level or higher. Study and analysis of literary works by selected Spanish American authors. Requirements include student-led discussions, oral presentations and a research paper or equivalent. Achievement of departmental proficiency requirements for majors must be demonstrated by the end of the course. Offered alternate years.

## 490P Topics in Spanish Culture and Civilization (3)

Prerequisite: foreign study and appropriate level of linguistic competence or instructor's permission. Offered occasionally to meet students' needs and interests in current issues in Spain. Students who have been on the Granada program will be able to use their living learning experiences in Granada to discuss topics that are relevant to their area of specialization and pertinent to their own intellectual interests. This course will improve proficiency and sociolinguistic competence, as required of all majors, by practice in explanation, construction of arguments and ability to deal with abstract and specialized topics in contemporary Spanish history and culture.

## 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.

## 499PI 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.

# Theatre 

Fine Arts Division
Theatre Department
Departmental faculty
Mary Jo Sodd (chair), Steven Bouler, Treva Reimer, Tom Thatcher

## Statement of philosophy

The theatre major offers a broad preparation in theatre arts. Students complete required courses in acting, directing, stagecraft and theatre history/literature, any of which can become the starting place for further exploration and study. Students also have the opportunity to earn practicum credit through acting or design/technology and pursue independent study projects in any of the areas of study. Opportunities are available for student creative production work. Students are also encouraged to seek off-campus internships in their area of interest.

## Additional information for theatre majors

An individual plan of study must be approved by the department before a student is admitted as a major. Upon declaring the major, a student begins compiling a portfolio comprised of academic and related work which accurately represents his/her skill competencies and accomplishments in areas related to the theatre major. The student portfolio is a requirement of the theatre major and is presented during the final semester.

## Theatre Major Requirements (40 s.h.)

1. Complete all of the following:

| THEA | 140fa | Introduction to Theatre (3) |
| :--- | :--- | :--- |
| THEA | 150 a | Acting I (3) |
| THEA | 163 | Stagecraft (4) |
| THEA | 165 | Stage Management (1) |
| THEA | 244 t | Theatre Masterpieces (3) |
| THEA | 258PI | Directing I (4) |

2. Complete one of the following:

| THEA | 240 ht | Theatre History and Dramatic Literature I: Ancient World (3) |
| :--- | :--- | :--- | :--- |
| THEA | 241 ht | Theatre History and Dramatic Literature II: Medieval and Renaissance (3) |
| THEA | 242 ht | Theatre History and Dramatic Literature III: Enlightenment and Romantic (3) |
| THEA | 243 ht | Theatre History and Dramatic Literature IV: Modern and Contemporary (3) |

3. Complete one of the following:

THEA 248a Costume Design and Construction (3)
THEA 260a Scene Design (3)
THEA 264a Lighting Design (3)
4. Complete at least 2 s.h. of the following:

THEA 292I Practicum in Theatre (Arr)
THEA 494I Practicum in Theatre (Arr)
5. Complete at least 14 s.h. of THEA elective courses
6. Complete all requirements for the Communications Skills Endorsement

Note: Students majoring in theatre will be expected to participate in co-curricular theatre programs.

## Communication skills endorsement

Oral and written skills are evaluated at the time students declare their intent to major through discussion with an adviser in the department. Progress is reviewed at the end of each year by departmental faculty. Students are also encouraged to take supplemental courses in other departments which enhance their skills and major.

## Typical sequence of major courses for the theatre major

## Freshman year

THEA 140fa Introduction to Theatre
THEA 150a Acting I
THEA 163 Stagecraft
THEA 165 Stage Management

## Sophomore year

THEA 258P Directing I
THEA 240ht, THEA 241 ht, THEA 242ht, or THEA 243ht
THEA 292I Practicum in Theatre
THEA 248a or THEA 260a or THEA 264a

## Junior year

THEA 292I Practicum in Theatre
THEA electives
A semester studying abroad is recommended

## Senior year

THEA 296I Practicum in Theatre
THEA electives

## 'Theatre Minor Requirements (20 s.h.)

1. Complete a minimum of 20 s.h. of THEA courses which have been approved by the department. At least 3 semester hours must be at the 300-400 level.

## Theatre (THEA) courses

140fa Introduction to Theatre (3)
Surveys the arts of the theatre with emphasis on the role of the playwright, director, actor, designer and producer. Promotes the development of college-level writing, reading, listening and speaking skills.

## 150a Acting I (3)

Examines the theories and practices of acting from a Western perspective. Students practice basic aesthetic judgements, professional ethics, and physical and vocal training through theatre games, improvisation and introduction to scene study.

## 163 Stagecraft (4)

An introduction to the rudimentary skills involved with planning, construction, painting, rigging, and lighting of stage scenery.

## 165 Stage Management (1)

Introduces students to the process and responsibilities of stage management focusing on production duties, rehearsal responsibilities and production obligations.

## 173fa Introduction to Theatrical Design (3)

An introduction to theatrical design concentrating on the creative process in developing the design of the set, lighting, costumes, as well as the presentation of the design idea. This course examines the role of the designer and how the design supports the ideas of a play in a visual way. Promotes the development of college-level writing, reading, listening and speaking skills.

## 180 Play Production (1)

Open to all students who wish to become involved in any technical, acting or administrative aspects of the current play. Some positions limited by auditor or instructor permission. Participation and written project required. May be repeated.

## 221 Voice and Movement (3)

Broadens the expressive range of the actor through the introduction to and exploration of various methods of vocal, physical and improvisational work to connect the body, voice and emotional life of the actor, creating a more articulate physical instrument.

## 230 Arts Management (3)

Introduces students to the practice, realm and study of arts management in the commercial and non-commercial operations. Students investigate the seven major components of arts management: strategic planning, marketing/public relations, arts law, financial management, development/fund raising, operations/facilities management, and personnel. Offered alternate years.

240ht Theatre History and Dramatic Literature I: Ancient World (3)
Surveys the theatre history and dramatic literature of the ancient world, with particular emphasis on the development of theatre and performance in Egypt, Greece and Rome, also taking into account developments outside of western tradition. Playwrights could include Aristophanes, Sophocles, Terence, Aeschylus, Euripides etc. Promotes critical and analytical thinking and considers the place of performance in the historical political, social and aesthetic development of the world cultures. Offered alternate years.

## 241ht Theatre History and Dramatic Literature II: Medieval and Renaissance (3)

Surveys the theatre history and dramatic literature from the fall of Rome to the end of the Renaissance (1650s). Emphasis will be placed on European developments but will also include concurrent performance phenomena in China, Japan and India as well as other non-Western performance traditions and literatures. Playwrights could include Shakespeare and contemporaries, The Wakefield playwright, Zeami, Ma Chih-Yuan, John Heywood, Honorius of Autun, Aquileria, etc. Promotes critical and analytical thinking and considers the place of performance in the historical political, social and aesthetic development of the world cultures. Offered alternate years.

## 242ht Theatre History and Dramatic Literature III: Enlightenment and Romantic (3)

Surveys the theatre history and dramatic literature of the Early Modern period (1650-1850), with particular emphasis on the development of and influence of neo-classicism and romanticism on western performance history and literatures. The concurrent development of non-western performance traditions and literatures will also be examined. Playwrights could include Goethe, Schiller, Gozzi, Goldoni, Moliere, Congreve, Behn, Centlivre, Hugo, Namiki Gohei, Goldsmith, Gay, etc. Promotes critical and analytical thinking and considers the place of performance in the historical political, social and aesthetic development of the world cultures. Offered alternate years.

## 243ht Theatre History and Dramatic Literature IV: Modern and Contemporary (3)

Surveys the theatre history and dramatic literature of the modern era (1850 to present day) with a particular emphasis on Realism and Naturalism, Modernism and post-modernism up to the present day. This course will examine modern performance around the world. Playwrights could include Pirandello, Ibsen, Chekhov, O’Neill, Miller, Kushner, Lori, Hwang, Solyinka, Fornes, Williams, Wilson, Baraka, Fugardm Beckett, Glaspell, Dragun, Mtwa, etc. Promotes critical and analytical thinking and considers the place of performance in the historical political, social and aesthetic development of the world cultures. Offered alternate years.

## 248a Costume Design and Construction (3)

Studies the art and craft of costume design. Includes research, design and methods of costume construction for particular productions. No prior knowledge of sewing necessary.

## 258PI Directing I (4)

Prerequisites: THEA 140fa, THEA 150 and instructor's permission. A study of the theory and practice of directing. Each student will direct a scene from a full-length play.

## 260a Scene Design (3)

Emphasizes the art of scene design through the study and process of creating sets. Includes the design process from script analysis and research to presentation of final design ideas. Both model making and rendering will be covered.

## 264a Lighting Design (4)

Studies the aesthetics, theory and execution of stage lighting as an art form. Includes the mechanics of stage lighting, the process of lighting a production, drafting the plot, and executing the design. Lab work is required. Offered alternate years.

## 266 Makeup Design (3)

Teaches the application of various types of makeup materials, how to plan a makeup plot for any given play and how to create individual makeup in a variety of styles. Includes some three-dimensional work.

## 2901 Topics (Arr)

Prerequisite: instructor's permission. Exploration of specialized fields and/or issues in theatre. May be repeated. Variable credit.

## 292I Practicum in Theatre (Arr)

Prerequisite: instructor's permission. Provides an opportunity for students to put into practice what they have learned in the classroom. Consists of administrative/supervisory work in all areas of theatrical production. May be repeated.

## 350P Acting II (3)

Prerequisite: THEA 150 or instructor's permission. A continuation of THEA 150, with an emphasis on scene study. Scenes will be selected from a variety of genres.

## 358PI Directing II (4)

Prerequisites: THEA 258PI and instructor's permission. Students will analyze and direct a one-act play. Offered alternate years.

## 397I Internship in Theatre (Arr)

Prerequisites: 3.0 departmental GPA and instructor's permission. An applied experience in a communication and/or theatrerelated 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 record basis.

## 448Pa Advanced Costume Design and Construction (3)

Prerequisite: THEA 248a. A continuation at an advanced level of the art and craft of costume design. Includes research, design and methods of costume construction for particular productions. No prior knowledge of sewing necessary.

## 460Pa Advanced Scene Design (3)

Prerequisite: THEA 260a. A continuation at an advanced level of the art of scene design through the study and process of creating sets. Includes the design process from script analysis and research to presentation of final design ideas. Both model making and rendering techniques will be covered.

## 464Pa Advanced Lighting Design (4)

Prerequisite: THEA 264a. A course studying the aesthetics, theory and execution of stage lighting as an art form. Both the mechanics of stage lighting and the process of lighting a production including drafting the plot and executing the design are covered. Lab work is required.

## 490I Topics: Theatre (Arr)

Prerequisite: instructor's permission. Study supervised by staff members in one of four areas: Acting, directing, design and management. Includes a formal presentation. May be repeated.

## 494I Practicum in Theatre (Arr)

Prerequisite: instructor's permission. Offers the creative student opportunity to design a unique practicum, using the department, college or community as a laboratory. This practicum is reserved for the most promising seniors in the department. May be repeated. Pass/no record basis.

