When a prospective student seeks the right higher education venue, what does she or he really look for? High academic standards? A spiritual experience? A place to make friends? A tradition of excellence? The answer probably is—all these and more. I am pleased to say that Union College provides numerous positive features that are significant to a successful college experience. I invite you to explore this bulletin as well as talk to faculty, staff or administrators, in order to chart your course for a successful experience at Union College and determine the outcomes you wish to achieve.

Union College can claim many favorable features to make your educational experience exceptional, and build on many strengths. Here are some examples. The faculty-student ratio allows for personal interaction and attention. There are numerous opportunities for leadership development as well as chances to explore possible careers. Fun is not forgotten. But with the fun come opportunities to enhance skills and interests, whether in music, athletics, writing, speaking, community service or any number of such areas of endeavor. Union College is a place to examine spiritual values and experience spiritual growth through classwork directed by dedicated faculty, small groups, participation in church and other programs, such as local and international mission experience. Above all, Union College has a long tradition of academic excellence, as evidenced by the many graduates who have excelled in their professions.

Union College is grounded in solid traditions but never rests on these—it is known to be progressive in ideas, practices, knowledge development, and service. This bulletin is just the beginning of sharing the benefits of attending Union College, and I invite you to continue your exploration of what the college has to offer that’s a good match for you.

John Wagner
President
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academic year calendar 2013–2014

2013

May 6    Summer Classes Begin
Aug. 18-25 New Student Orientation
Aug. 25   Registration for Fall Semester
Aug. 26   First Semester Classes Begin
Aug. 26-Sept. 4 Late Registration Period ($50 Fee)
Aug. 30   Last Day to Complete Summer Graduation Requirements
Sept. 2   Labor Day Holiday
Sept. 4   Last Day to Drop (no record)/Add Classes
Oct. 11   Fall Break
Oct. 31   Last Day to Drop a Class/Receive a “W”
Nov. 6    Pre-registration for Second Semester Begins
Nov. 25-29 Thanksgiving Vacation
Dec. 16-18 First Semester Examinations
Dec. 19   Last Day to Complete December Graduation Requirements

2014

Jan. 12   Registration for Spring Semester
Jan. 13   Classes Begin
Jan. 13-21 Late Registration Period ($50 Fee)
Jan. 20   Martin Luther King Day Holiday
Jan. 21   Last Day to Drop (no record)/Add Classes
Feb. 13-14 Winter Break
Mar. 10-14 Spring Vacation
Mar. 27   Last Day to Drop a Class/Receive a “W”
April 9   Pre-registration for Fall Semester Begins
May 5-7   Second Semester Examinations
May 9-11  Commencement Weekend
mission and vision

Union College is a Christian college operated by the Seventh-day Adventist Church, founded in 1891 in Lincoln, Nebraska.

VISION
Union College will be recognized as a passionately Christ-centered community where students excel in learning, gain professional competence, and prepare to influence the future with faith, confidence and integrity.

MISSION
Inspired by faith in Jesus Christ and dedicated to a personal student-focused community, Union College empowers students for learning, service and leadership.

VALUES
Core values are not expressions of who we want to become, but who we are. At Union College, our beliefs serve as the soil from which our vision and mission flower.

we believe

LEARNING
Learning is a life-long process rather than a graduation destination. We model continual learning and active exploration by uniting theory and practice and connecting the new with the familiar.

DISCIPLESHP
Life is best experienced by serving God, applying a biblical world-view, and sharing God’s love with others. We commit time and energy to developing personal relationships with God that are genuine, creative and intentional.

SERVICE
Service is our privilege. We foster a culture of volunteerism, gladly reaching out to our local and global communities because we enjoy sharing and honor the example of servant leadership set for us by Jesus Christ.

MENTORING
Mentoring provides support for development of the whole person. We inspire each other to achieve, believe, and make wise choices.

DIVERSITY
Diversity enriches campus life. We create cordiality of discourse, encourage respect for differences, promote inclusiveness, and welcome diversity among employees, students and leaders.
COMMUNITY
We best learn and develop in the context of a diverse global community. We seek opportunities to strengthen our network of alumni, employees, families, church and business friends while welcoming new collaborative connections.

STEWARDSHIP
Union College has been entrusted by God with stewardship of His resources. We respect our students and care for our employees while maximizing our financial and physical capital in service of our mission.

description

Founded in 1891, Union College is a four-year coeducational college offering programs leading to baccalaureate and associate degrees in arts and sciences, professional fields and a Master of Physician Assistant Studies. Selected programs are also available in cooperation with local universities and colleges. Owned and operated by the Mid-America Union Conference of the Seventh-day Adventist Church, Union is located in Lincoln, Nebraska, the state capital.

For more than a century, education at Union College has focused on the whole life of the student. The result is an academic style that includes small courses taught by professors, an emphasis on experiential learning, and active student leadership in spiritual and social activities. This emphasis draws hundreds of students each year from more than 40 states and nearly 30 countries. The college welcomes students whose ethnic and cultural backgrounds broaden campus perspectives.

Union’s faculty and staff believe that God is the Creator, Sustainer and Savior of humankind; that human beings are the crowning act of His creation and that each person is imbued with intelligence and assets which should be dedicated to serving and glorifying God. The ultimate aim is that students will accept the assurance of eternal salvation offered through Jesus Christ and that this acceptance will foster a desire to honor God, to serve others, and to spread the good news of God’s love.
accreditation

Union College Is Accredited by
• The Higher Learning Commission of the North Central Association
  230 South LaSalle Street, Suite 7-500
  Chicago, IL 60604-1413
  312.263.0456
  www.ncahlc.org
• Accrediting Association of Seventh-day Adventist Schools, Colleges, and Universities.
• Accreditation Review Commission on Education for the Physician Assistant, Inc.
• Commission on Collegiate Nursing Education
• Council on Social Work Education
• National Council for the Accreditation of Teacher Education

Union College Is a Member of
• American Alliance for Health, Physical Education, Recreation and Dance
• American Association of Colleges for Teacher Education
• American Association of Colleges of Nursing
• American Association of Collegiate Registrars and Admissions Officers
• American College of Sports Medicine
• Adventist Library Information Cooperative
• Association of Independent Colleges and Universities of Nebraska
• Association for Institutional Research
• Association of Physician Assistant Programs
• National Collegiate Honors Council
• National Council on Social Work Education
• NEBASE (Regional OCLC Consortium)
• Nebraska Academy of Sciences
• Nebraska Association of Colleges for Teacher Education
• Nebraska Association of Collegiate Registrars and Admissions Officers
• Nebraska Association of Student Financial Aid
• Nebraska Council on Teacher Education
• Nebraska Independent College Foundation
• North Central Association of Colleges and Schools
• SIRSI Midwest Users’ Group
• United States Gymnastics Federation
• Upper Midwest Honors Council

Union College Is Approved by
• Nebraska Department of Education
• Nebraska State Board of Nursing
admission to the college

Union College welcomes applicants who desire to study in a Christian environment and who demonstrate intellectual curiosity and strength of character. The college is committed to equal education for men and women of all races and does not discriminate on the basis of disability, age, gender, race, color, or national origin in its educational and admissions policies. Admission is granted to applicants who meet admission requirements and whose principles and interests are in harmony with the ideals and standards of the college.

Religious affiliation is not a requirement for admission, however all students are expected to abide by the policies and standards of the college.

FRESHMAN ADMISSION

Applicants to Union College should provide proof of graduation from high school or completion of a comparable home school curriculum, or satisfactory scores on the GED.

Graduates from a high school should meet the following standards:

- A minimum high school grade point average (GPA) of 2.50 on a 4-point scale and
- A minimum ACT composite score of 18 or a combined SAT score of 1290.
- Applicants from students who graduated from recognized secondary schools in other countries or with government credentials (e.g., the Hong Kong HKDSE) and who lack the ACT may be evaluated by other standards.
- Applicants applying on the basis of high school equivalency using the General Education Development Test (GED) must achieve an average score of 500 with no score below 450.
- Students whose native language is not English and who do not meet the minimum ACT English score of 17 (or equivalent) must demonstrate current English proficiency by scores on a standardized test taken within the past two years. The college accepts the following examinations and for regular admission requires minimum scores of:
  - TOEFL: Internet-based (iBT), 79; International paper-based, 550; IELTS 6.5.
  - Applicants with an iBT score between 60 and 79, or an IELTS between 5.5 and 6.0 will be considered for provisional admission that involves coursework preparatory to freshman composition while taking selected college courses. The regular admission requirements must be met within two years.

Applicants must submit the following as part of the admission process:

- A completed application for admission.
- An official final high school transcript with date of graduation is required prior to enrollment at Union College. Home school students should submit a home school transcript and an
explanation of the home school curriculum with date of completion. Official transcripts are required from any schools attended.

RECOMMENDED HIGH SCHOOL CURRICULUM

4 years of English
2 years of algebra
1 year of geometry
2 years of laboratory sciences
2 years of social sciences
1 unit of computer applications

TRANSFER STUDENT ADMISSION

Transfer applicants must submit the following as part of the admission process:

• A completed application for admission.

• Applicants who completed the equivalent of 24 semester hours including one semester of English composition at a regionally accredited institution with a cumulative minimum GPA of 2.00 are not accepted based on high school transcripts and ACT/SAT test scores, though the latter may be necessary for placement in math and English courses.

• Official transcripts are required from all schools attended.

• Transfer students whose native language is not English may demonstrate their language proficiency through the standards listed for admission or by the successful completion of a full year of English composition.

PROVISIONAL ADMISSION

Applicants who do not meet the published standards may receive provisional acceptance through the Teaching Learning Center.

In this case, the applicant will be required to enroll in an academic support program offered through the Teaching Learning Center.

Freshman Development is designed to help the transition to college with the support of an academic coach.

Students on Freshman Development will complete the following requirements:

• Participate in PACC (Personal Academic College Coaching) for fall semester. See Academic Resources section Teaching Learning Center.

• Limit course loads to a maximum of 15 hours.

• Complete the course TLCM 100 Bridge: Building Connections, fall semester.

• Complete at least 24 semester hours of credit and achieve a minimum cumulative GPA of 2.00 by the end of the spring semester.

Integrated College Experience (ICE) is created to support and assist students who need preparatory coursework in English and mathematics. This program helps initiate the student to college by providing a holistic approach to their first college experience. Students accepted on the ICE program will sign the ICE learning community contract and do the following:

• Participate in one year of the PACC program.

• Take 15 credit hours from the ICE approved class schedule.

• Complete 21 semester hours with a minimum cumulative GPA of 2.00 during the first two semesters.

• Participate in the ICE learning community.
Academic Success and Advising Program (ASAP) is designed to help transfer or current students needing to improve their academic performance while on academic probation. Students in this program will complete the following requirements:

• Participate in PACC;
• Limit their course loads to a maximum of 15 hours;
• Earn a semester GPA of 2.00 to remain enrolled.

INTERNATIONAL STUDENT ADMISSION

Beyond the regular admission standards, international applicants should ensure that the original documents are in English. If that is not possible, the applicant will need to obtain a certified translation. All transcripts from foreign universities must be sent to www.wes.org or www.accredit.org for credit evaluation.

Additional requirements to be met before an I-20 is issued include providing an Affidavit of Support (available at www.ucollege.edu/international), bank statements as proof of sufficient income, a deposit of $5000, and a copy of the applicant’s passport photo page.

For information regarding application, visas, employment, scholarships, housing and insurance, please contact the Director of Admissions, Union College, 3800 South 48th Street, Lincoln, Nebraska 68506 USA, or go to www.ucollege.edu/international.

NON-DEGREE STUDENTS

Students from other institutions and individuals not seeking a degree from Union College may request to take up to six hours of courses per semester without meeting the regular admission requirements.

GUARANTEED EDUCATION PROGRAM

The Guaranteed Education program permits Union College graduates who earned at least 64 hours in residence to receive free tuition when initiating an additional major between two years and six years after graduation. Some restrictions apply:

• Free tuition is limited to courses in the major.
• The professional phases of Health Sciences, Nursing, and International Rescue and Relief programs are not covered under this program.
• Because personalized and general studies degrees are not college-designed programs, their graduates are not covered under this program.
• Students paying regular tuition will receive priority for registration in limited-enrollment classes and laboratory sections.
• Students must maintain satisfactory academic progress each semester (2.0 minimum semester GPA) in order to continue in the Guaranteed Education program.

BACCALAUREATE BONUS PROGRAM

Union’s Baccalaureate Bonus program offers qualified students who hold a bachelor’s degree or its equivalent the opportunity to take additional undergraduate classes or even to complete another undergraduate degree at half the current tuition rate. Students electing to enter the program may carry either full- or part-time class loads.
The following applies:

• Applicants must submit an official transcript verifying completion of the previous degree.

• The Baccalaureate Bonus program's half-tuition rate applies only to fall and spring semester courses.

• Discounts are applied to tuition only and do not apply to laboratory or other fees, clinical coursework, off-campus courses, individual lessons, or the professional phases of the Health Science program, the Nursing program or the International Rescue and Relief program.

• International students who hold an equivalent degree to the baccalaureate and meet the English language requirement may qualify for the discount.

• Students paying full tuition will receive priority for registration in limited-enrollment classes and laboratory sections.

• Baccalaureate Bonus students must maintain satisfactory academic progress each semester (2.0 minimum semester GPA) in order to continue in the Baccalaureate Bonus program.

FINANCIAL CONSIDERATIONS

Guaranteed Education and Baccalaureate Bonus

• Applicants to the Guaranteed Education and Baccalaureate Bonus programs must have paid in full any previous account balances held with Union College.

• Students in the programs are not eligible to receive any other Union College scholarships or financial awards.

• The student remains responsible for other expenses, summer school tuition and fees, which unlike regular tuition are not reduced.

• On-campus employment is not usually available to students in either program. However, based on campus employment needs, the Student Finance Committee may approve a student’s application for employment.

• Students pursuing degrees assume full financial responsibility for classes taken at other colleges or universities.

• Other restrictions may apply. Contact Enrollment and Student Financial Services.
Academic information

Academic policies are provided to assist students in completing their academic programs as efficiently as possible and to support them in managing their course work from semester to semester.

ACADEMIC ADVISING

Graduation involves meeting a variety of requirements and deadlines beyond completing the courses appropriate for a major. To assist in meeting these challenges, each Union College student is appointed a faculty advisor. Besides guiding course selection and general academic planning, advisors assist a student’s orientation to campus life and discuss broader personal concerns.

Ultimate responsibility for planning the academic program and fulfilling graduation requirements lies with the student.

ACADEMIC COURSE LOAD

The semester system expresses courses in semester hours, each hour consisting of one 50-minute class period per week and traditionally two hours of study outside class. A laboratory period of two and one-half to three hours equals one class period.

An average of 16 hours per semester over four years achieves the 128 hours needed for a bachelor’s degree. However, the minimum full-time course load of 12 hours meets the requirements of financial aid, immigration, social security and veterans authorities. To provide greater study time per course, students in the freshmen development and academic probation programs are limited to 15 hours, and the recommended freshman maximum is 16 hours. Registration for more than 17 hours requires permission of the academic advisor, the division chair, and Academic Administration.

CLASSIFICATION OF STUDENTS

- Freshman—admitted
- Sophomore—at least 24 semester hours
- Junior—at least 56 semester hours
- Senior—at least 92 semester hours
- Graduate—enrolled in a master’s program
- Other—special students, guest students and others not seeking a degree enrolled for six hours or less.

COURSE NUMBERS

Course numbers indicate the designated level of the course from the 100-level for first-year students through the upper division levels of 300 (junior) and 400 (senior). The 500- and 600 levels are designated for masters courses. Courses numbered below 100 are considered developmental and do not apply toward the 128 semester hours required for graduation. Similarly, grades in these courses do not affect a student’s grade point average (GPA).

PREREQUISITES FOR ALL UPPER DIVISION COURSES

Successful completion of ENGL 112 College Writing II and sophomore class standing are required before enrolling in any 300-400 level course.
AUDITING COURSES

Students may register to audit a course on a space-available basis. Certain courses, including Nursing and most laboratory courses may not be audited. No credit is given for courses audited, and the tuition is reduced. Those wishing to change from credit to audit, or audit to credit, must do so during the add-drop registration period each semester or during the first two days of summer sessions.