## 499I 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.

## UpWard Bound Program Courses

The following courses are offered through the Central College's Upward Bound program during the summer to provide highschool 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 105 Contemporary Literature (1.5)

A general introduction to the analysis and appreciation of literature. Examines various themes of human concern using contemporary literature as the medium.

## PE 110 Introduction to Stress Management (1.5)

An applied stress management course that studies psychological, physiological, emotional and behavioral dimensions. The focus is on the development of skills and knowledge necessary to cope as gracefully as possible in a difficult world.

## PSY 100 Psychology of the Self (1.5)

An introduction to basic issues in inter- and intra-personal growth and encounter, with an emphasis on the development of feelings, attitudes and values within a societal framework.

CRC 105 Sexism and Racism in America (1.5)
An interdisciplinary examination of the roles of minorities and women in American society, past and present. Develops students' abilities to overcome bias in schools.

## Chicago Semester Courses

The following courses are offered to Central students studying in Chicago through the Chicago Semester Program, which serves students from a consortium of colleges and universities.

## COLL 385CIs Metropolitan Seminar (3)

The seminar surveys major contemporary metropolitan issues and systems. Emphasis is placed on the human dimensions of metropolitan life.

COLL 397CI Metropolitan Career Internship (9)
Prerequisite: instructor's permission. Students are given several choices of agencies in which to intern. They select one that seems best suited to their needs. Students work 3-4 full days a week in their placement. An almost unlimited number of placements are available to students in many different academic areas. May be taken only at the Chicago Metropolitan Center. Pass/no record basis.

## FA 200Ca Fine Arts in the City (3)

An intensive exploration of the architecture, dance, drama, music, visual arts and other art forms influenced by and available in the city of Chicago. Uses a broad range of field experiences supported by reading, classroom discussion and presentations by recognized authorities.

## HIST 210Ch History of Religion in Urban America (3)

Analyzes various approaches to religious social engagement in American urban history from to the colonial era to the present, and the changing social context and the relationship between that context and the social engagement of religious people. Topics include religious responses to market economies, race relations, gender roles and the relationship of church and state.

PHIL 286Ct Values and Vocations (3)
Field work in contemporary values issues and discussions of their moral, aesthetic and religious implications for a life and world view. To be taken in Chicago.

## 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 a consortium of colleges and universities.

COLL 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 (12)

Professional work experiences in Washington, D.C., designed to enrich a student's education through supervised practical experience in a civic, governmental, or business institution.

## Academic Resources

## Great Start Program

"Great Start" is an admission designation used to identify Central College students who may need additional guidance during their first year of college. Students whose application to Central indicates the potential and motivation for success are required to participate. Through personalized assistance from the adviser in selecting appropriate courses, and from referral to additional support services, the student will have the opportunity for successful academic achievement.

Great Start students will enroll in a reduced load during fall semester. Their schedules are arranged to include courses in composition, reading, communication processes and other introductory courses as electives.

## 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 the 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:

1. Peer orientation and guidance through the Student Outreach Services (SOS) program.
2. Professional counseling by staff for academic, career and personal issues.
3. College success course to assist freshmen with the college transition.
4. Cultural enrichment outings in Pella and surrounding areas.
5. The Center for Academic Excellence, which offers assistance in basic skills and tutoring in numerous content areas.
6. Accommodations for students with physical or learning disabilities.
7. Supplemental instruction for students who want to improve their understanding of historically difficult classes.
8. Private or small group tutoring for special needs.

These student assistance and support services are provided free to Central College students who qualify for the program.

## The Center for Academic Excellence (Tutoring)

The Center for Academic Excellence (CAE) provides free individual peer tutoring, group tutoring, and Supplemental Instruction (SI). Trained student tutors offer their assistance on a drop-in or appointment basis. CAE services are designed to enhance the academic performance of all students, retain/graduate them, develop student leadership skills in academic support, and foster a campus-wide climate encouraging lifelong learning.

## Geisler Library

The Central College Library was established when the College was founded in 1853. The library's mission is to provide students with the information they need to achieve their highest academic potential and to help them acquire research skills necessary to life-long learning. In 1974, library services moved into the award-winning Geisler Library facility which seats nearly one-fourth of the student body. The ground floor houses a Cafe and humanities faculty offices. The second floor houses the library reference, circulation, reserves, interlibrary loan, computer workstations and current periodicals. A third floor houses the main book collection, Archives, a Curriculum Library of 5,000 items supporting teacher education programs, a Music Library containing 4,000 music scores and anthologies, and private study and seminar rooms equipped with computers. The library's Media Center is located in a building just east of the Geisler facility.

Library resources include a growing collection of 225,000 volumes comprised of books, scores, and bound periodicals. Subscriptions to 850 paper and 12,000 electronic periodicals and newspapers insure access to the most current information. Audio-visual collections include microforms, CD-ROMS, slides, films, 5,000 videos and DVDs, and 4,500 audio recordings. The Alice Lammers Archives houses documents describing the early settlement of Pella by the Dutch and records pertinent to the history of the college.

Library collections are accessed by an Innovative Interfaces online public access Web catalog. Students can search the library's catalog and full-text electronic resources from the library, their residences, labs or any computer connected to the campus network. Circulation of library materials is linked to the online catalog and provides users with instant information about the availability of library materials and media equipment. The library's web page serves as a gateway to other library catalogs and databases and is available at www.central.edu/library/libhome.htm.

Geisler Library offers enhanced access to resources through memberships in the international cataloging and interlibrary loan network OCLC and the Scientific and Technical Network. The Media Center manages the College's Iowa Communication Network distance learning classroom and campus closed-circuit cable TV network, providing broadcasts of educational programming. Staff assist with the development instructional materials in all formats whether linear or digital.

Library faculty are committed to teaching. Librarians assist students in locating information for class assignments and research projects. Instruction in library and media use is available through classroom lectures, special seminars, web-based guides and the one-credit courses COLL 105 Library Research and COLL 116 Introduction to the Internet. All first year students learn information literacy skills in the context of the required course, COLL 110 Intersections. Both basic and advanced library research skills are taught using the latest technologies including the library's online system and electronic databases such as EBSCOHost,

Lexis-Nexis Academic, Newsbank, OCLC FirstSearch, and the American Chemical Society's complete electronic journal archives.
All books, periodicals, reserves, audio-visuals and media equipment circulate. The library is open seven days a week for 92 hours of service during the academic year. Longer study and research hours are maintained prior to exam periods.

To round out library programs, a Writers Reading Series was established in 1987 to promote an appreciation of books and their authors. The series features locally, nationally and internationally known writers reading and discussing their works. Guests have included Ethan Canin, Marvin Bell, Maxine Kumin, and Rebecca Wee as well as Central College faculty and student writers. Geisler Library offers an outstanding learning environment that combines the best of traditional collections with advanced information technologies to prepare students for life-long learning.

## Computing resources

Computing at Central is accomplished through a variety of personal and multi-user computer systems, interconnected by a state-of-the-art campus computer network. Academic desktop computers include 225 PC and 120 Macintosh computers distributed across campus in classrooms, laboratories and faculty offices. Of these, 240 computers are specifically reserved for student use. Academic computers are used for applications such as word processing, modeling and simulation, collection of scientific laboratory data, and multimedia applications - all incorporated into the curriculum of a variety of disciplines.

Centralized campus server systems provide access to e-mail, the Internet, programming languages and file and print resources. Central's World Wide Web site is accessible across campus and around the world at www.central.edu.

These computing resources, as well as the online library catalog, are available from every campus residential room via Central's Information Connection outlet. This outlet provides one high-speed, dedicated network connection (ethernet) for each person in the room, as well as one cable TV connection. The high-speed network also connects all academic buildings and student labs to file, print and information resources on campus, and to the worldwide information superhighway.

## PRE-PROFESSIONAL PROGRAMS

## Pre-health

The pre-health professions program is designed to serve the needs of students who plan to attend professional or graduate schools in a variety of health-related fields (including but not limited to medical school, veterinary school, dental school, optometry school, physical therapy school and occupational therapy school). Because of the diversity of academic preparation required by the various health professional and graduate schools, the pre-health program is designed as a supplemental advising program meant to complement any major. Students participating in the pre-health program will have, in addition to their major adviser, a supplemental adviser associated with the pre-health program. As students identify specific professions or areas of interest, they should contact the pre-health professions program coordinator, Dr. Glenn Barnett. The program coordinator will then direct the student to a pre-health adviser with advising expertise appropriate to the student's interests. The role of the prehealth adviser 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 requirement.

## Pre-law

Central College has, throughout its history, successfully prepared its students for careers in law. In 1980 a more formalized pre-law program was adopted, largely in response to the growing numbers of students wishing to investigate the possibility of entering the legal profession and to the increasingly high levels of competition encountered at good law schools.

The college has deliberately chosen a pre-law program to complement any major rather than a separate, narrow pre-law major. Students from any discipline with good analytical research and communication skills can be successful in a legal career. Students at Central work with both their major adviser and the special pre-law adviser, Dr. Don Racheter.

Central's pre-law program is designed to serve two purposes:

1) to provide opportunities for students to test their interest in and commitment to the rigor of a legal education; and
2) to guide students to the academic undergraduate training that will equip them with the skills needed to succeed in a quality law school. Participation in the formal program is designed to maximize the chances the student will choose the right profession as well as be prepared as well as possible to gain acceptance at the law school of their choice.
All pre-law students take the three core courses of the program beginning with POLS 185 Pre-Law Seminar in their first year at Central. This evening course puts students into a dialogue with practicing attorneys in private practice, corporate practice, government service, and teaching and administration. During their junior year, students take POLS 217Is/317s Legislative Politics and POLS 218Is/318s Judicial Politics in preparation for the Law School Admissions Test which is normally taken the summer between the junior and senior years or during the fall of the senior year. Additionally, pre-law students must complete required courses across the curriculum which hone their analytical, speaking and writing skills in order to be certified to law schools as successful participants in the program.

Pre-law students are also encouraged to participate in a legal internship, Central's national award-winning mock trial team and the activities of Central's Pre-Law Club.The pre-law adviser maintains additional materials from the American Bar Association, the Midwest Pre-Law Advisers Association, Law School Admissions Council, and A.B.A.-approved law schools for
students' use.
Since the program's inception in 1980, every student who has completed the formal pre-law program has been successful in gaining admission to law school. Students wishing further information should consult the pre-law adviser as early as possible to gain maximum benefit from the program.

## Pre-ministry

Central College continues the emphasis of the Christian tradition in general, and the Reformed tradition in particular, to prepare students for a life of service to God and community, and to prepare some students for a 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. In addition to pastoral and vocational counseling by the chaplain, the director of the Christian ministries emphasis of the religion major, and other faculty members, there are three courses designed specifically for students who are considering vocations in the ministry. These courses are REL 285PI PreMinisterial Seminar, REL 220 Worship in the Christian Tradition, and REL 286P Doctrines and Ministry. In addition, preministerial 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 do ministry internships in churches and church-related organizations either locally or through some type of internship program conducted elsewhere. Students may also choose to receive spiritual discipling from a designated mentor.