NEW STUDENT ORIENTATION

New student orientation provides an introduction to important elements of the college experience, extending from academic preparations to social activities and spiritual programs. It also introduces the services and resources available to students. Orientation is offered each fall before registration and as announced for the spring semester. First-year students are required to attend, and register for a one-semester-hour course linked to it, while an abbreviated program is available for transfer students. Peer advisors involved in the program help with registration and in the transition to college life.

REGISTRATION

All students are encouraged to consult with their advisors and then reserve courses during the pre-registration periods designated in the college calendar. Other items such as financial aid clearance also may be completed before the formal registration period. Students are officially registered when all items on the registration guide have been completed.

At the end of the add-drop period, reservations for courses are canceled for students who have not completed registration or made other arrangements.

LATE REGISTRATION

A late fee will be applied to students initiating registration after the first day of classes or failing to complete registration during the registration period. Late registrants may be limited to a reduced course load and will be held responsible for missed work.

CHANGES IN REGISTRATION

ADD/DROP

Students may add courses already in progress or drop courses from their schedule during the first six days of classes only (two days in summer session). Thereafter, permanent academic records are established. Students who are considering changing courses should consult with their advisors and attend the new course as soon as possible.

WITHDRAWAL

Courses dropped up to the published deadline will receive a designation of W for withdrawal. Letter grades will be assigned for all students after that date. Withdrawal deadlines are set by the Records Office for courses that do not meet for a full semester.

Students considering withdrawal from a course should contact Student Financial Services to determine if financial aid funding could be jeopardized.

ADMINISTRATIVE WITHDRAWAL

The college administration may grant an administrative withdrawal (W) from a course or courses for a student in emergency or unexpected circumstances. Administrative withdrawals are not granted to avoid failing grades or for circumstances that should have been addressed by
a regular withdrawal. A student who receives an administrative withdrawal in all courses must demonstrate evidence of recovery from the circumstances before returning to college.

TRANSFER CREDITS

A student transferring from another regionally accredited college or university may receive credit for course work elsewhere subject to the following conditions:

• An official transcript must be received directly from the other institution;
• Transfer credits must have a grade of C- (1.67) or above;
• Remedial, developmental, or basic skills courses are not transferable;
• Vocational and technical courses are not automatically transferred, but may be accepted if approved by the appropriate academic division;
• transfer credits from two-year institutions are limited. At least 56 hours must be taken from a four-year institution.

When transfer courses are comparable to Union College requirements, transfer credits may meet requirements for general education, a major or a minor. Administrative approval may be required if the course is not strictly comparable, and the student is expected to provide evidence such as course description or syllabus.

COURSE TRANSFERS FROM INSTITUTIONS WITHOUT REGIONAL ACCREDITATION

Courses from institutions without regional accreditation do not generally transfer. However, on occasion credits may be transferred if validated by the division chairs of both the discipline and the student’s major. Provision of a syllabus and other materials may be required for the evaluation. It is the student’s responsibility to file academic petition forms in the Records Office. Credit is not granted for non-college sponsored instruction or life experiences.

CREDIT BY EXAMINATION

Three types of examinations are available to demonstrate student learning and earn academic credit based on the student’s performance level. Credit may not exceed credit granted for similar classes offered at Union College.

Credit will not be given if a student has ever enrolled in the course even if it was not completed, nor if the student has taken a more advanced course in the same subject with or without credit. Exams may be taken only once.

Applications for CLEP and Proficiency Examinations are available in the Records Office.

ADVANCED PLACEMENT (AP)

Advanced Placement (AP) credit may be granted to students who have passed the College Board AP Examinations with a score of 4 or higher. Language and Composition will substitute for College Writing I. Literature and Composition will substitute for literature. No AP course may substitute for College Writing II.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Union College grants credit for CLEP subject exams as recommended by the Commission on Educational Credit of the American Council on Education. Requests for CLEP tests should be directed to the Career Center. A recording fee is charged for
credits earned on CLEP examinations (see fees).

- Prior to taking any CLEP examinations, permission must be obtained from the director of records.
- CLEP examinations are not available after students have completed 56 hours of college credit.
- Credit by CLEP examination is not available for College Writing I and II.
- Credit by CLEP is not granted for the general tests in Humanities, College Mathematics, Natural Sciences, or Social Sciences and History.
- CLEP credit is not available for elementary language tests in one’s native tongue.
- CLEP credits will not necessarily satisfy requirements for a major or minor. The student seeking to use CLEP credit for a major or minor should obtain program approval before taking the test.

DIVISIONAL EXAMINATIONS

Proficiency examinations may be arranged for some, but not all, courses offered at Union College. A course already taken cannot be replaced by a proficiency examination.

ALTERNATIVE PROGRAMS

GENERAL STUDIES

The Bachelor of Science degree in general studies allows students to develop academic knowledge and skills in several areas of study. Except for completion of the major, the graduation requirements for bachelor’s degrees must be met. Because general studies does not include a recognized major, the college does not extend the Guaranteed Education option to students who graduate under this program.

General studies courses are taken in addition to the general education (LEAD) requirements. A minimum of 24 semester hours must be earned in one academic division and 12 semester hours each from two other academic divisions. A minimum of 15 semester hours numbered at the 300 or 400 levels are required. All qualifying courses must be completed with a grade of C or higher.

PERSONALIZED DEGREE

The personalized degree option is intended for a student who, in consultation with an advisor, wishes to design and fulfill a unique program of study that achieves individual educational goals. An individually designed program may prepare for employment or further study. However, the program carries no endorsement or recommendation for such results by the college, and the Guaranteed Education option is not available to students who graduate under this program.

The student should present a proposed curriculum during the first semester of the junior year. This proposal must be approved by the Academic Council.

Requirements for a bachelor’s degree in this program are broadly the same as for a regular degree with variations in the general education requirements also approved by Academic Council. Personalized degree students may utilize courses offered on other campuses for which the student is financially responsible. The residency requirement is that 64 hours of this degree must be taken at Union College.
POST-BACCALAUREATE PROFESSIONAL PROGRAM

Exceptional Union College students occasionally gain acceptance into professional programs such as medicine, dentistry or law before completing a bachelor’s degree. Union College will confer the appropriate bachelor’s degree upon those who

• Apply for a Union College degree within two years after successfully completing the first-year of a post-baccalaureate professional program;
• Complete the general education requirements as outlined in this bulletin;
• Complete a minimum of 96 semester hours of college-level courses, including 20 or more hours of 300-400 level;
• Meet the residency requirement; and
• Arrange verification from the professional school that the applicant has successfully completed the first year of the professional program and is eligible to continue.

STUDY ELSEWHERE

Students wishing to take a course at another institution while a registered student at Union College should first counsel with their academic advisor or division chair.

To ensure that the proposed coursework elsewhere will satisfy the course of study at Union College, an academic petition must be submitted to the director of records prior to enrolling at the other institution. Failure to do so may result in credit not being applied toward graduation.

GRADES

Grades and unofficial transcripts are available at midterm and after the end of each semester on the Union College Self-Service Web site. The midterm grade is an indication of progress. Only the final grade at the end of the semester is recorded on the official transcript.

Students are responsible for reviewing their Self-Service accounts on a regular basis to monitor their academic progress and to ensure the accuracy of the academic information on file in the Records Office.

PARENTAL ACCESS

Students may also give the same Self-Service access to parents or guardians.

GRADE AND DEFINITION

A The student demonstrated an excellent mastery of the material and met course objectives in an excellent manner.

B The student demonstrated a commendable mastery of the material and met course objectives in a commendable manner.

C The student demonstrated a satisfactory mastery of the material and met course objectives in a satisfactory manner. A grade of C- or below may not apply for a course in a major, minor or professional education.

D The student has not demonstrated a satisfactory mastery of the material, but met course objectives in a minimal manner.

F The student failed to master the material or meet course objectives.
academic information

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<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>.67</td>
</tr>
<tr>
<td>F</td>
<td>.00</td>
</tr>
</tbody>
</table>

OTHER DESIGNATIONS

- AU Audit
- CR Passing (C- or better) in a credit/no credit course
- NC Failing in a credit/no credit course
- W Withdrawal before the deadline to drop classes
- I Incomplete (see below)
- IP In progress (see below)
- NR No report from the instructor at the time the grades were processed
- FA Failure due to the abandonment of class attendance.

GRADE POINT AVERAGES

The cumulative grade point average is computed by totaling the grade points of all courses and dividing by the total semester hours of courses for which grades are received. When calculating graduation and honors requirements, GPAs are not rounded up. Thus, a student with a GPA of 1.997 does not meet the graduation requirement of 2.00; likewise, a GPA of 3.749 will not satisfy the requirements for the Dean’s List (3.75).

REPEAT COURSES

When a course taken at Union College is repeated, the higher grade is used. Both the original and repeat grades become part of the student’s permanent record, while only the highest grade and credits earned are computed in the cumulative grade point average and in the total credits earned.

INCOMPLETE

Students may petition to receive the designation of incomplete (I) in case of illness or unavoidable circumstances. An I will be recorded only if the student has already completed the major requirements of the course. A request for an incomplete must be approved by the instructor and division chair. It must be submitted before the final examination week.

The deadline for course completion is no later than the end of the following term (not including the summer term). Failure to meet this contract deadline will result in recording of the grade as indicated on the request. Forms are available in the Records Office.

IN PROGRESS

The designation in progress (IP) is given for approved courses whose requirements likely extend beyond the given semester, typically due to extensive research, field or clinical experiences, or internships. The deadline for completion may vary but not exceed one year.

If the work is not completed within the designated time, a grade based upon completed work will be submitted by the instructor. IP designations must be changed to letter grades prior to the student’s graduation. Courses meeting the purpose of the IP designation are recommended by the division involved
and approved by the Academic Council.

**CHANGES OF ASSIGNED GRADES**

After a final grade has been recorded, an instructor may request a change in the grade if there has been an error in calculating or recording the grade. Grade changes are not appropriate for assignments turned in beyond the end of the semester.

To dispute a grade, the student should first contact the teacher and follow the grievance procedures outlined in the Student Life and Services section. Grades must be disputed within 45 calendar days of the date the grade is posted.

**DEAN’S LISTS**

Students who complete a minimum of 12 hours during the semester are recognized for academic performance in these categories:

<table>
<thead>
<tr>
<th>Recognition</th>
<th>GPA Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean’s Distinguished List</td>
<td>3.90 – 4.00</td>
</tr>
<tr>
<td>Dean’s List</td>
<td>3.75 – 3.89</td>
</tr>
</tbody>
</table>

Students with designations or grades of I, NC, or below C- are not included.

**ACADEMIC SANCTIONS**

**ACADEMIC PROBATION**

A student is placed on academic probation if the cumulative GPA falls below 2.00. Academic probation is a serious matter, and a student will be suspended if the current semester GPA falls below 2.00 while on probation.

To strengthen their scholastic performance, students on academic probation must participate in the Academic Success and Advising Program (ASAP) through the Teaching Learning Center. This provides individual testing and coaching to identify strategies for success in coursework. Students on ASAP are required to:

- Limit their class load to a maximum of 15 hours;
- Renegotiate financial agreements in case of loss of financial aid;
- Meet the ASAP requirements including payment of the ASAP semester fee.

A student whose cumulative GPA falls below 2.00 or who fails to complete successfully two-thirds of the attempted credits will lose eligibility for federal financial aid, as detailed in the Satisfactory Progress paragraphs of the Financial Aid section.

**ACADEMIC SUSPENSION**

A student will be suspended from the college, with possibility of appeal, if the semester GPA falls below 2.00 while on academic probation.

A student may also be suspended after one semester with a current GPA of less than 1.00.

Students who have been suspended for academic reasons may request readmittance to regular academic programs upon completion of a full semester (12 hours) of college-level study with a B- (2.67) average or above taken at another regionally accredited institution.

**ACADEMIC ALERT**

A student whose cumulative GPA remains above 2.00, but whose semester GPA falls below a C-level (1.67), is placed on Academic Alert. This involves limiting the subsequent semester to 15 hours, and participating in the coaching and counseling program at the Teaching Learning Center, for which there is a semester fee.
ACADEMIC DISMISSAL

A student readmitted to college after suspension who fails to maintain a satisfactory GPA is subject to dismissal which is final.

COURSE CANCELLATION

While every attempt is made to provide classes as scheduled, the college reserves the right to cancel any course as it deems necessary. This may include courses with insufficient enrollment.

ATTENDANCE

Union College faculty consider regular class attendance vital to learning. Students are expected to attend each class period, and each syllabus provides the policy for the course, which may include an automatic failing grade for absence from 20% or more class periods. Individual instructors are responsible for determining the degree to which missed classroom activities and assignments can be made up.

FINAL EXAMINATION SCHEDULE & EXCEPTIONS

The semester examination schedule found on the web indicates the date and time of final examinations. Requests for exceptions to the schedule must be made to the Vice President of Academic Administration by December 1 (fall semester) or April 15 (spring semester). A rescheduling fee applies (see Financial Information section).

STUDENT MISSION AND TASK FORCE CREDITS

Three semester hours of credit (UCSM 495 or UCTF 495) are granted for continuous service during the school year in the student mission or task force programs provided prior arrangements are made with the college chaplain. Credit (with a grade designation of CR) is assigned on the basis of satisfactory service. No tuition is charged.

Student mission and task force workers are considered half-time students (see UCSM and UCTF in Course Descriptions section).

VETERANS’ INFORMATION

As Union College is an accredited institution, course offerings have been approved by the Nebraska Department of Education State Approving Agency for benefits to veterans and other persons eligible under the various GI Bill programs administered by the department of Veterans Affairs (VA).

Enrollment in 12 or more credit hours is considered full-time training. It is the student’s responsibility to report any changes in enrollment. The college is also required to report promptly any changes in enrollment data affecting payment to the VA, such as students who are placed on academic suspension.

For those who qualify, Yellow Ribbon benefits are available at Union College.

For questions regarding veteran status and registration, please contact the Records Office.

INTEGRITY OF SCHOLARSHIP

The Union College community values high academic and ethical standards. Inspired by both Christian and scholarly principles, its students and faculty commit to exhibit integrity and truth in all academic endeavors, including the preparation of class assignments and taking examinations. Scholarship thus carries the broad expectation that no unauthorized aids were used. Specific dishonesty includes cheating on assignments or examinations, plagiarism (copying
of others' published works), excessive revision by someone other than the student, unauthorized collaboration, forgery of signatures, fabrication or unauthorized use of data, and the misuse of copyrighted material. In addition to exhibiting personal honesty in creating their own work, students should refrain from suspicious behavior or allowing others to use their works in a dishonest manner. When allegations of academic dishonesty are substantiated beyond reasonable doubt, the consequences may range from receipt of a failing grade to dismissal from the course or even expulsion from the college.

Course syllabi spell out specific consequences of dishonesty in individual courses. Teachers are expected to report incidents involving standards of integrity to the division chair and Vice President for Academic Administration. If a student feels unjustly charged with dishonesty, an appeal should follow the grievance policy provided in the Student Life and Services section.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act of 1974 provides for specific rights to students regarding the privacy of student educational records, including the right that records will only be shared with those employees who have a legitimate educational need.

The act explicitly permits colleges to disclose directory information without student consent. However, an individual student has the right to withhold disclosure of this information by notifying the director of records in writing.

Union College designates the following as directory information:

- Name;
- Home address;
- Local address;
- Email address;
- Home telephone number;
- Local telephone number;
- Birthday (month and day);
- Class level and major;
- Dates of attendance at Union College;
- Degrees and awards received at Union College;
- Academic recognition;
- Photograph;
- Institutions attended prior to admission to Union College;
- Participation in recognized activities and sports at Union College.

Union College will not disclose the contents of students' educational records to other parties without student consent except under circumstances allowed by the Family Educational Rights and Privacy Act (FERPA).

Educational records kept by any office of the college and directly related to a student are available for review by that student in agreement with the act. A written request that identifies the record(s) a student wishes to inspect should be submitted to the Director of Records or other appropriate official. Students may ask Union College to amend their educational records if information in them is incorrect, misleading or in violation of their privacy rights.

Students have the right to challenge the contents of an educational record under prescribed procedures and to file a complaint with
the U.S. Department of Education if there is a violation of the Act.

**ASSESSMENT**

Student learning is the central academic focus of the Union College mission. Assessment of that learning is vital to strategic planning and to maintaining an environment where students achieve the goals of their disciplines and value life-long learning.