The variety of denominations represented by the faculty, students, and staff at Central College provides students 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.

## COOPERATIVE AGREEMENT PROGRAMS

## Pre-architecture

The $3+4$ cooperative program in architecture with Washington University in St. Louis offers the opportunity for students to complete their first three years of college at Central College studying non-architectural subjects. During these three years, students take a variety of liberal arts courses and complete course work that satisfies academic requirements here at Central. No specific major course of study is required but students should take one semester of math/calculus, one semester of physics, two semesters of history of western civilization or equivalent and four semesters of studio art courses.

During the fourth year students begin their architectural studies at Washington University while simultaneously meeting requirements for graduation from Central College. After the first year at Washington University, the student applies for graduate study; upon acceptance, the student then enrolls as a graduate student in the Master of Architecture program. The advantage of the cooperative program is a reduction in time commitment to achieve the advanced degree.

## Pre-engineering

Central's dual degree engineering program is an excellent way for students to obtain both an engineering degree and a liberal-arts degree within five years after completing high school. This five-year program leads to a B.A. from Central and a B.S. in engineering from Washington University, the University of Iowa or Iowa State University. Students obtain a strong liberal-arts education. A broad background in the liberal arts, as well as our emphasis on communication skills, helps students to establish themselves as thoughtful, creative, productive engineers. The transition from high school to a demanding course of study such as engineering can be difficult. Students are helped by small classes taught by extremely well-qualified, experienced teachers committed primarily to their teaching.

Typically a student enrolls at Central College and chooses a science major closely allied with an engineering field of interest. Three years later the student enrolls at either Washington University in St. Louis, the University of Iowa or Iowa State University. All Central students who have enrolled at Washington University have completed both degrees in five years of study.

Upon completion of one year at Washington University, the University of Iowa or Iowa State University, credits are transferred to Central, enabling the student to graduate with a B.A. degree from Central after four years in college. The student then obtains a B.S. in engineering after one to two years of engineering study. The student's major at Central most likely would be in one of the following areas depending upon the area of engineering pursued: chemistry, computer science, mathematics or physics. Central has developed articulation agreements which delineate which specific courses Central students must complete for smooth transition into the engineering programs. Careful consultation with science or mathemetics/computer science faculty advisers makes this cooperative program successful.

## SPECIAL PROGRAMS

## Honors program

The honors program at Central College provides a distinct yet flexible four-year plan that encourages student creativity, intellectual engagement and leadership. Beginning broadly, the program gradually focuses by helping students move toward greater independence, more advanced work in a discipline and increased leadership responsibilities. First-year students with an ACT score of 28, and either a high school grade point average of 3.75 or a ranking in the top five percent of their class are eligible to apply. Students who have completed one or more semesters at Central, and who have maintained a cumulative grade point average of 3.5 may apply for admission to the honors program.

## Goals of the honors program

1) To foster intellectual curiosity, to promote academic excellence throughout Central College, and to sustain this community of scholars;
2) to provide an avenue for those with significant leadership potential to serve both the college and the community at large;
3) to foster mentoring relationships between students and faculty;
4) to make students aware of alternative career paths, courses of study, and programs that engage their individual gifts and talents;
5) to help students prepare for graduate and professional school, academic fellowships and scholarships.

## Benefits

1) Life skills that put you ahead of the game: special classes and opportunities which encourage you to think, plan and articulate creatively and critically;
2) opportunities for leading campus-wide programs on significant issues;
3) meeting interesting people: membership in a special community that values divergent thinking. Students in the honors program are offered exclusive opportunities to meet speakers and host guests of the college, and to travel to special off-campus events such as plays, performances, readings, museums and galleries;
4) mentoring relationships with faculty in your area of interest;
5) timely information and guidance in preparing applications for graduate and professional schools, and other postgraduate programs and scholarships;
6) networking opportunities with other honors program graduates;
7) honors designation on your transcript.

## Main features

The student will normally complete the following segments of the honors program and maintain a 3.3 cumulative grade point average in order to receive honors designation at graduation:

1) First-year honors courses in various disciplines offer intellectual stimulation in an interactive, seminar-style approach.
2) Interdisciplinary honors seminars provide multidisciplinary approaches to various issues or concerns, and culminate in a public presentation designed to serve the whole campus.
3) Honors-added credits in 200-400 level courses offer honors students the opportunity to work closely with a professor to pursue a topic related to the course at a more advanced level.
4) A senior honors project carried out within the student's major department culminates in a public presentation.

The honors program at Central College is coordinated by the honors committee, a three-member faculty committee. For more information, contact the dean's office.

## Exploring program

In the spirit of the liberal arts, the exploring program provides the opportunity for students to engage in classes and experience a variety of content areas before declaring a major. Throughout the first two years, students explore courses which not only fulfill the Core requirements, but also provide insight into the discipline. The exploring program provides opportunities for students to learn about various majors, their requirements and what recent graduates are doing; about themselves through interest inventories and personality testing; and about career development and opportunities in the work world. All activities provided by the exploring program are voluntary in nature and provide students an aggressive approach to selecting a major and career path that is appropriate and based on clear information rather than speculation.

An important feature of the exploring program includes the assignment to an exploring adviser who encourages students to select courses which will provide some foundational structure as well as explore the nature of the subject matter while meeting requirements for graduation. Students are encouraged to enroll in The Exploring Experience, a college division course which
methodically addresses the variety of issues related to careers and preparing oneself for the future. During the first year, students' courses may include sociology or psychology, computer science, math or economics, theatre or art, as well as literature or philosophy. Students declare a major anytime throughout the first two years based on knowledge gained through experience and research of one's interests, abilities and the opportunities available on campus and in the workplace.

## Athletic training

Central College offers opportunities to work as a student athletic trainer under the direct supervision of National Athletic Trainers Association (NATA) certified athletic trainers. Central College student athletic trainers gain practical experience working with the college's athletic teams and in a wide variety of internships. To become certified, students must also successfully complete written, practical and oral examinations adminstered by the NATA.

Central College is seeking Commission on Accrediting of Allied Health Education Program (CAAHEP) accreditation for the athletic training program. Only the students graduating from an accredited athletic training program will be eligible to sit for the NATA Board of Certification exam.

## Internships

All Central College students are strongly encouraged to participate in an internship during their junior or senior year, or during the summer break. Internships are short-term, supervised learning experiences in practical work settings, under the direction of a professional in the field, and overseen by a faculty member or Central representative. Students receive college credit for work experiences related to their major or career interests.

Three components work together so that an optimum learning experience occurs for each student intern: the student, the faculty supervisor and the employment supervisor. Students are active participants in every aspect of the internship including identifying and investigating sites, securing faculty supervision, applying for and being accepted for the internship, registering for credit, setting goals and objectives for the internship, performing the work in a professional manner, and evaluating the experience at the end.

The internship coordinator at the career center provides career counseling, site investigation and in general, oversees the three components of the internship experience. Internships are clearly invaluable in providing students with firsthand experience in professional work environments.

## State government intern program

In recent years, a number of students have served as interns during annual sessions in the Iowa Legislature, with the governor's office or in the court system. They are assigned to individual officials and serve as research assistants with opportunities to explore current social, economic, environmental or other public issues. Normally, such legislative interns are political science or pre-law majors, but the program is open to students from all disciplines who are at least juniors, have an overall GPA of at least 3.0, and have successfully completed POLS 317Is Reading in Legislative Politics, or 318Is Readings in Judicial Politics, respectively.

Central students also have the opportunity to intern with the legislative, executive or judicial branch of the governments of the United States or the nations where Central has study abroad programs. Students who are interested should obtain additional information from Dr. Don Racheter.

## Washington Center program

Through a formal partnership with The Washington Center, Central students are able to participate in internships in the nation's capital. Art students may work at the National Gallery, biology students with the National Institutes of Health, language students with the state department or a foreign embassy - there are opportunities for almost any major. Costs are comparable to study on the home campus. Semester and summer programs are available. Participation is limited to upperclassmen with a GPA of at least 3.0. Students may receive graded independent research credit and seminar credit as well as pass-no record credit for the internship through the program. Students who are interested should obtain additional information from the Career Center.

At The Washington Center, students enroll in COLL 389D Washington Center Seminar (3) and POLS 397D Washington Center Internship (12).

## Chicago Semester Program

The Chicago Semester Program is a consortium designed to give internship experience and course work through seminars in city/urban life. Students participate in internships four days per week in the city of Chicago, and take course work from the CMC staff when not interning. Students and staff also attend fine arts and cultural events, take field trips, and participate in the daily life of the city. Students may obtain additional information from the Career Services Center.

In Chicago, students typically register for COLL $397 C I$ Metropolitan Career Internship (9), COLL 385CIs Metropolitan Seminar (3), and one of the following: FA 200Ca Fine Arts in the City (3), HIST 210Cb History of Religion in Urban America (3) or PHIL 286Ct Values and Vocations (3).

## International Education

## Study abroad programs

Study abroad is an integral part of the identity of Central College and its goals are reflected in the mission statement and philosophy of the college. Students are actively encouraged to develop cross-cultural awareness and the ability to communicate as well as to understand, live and work in culturally diverse environments. The international education experience also strives to challenge students to understand empathetically, live cooperatively and act responsibly in a changing and intricately connected world. To accomplish these goals, Central College promotes study opportunities at 10 study abroad programs located on four different continents. Three of the programs are language immersion programs and the remaining seven are English-based. More than 9,000 students from Central and other colleges and universities have participated in Central College's international programs over the past 40 years.

Central College abroad programs have distinct features. Its foreign language programs in Vienna, Austria; Paris, France; and Granada, Spain are designed for students wishing to immerse themselves in another language and culture while being involved in cross-cultural experiential learning. These programs are designed to accommodate students at any language proficiency level, from introductory to native speaker. In addition to language and literature courses, students may enroll in a variety of humanities, business and social science courses taught in the host country language. All of the language programs also offer either internship or service-learning opportunities for academic credit.

English-based programs are located in London and Colchester, England; Carmarthen, Wales; Leiden, the Netherlands; Mérida, Mexico; Hangzhou, China; and Eldoret, Kenya. Students enrolled in the Wales program may choose to take a Welsh language course. Students in the Netherlands, China and Mexico have one required language course with the remaining courses taught in English. All of the programs place a continued emphasis on cross-cultural experiential learning, which includes internships and service-learning opportunities. With the exception of the Colchester program, each site has a resident program director to assist students in adapting to the new environment and educational system. The office of international programs at the University of Essex in Colchester, England assists students with their course work selection and registration, housing, advising and orientation.

All students, particularly those enrolled in the language study programs, are strongly encouraged to spend an academic year abroad. One-semester options with non-sequential course offerings are available for those unable to attend year-long programs. Extensive information regarding each program is available on the Central College website under "Study Abroad." Please call or visit the office of international education on Central's campus for more information. A brief synopsis of each program is listed below.