The goal of the assessment program at Union College is to enhance the learning experience, to constantly improve the learning environment, and to ensure that resources for learning are adequate.

Assessment occurs in three areas:

- **Courses Assessment:** Professors assess their courses based on established program goals and objectives formalized as student learning outcomes;

- **Program Review:** Each academic program is reviewed and compared with external programs to ensure relevancy and currency. Each program is reviewed once every five years;

- **Division Review:** Each division conducts an annual review involving all division faculty. The review process assists each division in implementing change as a result of assessment.

**STUDENT RIGHT TO KNOW ACT GRADUATION RATE**

In accordance with the Student Right to Know Act, Union College annually releases its graduation rate. For the 2002-2005 academic school years, the four-year average student-right-to-know completion or graduation rate was 55%.

**TRANSCRIPTS**

Requests for transcripts must be made through the National Student Clearinghouse. A link is located on the Union College web page. Transcripts are released only when the student’s account has been paid in full. Transcripts may also be withheld if any payments on loans through the college are delinquent. The Financial Information section lists the current transcript fees to be paid at the time of the request.

**CHANGES TO CURRENT BULLETIN**

Subject to review by the Faculty Senate, the Academic Council may modify, delete or add to the current bulletin. Changes are effective prior to the publication of a new bulletin when officially announced. Both these changes and the bulletin itself are available on the Union College Web site www.ucollege.edu.
graduation requirements

The responsibility of meeting requirements for graduation rests primarily upon the student. Students should acquaint themselves with the various requirements in the bulletin and from the freshman year plan their college courses to meet them.

BULLETIN FOR GRADUATION

Students who maintain continuous residence may meet the requirements in the bulletin current at the time of initial registration or any bulletin published during the time of residence. Students who have discontinued their residence longer than two consecutive semesters must meet the requirements in effect when they return.

BACHELOR’S DEGREE REQUIREMENTS

Bachelor’s degrees are conferred upon students who have

- Completed successfully at least 128 semester hours, with at least 40 hours at the 300-level or above;
- Fulfilled the specific requirements of a major described in this bulletin. General studies and personalized programs may have more individualized requirements;
- Earned a minimum of C (2.00) for all courses forming part of the major;
- Achieved a minimum cumulative grade point average of 2.00, or higher as required by the individual major;
- Completed the general education program, LEAD@Union, appropriate to the degree;
- Met the residency requirements, including those for the major and any minors (see below);
- Participated in the assessment program as requested;
- Applied for graduation preferably by the end of their junior year giving the proposed schedule for the senior year;
- Provided all official transcripts and completed courses designated I or IP.

ASSOCIATE DEGREE REQUIREMENTS

Associate degrees are conferred upon students who have

- Successfully completed at least 64 semester hours;
- Fulfilled the specific requirements described in the division sections of this bulletin;
- Earned a minimum of C (2.00) for all courses in the discipline of the degree;
- Achieved a minimum cumulative grade point average of 2.00;
- Completed the general education program, LEAD@Union, appropriate to the degree;
- Met the residency requirement;
- Participated in the assessment program as requested;
- Applied for graduation giving the proposed schedule for the year;
- Provided all official transcripts and completed courses designated I or IP.
COMMENCEMENT

Commencement exercises are held annually in May, although diplomas are issued in August and December. Students who complete a program at the end of the spring semester are expected to participate in the graduation exercises.

Exemption from participation in the annual exercises is granted only by Academic Administration. Graduates from the previous December are invited to participate. A fee is charged to all graduates to cover the costs associated with graduation.

ACADEMIC RECOGNITION AT GRADUATION

Students graduating from Union College are awarded bachelor's degrees with the following designations appropriate to the minimum cumulative grade-point average attained:

<table>
<thead>
<tr>
<th>GPA</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.90</td>
<td>Summa Cum Laude</td>
</tr>
<tr>
<td>3.75</td>
<td>Magna Cum Laude</td>
</tr>
<tr>
<td>3.50</td>
<td>Cum Laude</td>
</tr>
</tbody>
</table>

PROSPECTIVE AUGUST GRADUATES PARTICIPATION

Students who plan to complete requirements during the following summer may apply to participate in the graduation ceremonies in May as prospective summer graduates if the remaining requirements are limited to a practicum or six semester hours of coursework. Students must present documented evidence that the remaining requirements can reasonably be completed prior to the August graduation date. A deposit of $200 will be charged to the student’s account, and refunded or applied to any unpaid Union College charges if all graduation requirements are completed by the August graduation date. If the degree is not completed on time, the deposit will be forfeited.

RESIDENCY REQUIREMENTS

For a baccalaureate degree, 30 of the final 36 hours, or at least 100 semester hours must be in residence. A minimum of 12 semester hours in the major must be taken in residence. For a minor, at least three semester hours of the required courses numbered at the 300-level or above must be taken in residence.

A minimum of 56 semester hours must be completed in four-year colleges or universities.

For an associate degree, 24 of the final 30 hours, or at least 50 semester hours must be in residence.

SECOND DEGREES

Graduates of regionally accredited institutions may earn baccalaureate degrees from Union College by fulfilling all requirements for the major, including its specific general education requirements, and successfully completing a minimum of 30 hours in residence with a cumulative GPA of 2.00 or higher if stipulated by the major. Students with an international bachelor’s degree must meet the Union College general education requirements.

MULTIPLE MAJORS

Students may complete multiple majors. When different degrees are involved, both degrees will be awarded.

ACADEMIC MINORS

Completion of an academic minor is only required if specified by a major or program. Minors may be elected from the minors outlined in this bulletin. A minimum grade of C (2.00) is required for all minor courses, and at least three semester hours of the required courses numbered at the 300 level or above must be taken in residence.

Completion of a minor is not completion of a degree, so a minor is not recognized separately from completion of a bachelor’s degree.
LEAD@union

“LIFETIME EDUCATION AND ACTIVE DISCIPLESHIP”
Statement of Purpose

The goals for LEAD@Union reflect the college’s mission to empower students in learning, service, and leadership. By fulfilling LEAD@Union, undergraduates will

• Acquire knowledge of the Holy Scripture in the context of Christian and Seventh-day Adventist beliefs and demonstrate the ability to interpret and apply biblical and ethical principles in a life of active discipleship
• Communicate clearly and persuasively, using effective listening, speaking, reading and writing skills;
• Demonstrate a knowledge of global issues and an appreciation of diversity of cultures, including elements of their own;
• Solve problems using mathematical and scientific methodology;
• Think critically, including knowing how to access, use, and evaluate information;
• Interact with the fine arts and understand how they enrich the human experience;
• Use technology effectively and ethically;
• Demonstrate practices that promote lifelong good health;
• Acquire a knowledge of the natural systems of the universe and how human beings impact their environment.

Beyond addressing these goals, LEAD@Union participates in the broader culture of student learning. Small class sizes, a liberal arts heritage, and active student organizations provide opportunities to practice effective leadership. The tradition of global mission service by its graduates established Union as the “College of the Golden Chords” nearly a century ago, and student service receives frequent recognition. The college constantly seeks to infuse academic learning into the campus work environment, student government, service activities, and spiritual endeavors and these in turn enhance effective learning. Thus general education at Union becomes much more than narrow objectives tied to specific courses. Instead, it dares to seek the harmonious development of all students into graduates who understand themselves and the world around them, and who adapt to circumstances while living lives of discipleship, learning, and community.

GENERAL EDUCATION REQUIREMENTS—4-YEAR

Baccalaureate degrees require a minimum of 54 (59 for Bachelor of Arts) hours of general education courses in the total of 128 hours. Major or minor courses may also be used as general education requirements.

RELIGION—12 hours

RELT 141 Christian Beliefs 3
or RELT 110 Introduction to Christian Faith and Adventism (3)
or RELT 205 Developing the Christian Mind (3)
RELB (Biblical Studies)  3
REL (Religion electives)  6
Students transferring from other than Seventh-day Adventist colleges as
• Sophomores—9 (reduce electives to 3 hours);
• Juniors—6 (omit electives; may substitute RELT 300 or above for RELB);
• Seniors—3 (take RELT 110 or RELT 141).

COMMUNICATION—8 hours
COMM 105  Public Speaking   2
ENGL 111  College Writing I   3
ENGL 112  College Writing II  3
Satisfactory completion of at least three writing-designated (WR) courses,
with a reduction of one course petitionable by transfer students.

FINE ARTS AND HUMANITIES
—7 hours
Literature course  3
First-year courses require approval; children's and young adult literature
courses will not be accepted.
Four hours including credits from two of the following three areas:  4
• Philosophy
• Fine arts academic course: ART 321, ART 322, HMNT 305,
  MUHL 260 or MUHL 261
• Applied fine arts courses from music performance (MUPF),
  applied ART, or drama production (CODR).

HISTORY AND SOCIAL SCIENCE
—9 hours
History course  3
Students who completed both United States and world history in high school
may choose a course from either area. It is recommended that a student
lacking a year-long course in one area complete that in college.
Three hours each from two of the following areas:  6
  Economics, Geography, History,
  Leadership, Political Science,
  Psychology, or Sociology.

SCIENCE—7 hours
Life sciences  3-4
  Recommended: BIOL 102, 106, 
  107, 111, 151, 205, 207, or 377
Physical sciences  3-4
  Recommended: ASTR 111, 
  CHEM 101, 151, PHYS 111, 151, or 
  SCNC 377
One course must be a laboratory course.

MATHEMATICS—3 hours
MATH 111, 121, 165, 184, or 221  3
  MATH 221 is highly recommended.

COMPUTER—3 hours
CPTR 220 or equivalent  3
Students who demonstrate competency by a minimum grade
of B in a high school applications course may substitute an approved
computer applications course or FNCE 215 Personal Finance. Alternatively,
students successful on a Union College proficiency exam for CPTR 220 will
receive three hours of credit.

HEALTH AND HUMAN PERFORMANCE—4 hours
HHPA 155 Concepts of Wellness  2
HHPA  (Two different one-hour activity courses)  2
FOREIGN LANGUAGE—6 hours
(Required for BA degree only)
Beginning foreign language 3, 3
Students who have completed two
years of the same foreign language
in high school have satisfied this
requirement.

CORE—1 hour
All freshmen and transfer students
with less than 24 hours are required
to take
CORE 108 Connections 1

TRANSFER OF COURSES FOR
GENERAL EDUCATION
Transfer students who meet all
the general education requirements at
a regionally-accredited Seventh-day
Adventist college thus satisfy Union
College requirements.

Transfer students who completed
their general education requirements at
an institution participating in the
Nebraska Initiative meet Union College
requirements for the 34 hours in the
signed agreement, and will satisfy the
Union College requirements with 19
additional hours: Computer, 3 hours;
College Writing II, 3 hours; Health and
Human Performance, 4 hours; and
Religion, 9 hours. Details are on file in
the Records Office and in the Office
of the Vice President for Academic
Administration.

GENERAL EDUCATION
REQUIREMENTS—2-year
Associate degrees require a
minimum of 32 (38 for Associate
of Arts) hours of general education
courses in the total of 64 hours.

RELIGION—6 hours
RELT 141 Christian Beliefs 3
or RELT 110 Introduction to
Christian Faith and Adventism (3)
RELB course 3
or RELT 305 Christian Ethics (3)

COMMUNICATION—8 hours
COMM 105 Public Speaking 2
ENGL 111 College Writing I 3
ENGL 112 College Writing II 3

FINE ARTS AND HUMANITIES
—2-3 hours
One of the following four areas: 2-3
• Philosophy
• Fine arts academic course:
  ART 321, ART 322, HMNT 305,
  MUHL 260 or MUHL 261
• Applied fine arts courses from
  MUPF (music performance) and/or
  any applied ART course or CODR
  229 or 329
• Literature course, 200 level
  recommended—ENGL 112 is a
  prerequisite to literature courses.

HISTORY—3 hours
History 3
Students who completed a year each
of United States and world history in
high school may choose a course from
either area. A student lacking a year
course in one area must complete that
in college.

SCIENCE—4 hours
Science laboratory course 4

MATHEMATICS—3 hours
MATH 111, 121, 165, 184, or 221 3
MATH 221 is highly recommended
COMPUTER—3 hours
Students who demonstrate competency by a minimum grade of B in a high school applications course may substitute an approved computer applications course or FNCE 215 Personal Finance. Alternatively, students successful on a Union College proficiency exam for CPTR 220 will receive three hours of credit.

HEALTH AND HUMAN PERFORMANCE—2 hours
HHPA 155 Concepts of Wellness 2

FOREIGN LANGUAGE—6 hours
(Required For A.A. Degree Only)
Beginning foreign language 3, 3
Students who have completed two years of the same foreign language in high school have also completed this requirement.

CORE—1 hour
All freshmen and transfer students with less than 24 hours are required to take CORE 108 Connections 1
UNION COLLEGE HONORS PROGRAM

MISSION
The mission of Union Scholars is to inspire academically gifted students to excellence in learning, spirituality and service.

FOCUS
Union Scholars will discover the sources of major global issues and explore the resources for addressing them.

GOALS
Upon completion of the Union Scholars program, students will be able to
- Conduct original research;
- Write and speak proficiently;
- Discover connections across disciplines;
- Discuss societal issues with knowledge and cogency;
- Connect life and learning with spiritual values;
- Identify arguments, authors and perspectives in areas related to global issues;
- Apply their learning in avenues of leadership and service.

CONTACT INFORMATION
Edward Allen, Program Director
Lynn Davis, Program Assistant
Dick Building, Room 304
402.486.2560
edallen@ucollege.edu
lydavis@ucollege.edu
www.ucollege.edu/union-scholars

PROGRAM REQUIREMENTS—48–56 hours
Baccalaureate degrees require a minimum of 48 (54 for Bachelor of Arts) hours of general education courses (Honors Concentration and General Concentration) in the total of 128 hours.

HONORS CONCENTRATION—28 hours

CORE—12 hours
HONS 125 Western Culture I 3
HONS 126 Western Culture II 3
HONS 215 Self and Society 3
HONS 325 Science and Religion 3
or BIOL 477 for HONS 325 (3)

IRR Pre-professional and Nursing may substitute an HONS course for HONS 125 or 126 to meet scheduling conflicts. (3)

SEMINARS—9 hours
Select three of the following seminars: (One will be taken at a site outside of the United States. Students may take no more than one Topics course to fulfill this requirement.)
HONS 245 Freedom and Responsibility 3
HONS 265 Conflict and Peacemaking 3
HONS 287 Topics 3
HONS 335 Wealth and Poverty 3
HONS 345 The Global Environment 3
RESEARCH—7 hours
HONS 112  Research and Composition  3
HONS 398  Research Methods  1
HONS 498  Honors Thesis  1-3
HONS 398 and 498 waived or adjusted for research projects within a student’s major field of study.

GENERAL CONCENTRATION—20–28 hours

CORE—1 hour
All freshmen and transfer students with less than 24 hours are required to take
CORE  108 Connections  1

RELIGION—6 hours
RELT 141  Christian Beliefs  3
or RELT 205 Developing the Christian Mind (3)
RELB course or HONS 360  3

COMMUNICATION—3-5 hours
ENGL 111  College Writing I  3
COMM 105  Public Speaking  2
The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.

SCIENCE—4 hours
Select a science laboratory course from
   BIOL 111, BIOL 151, CHEM 151
   or PHYS 151  4

MATHEMATICS—3 hours
MATH 121 or above  3
MATH 221 recommended

Health and Human Performance—3 hours
HHPA 155 Concepts of Wellness  2
HHPA Activity course 1

Foreign Language—6 hours
(Required for BA degree only)
Beginning foreign language  3, 3
Students who have completed two years of the same foreign language in high school satisfy this requirement.

HONORS THESIS
Graduates will employ critical thinking and/or creativity to pursue in-depth study in an area of their choice.

Each Union Scholar, in consultation with the director, will choose a study advisor for his or her field. A proposal for the honors thesis must be submitted to and approved by the Union Scholars Advisory Committee. Evaluation of the project will be done by a committee consisting of the director and the student’s advisory committee.

UNION SCHOLARS SERVICE COMPONENT—80 Hours

The Union Scholars honors program is centered on learning about global issues and seeking solutions to major problems the world faces. Learning to serve is a major component in finding solutions, so each Union Scholar will be involved in at least 10 hours of community service each semester for a total of 80 hours during their four-year tenure at Union College.