## Foreign Language Programs

## Central College in Vienna, Austria

The Central College program in Austria is designed for students at any language level. Those at the lower levels enroll in an intensive German language program while students at higher levels study the German language along with courses in almost any discipline at the University of Vienna and Central College Abroad. Internships are also available. Students live in Austrian student residence halls.

The program begins in Prien, Germany, at the Goethe Institute with a one- or two-month intensive program to refine language skills. Cultural activities and excursions are included in the program.

## Central College in Paris, France

In Paris, courses are offered at the University of Paris (la Sorbonne) in cooperation with the Cours de Civilisation Française, the Alliance Française, and the Chamber of Commerce and Industry in Paris. Language instruction is offered at all levels including introductory, regular, advanced and honors. Special tracks are available in intensive language, literature, the humanities and business. In addition, a community service project for academic credit is available for those students who wish to have a unique opportunity to observe and participate in Paris public service organizations.

A language and culture orientation program is held for students prior to the beginning of the Paris program for both the fall and spring semesters. The program is organized through the Alliance Française in Nice on the French Riviera. Students are housed with families during the Nice program.

In Paris, students are housed in a variety of residence halls. Excursions are organized to various points of interest not only in Paris but also to sites such as Mont St. Michel, St. Malo, Burgundy or the chateau country of the Loire Valley.

## Central College in Granada, Spain

The Granada program offers the opportunity for students to study Spanish at all language levels: introductory, intermediate, advanced and superior. The program begins with a three-week language and cultural orientation prior to the start of the semester courses. Students enroll at the Center for Modern Languages at the University of Granada and may choose between an intensive language program or language courses plus course work in the humanities, social sciences and business. The Granada program offers extensive opportunities for service-learning projects organized by the program director in cooperation with a local charitable organization.

Students live with host families, one American student per family. Opportunities for intensive Spanish or a Spanish for Business program are also available during the summer.

## English language programs

Central College is firmly committed to the philosophy that a study abroad experience can be valuable for those who do not have a mastery of a second language. The college maintains four programs in Europe, one in Mexico, one in China, and a summer program in Kenya. Students may spend a semester or full academic year on the European or Mexico programs. The China program is available only during the spring semester.

## Central College in London, England

The London program provides students the opportunity to study British culture and society through offerings in history, sociology and theatre. Students may also choose from a wide selection of course offerings from the London Metropolitan University, Morley College and the City Lit Center for Adult Learning. Internships are also an integral part of the London program with traditionally more than 50 internship placements available. Students live in central London at Vandon House located within walking distance of Buckingham Palace, Westminster Abbey and Victoria Station.

## Central College in Leiden, the Netherlands

Leiden is a vibrant university town, a modern business center and gateway to northwestern Europe. The Leiden program is an excellent option for a student wishing to be at the center of European studies and to observe recent trends in European integration. Course work opportunities are available in art and architecture, studio art, Dutch studies and language, history, international business, politics and psychology. In addition to enrolling in Central College courses, students may also take courses at both Leiden University and Webster University. The Leiden program is also ideal for education majors who can intern at The American School of the Hague or Rijnlands school, which has both a Dutch and an international baccalaureate curricula.

Internships placements are more readily available for full-year students, but any well-qualified student should inquire about this possibility.

Organized excursions include field trips to sites such as the Hague, Amsterdam and Brussels with optional trips to the Frisian Islands. A two-week homestay may be an option for students who wish to begin their experience in Leiden by sharing in Dutch family life.

## Central College in Carmarthen, Wales

The program in Wales provides an exceptional opportunity for students to immerse themselves in a unique and fascinating culture through a guided exploration of the country, history and identity of Wales. Students attend classes at Trinity College in Carmarthen. Curriculum offerings include both the full Trinity College course offerings and special Central College courses. The latter include beginning Welsh, Welsh culture and history, creative writing, feature writing, Russian political culture, the British political system, and outdoor pursuits.

The Outdoor Pursuits course offers kayaking, rock climbing, caving, hiking and camping activities throughout Wales. The required course, Over Here: An Introduction to Wales and Welsh Culture, provides a thorough introduction to the country and culture through classroom lectures and many field trips and excursions, including both a tour of Wales and a tour of Ireland.

Central students have many opportunities to meet and interact with their Welsh, Irish and English peers on campus. For those interested in further involvement with the Welsh community there are optional homestays as well as community service learning projects for credit.

## Central College in Colchester, England

Central College students who choose to study in Colchester enroll directly in the University of Essex and live in residence halls on campus. Biology, computer science and exercise science majors, in particular, may find the course offerings suited to their requirement needs. The university also offers a full humanities and social science curriculum with an especially strong art and art theory program.

The University of Essex option may be especially attractive to those students who seek an independent, self-directed and academically challenging experience at a major research university while abroad. The student body is international and diverse, the opportunities for social and sports activities are numerous. The city of London is no more than an hour from Colchester by train. The possibilities are endless for the student who is comfortable seeking them out.

## Central College in Mérida, Mexico

The Mérida program, located in the unique region of Mexico that is the Yucatán, is especially designed to give students a firsthand experience of Yucatecan and Mexican culture through formal course work and cross-cultural experiences. The program is open to students regardless of their Spanish language skills. Students take one required Spanish course and fill in with the remaining courses in English, or a combination of English and Spanish. Central College course offerings focus on social, political, historical and cultural issues within Mexico, between Mexico and the U.S. and, in particular, the Yucatán. Organized trips and excursions share this focus and may include destinations such as Mayan ruin sites, the rain forest and local villages.

Students with advanced language proficiency levels may also take a course at the Marista University, a private Catholic
institution. Internship and service-learning projects (for credit) are actively encouraged.
Students live in the Central College house in a residential district of Mérida. Those spending a full year may live with a Yucatecan host family during the second semester.

## Central College in Hangzhou, China

Central College offers students the opportunity to participate in an extraordinary semester abroad in a non-western culture. The city of Hangzhou is located near the coast of the East China Sea, about 100 miles south of Shanghai, and is known in particular for the beauty of its West Lake park and gardens.

Central students live in an international residence hall at Zhejiang University. All students enroll in a Chinese language and culture course. Course offerings are taught in English in the areas of the arts, business and social sciences. Each Central College student is paired with an English major from the university who has volunteered to help with the cultural transition and who looks forward to the opportunity to speak English with a fellow student. Students of all majors are actively encouraged to participate in an English as a Second Language internship.

Program excursions and activities may include visits to Beijing, Shanghai, Shaozing and field trips to places of interest in Hangzhou.

## Summer Programs Abroad

## Eldoret, Kenya

The Kenya program is offered during the summer only and is in affiliation with Moi University at Eldoret. The focus of the program includes biological field studies and cross-cultural/international studies. Lake Victoria, the Great Rift Valley and the Masai Mara Reserve provide outstanding opportunities for students to observe flora and fauna in a wonderfully diversity of ecosystems. Two professors from Central College lead the group. Students are housed in Moi University guest housing.

## Granada, Spain

Two programs are offered during the summer at the Center of Modern Languages in Granada. The six-week intensive language program is open to students of all levels, including beginners, who wish to concentrate on improving their reading, writing, listening and speaking abilities in Spanish. The five-week Spanish for Business program enables students to learn about the economy, commerce and business enterprises of the Hispanic world from a socio-cultural, communicative and practical perspective.

## London, England

The Central College summer intensive internship program in London utilizes the successful internship options that form a part of our fall and spring semester programs. Internship offerings have been in disciplines such as art, business, politics, communications, and theatre.

## Ethnographic Research Projects

Ethnographic research programs, directed by Central College faculty, are offered on a regular basis. Research sites are Wales and the Basque country of Spain. More information on these programs is available on the Web site.

## Non-Central study abroad programs

For Central students to receive credit for a non-Central study abroad program:

1. There cannot be a Central program in a comparable geographic or curricular area.
2. There must be sufficient academic justification.
3. The student must submit a proposal to the Off Campus Programs Committee (OCPC) through the office of international education. The OCPC accepts for review those proposals submitted no later than the eighth week of the fall semester for students who intend to study in the subsequent fall semester and no later than the eighth week of the spring semester for the subsequent spring. The approval process must be completed by the end of the semester in which the proposal is submitted.
4. The director of international education in consultation with the OCPC, the registrar, the vice president for academic affairs and the student's academic adviser must approve the proposal.
5. The director of international education will coordinate the program application process.

Central students who participate in an approved non-Central study abroad program must be aware that:

1. Study on a non-Central program does not count toward residency requirements.
2. GSL and some other government aid may transfer depending on individual and program eligibility. Central College institutional aid may transfer in some cases.
3. Students maintain student status at Central College as "a Central College student participating in an approved off-campus program." Students with financial aid must maintain full-time status.

## 2004-05 Study Abroad Program Fees

Airfare is not included in the program fees.

## CARMARTHEN, WALES

Carmarthen, Fall or Spring Semester \$12,600
Carmarthen, Year \$25,200
(Full board plan is included in Carmarthen.)

## COLCHESTER, ENGLAND

Fall semester $\$ 10,000$
Spring/Summer semester \$ 16,250
Academic Year \$ 27,500
(No board plan is included in Essex program fees.)

## GRANADA, SPAIN

Granada, Fall Semester with Jan term $\$ 10,270$
Granada Spring Semester \$10,670
Granada Year \$ 19,500
(Full board plan is included in Granada program fees.)
SUMMER BUSINESS PROGRAM IN SPAIN 2005
Business Program Fee
TBA
(Includes six semester credits, room \& full board)
SUMMER INTENSIVE LANGUAGE PROGRAM IN SPAIN 2005
Language Program Fee TBA
(Includes eight semester credits, room and full board)
HANGZHOU, CHINA
China, Spring Semester \$ 10,250
LEIDEN, THE NETHERLANDS
Leiden, Fall or Spring Semester $\$ 10,900$
Leiden, Year \$ 21,800
(No board plan is included in Leiden program fees.)

## LONDON, ENGLAND

London, Fall or Spring Semester \$ 12,800
London, Year \$25,600
(Daily breakfast, 4 meal vouchers $p / w k$ are included in London program fees.)
SUMMER INTERNSHIP PROGRAM IN LONDON 2005
Internship Program Fee TBA
(Includes 6 semester credits, daily continental breakfast, fieldtrips)
MERIDA, MEXICO
Yucatan, Fall or Spring Semester $\$ 10,990$
Yucatan Academic Year \$21,980
(Full board Mon. - Fri and Sat. bruncb is included in Mérida program.)

## PARIS, FRANCE

Paris Sorbonne Fall Semester \$ 13,290
Paris Catholic Institute Fall Semester (Dec.) \$ 12,500
Paris Catholic Institute Fall Semester (Jan.) \$ 14,300
Paris Catholic Institute Spring Semester \$ 14,875
Paris Sorbonne or Catholic Institute Year $\$ 24,500$
(Partial board plan is included in Paris program fees.)
VIENNA, AUSTRIA
Two mos. Goethe+ Vienna Fall or Spring Semester \$16,050
One mo. Goethe + Vienna Fall or Spring Semester $\$ 14,740$
Two mos. Goethe + Vienna, Year $\$ 25,800$
One mo. Goethe + Vienna, Year $\$ 24,490$
Vienna Only, Fall or Spring Semester \$ 12,550
Vienna Only, Year $\$ 22,300$
(10 weekday meals are included at the Goethe Institute. No board plan is included in Vienna program fees)

## Awards

## Academic and leadership awards

## All-college awards

## Alpha Zeta Mu

These Greek letters symbolize leadership, living and learning. The society publicly recognizes academic excellence as evidenced by potential members of the organization and promotes intellectual and creative activity among Central students. Membership is awarded to those full-time students who are within 60 semester hours of graduation, have completed at least three semesters at Central, and have achieved a minimum cumulative grade point average of 3.8.

## 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 which 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 name two writers for the John Allen Writing Awards. The award, made in the form of a commemorative book, honors the late John Allen, former English professor at Central.

## Maureen Danks Writing Award

All Central students are eligible for the Maureen Danks Writing Award, regardless of major or class standing. Papers which exhibit rhetorical competence, high levels of readability, originality and insight are submitted by professors in the sciences. The award, made in the form of a commemorative book, honors the late Maureen Danks, former biology professor at Central.

## Henry G. Eggink Award

The Rev. Henry G. Eggink Award is given to deserving preministerial 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

Each year the name of seniors chosen for outstanding sportsmanship are engraved on bronze plaques given to Central College by Dr. T. G. Fultz in memory of T.W. Prins. During 11 years as professor of physical education on the campus, Prins not only demonstrated outstanding sportsmanship through his Christian living, but encouraged the development of good sportsmanship in everyone with whom he came in contact. Candidates for the award are recommended by members of the senior class and the faculty. From these recommendations the awards committee picks one or two students to receive a certificate of award and to have his or her name engraved on the plaque.

The winners will be men or women, athletes or non-athletes, who have demonstrated sportsmanship in dealing with fellow students on the 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 Scholarship Medal

This medal is given to the student who has completed a minimum of 12 semester hours 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.

## Who's Who Among Students in American Universities and Colleges

This distinction recognizes members of the senior class who show qualities of scholarship, leadership, extracurricular activities and service. Nominations are made by faculty, administration and members of the senior class, while the student affairs committee makes the final selection.

## Departmental Awards

## Biology

Biology Senior Award
This award is given to a student entering graduate or professional school. A cash award and a one-year membership in the Iowa Academy of Science is given to a top graduating senior.

## John Bowles Award

This award is presented to the outstanding senior biology major each year. The recipient of this award will receive a book and cash award.

## Chemistry

American Institute of Chemists Award
This award is given to an outstanding senior majoring in chemistry. The award includes membership and a subscription to The Chemist.

## 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 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. The student is selected by the chemistry staff and receives a Merck Index.

## Freshman Award

This award is given to the freshman who has gained highest achievement in Chemistry 131 and 235. The student is selected by the professors in these courses and receives a CRC handbook.

## Communication Studies

## C.A. and Frances L. DeBruin Award

Endowed by the Rev. C.A. DeBruin, the award goes to the junior or senior within the department of communication studies who has exhibited sound academic achievement, high moral character and who has made a significant contribution to the department. A monetary award is given.

## Norma Marold Maas Award

This award is given to a student, usually a senior, who has established a body of work and activity over four years which demonstrates a real keenness for a career in journalism.

## Dr. Leroy Nixon Award

This award is given to a student who shows promise in the field of journalism. The recipient must exhibit hard work and enthusiasm through a body of work compiled over four years.

## Pelican Award

This award is given each year to recognize a student for outstanding dedication, leadership and journalistic skill in the publication of the college yearbook, The Pelican.

## Photography Award

The Photography Award is given to a student who has shown exceptional skill in photography and has compiled a body of creative work over several years which goes beyond technical competence.

## Dr. Arthur Wesselink Award

The Wesselink Award is given to a student who has demonstrated perseverance, enthusiasm and success in some phase of journalistic activity.

## Economics/accounting/business management <br> <br> Accounting Award

 <br> <br> Accounting 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.

## Butler Scholar in Economics Award

Named for a long-time member of the economics faculty, Dr. Donald Butler, this award is given to a senior economics major or a senior student who has completed a significant number of courses in economics and who has demonstrated the ability to handle abstract theoretical concepts, an interest in independent research, the desire to pursue a career in economics or a related field, the earned respect of his or her peers, evidence of intellectual growth, and superior academic performance. A cash award is given.

## 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 a marketing-related career and in furthering his or her education with graduate school experience. The recipient receives a subscription to a scholarly economics publication and has their name inscribed on a plaque in the Weller Center.

## Wall Street Journal Achievement Award

The award is given to the senior management, international management or systems management major for outstanding achievement in scholarship, leadership and attitude as recognized by the department faculty. The recipient receives a one-year subscription.

## Paul R. Winn Marketing Award

This monetary award is given to the senior marketing major who has demonstrated high academic achievement as measured by grade point average. The award winner must also have a sincere interest in a marketing-related career and in furthering his or her education with graduate school experience.

## Education

## Barbara Dieleman Award for Excellence in Education

The award is made possible by an endowment established by former students and colleagues 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 which 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, honesty, courtesy, morality and dependability, service to college and community and overall potential as an effective teacher.

## 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.

## Exercise science

## Verle Rinehart Exercise Science Award

The Verle Rinehart Exercise Science Award is awarded to an outstanding senior graduating with an exercise science 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 exercise science faculty.

## Roslien Distinguished Student Trainer Award

This award was established in 1993 in recognition of John Roslien, the first full-time certified athletic trainer at Central College and his wife, Sheri. The Roslien Award honors a student in the program that epitomizes the Rosliens' dedication to the program, the profession and Central College.

## Interdepartmental/Humanities

## Vander Lugt Scholarships and Prizes in the Humanities

The Vander Lugt Prize 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 be majoring 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.

## Interdepartmental/Pre-health science

## Dr. Herman Vander Meulen Award

This award is given to an outstanding senior pre-health student who has been accepted into medical school. This monetary award is to be used in starting a professional library.

## Interdepartmental/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.

## Mathematics/computer science

Henry W. Pietenpol Award
Each year the department gives this 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

Denise Murray Award in French
German Award
Linguistics Award
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

## Edith Sedrel LeCocq Vocal Music Award

This monetary award, named for a long-time member of the music department, is given annually to an outstanding vocal musician, usually a senior. It is based on musicianship, quality of performance and contribution to the vocal ensembles.

## Physics

## Richard J. Mentink Scholarship 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.

## 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.

## Sociology/anthropology

Gordon F. De Jong Award
This monetary award is given to an outstanding sociology student who shows potential for graduate study. The award is to be used to purchase books for a professional library.

## 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.

## Athletic 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.

## Baseball

Most Valuable Player Award
Most Valuable Newcomer
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

## 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 allaround 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 Drs. Maxine and D.M. Huffman.

## Hustle Award <br> Most Valuable Freshman Award

## Women's basketball

Most Valuable Player Award
Most Improved Player Award
Hustle Award
Best Supporting Player Award
Top Defensive Player Award
Top Offensive Player Award Coaches' Award

## Men's cross country

Most Valuable Performer Award
Most Valuable Freshman Award
Most Improved Performer Award

## Women's cross country

Most Valuable Performer Award
Most Improved Performer Award
Most Valuable Freshman Award

## Football

## Heerema-Schilder Memorial Blanket

A "C" blanket 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 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

## Low Scoring Average

Freshman MVP

## Most Improved

Ryerson MVP Award
Given in memory of former 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 MVP 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

## Men's soccer

Most Valuable Player Award
Most Inspirational Player Award
Most Improved Player Award
Hustle Award
Women's soccer
Most Valuable Player Award
Most Inspirational Player Award
Most Improved Player Award
Hustle 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.

Hustle Award
Most Improved Player Award
Men's tennis
De Haan MVP 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.
Sportsmanship Award

## Women's tennis

De Haan MVP 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.
Most Valuable Freshman Award
Men's track and field
Most Valuable Performer Award
Most Valuable Field Events Performer Award
Most Improved Performer Award
Most Valuable Freshman Award
Effort Award

Women's track and field
Most Valuable Performer Award
Most Improved Performer Award
Effort Award
Most Valuable Freshman Award
Most Valuable Field Events Performer Award

## Volleyball

Jamie Hill MVP 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.

Leadership Award Spirit Award 100 Percent Award
Most Improved Player Award
Freshman of the Year 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 Performer Award
Most Valuable Freshman Award

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West Des Moines, Iowa

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Pella, Iowa

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GFA Financial Group
Seminole, Florida

## Emmit George

Attorney
Law Firm of Parrish, Kruidenier, Moss, Dunn, Boles, Gribble \& Cook
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Pella, Iowa

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West Des Moines, Iowa
Harold Kolenbrander '96 H
Consultant
Academic Search Consultation Service
Cincinnati, Ohio

## Kevin Korver

Pastor
Third Reformed Church
Pella, Iowa

## J. Lanier Little

Regional president
Wells Fargo Bank Wisconsin/Illinois
Mequon, Wisconsin
Judith Marvel
Pastor
Rosemont Community Church
Tuscon, Arizona

## Samuel Mate-Kodjo**

Associate professor of Spanish
Central College
Pella, Iowa

## Sophie Mathonnet-VanderWell

Pastor
Second Reformed Church
Pella, Iowa

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Attorney, retired
Barrington, Illinois
Frank Moore+
Senior research associate
Yale University
Perry, Iowa
Charles Morris
Pastor
Ft. Washington Collegiate Church
New York, New York

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## Michael Orr

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Galena, Illinois

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Merit Resources, Inc.
Des Moines, Iowa

## Barbara Pettitt

Chief of pediatric surgery
Emory University
Stone Mountain, Georgia

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Precision Pulley and Idler
Pella, Iowa

## Silvia Rode**

Associate professor of German
Central College
Pella, Iowa

## David Roe

President
Central College
Pella, Iowa

## Jean Rozenboom+

Managing director - investments, retired
Piper, Jaffray - US Bancorp
New Sharon, Iowa

## Rick Ryan

President
LINCO Research, Inc.
Ballwin, Missouri

## John Sikkink

Mission advancement coordinator
Synod of the Heartland Reformed Church in
America
Apple Valley, Minnesota

## Donna Smith

Homemaker/volunteer
Pella, Iowa

## Harry Smith

CBS's "The Early Show" and Host of A \& E's
"Biography"
New York, New York

## Robert Vanderlinden

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Seiferts
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Kevin Korver
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Barbara Pettitt
John Sikkink
David Wesselink
Mary Worstell
David Roe

## Administrative staff

## Office of the President

David H. Roe, president (1998), B.A., M.A., Ph.D.
Ardith Sutphen, executive assistant to the president (1979)
Betsy Roe, college ambassador and consultant (1998), B.A., B.A./M.A., J.D.