ADMISSION REQUIREMENTS

• Completion of Union Scholars Application.
• A minimum high school cumulative GPA of 3.50 for entering freshmen.
• A minimum composite ACT score of 24 or equivalent.
• A minimum college cumulative GPA of 3.33 for transfer students and current Union College students.

TRANSFER POLICY
Students may transfer into the honors program at the director’s discretion in a manner that is in agreement with the honors concentration.

Transfer students will enter into the program via academic petitions to accommodate completion of honors requirements.

MAINTAINING MEMBERSHIP
To continue as a Union Scholar a student must fulfill the following:
• Enroll in the appropriate honors sequence courses and receive a B average (3.00) or higher in these.
• Maintain a minimum cumulative GPA of 3.33.
• Report all volunteer service prior to final exams each spring.

A student who receives a notification of discontinuance in the program may reapply to Union Scholars after these membership conditions have been fulfilled.
master of physician assistant studies

MISSION

The physician assistant program prepares students from diverse backgrounds for excellence in the physician assistant profession, developing their God-given abilities in harmony with the highest physical, mental, social and spiritual ideals.

GOALS

The Union College physician assistant graduate will

• Act in a professional manner, acknowledging the physician assistant as one member of the health care team, recognizing the privilege of serving others regardless of color, social, ethnic, religious, or economic status;

• Proficiently perform the more routine duties of personal health care management typically provided by primary care physicians;

• Possess competence in a balanced core of knowledge drawn from the fields of medical and behavioral sciences which enables lifelong learning, critical thinking, and effective communication;

• Render service in the spirit of compassion and self-refraining love demonstrated by Christ in His ministry on Earth.

FACULTY

Michelle Buller, Jodi Chewakin, Cliff Korf, Dwain Leonhardt, Frankie Rose, Wendy VanSkiver

DESCRIPTION

The 33-month curriculum leads to the Master of Physician Assistant Studies (MPAS) professional graduate degree. The program is nationally accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. Graduates sit for the Physician Assistant National Certifying Examination.

The program builds on an extensive base of biological, chemical, behavioral and medical science courses for the first two years. Clinical practice rotations throughout the final year provide students with diverse and intensive patient care experience. The quality of the theoretical and clinical experiences prepares the students to become proficient and competent health care providers.

STUDENT LIFE PHILOSOPHY AND SERVICES

Based on its biblical faith and traditions of health and lifestyle, Union College is deeply committed to belief in living a life informed by Scripture and inspired by Jesus Christ. These perspectives are central to the college’s philosophy of graduate student life. The college seeks to provide an environment that is not only Christ-centered, but that encourages self-discovery and development in community with other learners. Graduate students at Union College are expected to display greater maturity and focus than traditional...
undergraduates, and therefore be more self-directed as they prepare for professional careers. While graduate student life policies are designed to address the needs and circumstances of the graduate community, all students are expected to respect the values of Union’s Seventh-day Adventist heritage.

APPLICATION AND ADMISSION

The MPAS program invites applications for admission from individuals who have completed a baccalaureate degree from an accredited college or university in the United States or an equivalent preparation from another country, or who expect to do so within the next year. A baccalaureate degree must be completed prior to enrollment in the MPAS program, except for selected Union College students pursuing the Bachelor of Science degree in health sciences.

Admission into the graduate curriculum of the physician assistant program is limited and competitive. While a minimum grade point average of 2.80 or higher on a 4.00 scale is required for all undergraduate & graduate courses, nearly all successful applicants have earned undergraduate grades with a grade point average of 3.30 or higher in both the cumulative GPA for all credits and the GPA specific to all science credits.

APPLICATION PROCEDURE

Prospective applicants should initiate the admission process by contacting the PA program admissions staff for advice. Applications to the PA program should be made through the Central Application Service for Physician Assistants (CASPA) at caspaonline.org. Alternatively, a current Union College student may submit a paper application. This provides no advantage in the selection process.

ADMISSION REQUIREMENTS

While undergraduate academic performance is important, the PA program seeks students who have wide potential for achievement both in and outside of the classroom. Each applicant will be evaluated on

• Successful completion of the prerequisite coursework listed under Prerequisite Requirements;
• Cumulative GPA and science GPA (biology, chemistry and physics courses) of 2.80 or higher on a 4.00 scale for all college work;
• Demonstrated proficiency in a variety of cognitive, problem solving, manipulative, communicative and interpersonal skills, as described in the PA program’s technical standards (available at ucollege.edu/pa or in the Admission Guidelines brochure available on request);
• Three letters of recommendation;
• A written Motivational Statement and a signed Lifestyle Agreement;
• Completion of a required physical exam upon acceptance into the program;
• Meeting educational standards of the US Department of Education for non-US courses;
• At least three months (480 hours) of work experience related to direct patient care including exposure to the PA role;
• Criminal background check clearance upon acceptance into the program;
• Submission of complete application materials and personal interview with PA Program Admissions Committee;
Possession of a baccalaureate degree prior to entering the MPAS program is required for all applicants to the PA program who are not Union College students applying through the health science major. The focus of the degree may vary, but studies must include the prerequisite courses of the PA program.

Qualified Union College students may apply for admission to the PA program through the BS of Health Sciences major. This allows selected students who fulfill all general education requirements of Union College as well as the MPAS prerequisites to obtain a Bachelor of Science degree in health sciences while completing the graduate PA curriculum.

Criminal background checks are performed after the applicant is admitted conditionally and has paid the required deposit. Felony convictions or multiple misdemeanor convictions may result in denial of acceptance to the program and/or eligibility of licensure. Drug screening checks may also be required for licensure and/or clinical placement.

All PA students enrolled at Union College must possess personal health insurance (personal liability insurance is also encouraged.)

APPLICATION DEADLINES

Completed application forms must be submitted to CASPA by November 1 of the year prior to the desired enrollment. Approved paper applications submitted directly to the PA program are also due on November 1. Applicants will receive formal notification of acceptance by March 15 of the year of admission. Applicants designated as alternates or who are not accepted also receive notification by this time.

INTERNATIONAL STUDENTS

Once a student has been academically accepted into the PA program, all immigration procedures must be handled through the Union College Admissions Office. An applicant whose native language is not English and who does not present a degree from an accredited college or university in the United States that includes a full year of composition or the equivalent in English studies must demonstrate satisfactory skills in English understanding and use. Recent scores on the Test of English as a Foreign Language (TOEFL) normally suffice. Satisfactory scores are:

- Internet-based TOEFL (IBT): Score of 100 with a minimum score of 20 on each section; or
- A total score of 600 on the paper TOEFL, with a score of 55 on Listening Comprehension; or
- A total score of 250 on the computer-based TOEFL;
- A level 112 from the ELS Language Centers or other recognized evidence will also be considered.

Information about the TOEFL, including test dates and locations in international countries, can be obtained from Educational Testing Service (ETS) at www.ets.org. Photocopies of TOEFL scores are not accepted.

Applicants with questions or needing additional information about the admission of international students should contact the Union College Admissions Office at: phone 402.486.2504; fax 402.486.2566.

ACADEMIC INFORMATION

Only courses numbered 500 and above carry graduate credit towards the MPAS degree. Courses numbered under 500 signify undergraduate
credit. While they may be taken as supporting or prerequisite courses, they do not count toward a graduate degree and are not computed in a graduate student’s grade point average. The same grade definitions as used for the undergraduate college apply for the graduate courses.

TRANSFER OF COURSES

Most students enrolled in professional graduate programs will complete all coursework for the degree at the same institution. Only courses specifically approved by the physician assistant program may be transferred to Union College. If transfer credits are approved, official transcripts must be received before application for a degree will be approved.

DISMISSAL POLICY

A cumulative 3.00 GPA is required for MPAS courses. A cumulative GPA of less than 3.00 will place a student on academic probation.

A student may be dismissed from the MPAS program if the student
• Receives a grade of C- or below;
• Earns a cumulative GPA below 3.00 in PHAS courses at the conclusion of the Fall semester prior to the start of clinical rotations (first four semesters); or
• Is found guilty of unprofessional or illegal behavior according to the guidelines in the PA Student Handbook.

In all cases the student will be notified of the dismissal in writing and will be informed of the right of appeal according to the Union College PA Student Handbook. Students receiving letters of dismissal will automatically be dropped from the program, regardless of whether they choose to appeal; fees will be refunded in accordance with college policy. A withdrawal grade will then be entered on the transcript for all graduate courses not completed in that term.

Academic dishonesty includes, but is not limited to, cheating and plagiarism. Academic dishonesty at the graduate level is considered a serious offense and may result in dismissal from the college. The PA Student Handbook outlines the procedure for actions resulting from academic dishonesty.

PROGRESSION AND GRADUATION REQUIREMENTS

Guidelines for progression and graduation include the following:
• Individual course grades must be C or higher;
• Overall GPA for all PHAS courses must be maintained at 3.0 or higher on a 4.0 scale;
• All assigned coursework and clinical rotations must be completed;
• No PHAS course may be repeated more than once;
• No more than one PHAS course may be repeated;
• Additional graduation requirements established by the program and published in the PA Student Handbook must be met;
• Participation in assessment activities approved by the program;
• During the final year of study, an application for a graduate degree must be filed with the Records Office.
ACADEMIC RECOGNITION AT GRADUATION

GPA
  High Distinction  3.90
  Distinction      3.75

ACADEMIC RESOURCES

The following services are available to graduate students who experience academic, psychological or other difficulties:

TEACHING LEARNING CENTER

The Teaching Learning Center (TLC) is Union’s office for students with disabilities. Assistance is available for students needing academic accommodations and services necessary to make programs accessible. Union College honors section 504 of the Rehabilitation Act of 1973, 29, USC.706, which forbids discrimination against individuals with disabilities. In addition to assisting students with disabilities, the TLC offers academic coaching and instruction on note-taking, study skills and stress management.

ACADEMIC ADVISING

The PA program participates in academic advising conducted by the PA program faculty and coordinated through the Office of Academic Administration.

SCHOOL COMMUNITY INTERVENTION PROGRAM (SCIP)

This community program is made available to students at Union College through the Office of the Vice President for Student Services. Students are assisted in dealing with dependencies and addictions, such as those related to drugs and alcohol. SCIP also provides diagnostic testing for students with learning difficulties.

PROGRAM SPECIFIC FEE

For the most recent information regarding fees and financial assistance, applicants should contact the Union College Student Financial Aid Office. In addition to regular college fees, a special fee is assessed each term for all students admitted to the graduate curriculum of the physician assistant program. These fees are published annually in the college’s schedule of Scholarships, Tuition and Fees.
# Master of Physician Assistant Studies

**Required courses—110 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAS 505</td>
<td>Medical Literature Review</td>
<td>2</td>
</tr>
<tr>
<td>PHAS 510</td>
<td>Clinical Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>PHAS 511</td>
<td>Human Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>PHAS 514</td>
<td>Medical History and Physical Examination Skills</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 515</td>
<td>Clinical Diagnostic Procedures</td>
<td>3</td>
</tr>
<tr>
<td>PHAS 518</td>
<td>Psychiatry and Behavioral Medicine</td>
<td>3</td>
</tr>
<tr>
<td>PHAS 519</td>
<td>Differential Diagnosis and Case Development</td>
<td>2</td>
</tr>
<tr>
<td>PHAS 525</td>
<td>Physician Assistant Professional Issues</td>
<td>3</td>
</tr>
<tr>
<td>PHAS 531</td>
<td>Clinical Medicine I</td>
<td>6</td>
</tr>
<tr>
<td>PHAS 532</td>
<td>Clinical Medicine II</td>
<td>7</td>
</tr>
<tr>
<td>PHAS 533</td>
<td>Preventive Health</td>
<td>2</td>
</tr>
<tr>
<td>PHAS 539</td>
<td>Christian Health Care and Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>PHAS 546</td>
<td>Clinical Skills I</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 547</td>
<td>Clinical Skills II</td>
<td>2</td>
</tr>
<tr>
<td>PHAS 553</td>
<td>Cultural Competencies in Medicine</td>
<td>1</td>
</tr>
<tr>
<td>PHAS 557</td>
<td>Electrocardiography</td>
<td>2</td>
</tr>
<tr>
<td>PHAS 559</td>
<td>Clinical Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 564</td>
<td>Clinical Therapeutics</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 584</td>
<td>Pharmacology</td>
<td>5</td>
</tr>
<tr>
<td>PHAS 585</td>
<td>Master’s Research Seminar</td>
<td>1</td>
</tr>
<tr>
<td>PHAS 595</td>
<td>Master’s Capstone Project</td>
<td>1</td>
</tr>
<tr>
<td>PHAS 620</td>
<td>Family Practice I Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 621</td>
<td>Family Practice II Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 622</td>
<td>Internal Medicine Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 623</td>
<td>Surgery Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 624</td>
<td>Obstetrics and Gynecology Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 625</td>
<td>Pediatrics Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 626</td>
<td>Cardiology Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 627</td>
<td>Emergency Medicine Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 628</td>
<td>Orthopedics Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 629</td>
<td>Psychiatry Rotation</td>
<td>4</td>
</tr>
<tr>
<td>PHAS 630</td>
<td>Elective Rotations</td>
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</tbody>
</table>
### Required Prerequisites—50 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>8</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 445</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>HHPT 215</td>
<td>Emergency Health Care</td>
<td>1</td>
</tr>
<tr>
<td>HHPT 256</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 415</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Generally, science courses should be completed within seven years of admission to the physician assistant program. If the chemistry series is successfully completed through upper division biochemistry at the time of application to the program, consideration is given to waive earlier individual chemistry courses listed as prerequisites.
accredited by the National Association of Schools of Music, is housed in a two-story building designed by architect Richard Meier, who also designed the Guggenheim Museum in New York. The building features a grand, sloping roof and large windows that allow natural light to fill the interior. The library contains over 250,000 books, 4,000 periodicals, and a variety of multimedia resources. It also houses a research center with resources on music theory, composition, and history. The library provides a quiet and focused environment for study and learning, and is an important resource for students and faculty across the disciplines.
The graphic arts computer lab, an open lab located in Engel Hall, is maintained to support photo editing and printing, print production, and graphic design. Macintosh computers run drawing, page layout, and image editing software. Color and black and white printers, scanners, CD and DVD writers, stock photography and illustration collections, and type collections support graphic design, photography, and illustration work. The Internet is available for these uses.

In addition, smaller labs with more specialized software are maintained in science and math, health sciences, the library, and the Teaching Learning Center.

CAREER CENTER
www.ucollege.edu/career-center
Teresa Edgerton, Coordinator
Union College Career Center assists students in making satisfying major and career choices.

CAREER PLANNING
• Career advising: individual appointments with a career counselor
• Career counseling and inventories: skills, interests, abilities, strengths and personality assessments
• Career shadowing and internship information

STUDENT EMPLOYMENT
• On-campus employment: www.ucollege.edu/student-jobs
• Off-campus employment and internships: JobZone https://ncrc-csm.symplicity.com/students

JOB SEARCH ASSISTANCE
• Computerized job placement service: Nebraska Interview Consortium JobZone database available at ncrc-csm.symplicity.com
• Job search skills: assistance with cover letter and resume writing, interviewing, salary negotiation and business etiquette
• Career and Graduate School Fair: employers hosted each fall - information provided on internships, part-time jobs, full-time employment, and university graduate programs

TESTING
• ACT & SAT: tests given on non-Sabbath test dates (Union College test center number and clergyman’s letter available at the Career Center may be required for these Sunday tests)
• CLEP tests: a computerized CLEP test available upon request (see Academic Information section for academic credit information)
• Online distance education or correspondence tests proctored as requested
• Graduate entrance exams: LSAT administered at Union College on non-Saturday test dates

TEACHING LEARNING CENTER
www.ucollege.edu/tlc
Deborah Forshee-Sweeney, Director,
Elizabeth Anderson

ACCESSIBILITY SERVICES FOR STUDENTS WITH DISABILITIES
Union College is committed to providing educational opportunities to students with disabilities by honoring Section 504 of the Rehabilitation Act of 1973 and the Americans

The Teaching Learning Center (TLC) offers accommodations to college students as directed by these acts. Accommodations will be handled with confidentiality and based on the nature of the disability and the academic environment. Students requesting accommodations may contact the TLC for accessibility guidelines or download them from the college web site.