## Academic Affairs

Paul Naour, vice president for academic affairs/dean of faculty (2001), B.S., M.A., Ph.D.
Vivian Rippentrop, associate dean of academic programs (1974), B.S., M.A.
Cheri Doane, director of community-based learning (1998), B.A., M.S.
Timothy Hoekstra, media coordinator (1995) B.A.
Lyn Isaacson, academic specialist/center for academic excellence (1998), B.A., M.A.
Gwendolyn Krueger, laboratory supervisor/science center environmental compliance officer (2001), B.S.
Christine Mak, archivist (1999), B.S., M.L.S.
Steven Sanchez, assistant dean/registrar (1998), B.A., M.A.
Kelly Taylor, assistant registrar (1995), B.A.
Diane Van Wyngarden, director of Central College institute of extended education (2002), B.S., Ph.D.
Marilyn Vrban, executive assistant to the vice president of academic affairs (1997)

## Admission and Student Enrollment Services

Melissa Anderson, admission counselor (2004), B.A.
Anna Bates, admission counselor (2003), B.A.
Kevin Berg, admission counselor (2004), B.A.
Kent Clayberg, assistant director of admission (1998), B.A.
Theresa Crumley, associate director of admission for technology and research/coordinator of fine arts recruitment (2000), B.A., M.A., D.M.A.

Chevy Freiburger, admission counselor (2003), B.A.
Philip Hemming, admission counselor (2004), B.A.
Ann Van Hemert, admission counselor (2002), B.A.
Teresa Thompson, assistant director of admission (1998), B.A.
Dee Van Zee, coordinator of special event programming and administrative system services (1978)
Carol Williamson, acting dean of admission (2000), B.A.

## Athletic Department

Rick Burns, head women's soccer coach (2004)
Al Dorenkamp, director of athletics (1998), B.A., M.A.
Mick Angel, head women's basketball coach (2001), B.A., M.A.
Michael Boschee, head men's basketball coach (2003), B.A., M.A.
Megan Clayberg, assistant volleyball coach (1991), B.S., M.S.
John Edwards, special assistant to the director of athletics (1972), B.A.
Charles Estabrook, manager of grounds, utility \& fleet, head men's golf coach (1997)
Gregory Gilmore, assistant athletic trainer (2003), B.A., M.S.
Garry Laidlaw, head men's soccer coach (1998) B.S., M.S.
Jeffrey McMartin, head football coach (2004)
Eric Reed, head wrestling coach (2004)
Kevin Sanger, head men's and women's track coach (1994), B.A., M.S.
Jodee Schaben, head women's golf coach (2004)
Douglas Stursma, head men's and women's tennis coach (1993)
George Wares, head softball coach (1985), B.A., M.S.
Douglass West, assistant athletic trainer (2003), B.A., M.A., Ph.D.

## Business and Finance

Barbara M. Bowzer, vice president of business and finance (1972), B.S., M.B.A., C.P.A.
Anthony Bethards, director of catering (1986)
Debra Bruxvoort, associate director of academic computing (1999), B.A.
Betty Buitenwerf, director of human resources (2002), B.A., J.D.
Gayle Freel, custodial services manager (2000)
Connie Henle, assistant controller (1990), B.A.
J. Mark Howard, director of dining services (1999), B.S.

Sheryl Kamerick, controller (1968), B.A.
Mike Lubberden, director of construction/energy management department (1978)
Julie Miller, manager of The Central Market (2001), B.A.
Lowell Olivier, conference coordinator (2000), A.A.
Keith Pothoven, associate director of administrative computing (2002), B.A., M.S.
Dianne Redden, director of accounts payable and grants (1999), B.A.
John Ritsema, campus safety/security/parking (1995), B.A., M.Div.
Debra Rooda, computer support specialist (1988)
Dan Rouw, Web programmer/analyst/administrator (2002), B.A.
Jamie Scott, assistant director of catering (2001), B.A.
Lynne Steenhoek, student staffing manager (2001), B.A.
Paul Thomassen, systems analyst (1999), B.A., M.B.A.
Milli Toom, director of accounts receivable and loans (1999), B.A.
Terri Vander Molen, director of campus services and affirmative action officer (1989)
Jean Vander Wert, director of student financial planning (1989), B.A.
Lee Vande Voort, director of computing services (1980), B.A., M.B.A.
Carol Van Weelden, senior systems analyst (1982), B.A.
Sandra Verhoef, software training and support specialist (1997), B.A.
Delmar Wichhart, director of physical plant (1980)

## Campus Ministry

Joe Brummel, chaplain (2000), B.A., M.Div.

## College Advancement

Susan Canfield, director of corporate and foundation relations (1998), B.A.
Michael Gens, director of the Central Fund (2003), B.A.
Connie Marlow, coordinator of prospect research (1997), B.A.
Donald Morrison, director of alumni and church relations (1993), B.A.
David Sutphen, associate vice president of advancement planning (2000), B.A.
Peggy Van Den Berg, advancement services coordinator (1989), B.A.

## College Relations

Connie Cross, director of college relations (2000), B.A.
Cyndi Atkins, director of publications (1995), B.A., M.A.
Eric Bumgardner, graphic designer (2002), B.A.
Abby Gonzales, news and marketing writer (2004), B.A.
Amy Gordiejew, Web site manager (2000), B.A.
Larry Happel, associate director of college relations and sports information director (1979), B.A.

## International Education

Brian Zylstra, director of international education (2000), B.S., M.I.M
Douglas Bowman, assistant director of Central College in Granada (2000)
Claudina Castillo de Losa, facility manager, Yucatan program (2000)
Shade Dade, accounts manager of Central College in London (2002)
Steef Eman, director of Central College in Leiden (1998), M.A.

George Ann Huck, director of Central College in Yucatan (1968), B.A., M.A., Ph.D.
Tecwyn Vaughan Jones, director of Central College in Wales (2000), B.A., M.A.
Nicole Kaplan, director of Central College in Paris (2002), B.A., M.A., Ph.D.
Verónica García Montero, director of Central College in Granada (1999), B.A.
Bridget Pearse, hotel manager of the London program (2001)
Eric Sneddon, executive director of Central College in London (2001)
Taeko Tofts, assistant to director of Central College in London (2002)
Sarah Turnbull, international education coordinator for off campus recruiting (2002), B.A.
Ruth Verweijen, director of Central College in Vienna (2000), M.A.
Louise Vogel, resident assistant, Yucatan program (2000)
Carlyn Wei, international education coordinator (1996), B.A., M.A.

## Student Life

Timothy Phillips, vice president for student life (1995), B.A., M.A.
Linda Blatt, academic specialist/center for academic excellence (1989), B.A., M.A.
Jon Dobernecker, director of counseling (1982), B.A., M.A.
Louise Esveld, coordinator of TRIO programs, director of Upward Bound (1998), B.A., M.A.E.
Lisa Hetzel, director of residential learning (2000), B.A., M.A.
Clinton C. Hoffman, assistant director of career center, B.A., M.A.
Heather Isaacson, Gear-Up adviser (2001), B.A.
Michelle Kellar, Educational Talent Search academic success coordinator (1999), B.S., M.S.
William Kirby, Upward Bound coordinator (2002), B.A.
Kelly Kowzan, Upward Bound academic counselor (2001), B.A., M.A.
Patricia Joachim Kitzman, director of Career Center (1988), B.A., M.S.
Nancy Kroese, director of student support services (1995), B.A., M.A.
Jayme Kuehl, Educational Talent Search coordinator, (2002), B.A.
Eddie Moore, Jr., director of intercultural life (2001), B.A., M.A.
Nathan Smith, Educational Talent Search events coordinator (2003), B.A.
Susan Stewart, Gear-Up adviser (1999), B.A.
Kathleen Streeter, residence hall director - Scholte (2002), B.A., M.A.
Nancy Wright, director of Talent Search/Gear-Up liaison (1984), B.A., M.S.
Marge Zondervan, director of health services (1987), R.N.

## Faculty

Mark Babcock - B.A., Central College; M.M., Westminster Choir College. 1999 - Assistant professor of music
Mark C. Barloon - B.A., Iowa State University; M.A., The University of Iowa; Ph.D., University of North Texas. 2001 - Visiting assistant professor of history
Glenn R. Barnett - B.A., California State University; M.S., Ph.D., Cornell University. 1993 - Associate professor of biochemistry
Russell A. Benedict - B.A., M.S., University of Nebraska, Omaha; Ph.D., University of Nebraska, Lincoln. 2002 - Assistant professor of biology
Debela Birru - A.A., Grand View College; B.S., M.B.A., Northwest Missouri State University. 1989 - Associate professor of management
Linda Blatt - B.A., Queens College; M.A., Niagara University. 1989 - Associate professor of English, director of center for academic excellence
Gary E. Boeyink - B.A., Central College; M.A., Colorado State College. 1967 - Associate professor of exercise science
Steven W. Bouler - B.A., Auburn University; M.A., Louisiana State University; Ph.D., University of California, Santa Barbara. 2003 - Assistant professor of theatre
Richard L. Bowzer - B.A., Central College; M.A., Michigan State University. 1968 - Associate professor of exercise science
Carol lei Breckenridge - B.M., M.M., University of North Carolina; D.M.A., University of Iowa. 1978 - Professor of music
Anya Z. Butt - B.A., Mount Holyoke; M.Sc., University of Toronto; Ph.D., University of Nevada. 2002 - Assistant professor of environmental studies
Walter W. Cannon - B.S., University of Nebraska; M.A., Ph.D., Marquette University. 1979 - Chair of division of humanities, professor of English
Chia Ning - B.A., Beijing Normal University; M.A., Illinois State University; M.A., Ph.D., Johns Hopkins University. 1991 Professor of history
María Carla Chiarella - B.A., Central College; M.S., Ph.D., Colorado State University. 2003 - Assistant professor of psychology
Stanley E. Dahl - B.M., Iowa State University; M.M., Arizona State University. 2001 - Visiting instructor of music
Kevin J. Den Adel - B.A., Central College; Ph.D., University of Iowa. 2002 - Assistant professor of accounting

Dale W. De Wild - B.A., Hope College; M.A., Wayne State University; Ph.D., Florida State University. 1989 - Professor of sociology
Dennis M. Doyle - B.A., University of Northern Iowa; M.S., North Texas State University; Ph.D., Southern Illinois University. 1989 - Associate professor of communication
Darrell D. Druvenga - B.A., M.A.E., Ed.D., University of Northern Iowa. 1990 - Associate professor of education
Leslie Duinink - B.A., Central College; M.S., Indiana State University. 1999 - Assistant professor of exercise science, head athletic trainer
Ellen J. DuPré - B.S., Mankato State University; Ph.D., Wright State University. 2001 - Associate professor of biology
Matthew D. Eastin - B.S., Purdue University; M.S., Ph.D., Colorado State University. 2004 - Assistant professor of mathematics and environmental studies
Terrence R. Edwards - B.S., University of Wisconsin-River Falls; M.M., M.S., University of Illinois, Urbana-Champaign. 2002 Assistant professor of library science, reference and instructional services librarian
David E. ErkenBrack - B.S., Fairfield University; M.S., University of Mississippi; Ph.D., University of California, Berkeley. 1987 - Associate professor of biology