PERSONAL ACADEMIC COLLEGE COACHING (PACC)

The Teaching Learning Center provides life and academic coaching for all Union College students through the Personal Academic College Coaching (PACC) program. PACC coaches assist college students in developing a well-balanced academic life through planning and sustained motivation. This program supports students in addressing academic and life concerns through regular weekly coaching appointments to work on life goals, organizational assistance, test taking and study strategies. There is a fee each semester that a student is part of the PACC program; however, students may access up to three appointments at no cost.

ACADEMIC SUCCESS PROGRAMS

The PACC program is required for students in the Academic Success and Advising Program (ASAP), and Freshman Development (FD). See Admission to the College section for more information on the ASAP, FD and Integrated College Experience (ICE) programs.

THE STUDIO FOR WRITING AND SPEAKING

www.ucollege.edu/humanities/thestudio
Tanya R. Cochran, Director

The process of invention, revision and delivery resembles the process of spiritual growth. Good writing and speaking are like sanctification: the work of a lifetime. Our purpose is to provide an environment where life-writing and life-speaking occurs.

The Studio for Writing and Speaking

- Assists writers and speakers—through dialogue and personalized instruction—in producing innovative, reliable, and meaningful research and presentations in and across their disciplines and communities;
- Encourages writers and speakers to touch both local and global communities through writing and speaking that ennobles humanity and honors God.

Because any written or oral text requires time and persistence, the Studio encourages students to make an appointment at the early stages of the process. Consultants are available to brainstorm before the writer or speaker utters one word on a notebook page or computer screen as well as to offer feedback on first, in-between, and final drafts of writing projects and oral presentations. As a later concern, consultants provide instruction in grammar and mechanics. While they are not trained as editors or proofreaders, consultants help students identify and correct their own errors. Ideally, consultants and the students they work with develop a trusting relationship within which both hone their communication skills. Studio services are provided without charge. For more information on location and appointments, visit our Web page.
The Adventist Colleges Abroad (ACA) program at Union College allows students to immerse themselves in the culture and life of the host country and become conversant in the language; mature socially, spiritually and intellectually; and develop sensitivity to cultural differences and a sense of responsibility for and mission to other people of the world. This opportunity is provided to qualified students for international study while completing degree requirements at their home colleges and universities.

A Bachelor of Arts degree with a Modern Foreign Language major with emphases in French, German, and Spanish may be earned through this program. Minors are available in French, German, Italian, Portuguese, and Spanish. Language study is also available at the Athens Study Center (Greek and Hebrew) and other various locations during the summer. (See Summer Study Abroad below.)

Union College is a member of Adventist Colleges Abroad (ACA), a cooperative arrangement between Adventist colleges and universities of the United States and participating Adventist colleges and universities in other countries. ACA is operated by the Education Department and the Higher Education Cabinet of the North American Division of the Seventh-day Adventist Church.

**ACADEMIC YEAR STUDY ABROAD**

The following institutions are international affiliates of ACA offering academic-year programs of study:

**Argentina**  
Universidad Adventista del Plata

**Austria**  
Seminar Schloss Bogenhofen

**Brazil**  
Centro Universitario Adventista

**England**  
Newbold College

**France**  
Campus Adventiste du Salève

**Germany**  
Theologische Hochschule Friedensau

**Italy**  
Istituto Avventista Villa Aurora

**Spain**  
Escuela Superior de Español  
(See Modern Foreign Languages (page 145) section for degree information.)

**APPLICATION POLICIES**

For Union College to process an application for academic year study abroad, the applicant must:

- Complete at least one full-time semester in residence at Union College;
- Be in good and regular standing at Union College while maintaining an overall minimum GPA of 2.5;
- Establish a financial payment contract with Union College Student Financial Services or pay for the program in full;
• If pursuing a degree in French, German, or Spanish, complete two high school years or one college year in prerequisite language study with a minimum GPA of 3.00, or pass the appropriate College Level Examination Program (CLEP) language exam.

SUMMER STUDY ABROAD
ACA also offers summer terms at the following international study centers listed above in Argentina, Austria, Brazil, France, Italy, and Spain, and periodically in the following:

Greece (Greek and Hebrew)
Athens Study Center

Japan
Saniku Gakuin College

Thailand (Chinese)
Asia-Pacific International University

Ukraine (Russian)
Ukrainian Institute of Arts & Sciences

COLLEGE APPLICANTS
For Union College to process an application for summer study abroad, the college applicant must:
• Complete at least one full-time semester in residence at Union College;
• Be in good and regular standing at Union College while maintaining an overall minimum GPA of 2.5;
• Establish a financial payment contract with Union College Student Financial Services or pay for the program in full.

HIGH SCHOOL APPLICANTS
For Union College to process an application for summer study abroad, the high school applicant must:
• Complete at least the sophomore year in high school;
• Apply and enroll at Union College as a non-degree seeking student;
• Submit tuition payment in full to Union College Student Financial Services;
• Provide a letter from your high school registrar verifying minimum GPA of 3.0.
STUDENT LIFE

Union College is known as a friendly undergraduate environment that provides opportunities for learning, leadership, socializing and personal Christian growth. Student Services and the Associated Student Body (ASB) plan activities every Saturday night. The Student Center is a hub of campus life. The proximity of rivers, lakes and parks offers opportunities for group and individual activities. Nearly 20 clubs and organizations provide a variety of social and intellectual enrichment activities.

The college organizes more than 15 intramural sports and five varsity sports in addition to individual sports opportunities. Tennis courts, a 25-meter swimming pool, gymnasium and four-acre playing field are available on campus. The Gymnaires, the college’s student gymnastics team, tour academies and regularly attend AcroFest.

Union provides for student socialization and learning in the Student Center, Woods Auditorium, Cooper’s Corner, Campus Store, Career Center, Teaching Learning Center, the Rees Hall Club Room, and Ella Johnson Crandall Memorial Library. The Student Center also provides study areas, games and television rooms. A lounge for students who live off campus is located on second floor of the Everett Dick Administration Building.

STUDENT LIFE AGREEMENT

The college desires that students gain experience in making personal decisions based on Christian values. By choosing to enroll at Union College, students express a willingness to make decisions which are guided by the following principles:

- Honesty
- Modesty as expressed by appropriate and tasteful clothing
- Christian standards for the fine arts including art, music and literature
- Graciousness demonstrated through respect for diversity
- Truth, as demonstrated in Scripture
- Respect for others’ property, personal dignity, time and privacy
- Taste and decency in conduct, expression and citizenship
- Healthy lifestyle including nutrition, exercise, rest and abstinence from alcohol, tobacco, and illegal drugs on or off campus
- Moral purity
- Spiritual development and service to others
- Understanding that regardless of age, parents or guardians may be notified if student is admitted to a hospital, has a serious health condition, or has violated a Federal, State or local law or major campus policy, including but not limited to use or possession of drugs or alcohol.

VIBRANT SPIRITUALITY

Love for God is shown through personal and community worship. The college believes that individual worship in a private setting is essential to
Christian growth. To that end residence halls provide private meditation areas.

To enhance a sense of Christian community, Union College enables students to experience vibrant spirituality through a variety of worship opportunities. These include worships led by students or faculty, residence hall worships, spiritual emphasis weekends and Student Week of Prayer. Undergraduate students are required to attend a minimum number of these services depending on their class standing.

**SABBATH OBSERVANCE**

To show love for God and His Sabbath, the seventh day is observed. The holiness of the Sabbath day is honored by giving special attention to worship, rest, Christian fellowship, service and seeking God.

**VOLUNTEER OPPORTUNITIES**

To share the caring spirit of Union College, a wide variety of volunteer services are available for students. Student volunteer coordinators provide resources and find opportunities to connect students and staff with service needs in the Lincoln area.

Project Impact, Union’s annual community service day, begins the school year with more than 80 percent of students and employees working in service agencies. Ongoing volunteer activities include transportation for the elderly, disaster relief, house cleaning, yard work, care for the homeless and programs for children and youth.

**PHILOSOPHY OF CAMPUS CONDUCT**

As a Christian college, Union seeks to integrate Christian teachings with academic pursuits, extracurricular activities, social development and lifestyle choices. The guiding philosophy holds that the Scriptures establish a framework of values which should guide the development of Christian character, behavior and thought.

The administration, faculty and students of Union are expected to embrace these principles.

Students are encouraged to deepen their commitment to Christian values and cultivate intellectual and creative powers through participation in campus worship and fellowship.

**RESIDENCE LIFE POLICY**

Students who live on campus are more likely to graduate, experience higher satisfaction with their college experience, obtain higher grades and have more friends than those living off campus. For these reasons Union maintains a residential campus and requires undergraduates not living with their parents to live in the residence halls. Recognized exceptions include:

- Students who are 22 years of age at the beginning of a semester may live off campus with Deans’ Council approval;
- Students taking five semester credit hours (other than first year freshmen);
- Students living with parents or grandparents whose primary residence is Lincoln as verified by their income tax statement;
- Students who are married, divorced, separated or widowed;
- With Deans’ Council approval, seniors who are 21 and have obtained three consecutive semesters of worship credits, a 3.0 GPA and good citizenship;
- Students showing financial need who are offered free room and board with a family in exchange
for labor may request approval to live with that family.

Arrangements for moving off campus should be approved by Deans' Council before signing any rental or lease agreement.

Questions or requests regarding the housing policy should be directed to the vice president for Student Services or residence hall dean.

Students 22 years or older at the beginning of a semester may arrange to live in a residence hall at a reduced rate.

There are three residence halls: Rees Hall for women, Prescott and Culver Halls for men. Rooms are equipped for two students and furnished with a phone line, Internet and cable TV connections, a bookcase, closets, two single beds, dressers, desks and chairs. Further information is available at www.ucollege.edu under Student Services.

ROOM RESERVATIONS

Room reservations can be made online at www.ucollege.edu/enroll/forms or by writing or calling the dean of women (402.486.2535) or dean of men (402.486.2533).

COLLEGE-OWNED APARTMENTS

The college owns a number of apartments within close proximity to the college campus suitable for student families and students who are 22 years of age by the beginning of the semester. Monthly rental rates vary with apartment size. Correspondence concerning college-owned housing should be addressed to the Housing Manager in the Financial Administration Office well in advance of attendance or call 402.486.2502.

PERSONAL EFFECTS

College carried insurance does not insure the personal effects of any individual even if it is required for use on campus. Therefore, the college recommends that students consider carrying insurance to cover such losses.

RESIDENCE AT UNION COLLEGE WHILE STUDYING ELSEWHERE

Opportunities are available for students to pursue programs that are not offered at Union College, while having the spiritual and social advantages that come from living on the campus of Union College. Students have access to facilities, services and events offered by the college, while not being registered students at Union College. Students interested in this opportunity should apply through the Vice President for Student Services office.

CAMPUS DINING SERVICES

Union Market provides a vegetarian menu with vegan options in a market-style setting from early morning to late evening. Cooper’s Corner, a snack shop in the Student Center, provides additional food options. A food service minimum is charged per semester for residence hall students.

STUDENT HEALTH SERVICES

Student Health Services, directed by a registered nurse, provides clinical services and health education. Health care options include regular access to a nurse practitioner or physician. Referrals may be made to physicians and other health care professionals. Additional fees may apply.

To register, each student must complete a health form and provide an official record of immunizations. Forms are available on the college
Web site. Union College urges all students to comply with the minimum immunization guidelines established by the Nebraska State Department of Health. These immunizations include diphtheria tetanus with a tetanus booster within the past ten years, polio, and two doses of measles vaccine.

Special health regulations apply to international students. For more information contact the director of admission.

**PHARMACEUTICAL OR CHEMICAL TRIAL**

Union College strongly recommends that students not participate in any commercial pharmaceutical or chemical evaluations. Weekend leaves will not be approved for such purposes. Any student who participates in such testing programs voluntarily assumes all risks involved and agrees to hold the college harmless for all resulting injuries, illness or damages, direct or consequential.

**FERPA**

In compliance with the Family Educational Rights and Privacy Act (FERPA), Union College reserves the right to notify a parent or guardian, regardless of a student’s age, if a student has been admitted to the hospital; has a serious health condition; has violated any federal, state or local law or campus rule or policy governing the use or possession of alcohol or a controlled substance; or for any conduct that poses a significant risk to the safety or well being of that student, other students, or other members of the college community. For the official college FERPA policy see www.ucollege.edu.

**HEALTH INSURANCE**

Students attending Union College are responsible for obtaining personal health insurance. The college requires that full time students (those taking 12 or more hours) be covered by health insurance. During registration students must furnish information regarding their health insurance coverage, or they may elect to purchase a health insurance plan available through the college. Though health insurance is not required for part-time students in most programs, it is highly recommended.

All international students and all students enrolled in nursing, physician assistant, and international rescue and relief courses are required to carry personal health insurance and are encouraged to carry personal liability insurance.

**MOTOR VEHICLES**

To park on campus, all students must register their vehicles with Student Services. There is no campus vehicle registration fee. Regulations governing the use of motor vehicles are outlined in the Student Handbook and the Parking Map and Regulations brochure.

**ATHLETICS PHILOSOPHY**

Union College's Christian approach to athletics develops sportsmanship, promotes academic excellence, enhances team and individual skills, cultivates teamwork and leadership abilities, and encourages service to others.

**INTRAMURAL SPORTS**

Union College encourages students to become involved in the various recreational opportunities which are offered on campus. The intramural sports program provides traditional sport leagues such as basketball,
flag football, floor hockey, volleyball and soccer along with other non-traditional activities. All participants are expected to follow the concepts of sportsmanship which should be displayed on a Christian campus.

Students enrolled in at least six hours of credit and meeting insurance requirements are eligible to participate in the intramural sports program. Students competing on intercollegiate varsity athletic teams are not eligible to participate in the corresponding intramural sport if the seasons are concurrent (i.e. a varsity basketball player may not participate in the intramural basketball league).

INTERCOLLEGIATE SPORTS

Teams that represent Union College on an intercollegiate level are men’s and women’s basketball, women’s volleyball, gymnastics, and men’s golf varsity sports. All athletes are expected to follow the concepts of sportsmanship which should be displayed on a Christian campus.

ELIGIBILITY

Students must have attained a 2.50 GPA for the past semester or cumulatively to be fully eligible to participate on an intercollegiate team. First semester freshmen academic eligibility is based on their high school GPA. A one semester probationary period is available to team members whose GPA falls between 2.00 and 2.50 for the past semester. Those placed on probation may be allowed to practice, and play in games or travel with the team at the coaches’ and Athletic Director’s discretion. Team members who do not reach a 2.50 GPA after one semester of probation will not be eligible until they have met this requirement.

Students who are taking a minimum of 12 hours on the Union College campus are eligible to participate in intercollegiate teams.

POLICY REGARDING STUDENT COMPLAINTS

In seeking to do what is right, Union College values student complaints as evidence of potential difficulties to be addressed. Most complaints are addressed informally, orally or electronically with the division chair, residence hall dean, work supervisor, or other responsible campus employee. However, if a student seeks further resolution of the problem, and discussion with the appropriate vice president likewise fails to satisfy the student, a formal complaint should be filed with the appropriate vice president.

Formal complaints are defined as non-trivial complaints submitted in writing, dated, signed by the student, and submitted to the vice president with the responsibility to handle the complaint. Formal complaints are kept on file, and each vice president maintains a record of each complaint filed and its resolution.

GRIEVANCE PROCESS

Union College attempts to follow Biblical principles when wrong is perceived by a student or employee. A student who feels treated unfairly or unjustly has the right to appeal according to approved procedures.

INFORMAL COMPLAINT PROCEDURE

Most misunderstandings and difficulties are settled to mutual satisfaction when the student perceiving a wrong discusses the issue with the employee involved, whether course instructor, residence hall dean or staff member. A student who is not satisfied by discussion at this direct level should appeal to the instructor’s
FORMAL COMPLAINT PROCEDURE

If not satisfied at the supervisory level, the student should contact the appropriate vice president, and may provide a written summary of the complaint and a proposed resolution.

If not satisfied with the decision of the appropriate vice president, within seven working days the student should file a formal written complaint with the president of Union College requesting a grievance hearing. Filing a formal grievance is a serious matter and should be done thoughtfully.

The recommendation of the Grievance Committee will provide the underlying context of the president’s decision which constitutes the final action by the college.

GRIEVANCE COMMITTEE

Selected by the president, the Grievance Committee shall be composed of two students and three faculty or staff members, as appropriate. Either party may suggest one member of the committee. The chair and secretary of the committee shall be elected by the committee members at the first meeting.

Both the student and the college employees involved in the case are invited to appear before the committee and to present a written statement of the case. At the student’s request, one advocate (a parent, spouse, student, or college employee) may accompany the student to the meeting. The advocate’s role is to be moral support for the student and to be an observer of the process. The advocate may answer questions if asked.

Because this is an internal process, the presence of legal counsel is not appropriate for either party. The student and the student’s advocate may attend the committee presentation of all evidence and any related matter reviewed by the Grievance Committee. They also have the right to rebuttal all evidence and reasoning. They may not attend the committee’s final deliberation and vote, however.

The Grievance Committee may recommend that either the action taken should stand, that the matter should be reconsidered by the original deciding body, or a new action is warranted. The recommendations of the Grievance Committee shall be presented in writing to the President of Union College who will notify the student of the decision.

WITHDRAWAL OF GRIEVANCE

At any time during the grievance procedure, the student may withdraw the complaint in writing to the president. In addition, a failure by the student to appear for a requested hearing, without prior notification or evidence of extenuating circumstances, shall constitute withdrawal of the grievance or appeal.

MATTERS NOT GRIEVABLE

College policies and regulations adopted by the college and/or the Board of Trustees are not subject to the grievance process. Students may request discussion and recommend changes to such policies but this dialogue is advisory and not grievable.

This grievance policy applies to Union College issues. Where other organizations are involved, the college may not be free to act. For example, where patient safety or child protection is involved, or where state regulations and other institutional policies may supersede college guidelines, the complaint may not be grievable.
STUDENT FINANCIAL SERVICES

Students are required to complete all financial arrangements before school begins.
To better serve students, parents, sponsors, and others who plan to travel long distance to the campus for business purposes, appointments are recommended (see Contact Information in the front section of this bulletin or the Union College Web site www.ucollege.edu).

Complete financial information about Union (including tuition charges) is available in the schedule of Scholarships, Tuition and Fees which is published annually.

TUITION AND FEES

A schedule of Scholarships, Tuition and Fees may be obtained from Enrollment and Student Financial Services or found online.

Typically used services include tuition for classes, housing in residence halls, meals in the dining area, books and supplies for classes.

A variety of other services include health insurance, special academic attention and testing, social and service clubs, and music lessons. Additional services are listed in the Miscellaneous Charges section.

INTERNATIONAL STUDENT DEPOSIT

International students needing an I-20 are required to pay a $5,000 deposit. Of that deposit, $1,000 may be returned after a student leaves the college if the account is paid in full and the student completed at least one semester, but will not be returned before then. The remaining $4,000 of that deposit is applied towards the first semester of attendance. Citizens of Mexico and Canada are exempt from this deposit. Applicants must have written financial arrangements and a mutually acceptable plan for keeping their accounts current before an I-20 is issued.

PAYMENT ARRANGEMENTS

Student charges at Union College are calculated on a yearly basis. The student and/or family can determine a payment plan based on the estimated amounts remaining after deducting other financial resources such as scholarships, grants and loans. Students who require a monthly payment plan may request to pay their amount owed in monthly installments due on the first of each month. A late payment fee of $25 will be applied each required month the payment is not made.

INTERNATIONAL STUDENT OPTIONS

A $5,000 advance deposit and an “Affidavit of Support” are required of all international students, except Canadian and Mexican citizens, prior to the issue of an I-20 form.

A monthly payment option is available in cases where advance arrangements are pre-approved. Provisions include

• $5,000 advance deposit;
• $2,500 initial payment due upon arrival;
• Nine (9) remaining monthly payments due the first of each month (September - May).

CONSUMER INFORMATION

A prospective or continuing student at Union College is entitled to information on applying for, receiving and continuing with financial aid;
educational costs and refunds; and
transportation costs for commuting
students living off-campus.

This information is accessed at
Student Financial Services.

REFUND POLICY

Union College offers a 100%
refund of tuition and required fees
should a student drop some classes or
completely withdraw from the college
on or before the published “Last Day
to Add/Drop Classes.” After that date,
required fees are non-refundable and
the following refund policy applies to
tuition.

Refund | Calendar Days
--- | ---
100% | Up to and including Last Day to Add/Drop Classes
80% | days 9 to 18
60% | days 19 to 35
40% | days 36 to 52
20% | days 53 to 69
None | Exceeding 69 days

Refunds for sessions or classes
with durations other than the regular
15-week semester will be prorated
using the above as a guideline. Federal
Financial Aid is prorated based on
a calculation prescribed in federal
regulation which is slightly different
from that used for institutional aid. The
calculation determines the amount of
federal aid the student earned while
enrolled. Contact Student Financial
Services with questions about this
policy.

KEEPING CURRENT

Students may register for classes
only when arrangements have been
made to cover past due accounts
and the full amount estimated for the
current school year through financial
aid, loans, and student and parent
participation.

If students are unable to meet
their payment agreements, they must
make prompt arrangements or they will
forfeit the right to attend classes and
their registration will be cancelled.

CASH WITHDRAWALS

Students whose accounts show
credit balances greater than called
for by the payment agreement are
allowed to make cash withdrawals.

TRANSCRIPTS AND DIPLOMAS

It is a policy of the college to
withhold transcripts and diplomas if a
student has an unpaid account at the
school. Under provisions of federal loan
programs, Union College withholds all
records when payments for student
loans become past due.

This policy applies to all
student account charges and all
other educational related expenses.
To expedite the release of these
transcripts and diplomas, the student
should send a money order or certified
check, or make a cash or credit card
payment to cover the balance of
the account when requesting the
documents. Payments should be sent
to the cashier.

INTEREST

Interest charged at one percent
per month (approximately 12% per
year) is added to any non-current
student’s account which is ninety (90)
days or more past due.

CREDIT BALANCES

When a student account has a
credit balance where payments and
credits exceed total charges due, a
refund of the excess proceeds will be
processed and the excess returned to
the student by check. If the student
prefers to leave the credit on the
account (within the same academic
year), please contact Student Financial
Services.
COLLECTION POLICY

Students completing or terminating their studies with the college are responsible for paying any amounts due. Satisfactory arrangements must be made within ninety (90) days after studies are completed or discontinued. The college reserves the right to seek collection help from third-party agencies for non-current accounts more than ninety (90) days in arrears.

OTHER CHARGES

MUSIC LESSONS

College students are charged a fee each semester for each one half hour lesson per week. If academic credit is desired, tuition is also charged. The charge for this fee is printed in the schedule of Scholarships, Tuition and Fees. There are scholarships available to qualified music majors who meet certain requirements.

PROGRAM FEES

Several programs have additional fees that are required to help cover the cost of program maintenance; the specific costs are listed annually on the schedule of Scholarships, Tuition and Fees:

- International Rescue and Relief
- Nursing
- Physician Assistant

CHARGES PER USAGE

Art and photography lab fees will be charged to cover the cost of special laboratory services, supplies consumed and use of equipment.

Laboratory usage fees are charged for damage to, or loss of, equipment, nonreturnable special supplies and special laboratory services not ordinarily required.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

- $77.00 Testing fee (each test)
- $15.00 Proctor fee
- $5.00 Cancellation fee
- $15.00 Recording fee (per credit)

MISCELLANEOUS CHARGES

The following charges will be made when appropriate and are subject to change: (The list below is not all inclusive)

- $30.00 ACT residual testing
- $25.00 Diploma replacement
- $100.00 Dormitory room deposit
- $5.00 Dormitory key deposit
- $25.00 Drop/add fee
- $50.00 Examination rescheduling
- $80.00 Graduation fee
- $50.00 Late registration (after first day of classes)
- $25.00 Nursing application fee
- $170.00 PPST (education majors)
- $25.00 Proficiency Examinations (per course by division)
- $15.00 Recording fee (per credit)
- $50.00 Registration cancellation
- $5.00 Transcript fee *
- $10.00 FAX copy and mailed official transcript *

*Account must be paid.

OTHER SERVICES AND INFORMATION

SUMMER SCHOOL SESSIONS

Union College offers summer school courses which are substantially discounted from the regular tuition rates. Some exceptions to discounted rates do apply. Information and tuition rates for summer sessions may be obtained from Enrollment and Student Financial Services.
MULTI-CAMPUS ENROLLMENT

Students who are required by their program to take classes at another institution while attending Union College must (1) obtain approval from the Academic Dean's Office and (2) make financial arrangements with Student Financial Services prior to enrolling for classes. If approved, a student may have credits taken at another institution for the given term count towards their overall enrollment for the purposes of being considered full-time for financial aid. Students must be enrolled at least part-time at Union College in order to be eligible for financial aid under a Multi-Campus Enrollment contract.

AFFILIATED OFF-CAMPUS PROGRAMS

Courses taken through an affiliated off-campus program (1) must have prior approval from the Academic Dean's Office and (2) must be paid for at the non-discounted tuition rate of Union College or the affiliated institution rate. Summer or special session rates do not apply. This policy applies to all students including those participating in individually customized degrees, cooperative, Guaranteed Education and Baccalaureate Bonus programs.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

Financial records are included as part of students’ educational record and therefore are subject to FERPA regulations. Union College’s FERPA policy is found at www.ucollege.edu/academicrecords-office/ferpa.

RESOURCES AVAILABLE

Union College has a comprehensive package of financial assistance. This financial assistance is an outgrowth of Union’s deeply rooted philosophy that quality Christian instruction should be available to everyone at a reasonable price.

Financial assistance for educational costs at Union College is available from the college, federal, state and private agencies, as well as family and student resources to help enable the opportunity to attend Union.

Most financial aid is awarded on financial need as determined by the Free Application for Federal Student Aid (FAFSA), although some scholarships and unsubsidized loans are non-need based. Students are encouraged to file early to receive the maximum financial awards. The earliest date to file is January 1 for the following school year. April 1 is the priority deadline for Union College applicants to be eligible for the maximum amount of federal funding.

The FAFSA may be completed prior to acceptance to the college, but the student must be officially accepted through the college’s Admissions Office before receiving an official financial aid award. Financial Aid awards are calculated on the basis of full-time enrollment. Awards are credited to the student's account for each term in which the student is enrolled. Awards are made without regard to gender, race, religion, nationality, or ethnic origin, age, or disability.

Following are summaries of resources that may be available to help finance an education at Union. The general categories of assistance, in order of appearance, are Scholarships, Government Grants and Loans, and Employment Opportunities.

SCHOLARSHIPS

Scholarships are reviewed by source of funds – External, and Union College scholarship and financial aid programs.
EXTERNAL SCHOLARSHIPS

Students can access scholarships from national and community organizations. Many businesses, philanthropies, service clubs, and religious organizations sponsor scholarships. Contact the high school counselor, public library, Chamber of Commerce, pastor and bookstores for more information.

NEBRASKA FOUNDATIONS

Several scholarships are available yearly from Nebraska philanthropic organizations. Preference is given to upper division students who are residents of designated Nebraska counties.

VETERANS

A student who has been accepted and is eligible to receive veteran’s benefits under the 1966 enactment should contact the Records Office for information about these benefits.

UNION COLLEGE MERIT AWARDS, SCHOLARSHIPS AND FINANCIAL ASSISTANCE

A student accepted at Union College will receive confirmation of a financial aid package which will include a combination of awards and grants determined by academic standing and economic need. Students are eligible to earn significant awards based on academic merit as determined by GPA and ACT scores or their equivalents. Need-based financial assistance may also be available to qualifying students who complete the FAFSA. These merit awards and financial assistance grants are funded through institutional resources as well as numerous endowed and annual scholarships managed by the college and made possible by generous contributions from alumni, businesses and friends of the college. Students who meet the criteria to have a portion of their financial aid package fulfilled by college scholarships will be required to acknowledge the donors’ generosity in order to maintain the annual renewal of their awarded package. Scholarship recipients will be contacted by the Advancement Office to fulfill the donor acknowledgement process.

Total scholarships, subsidies and other financial assistance (excluding loans) cannot exceed tuition. Eligibility for Union College scholarships and financial assistance is based upon full-time enrollment (12 hours or more per semester).

National Merit Scholarships are applied to Union College tuition and are renewable at 100% of the initial award for up to three additional years.

Students must maintain a 3.50 GPA to renew annually. Recipients of full-tuition awards are ineligible for other Union College sponsored scholarships and awards. These scholarships may be funded with other awards, scholarships, grants and subsidies and are offered for up to four years of attendance:

- **Finalist**   full tuition
- **Semi-finalist**  50% of tuition

Church Grant Matching is sponsored jointly by the student’s church and Union College. Union College will match fifty cents on each dollar provided by the church up to the Union College yearly cap. A student’s immediate family may not contribute to the fund for matching purposes. Contact Student Financial Services to obtain the Church Matching Form and for additional information.

Summer Camp Scholarships are generous scholarships for students employed in a Seventh-day Adventist conference summer camp program. The scholarships are sponsored jointly by the local and union Seventh-day Adventist conferences and Union.
College. Students should contact their local conference office for applications. Union College matches 75% of applied camp earnings up to $1,200 and 100% of second year MAUC camp earnings up to $1,600.

**Literature Evangelism Scholarship**
is available to students who enter the literature evangelist work for the purpose of applying earnings toward current school expenses. Union College matches summer earnings as a 100% scholarship up to the Union College cap.

**Task Force Scholarships** are for students who participate in qualified Task Force assignments through local Seventh-day Adventist conferences. Higher scholarship awards are granted for assignments within the Mid-America Union Conference territory. Awards range between $2,000 and $2,250 for a full school year assignment. Contact Student Financial Services for details.

**Student Missionary Scholarships** are awarded to participants in qualified student missionary assignments after they return to Union College.

**FEDERAL FINANCIAL AID**


In order to qualify for Title IV Federal Student Financial Aid, students must be enrolled and working toward a degree in an eligible program. Other eligibility criteria include: being a U.S. citizen or eligible non-citizen; having a valid Social Security number; making satisfactory academic progress; and, if required, register with the Selective Service. International Students are not eligible for federal aid.

In order to determine eligibility amounts, students must file the Free Application for Federal Student Aid (FAFSA) annually online at www.FAFSA.ed.gov. Help is accessed on that site or by calling FAFSA at 1-800-4-FED-AID (1-800-433-3243).

**GOVERNMENT GRANTS**

Grants are awarded to students whose families demonstrate exceptional financial need.

**FEDERAL PELL GRANT**

A Federal Pell Grant is a federal assistance grant awarded to undergraduate students who are United States citizens or permanent residents and have not earned a bachelor’s or professional degree. The amount of this grant is based on student and family resources and determined by the information submitted on the FAFSA.

**FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)**

FSEOG awards provide assistance to students who are eligible for the Pell grant and have exceptional financial need. The amount of the award is based on the availability of funds and awarded on a first-come, first-served basis.

**STATE OF NEBRASKA GRANT**

Awards are made to qualified Nebraska residents with low Pell grant indexes via the state’s colleges and universities. Funding is from federal and Nebraska sources.

**GOVERNMENT LOANS**

The federal government’s loan program provides low-interest loans to students enrolled at least half-time at Union College. Access to these loan funds also requires an annual FAFSA.
See government grants for information of help with the FAFSA filing.

**FEDERAL DIRECT LOAN**

This program enables students to borrow at low interest rates and repay the loan after leaving school over a number of years. *Subsidized loan* means the federal government pays the interest while the student is in school and during deferment periods. *Unsubsidized loans* are interest bearing to the student.

**FEDERAL PERKINS LOAN**

This program offers low-interest, long-term loans to degree-seeking students who are United States citizens or permanent residents, demonstrating financial need for the amount of the loan and accepted or currently enrolled at Union College.

Interest on this loan does not accrue during enrollment and deferment periods. Because of the large demand for this loan, Union College implements a maximum award for its qualifying applicants.

**FEDERAL NURSING LOAN**

This loan program is available for students enrolled in the nursing program (sophomores or above). The Perkins loan may be available to qualified pre-nursing students.

**FEDERAL PARENT PLUS LOAN FOR UNDERGRADUATE STUDENTS**

PLUS loans enable parents with good credit histories to borrow funds to pay the education expenses of each student who is a dependent undergraduate student enrolled at least half time. The maximum PLUS loan is the cost of attendance less other financial aid received. Interest begins to accrue immediately upon disbursement. Repayment generally begins within 60 days after the final loan disbursement for the academic year, with a maximum repayment period of ten years. These payments may be deferred until after students withdraw or graduate if the appropriate forms are completed.