Gabriel Espinosa - B.A., Central College; M.M., University of Northern Texas. 1996 - Assistant professor of music
Pamela Ewell - B.S., Iowa State University; M.S. Drake University. 1997 - Assistant professor of education
Marty D. Feeney - B.A., Boston College; M.A., Ph.D., Bowling Green State University. 1986 - Associate professor of communication
Evan A. Feldman - B.A., Duke University; M.M., Ithaca College; Ph.D., Eastman School of Music. 2002 - Assistant professor of music, director of bands
Teresa Finken - B.S., Northern Illinois University; M.A., Ph.D., University of Iowa. 2004 - Assistant professor of education
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Robert D. Franks - B.S., Northwest Missouri State University; M.S., Ph.D., Iowa State University. 1988 - Professor of computer science
Jann E. Freed - B.A., Central College; M.B.A., Drake University; Ph.D., Iowa State University. 1981 - Professor of management
Timothy Frerichs - B.A., St. Olaf College; M.A., M.F.A., University of Iowa. 1997 - Associate professor of art
Stephen A. Fyfe - B.A., Central College; M.S., Ph.D., Iowa State University. 1998 - Associate professor of computer science
Philip C. George - B.A., Vanderbilt University; M.A.T., University of Florida; Ph.D., George Peabody College for Teachers of Vanderbilt University. 1987 - Chair of division of applied arts, professor of education
Richard N. Glendening - B.A., Central College; M.S., University of Wisconsin; Ph.D., Iowa State University. 1966 - Professor of economics
Russell E. Goodman - B.S., M.S., University of Texas, Arlington; Ph.D., University of Oklahoma. 2002 - Assistant professor of mathematics/computer science
Wenli Guo - B.E., Tsinghua University; M.S., Zhongshan University; M.S., Ph.D., University at Buffalo, The State University of New York. 2003 - Assistant professor of physics
Michael T. Harris - B.A., Tulane University; M.A., Ph.D., Indiana University; Fulbright Award (1998-99). 1990 - Professor of English
Mark Hartman - B.A., University of Winnepeg; M.M., D.M.A., University of North Carolina at Greensboro. 2004-Assistant professor of music, director of orchestra
Catherine A. Haustein - B.A., Central College; M.S., M.F.A., Ph.D., University of Iowa. 1983 - Professor of chemistry
Allen C. Hibbard - B.A., Saint John's University; M.S., Ph.D., University of Notre Dame. 1989 - Professor of mathematics
George Ann Huck - B.A., Central Methodist College; M.A., Ph.D., Tulane University. 1968 - Director of Central College in Yucatan, professor of Spanish
Lyn Isaacson - B.A., M.A., Bemidji State University. 1998 - Administrative assistant in the center for academic excellence, instructor of reading
Arthur W. Johnson - B.S., Iowa State University; M.S., University of Wisconsin. 1968 - Associate professor of English
Mark J. Johnson - B.A., St. Olaf College; M.A., Ph.D., University of Wisconsin, Madison. 1994 - associate professor of mathematics and computer science
Nicole Kaplan - B.A., M.A., Ph.D., The University of North Carolina at Chapel Hill. 2002 - Director of Central College in Paris, assistant professor of French
Kris A. Kilibarda - B.A., M.A., Drake University. 2004 - Instructor of education
Terence J. Kleven - B.A., University of Calgary; M.A., Ph.D., McMaster University. 1996 - Kenneth J. Weller Distinguished
Professor of the Liberal Arts and associate professor of religion
Timothy J. Knickerbocker - B.A., Bethel College; M.A., Ph.D., University of California, San Diego. 2003 - Assistant professor of anthropology
Thomas A. Kopecek - A.B., Hamilton College; B.D., Yale University; Ph.D., Brown University. 1971 - Professor of religion
Kimberly A. Koza - B.A., Colby College; M.A., Ph.D., Indiana University. 2002 - Assistant professor of English
Allison Krogstad - B.A., North Central College; M.A., Ph.D., University of Minnesota. 1999 - Assistant professor of Spanish

Linda Laine - B.A., Abilene Christian University; M.A., Ph.D., University of Florida. 2004 - Assistant professor of communication studies
Thomas Linton - B.A., St. Olaf College; M.A., Ph.D., University of Wisconsin-Madison. 1999 - Associate professor of mathematics and computer science
Raymond E. Martin - B.M.E., University of Wichita; M.M., Wichita State University; D.M.A., University of Missouri, Kansas City. 1965 - M. Joan Kuyper Farver Endowed Chair in Music
Robin E. Martin - B.A., Indiana University; M.L.S., North Texas State University. 1974 - Associate professor of library science, director of Geisler Library
Viktor Martisovits - RNDr., Comenius University; M.S., Ph.D., Ohio State University. 1999 - Associate professor of physics
Samuel E. Mate-Kodjo - B.A., University of Ghana Leson; Ph.D., Ohio State University. 1995 - Chair of division of crosscultural studies, associate professor of Spanish
Robert J. Maurer - B.S., B.A., Rockhurst College; M.B.A., Indiana University. 1968 - Associate professor of accounting
Richard B. McGrath - B.A., M.A., San Francisco State University; Ph.D., Indiana University. 1994 - Associate professor of communication
Nancy A. McNee - B.A., Clarke College; M.A., University of Northern Iowa. 2002 - Visiting instructor of Spanish
Mark Mills - B.S., University of Nebraska-Lincoln; M.S., Ph.D., Iowa State University. 1999 - Assistant professor of mathematics
Paul J. Naour - B.S., M.A., Ph.D., Ohio State University. 2001 - Vice president for academic affairs/dean of faculty, professor of psychology
Michael A. Patzia - B.A., Westmont; M.Div., Fuller Theological Seminary; Ph.D., Vanderbilt University. 2002 - Assistant professor of philosophy
David J. Pavlat - B.S., Iowa State University; M.P.E., University of Nebraska-Lincoln; Ed.D., University of Northern Colorado. 1998 - Assistant professor of exercise science
Dennis L. Pedrick - Sc.B., Western Kentucky University; Sc.M. Memphis State University; Ph.D., University of Memphis. 2004 -
Assistant professor of business management
Brian Peterson - B.S., University of Dayton in Ohio; M.A., Ph.D., Indiana University. 2004 - Associate professor of economics
Anne M. Petrie - B.Mus., M.Mus., University of Illinois; D.M.A., University of Oklahoma. 1986 - Professor of music
Roger J. Pieroni - B.S., Lycée Michel de l'Hospital; DEUG, Université Clermont II; M.A., Ph.D., Indiana University. 1994 Associate professor of French
Joy E. Prothero - B.A., William Penn College; M.S.E., Ed. D., Ed.S., Drake University. 1998 - Associate professor of education
David P. Purnell - B.A., Wittenberg; M.A., Ph.D., Indiana University of Pennsylvania. 2002 - Assistant professor of English
Donald P. Racheter - B.A., University of Michigan; M.A., Ph.D., University of Iowa. 1976 - Professor of political science
Keith A. Ratzlaff - B.A., Bethel College; M.F.A., Indiana University. 1989 - Associate professor of English
A. Chadwick Ray - B.A., Yale University; Ph.D., Northwestern University. 1976 - Dr. Jacob and Gela Schnucker Sessler Chair in Philosophy and Religion
Dawn R. Reece - B.A., Central College; M.A., Iowa State University. 1997 - Associate professor of sociology
Treva S. Reimer - B.A., Bethel College; M.F.A., Indiana University. 1983 - Chair of division of fine arts, associate professor of
theatre
Pamela E. Richards - B.S., East Stroudsburg State College; M.S., Pennsylvania State University; Ed.D., University of Northern Colorado. 1984 - Associate professor of exercise science
Vivian R. Rippentrop - B.S., Iowa State University; M.A., Central Michigan University. 1974 - Associate dean of academic programs, assistant professor of home economics
Brian M. Roberts - B.A., Central College; M.A., Iowa State University; M.F.A., Miami University. 2002 - Assistant professor of art
Silvia A. Rode - B.A., M.A., Ph.D., University of California, Los Angeles. 1996 - Associate professor of German
John Roslien - B.S., University of Iowa; M.S., Western Illinois University. 1986 - Assistant professor of exercise science, athletic training education program director
Jaclyn J. Rundle - B.S., University of Maryland; M.A., New Mexico State University; Ph.D., University of Utah. 2000 - Associate professor of business management
Michael H. Schrier - B.S., M.A., University of Iowa; Ph.D., University of Virginia. 1975 - Associate professor of history
James T. Schulze - B.A., Valparaiso University; Ph.D., University of Nevada. 1968 - Associate professor of psychology
K. Rex Shahriari - A.B., M.S., Saint Francis College; Ed.D., Ball State University. 1982 - Professor of education

James A. Shriver - B.S., M.S., West Virginia University; Ph.D., University of Texas at Austin. 2003 - Assistant professor of chemistry
Kristin L. Siewert - B.A., University of Northern Iowa; M.S., Iowa State University. 2004 - Visiting instructor of biology
Lois De Haan Smith - B.A., Central College; M.A., University of Iowa. 1981 - Associate professor of library science, catalog/system librarian
Mary Jo Sodd - B.A., College of St. Catherine; M.A., University of Minnesota; Ph.D., University of Colorado, Boulder. 1996 Associate professor of theatre
Mary V. Stark - B.S., Iowa State University; M.A., University of Northern Iowa; Ph.D., University of Iowa. 1980 - Associate professor of English