**FEDERAL GRADUATE PLUS LOAN FOR GRADUATE STUDENTS**

PLUS loans enable graduate students with good credit histories to borrow funds to pay the educational expenses which are not covered by other funds. The maximum PLUS loan is the cost of attendance less other financial aid received. Repayment is deferred as long as the student is enrolled at least half time.

**EMPLOYMENT OPPORTUNITIES**

Full-time students are encouraged to participate in a work program. Earnings often are an important component of students’ financial resources. Students are considered “at will” employees in harmony with Nebraska state laws and guidelines.

**FINDING CAMPUS EMPLOYMENT**

The student employment office assists students in finding work and by posting employment openings on the campus computer bulletin board. Full-time students are given preference in filling campus work program positions.

**FEDERAL WORK-STUDY EMPLOYMENT**

This campus employment program is for those who qualify for federal financial assistance. Preference is given to students with the greatest financial need and who meet program guidelines. Students are paid at the legal minimum rate but may be given raises as their skill and competence increase.
20 HOURS PER WEEK MAXIMUM

Campus employment is limited to 20 hours per week during active terms. Exceeding this restriction requires approval from Student Financial Services.

WORKER’S COMP INSURANCE

Per Nebraska law, Union carries worker’s compensation insurance to protect all employees in case of work-related accidents.

INTERNATIONAL STUDENTS

U.S. Citizenship and Immigration Services approves campus work only (some exceptions apply).

DOCUMENTS FOR EMPLOYMENT

Students working on-campus must complete appropriate documents before starting work. International students must present valid visa and work documents before employment is authorized.

SUMMER EMPLOYMENT

Meaningful summer employment is a key to a successful financial plan for the coming year. Following are three programs to consider when making summer break plans.

Campus earnings are available for students who work on campus during the summer months. Also, generous summer employment scholarships are available for students who meet required employment hours and apply the work earnings to their account. To qualify for the scholarship, an application must be submitted. For details, contact the student employment office.

Summer camp earnings are for student employees of a Seventh-day Adventist conference summer camp program. The earnings are paid from funds contributed by the local and union Seventh-day Adventist conferences. Students should contact their local conference office for employment applications.

Literature evangelism earnings are for student employees who enter the literature evangelist work. Students receive a portion of their sales as a commission. Campus Ministries has more information.

SATISFACTORY PROGRESS TO KEEP FINANCIAL AID

Students receiving Title IV federal financial assistance must maintain satisfactory academic progress toward their degrees.

An undergraduate student must maintain an overall cumulative grade point average of at least 2.0 and must satisfactorily complete two-thirds of the credit hours attempted each term. In addition, a student will become ineligible if the student exceeds 150% of the credit hours necessary to complete the student’s program, as listed in the bulletin. In calculating the 150% all credit hours attempted, even those with grades of F, I, repeated courses, remedial courses, and courses taken at other institutions, whether financial aid was received or not, count toward the quantitative total.

A graduate student must maintain an overall cumulative grade point average of at least 2.8 and must satisfactorily complete two-thirds of the credit hours attempted each term.

Evaluation of a students’ eligibility to continue to receive federal aid will be made each term. Freshmen will also be evaluated each semester during their first term of attendance. A student who does not meet satisfactory academic progress standards will not be eligible for federal, state or institutional aid until additional academic work is satisfactorily completed.
A student may file a written appeal with the office of Student Financial Services to seek an additional semester to meet the required standards.

Students who are disqualified from receiving financial aid may choose to re-enroll. However, any previous balance and all tuition and fees for the current term must be paid or guaranteed prior to enrollment.

**MASTER’S PROGRAMS**

Students in master’s programs are granted 30 months to complete the program and clinical assignments.

**BACCALAUREATE PROGRAMS**

Students in baccalaureate programs have 12 semesters to complete their programs.

**ASSOCIATE PROGRAMS**

Students in associate programs (minimum of 64 hours) have six semesters to complete their programs.

**PART-TIME ENROLLMENT**

Students not classified as full time must satisfactorily complete a prorated number of credits.

**APPEALING FINANCIAL SUSPENSION**

Students may appeal denial of federal financial assistance by submitting the Satisfactory Academic Progress (SAP) Appeal Form to Student Financial Services. The appeal should include statements:

- Explaining the reasons for not making satisfactory progress;
- Indicating how satisfactory progress will be achieved, and
- All supporting documentation for reasons for not making satisfactory progress.

**ELIGIBILITY FOR ACCEPTING FINANCIAL ASSISTANCE**

Financial awards are typically based on full time (12 hours or more) enrollment. If students enroll for less than 12 hours each semester or drop to less than 12 hours, their award will be reduced or cancelled. Students who plan to register for less than 12 hours in a semester should notify Student Financial Services in advance.
MISSION

The Division of Business and Computer Science prepares professionals for Christian service in the business world by providing a quality, student-oriented education that emphasizes ethics and balances practice and theory.

GOALS

Students graduating with degrees in business or computing will be prepared to
• Apply a Christian philosophy to business and technology ethics;
• Demonstrate Christian involvement through volunteering in community activities;
• Apply theory to practical situations;
• Benefit from student/teacher involvement through personalized advising and career planning as well as social and professional activities;
• Integrate technology into the workplace through appropriate use of computer software;
• Work together in effective teams;
• Demonstrate professional communication and business decorum;
• Be prepared for advanced study.

The divisional assessment plan helps meet these goals by collecting, evaluating and responding to input from division students, internship evaluations and alumni. Student preparation for careers and graduate school will be measured through tracking graduates’ placement, graduate school acceptance, and nationally recognized tests.

CONTACT INFORMATION

Barry Forbes, Chair
Verna Blankenship, Office Manager
Dick Building, Room 301 and Room 407
402.486.2521
baforbes@ucollege.edu
www.ucollege.edu/business-and-computer-science

FACULTY

Gary Dickerson, Barry Forbes, Lisa Forbes, Malcolm Gaskin, George Gibson, Kent Stahly, Kim Steiner, Debra Unterseher

ADJUNCT FACULTY

Arlie Fandrich, Jonathan Rickard, Roger Schmidt, Jonathan Shields, G. Mark Smith
### DEGREES AND PROGRAMS

#### Bachelor of Science
- Business Administration
- Business, Marketing and Information Technology Secondary Subject Endorsement
- Computing
  - Emphases: Business, Computer Information Systems, Computer Science, Networking, Web Development
- Information Technology Education Supplemental Endorsement

#### Associate of Science
- Accounting
- Business Administration
- Computing

#### Minors
- Accounting
- Business Administration
- Computer Information Systems
- Marketing
- Small Business Management
division of emergency management and exercise science

MISSION

The program offered by the Division of Emergency Management and Exercise Science promotes a multidisciplinary approach to health care, thus supporting holistic concepts in restoration of humanity to God's ideal. Placed within the context of the God-centered Christian philosophy, the Division of Emergency Management and Exercise Science promotes mental, physical, social and spiritual development of students for competent Christ-like service in their professions.

CONTACT INFORMATION

Emergency Management & Exercise Science, Chair
International Rescue and Relief, Director
Rick Young, Director
IRR/PA Building
402.486.2980 phone
402.486.2983 fax
r2young@ucollege.edu
www.ucollege.edu/internationalrescueandrelied

Exercise Science & Health and Human Performance
Nancy Petta, Director
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www.ucollege.edu/hhp

FACULTY

Aaron Kent, Lauren Kent, Nancy Petta, Ric Spaulding, Rick Young

ADJUNCT FACULTY

Michael Duerhssen, Ryan Perry
## DEGREES AND PROGRAMS

### Bachelor of Science
- Business/Sport Management
- Exercise Science
- Fitness and Wellness
- International Rescue and Relief
  - Emphases: Pre-Professional or Public Safety
- Physical Education—Secondary Subject Endorsement

### Minors
- Business/Sport Management
- Coaching
- Disaster Management
- Expeditionary Leadership
- Fitness and Wellness
- Personal Training
- Physical Education
- Survival and Rescue
division of fine arts

MISSION

The mission of the Division of Fine Arts is to help each student grow artistically, intellectually, and spiritually through a comprehensive program based on Christian principles of service and education.

GOALS

Students obtaining degrees from the Division of Fine Arts will be prepared to
• Pursue careers and professions in art and music;
• Pursue graduate degrees in a variety of art or music fields;
• Be artistic leaders and contributors to the community and church;
• Serve God and humanity through the gifts of art and music.

CONTACT INFORMATION

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402.486.2528 fax
nameier@ucollege.edu
www.ucollege.edu/fineart

FACULTY

Bruce Forbes, Daniel Lynn, James D. McClelland

ADJUNCT FACULTY

Lynn Davis, Marina Fabrikant
### DEGREES AND PROGRAMS

<table>
<thead>
<tr>
<th>Bachelor of Arts</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Music</td>
<td></td>
</tr>
<tr>
<td>Studio Art</td>
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<table>
<thead>
<tr>
<th>Bachelor of Music</th>
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<tbody>
<tr>
<td>Music Education, K-12 Field Endorsement</td>
<td>Emphases: Instrumental, Keyboard, or Vocal</td>
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<tr>
<td>Music Performance</td>
<td>Emphases: Instrumental, Keyboard or Vocal</td>
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<table>
<thead>
<tr>
<th>Bachelor of Science</th>
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<tbody>
<tr>
<td>Art Education Field Endorsement K-12</td>
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<tr>
<td>General Art Subject Endorsement K-6</td>
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<tr>
<td>Graphic Design</td>
<td>Emphases: Business or Communication</td>
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<td>Music Education Instrumental Subject Endorsement K–8; 7-12</td>
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<td>Music Education Vocal Subject Endorsement K–8; 7-12</td>
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<table>
<thead>
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<tbody>
<tr>
<td>Art</td>
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<tr>
<td>Graphic Design</td>
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<tr>
<td>Music Pedagogy</td>
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<table>
<thead>
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<th>Minors</th>
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<tr>
<td>Art</td>
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<tr>
<td>Graphic Design</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
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</tbody>
</table>
MISSION

The mission of the Division of Human Development is to prepare exemplary teachers, psychology majors and social workers. The programs are driven by a commitment to holistic development, scholarship, multicultural clinical experiences and dedication to a life of service that helps others in achieving their God-given potential.

GOALS

The goals of the Division of Human Development are to prepare graduates for

• Entry-level career positions;
• Graduate study.

CONTACT INFORMATION

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www.ucollege.edu/humandev,
www.ucollege.edu/education,
www.ucollege.edu/psychology,
www.ucollege.edu/socialwork

FACULTY

Kathy Bollinger, Jody Detwieler, Melanie Gabbert, Trudy Ann Holmes-Caines, Shawna Kolbek, Y. J. Moses, Denise White

ADJUNCT FACULTY

<table>
<thead>
<tr>
<th>DEGREES AND PROGRAMS</th>
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<tbody>
<tr>
<td><strong>Bachelor of Science</strong></td>
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<tr>
<td>Elementary Education K–8</td>
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<td>Psychology</td>
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<tr>
<td>Secondary Education Endorsements (see major division section)</td>
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<tr>
<td><strong>Bachelor of Social Work</strong></td>
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<tr>
<td>Social Work</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
</tr>
<tr>
<td>Psychology</td>
</tr>
</tbody>
</table>
division of humanities

GOALS
• Create community
• Create dialogue
• Be a campus leader in Communication, Adaptability, and Problem Solving

CONTACT INFORMATION
Michelle Velázquez Mesnard, Chair
Tamara Seiler, Office Manager
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mimesnar@ucollege.edu
www.ucollege.edu/humanities

FACULTY
Chris Blake, Tanya R. Cochran, William D. Fitts, George Gibson, Michael Mennard, Michelle Velázquez Mesnard, Mark Robison, Benjamin Tyner, Peggy Wahlen

ADJUNCT FACULTY
Scott Cushman, LuAnn Davis, Amanda Funk-Hilton, Jack Kinworthy, Jill Morstad, Malcolm Russell, David Subiabre, Ryan Teller, Brian Weed
## DEGREES AND PROGRAMS

**Bachelor of Arts**
- Communication
  - Emphases: Emerging Media, Journalism, or Public Relations
- English
  - Emphases: Literature or Writing and Speaking
- History
- International Studies
- Modern Foreign Language
  - Emphases: French, German, Portuguese, or Spanish
- Second Language Studies
  - Emphases: French, German, Portuguese, or Spanish
- Social Science

**Bachelor of Science**
- English Education, Secondary Subject Endorsement
- History Education, Secondary Subject Endorsement
- Institutional Development
- International Studies
- Language Arts Education, Secondary Field Endorsement
- Social Science Education, Secondary Field Endorsement

**Minors**
- Communication
- Drama
- English
- French
- German
- History
- Italian
- Portuguese
- Pre-Law
- Social Science
- Spanish
Union College offers a four-year curriculum in nursing, leading to a Bachelor of Science in Nursing. The nursing program is approved by the Nebraska State Board of Nursing and is accredited by the Commission on Collegiate Nursing Education. Graduates are eligible to write the National Council Licensing Examination RN (NCLEX-RN) for professional licensure.

MISSION

The mission of the Union College nursing program is to prepare students from diverse backgrounds to be competent, caring generalists in the profession of nursing. The program reflects a commitment to Christian values, professional standards, holistic care, and service as modeled by Jesus Christ.

CONTACT INFORMATION

Theresa Stimson MSN, RN
Chair and Nursing Program Director
Larson Lifestyle Center, Second Floor
402.486.2524 Nursing Program
nursing@ucollege.edu
www.ucollege.edu/nursing

Angela Heam, Nursing Enrollment Coordinator
402.486.2674
nursing@ucollege.edu

FACULTY

Kelly Boyd, Debbie Eno, Kristine Follett, Amy Golter, Tracy Hagele, Jackie Halley, Laura Karges, Valeree Krueger, Ruth Mendenhall, Elysia Ockenga, Nicole Orian, Ellen Rose, Charlotte Schober, Theresa Stimson

Simulation Center Coordinator
Tracy Hagele

DEGREES AND PROGRAMS

Bachelor of Science in Nursing
Nursing
MISSION

The Division of Religion empowers students to serve as Christian disciples, leaders and professionals sharing the Gospel in preparation for Jesus Christ's return.

GOALS

The goals of the Division of Religion are to enable students to
• Express an informed commitment to Jesus Christ as Savior and Lord;
• Cultivate and model Christian discipleship;
• Demonstrate knowledge of the teachings of the Bible common to the Christian faith, and of distinctive Seventh-day Adventist beliefs;
• Demonstrate and the ability to interpret and apply biblical and ethical principles
• Prepare to pursue graduate studies

CONTACT INFORMATION

Robert Fetrick, Chair
Sandy Tallman, Office Manager
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402.486.2526
rofetric@ucollege.edu
www.ucollege.edu/religion

FACULTY

Edward Allen, Robert Fetrick, Ben Holdsworth, Thomas Toews

ADJUNCT FACULTY

Richard Carlson, Sylvester Case, Shayne Daughenbaugh, Buffy Halvorsen, Ron Halvorsen Jr., Stan Hardt
**DEGREES AND PROGRAMS**

**Bachelor of Arts**  
Theology

**Bachelor of Science**  
Religion
  - Emphases: Business, Missions Service, or Pastoral Care
  - Religious Education, Secondary Subject Endorsement
  - Social Media Ministry

**Minors**  
- Biblical Languages
- Missions
- Religion
- Social Media Ministry
- Youth Ministry
division of science and mathematics

The Division of Science and Mathematics has traditionally attracted and produced outstanding students. The division concentrates on helping students to know God as the Creator while providing plenty of practical experience. Because of Union’s small size, students receive hands-on experience with scientific equipment much more readily than they would in a larger college or university.

MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

Baccalaureate degree candidates in the Division of Science and Mathematics must complete departmental assessment examinations. These senior exit testing experiences consist of nationally standardized major-field exams. Results from assessment activities are reviewed by the department as part of the college's commitment to the continuous improvement of student learning.

CONTACT INFORMATION

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www.ucollege.edu/scimath

FACULTY


ADJUNCT FACULTY

Charles E. Freidline, Angie Hardt, Marcia A. Kilsby
AFFILIATIONS

In order to strengthen the programs offered and increase the options available to our students, the Division has established affiliations and coordinated programs with several institutions. These include Andrews University, Nebraska Wesleyan University, Loma Linda University and Walla Walla University. These arrangements are described along with the applicable major.