Esther Streed - B.A., University of Northern Iowa; M.A., University of South Dakota; Ed.S., Ed.D., Drake University. 1998 Associate professor of education
David E. Timmer - A.B., Calvin College; Ph.D., University of Notre Dame. 1980 - Professor of religion
Carol J. Wallace - B.A., Morningside; M.A., Ph.D., University of Iowa. 2000 - Assistant professor of Spanish
Suzanne M. Wallace - B.A., Eastern Washington University; Ph.D., University of Georgia. 1991 - Associate professor of economics
Samuel E. Watson III - B.A., Virginia Commonwealth University; M.A., University of New Mexico. 1999 - Assistant professor of art
William H. Weare, Jr. - B.A. University of Massachusetts in Boston; B.F.A., Southern Illinois University-Carbondale; M.A., University of Iowa. 2004 - Assistant professor of library science/collection development librarian
Philip E. Webber - A.B., Earlham College; M.A., University of Chicago; Ph.D., Bryn Mawr College. 1976 - Professor of German
Wendy Weber - B.A., College of Saint Benedict; M.A., Ph.D., University of Kentucky. 1999 - Assistant professor of mathematics
Paul E. Weihe - A.A., Schoolcraft Community College; B.S., University of Michigan-Dearborn; M.S., Eastern Michigan University; Ph.D., Ohio State University. 1998 - Associate professor of biology
Douglas West - B.A., Coe College; M.A., Western Michigan University; Ph.D., The University of Iowa. 2003 - Assistant professor of exercise science
Patricia B. Westphal - B.A., Kalamazoo College; M.A., Western Reserve University; Ph.D., Ohio State University. 1989 Associate professor of French
David H. Williams - B. Mus., Arizona State University; M. Mus., University of Southern California; D.M.A., University of Wisconsin. 1979 - Professor of music
Edmond E. Willis - B.A., M.A., San Jose State College; Ph.D., Iowa State University. 1967 - Professor of psychology
Jamie Wilson - B.A., M.A., University of Iowa. 2003 - Visiting instructor of Spanish
Jonathan L. Witt - B.A., Trinity College; M.A., Ph.D., Loyola University. 1993 - Associate professor of sociology
Lori L. Witt - B.A., Trinity College; M.A., Ph.D., Loyola University Chicago. 2001 - Assistant professor of history
Xi Chen - B.S., Nankai University; M.S., Ph.D., State University of New York at Buffalo. 2004 - Assistant professor of mathematics, computer science, and physics
Keith M. Yanner - B.A., Southern Illinois University, Edwardsville; Ph.D., Washington University. 1991 - Associate professor of political science
Steven J. Ybarrola - B.A., Bethel College; M.A., Ph.D., Brown University. 1991 - Chair of division of behavioral science, Frank and Grace Moore Endowed Chair in Anthropology, professor of anthropology
James J. Zaffiro - B.A., Marquette University; M.A., Ph.D., University of Wisconsin; Fulbright Award (1985). 1983 - Chair of division of behavioral sciences, professor of political science
M. Louise Zaffiro - B.A., Bluffton College; Ph.D., University of Wisconsin. 1980 - Chair of division of natural sciences, professor of chemistry

## Endowed chairs

## Cox-Snow Endowed Chair in Stringed Instruments

Established in 1963, the Henry G. Cox and Queene Snow-Cox Music Foundation advances and promotes the instruments of the violin family in the field of absolute music. It memorializes in perpetuity the Queene Snow-Cox's loyal discipline to the violin/cello culture of Henry G. Cox's years of tutelage.

The member of the faculty assigned to this chair is known as the Henry G. Cox and Queene Snow-Cox Professor of the Instruments of the Violin Family.

## M. Joan Kuyper Farver Endowed Chair in Music

Established in 1988, the M. Joan Kuyper Farver Endowed Chair in Music advances and promotes the education program of Central College. It honors in perpetuity the contributions of M. Joan Kuyper Farver to the economic and cultural life of Central College and the people of Pella. It represents a firm commitment to the arts and the belief that music is a vital part of the Central experience.

The member of the faculty assigned to this chair is known as the Joan Farver Professor of Music. The assignee must have earned the doctoral degree, be recognized in the profession and have an established reputation as an excellent teacher.

## Frank and Grace Moore Endowed Chair in Anthropology

Established in 2000, the Frank and Grace Moore Endowed Chair in Anthropology recognizes and perpetuates the Moore's support for the teaching of anthropology at Central College. Benefactors Frank Moore, a Central graduate, and his wife Grace, an anthropologist, believe that extensive knowledge of the origins and development of human societies will lead to a greater understanding of present-day cultural relationships; this endowed chair is the embodiment of that belief manifested in support of the faculty and curriculum at Central.

## Dr. Jacob and Gela Schnucker Sessler Chair in Philosophy and Religion

Established in 2002, the Dr. Jacob and Gela Schnucker Sessler Chair in Philosophy and Religion memorializes in perpetuity the life and work of Jacob and Gela Schnucker Sessler, distinguished alumni of Central College. The chair serves as a continual reminder of their high standards, principles, and expectations for teaching and scholarship. On behalf of the donors, it will provide testimony to the generous and meaningful benefaction toward the financial stability of Central College.

The faculty member assigned to the chair must hold the doctoral degree, be recognized in the profession, and have an established reputation as an excellent teacher. He or she must also have attained the rank of professor or associate professor and have an appointment with tenure.

## Kenneth J. Weller Distinguished Professorship of the Liberal Arts

Established in 1990, the Kenneth J. Weller Distinguished Professorship of the Liberal Arts honors the contributions of Kenneth J. Weller, former president of Central College (1969-1990), to the people of the college and the community of Pella. It serves as a continuing reminder of his commitment and as an effective stimulus to the traditional liberal arts component of the educational objectives and program of the college.

The Weller Professor must have earned the doctoral or equivalent degree, be an acknowledged competent professional, have an established reputation as an excellent teacher, have attained tenure and be in the rank of professor or associate professor.

The assignee should be recognized among students and professors as one of the college's outstanding teachers; be particularly known for an invitational approach to teaching which inspires in students an unusual level of intellectual curiosity and enthusiasm for learning; demonstrate excellence in performance and a sense of fulfillment in the teaching of those lower level courses which enroll students from a wide diversity of departments; and should be a force within the faculty for promotion of the college's general objectives, including advocacy of innovative teaching, academic excellence, the honors programs, cross-cultural emphases, interdisciplinary courses, co-curricular activities, etc.

## Faculty emeriti

Agnes Andreassian - A.A., Aleppo College; B.S., M.S., M.A., American University of Beirut; M.Sc., University of British Columbia; M.Sc., University of Washington; Ph.D., University of Oregon. 1979 - Professor emerita of mathematics/computer science
Mina Baker-Roelofs - B.S., M.S., Iowa State University. 1946 - Associate professor emerita of home economics
Arthur J. Bosch - B.A., Central College; M.S., Ph.D., University of Wisconsin. 1958 - Professor emeritus of chemistry
Dorothy K. Bosch - B.A., Hope College; M.S., University of Wisconsin. 1972 - Assistant professor emerita of developmental reading
John B. Bowles - B.A., Earlham College; M.S., University of Washington; Ph.D., University of Kansas. 1969 - Professor emeritus of biology
Bette L. Brunsting - B.A., Central College; M.A., Northwestern University. 1964 - Associate professor emerita of communication
Donald T. Butler - B.A., Western Michigan University; M.S., Ph.D., University of Wisconsin. 1953 - Professor emeritus of economics
Ronald Byers - B.S., Ph.D., Washington State University. 1970 - Associate professor emeritus of physics
Lee J. Collins - B.A., College of Wooster; M.Ed., University of Pittsburgh; Ed.D., Rutgers University. 1979 - Professor emerita of education
John A. De Jong - B.A., Central College; M.A., Ph.D., University of Iowa. 1968 - Professor emeritus of history
Joline D. De Jong - B.A., Central College; M.A., Arizona State University. 1969 - Assistant professor emerita of art
Barbara V. Dieleman - B.A., M.S., Drake University. 1963 - Associate professor emerita of education
Davis L. Folkerts - B.A., Central College; S.M.M., Union Theological Seminary; D.M.A., University of Iowa. 1967 - Professor emeritus of music
Leland D. Graber - B.S., Wheaton College; M.A., University of Minnesota; Ph.D., Iowa State University. 1968 - Professor emeritus of mathematics
James W. Graham - B.A., Tarkio College; M.A., Harvard University. 1950 - Associate professor emeritus of English
Laurence Grooters - B.Mus., B.A., University of Redlands; S.M.M., Union Theological Seminary
1950 - Professor emeritus of music
Marianne M. Haydon - B.A., Pacific Lutheran University; M.A., University of Washington. 1964 - Assistant professor emerita of German
Harriet M. Heusinkveld - B.A., Central College; M.A., Ph.D., University of Iowa. 1944 - Professor emerita of geography
Donald M. Huffman - B.S., Pittsburg State University; M.S., Kansas State University; Ph.D., Iowa State University; Visiting Scholar, Columbia University; Exchange Professor, University of Hawaii-Hilo (1984-85). 1957 - Professor emeritus of biology
Maxine Fish Huffman - B.A., James Millikin University; M.S., Pittsburg State University; M.S., Ph.D., Kansas State University; Ed.D., Columbia University. 1953 - Professor emerita of English
Thomas E. Iverson - B.A., Westmont College; M.A., Washington University; Ph.D., Claremont Graduate School. 1976 - Provost and senior vice president, professor emeritus of mathematics
George Lauber, Jr. - M.A., University of Chicago; M.A., University of Stockholm. 1956 - Associate professor emeritus of sociology and anthropology
Edith Sedrel Le Cocq - B.A., Central College; M.A., University of Iowa. 1943 - Associate professor emerita of music
Donald A. Maxam - B.A., Hope College; B.D., New Brunswick Theological Seminary; Ph.D., Princeton Theological Seminary. 1963 - Professor emeritus of mathematics
Donald V. Meyer - B.A., Central College; M.S., Ph.D., University of Iowa. 1950 - Professor emeritus of art
John H. Miller - B.A., DePauw University; M.A., Ph.D., Indiana University. 1969 - Professor emeritus of English
Lawrence F. Mills - B.A., Drake University; M.F.A., University of Georgia; Ph.D., University of Iowa. 1950 - Professor emeritus of art
Allen L. Moen - B.A., Pacific Lutheran University; M.S., Ph.D., Indiana University. 1969 - Professor emeritus of physics
Denise B. Murray - B.A., Rockford College; Licence'es Lettres, University of Paris; D.E.A.V., Universite de Provence. 1970 Associate professor emerita of French
William W. Paul - B.A., Temple University; B.D., Faith Theological Seminary; M.A., University of Pennsylvania; Ph.D., Columbia University. 1960 - Professor emeritus of philosophy
Lieselotte T. Ritter - B.A., Oakland University; M.A., Ph.D., Michigan State University. 1979 - Professor emerita of German
Robert A. Schanke - B.A., Midland College; M.A., Ph.D., University of Nebraska. 1976 - Professor emeritus of theatre
Ronald M. Schipper - A.B., Hope College; M.A., University of Michigan. 1961 - Associate professor emeritus of physical education
James G. Smalley - B.A., Illinois Wesleyan University; M.A., University of Illinois. 1957 - Associate professor emeritus of Spanish

Mildred R. Steele - B.A., Simpson College; M.A., Drake University; Ed.S., Ph.D., University of Iowa. 1977 - Assistant professor emerita of English
Rudy Thies - B.A., M.A., Western Michigan University; M.A., University of Oregon. 1966 - Registrar, assistant professor emeritus of mathematics
Carol J. Vruwink - B.A., Central College; M.S., Drake University. 1979 - Associate professor emerita of accounting
John A. Vruwink - B.A., Central College; M.F.A., Drake University. 1965 - Professor emeritus of art
John C. Walvoord - B.A., Central College; M.S., University of Colorado. 1965 - Associate professor emeritus of physical education
William G. Wing - B.A., B. Mus., Oberlin College; M.A., University of Chicago; Ph.D., University of Iowa. 1935 - Professor emeritus of French

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