### DEGREES AND PROGRAMS

<table>
<thead>
<tr>
<th>Bachelor of Arts</th>
<th>Bachelor of Science</th>
</tr>
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<tbody>
<tr>
<td>Biology</td>
<td>Biology Education, Secondary Subject Endorsement</td>
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<tr>
<td>Chemistry</td>
<td>Biomedical Science</td>
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<tr>
<td>Mathematics</td>
<td>Chemistry Education, Secondary Subject Endorsement</td>
</tr>
<tr>
<td>Physics</td>
<td>Mathematics Education, Secondary Subject Endorsement</td>
</tr>
</tbody>
</table>

**Associate of Science**

- Engineering
- Pre-Allied Health

**Minors**

- Biology
- Chemistry
- Mathematics
- Physics
MISSION
The mission of the art program is to prepare students to appreciate, produce, and share artwork within a Christian framework.

GOALS
Students graduating from the art program will be able to
• Understand aesthetic literacy in which they perceive formal relationships in works of art, interpret meanings and judge significance;
• Develop skills in observation and perception, creative thinking and artistic problem solving;
• Value the role of the arts in society and to recognize the impact of the arts on themselves and others.

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www.ucollege.edu/fineart

FACULTY
Bruce Forbes, James D. McClelland

ADJUNCT FACULTY
Lynn Davis

ACADEMIC PROGRAMS
Studio Art, BA
Art Education, BS—Field Endorsement K–12
General Art, BS—Subject Endorsement K–6
Art, AS
Minor in Art
ART CORE—17 HOURS

ART 105 Drawing I 2  
ART 115 Design I 2  
ART 225 Color Theory 2  
ART 235 Drawing II 2  
ART 315 Design II 2  
ART 321 European Art History 3  
ART 322 American Art History 3  
ART 485 Senior Exhibit 1

STUDIO ART—BA

Students in Studio Art will develop
• Skills in the areas of the visual arts in which they are focusing;
• Skill in marketing and exhibiting their works;
• A historical perspective in the visual arts;
• Potential for creative expression;
• Capacities for sharing and communicating their knowledge and skills (exhibition, participation and appreciation);
• Professionalism, including ethics;
• A knowledge of fundamental business and marketing practices;
• The necessary social and personal attributes, Christian and business or professional ideals to successfully promote their creative works.

Required courses—46 hours

ART CORE 17

Additional art courses
ART 125 Oil Painting 2  
ART 135 Pottery 2  
ART 145 Watercolor 2  
ART 245 Sculpture 2  
ART Area of Emphasis 12  

Other required courses - Select nine hours from 9
ACCT 211 Principles of Accounting (3)  
BUAD 138 Dynamics of Business (3)  
BUAD 219 Small Business Management (3)  
BUAD 376 Human Resources Management (3)  
BUAD 425 Business Communications (3)  
MRKT 327 Marketing (3)  
MRKT 443 Consumer Behavior (3)  
PSYC 105 Introduction to Psychology (3)  
SOCI 105 Introduction to Sociology (3)  

ART EDUCATION—BS

K–12 Field Endorsement

Students graduating with a degree in art education will be able to
• Develop a knowledge of the field of art, including principles and current methods in the visual arts;
• Have competence in at least one art medium;
• Use pencil, ballpoint and felt tip pen, charcoal, conte crayon, scratchboard, ink, wash, oil, watercolor, acrylic and silk screen, and airbrush;
• Work with thrown and hand-built forms of pottery, the additive and subtractive approaches to sculpture and design sculpture;
• Design by computer;
• Utilize pertinent professional journals and other printed resources;
• Develop planned units of instruction in art concepts and skills which incorporates a historical and appreciative perspective;
• Share and communicate their knowledge and skills (teaching, exhibiting, participation and appreciation);
• Oversee an art program which includes creation and innovation of programs, promotion, media, and fiscal responsibility;
• Develop social and personal attributes, Christian ideals and attitudes to successfully promote Christ and to successfully generate continued support for the arts and for continued support for future professional responsibilities.

**Required courses—106 hours**

**ART CORE** 17

**Additional art courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ART 125</td>
<td>Oil Painting</td>
<td>2</td>
</tr>
<tr>
<td>ART 135</td>
<td>Pottery</td>
<td>2</td>
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<tr>
<td>ART 145</td>
<td>Watercolor</td>
<td>2</td>
</tr>
<tr>
<td>ART 215</td>
<td>School Art</td>
<td>2</td>
</tr>
<tr>
<td>ART 245</td>
<td>Sculpture</td>
<td>2</td>
</tr>
<tr>
<td>ART 347</td>
<td>Illustration Techniques I</td>
<td>2</td>
</tr>
<tr>
<td>ART 445</td>
<td>Illustration Techniques II</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 252</td>
<td>Computer Design</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 254</td>
<td>Publication Design</td>
<td>3</td>
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<tr>
<td>GRPH 358</td>
<td>Typography</td>
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Select six hours from

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<th>Hours</th>
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<tr>
<td>GRPH 301</td>
<td>Web Design I (3)</td>
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<tr>
<td>GRPH 460</td>
<td>Prepress Production (3)</td>
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<tr>
<td>GRPH 464</td>
<td>Advertising Design (3)</td>
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<tr>
<td>GRPH/ART 476</td>
<td>Internship (3)</td>
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**Other required course**

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<th>Hours</th>
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<tr>
<td>COJR 151</td>
<td>Photography</td>
<td>3</td>
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**Professional Education**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDUC 410</td>
<td>Methods: Art Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Additional Professional Education</td>
<td>51</td>
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</tbody>
</table>

(See Education—Secondary Education Endorsements)

**GENERAL ART EDUCATION—BS**

K-6 Subject Endorsement (Available as a second major only)

The teaching major in general art education is designed to prepare candidates for teaching grades K-6 by providing knowledge and appropriate experiences in the following areas:

• Aesthetics,
• Art criticism,
Art history,
Art production,
Child and adolescent development in art, and
Interaction both in and out of the studio and classroom.

Required courses—23 hours additional to another teaching major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Drawing I</td>
<td>2</td>
</tr>
<tr>
<td>ART 115</td>
<td>Design I</td>
<td>2</td>
</tr>
<tr>
<td>ART 125</td>
<td>Oil Painting</td>
<td>2</td>
</tr>
<tr>
<td>ART 135</td>
<td>Pottery</td>
<td>2</td>
</tr>
<tr>
<td>ART 145</td>
<td>Watercolor</td>
<td>2</td>
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<tr>
<td>ART 215</td>
<td>School Art</td>
<td>2</td>
</tr>
<tr>
<td>ART 235</td>
<td>Drawing II</td>
<td>2</td>
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<tr>
<td>ART 245</td>
<td>Sculpture</td>
<td>2</td>
</tr>
<tr>
<td>ART 321</td>
<td>European Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART 322</td>
<td>American Art History</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
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</table>

Professional Education (Requires another teaching major)

**ART—AS**

Required courses—24-25 hours

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ART 105</td>
<td>Drawing I</td>
<td>2</td>
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<tr>
<td>ART 115</td>
<td>Design I</td>
<td>2</td>
</tr>
<tr>
<td>ART 125</td>
<td>Oil Painting</td>
<td>2</td>
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<tr>
<td>ART 135</td>
<td>Pottery</td>
<td>2</td>
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<tr>
<td>ART 145</td>
<td>Watercolor</td>
<td>2</td>
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<tr>
<td>ART 235</td>
<td>Drawing I</td>
<td>2</td>
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<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
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</table>

ART/GRPH Electives 9–10

**MINOR IN ART**

Required courses—20-21 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
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<tr>
<td>ART 105</td>
<td>Drawing I</td>
<td>2</td>
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<tr>
<td>ART 115</td>
<td>Design I</td>
<td>2</td>
</tr>
<tr>
<td>ART 125</td>
<td>Oil Painting</td>
<td>2</td>
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<tr>
<td>ART 135</td>
<td>Pottery</td>
<td>2</td>
</tr>
<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

ART/GRPH Electives 9–10

(3 hours must be 300 or 400 level)
MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

GOALS

Students graduating with a bachelor’s degree in biology will be able to
• Independently access and organize relevant data in the biological sciences;
• Independently synthesize and communicate relevant data in the biological sciences;
• Demonstrate familiarity with basic techniques of investigation in varied fields of biological research;
• Apply knowledge acquired from varied aspects of biological sciences to critical thinking in research and everyday life;
• Apply knowledge acquired from varied aspects of biological sciences to ethical decision making in stewardship and everyday life;
• Demonstrate knowledge of past contributions and awareness of current progress in the biological sciences;
• Engage in senior-level research
• Pursue graduate studies.

CONTACT INFORMATION

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FACULTY

Corraine McNeil, Salvador Moguel, Frankie Rose, Amy Utt

ACADEMIC PROGRAMS

Biology, BA, BS
Biology Education, BS – Secondary Subject Endorsement
Minor in Biology

biology
BIOLOGY CORE—57 HOURS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
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<tr>
<td>BIOL 296</td>
<td>Research Methods I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or MATH 221 Elementary Statistics &amp; Probability (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or MATH 331 Statistics &amp; Probability (3)</td>
<td></td>
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<tr>
<td>BIOL 310</td>
<td>Seminar in Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 321</td>
<td>Genetics</td>
<td>4</td>
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<tr>
<td>BIOL 386</td>
<td>Research Methods II</td>
<td>1</td>
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<tr>
<td>BIOL 404</td>
<td>Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
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<tr>
<td>BIOL 436</td>
<td>Developmental Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 477</td>
<td>Issues in Origins and Speciation</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
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<tr>
<td>PHYS 151, 152</td>
<td>General Physics</td>
<td>4, 4</td>
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<tr>
<td></td>
<td>or PHYS 251, 252 College Physics (4.5, 4.5)</td>
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BIOLOGY – BA
Required courses—71-74 hours

<table>
<thead>
<tr>
<th>CORE</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 365</td>
<td>Plant Biology</td>
<td>3</td>
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<tr>
<td>or BIOL 375 Ecology (4)</td>
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<tr>
<td>BIOL</td>
<td>Biology electives (300 or 400 level)</td>
<td>6-8</td>
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<tr>
<td>MATH 121</td>
<td>Precalculus</td>
<td>5</td>
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<td>or MATH 184 Calculus I (4)</td>
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BIOLOGY – BS
Required courses—76-78 hours

<table>
<thead>
<tr>
<th>CORE</th>
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<tr>
<td>BIOL 365</td>
<td>Plant Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 375</td>
<td>Ecology</td>
<td>4</td>
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<tr>
<td>BIOL 396</td>
<td>Research Methods III</td>
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<tr>
<td>BIOL 496</td>
<td>Research Methods IV</td>
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<tr>
<td>BIOL</td>
<td>Biology electives (300 or 400 level)</td>
<td>6-8</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

The affiliation with Walla Walla University involves the summer program at the marine station. Courses offered there are primarily oriented toward the biology major, but included are courses which would strengthen any major.

Students attending the summer session at the station may enroll in either BIOL 101, 102, or 103, or up to two upper division courses, one of which may be a marine-oriented course (designated by “marine course” in the course descriptions). All students, including Guaranteed Education and Baccalaureate Bonus recipients, will be charged tuition at the fall semester rate.
BIOLOGY EDUCATION—BS
Secondary Subject Endorsement

The teaching major in biology is designed to prepare candidates for secondary teaching by providing

- The ability to recognize the fixed, the changing and the unrelated factors to experimental situations;
- The ability to recognize cause-and-effect relationships;
- The ability to test and evaluate evidence, to recognize and make reasonable assumptions, to distinguish between fact and theory, to apply generalizations and principles and to make valid conclusions;
- An ability to accept, clarify and use ideas, to state objectively a point of view, to reflect the ideas of others, to summarize ideas presented in group discussion and to use scientific vocabulary;
- The ability to use a knowledge of factual and theoretical results with precision and accuracy;
- The ability to interpret data and to use the nature of proof;
- Skill in discerning and applying mathematical relationships;
- An ability to use scientific instruments, to dissect biological specimens and to treat live animals humanely.

Required courses—104 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 111</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 345 Biology of Bacteria (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 321</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 375</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 404</td>
<td>Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 111, 112 Human Anatomy &amp; Physiology (4, 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 477</td>
<td>Issues in Origins and Speciation</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH 111</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 121 Precalculus (5)</td>
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<tr>
<td>PHYS 111</td>
<td>Principles of Physics</td>
<td>4</td>
</tr>
<tr>
<td>or PHYS 151 General Physics (4)</td>
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Professional Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDUC 418</td>
<td>Methods: Science Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Additional Professional Education</td>
<td>51</td>
</tr>
</tbody>
</table>

It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education—Secondary Education Endorsements).

MINOR IN BIOLOGY

Required courses—32 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL 321</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 375</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL</td>
<td>Biology electives</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
</tbody>
</table>
MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

GOALS

Students graduating with a bachelor’s degree in biomedical science will be prepared to

• Pursue professional or graduate studies.
• Demonstrate knowledge of past contributions and awareness of current progress in the biomedical sciences;
• Apply knowledge acquired from varied aspects of biomedical sciences to critical thinking in research and everyday life;
• Independently synthesize and communicate relevant data in the biomedical sciences;
• Demonstrate familiarity with basic techniques of investigation in varied fields of biomedical research;
• Apply knowledge acquired from varied aspects of biomedical sciences to ethical decision making in stewardship and everyday life;

CONTACT INFORMATION

Carrie Wolfe, Chair, Division of Science and Mathematics
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Darla Peterson, Office Manager
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cawolfe@ucollege.edu
frrose@ucollege.edu
www.ucollege.edu/scimath

FACULTY

Richard Clark, Barry Forbes, Trudy Ann Holmes-Caines, Salvador Moguel, Ken Osborn, Frankie Rose, Richard Webb, Carrie Wolfe, Rick Young

ACADEMIC PROGRAMS

Biomedical Science, BS
BIOMEDICAL SCIENCE CORE: 44–52 hours

A sequence of the most essential courses to prepare the student for health-related professional/graduate programs. Many of these courses are entrance requirements for professional programs. Choose one of the following core tracks: Pre-Medicine/Pre-Dentistry, Pre-Physician Assistant, Pre-Physical Therapy.

PRE-MEDICINE/PRE-DENTISTRY/PRE-PHARMACY

Required courses—52 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>BIOL 152</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 296</td>
<td>Research Methods I (or MATH 221)</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 386</td>
<td>Research Methods II</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOM 301</td>
<td>Professional Shadowing</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 151</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 152</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 445</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>HHPT 256</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Precalculus (OR MATH 184)</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 151</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 152</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>PSYC</td>
<td>An approved psychology course</td>
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</table>

PRE-PHYSICIAN ASSISTANT

Required Courses—49 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 151</td>
<td>General Biology</td>
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<tr>
<td>BIOL 152</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 386</td>
<td>Research Methods II</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 411</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOM 301</td>
<td>Professional Shadowing</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 151</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 152</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 445</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>HHPT 256</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>PSYC</td>
<td>An approved psychology course</td>
<td>3</td>
</tr>
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</table>

PRE-PHYSICAL THERAPY

Required Courses—44 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 151</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>BIOL 152</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 386</td>
<td>Research Methods II</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 411</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOM 301</td>
<td>Professional Shadowing</td>
<td>1</td>
</tr>
</tbody>
</table>
CHEM 151  General Chemistry  4
CHEM 152  General Chemistry  4
HHPT 256  Medical Terminology  1
MATH 221  Elementary Statistics and Probability  3
PHYS 151  General Physics  4
PHYS 152  General Physics  4
PSYC  Two approved psychology courses  6

SUPPLEMENTAL BIOMEDICAL COURSEWORK—10 hours
Elective coursework that further prepares the student for the subject matter they will encounter in their professional program. Courses already included in track may not be counted towards electives total. Choose at least 10 hours from the following courses:

BIOL 306  Histology  3
BIOL 314  Immunology  3
BIOL 321  Genetics  4
BIOL 403  Molecular Biology  3
BIOL 404  Cell Biology  4
BIOL 411  Human Anatomy  4
BIOL 477  Issues in Origins and Speciation  3
BIOL 205  Microbiology  4
CHEM 445  Biochemistry I  4
CHEM 446  Biochemistry II  3
HHPT 356  Physiology of Exercise  3
HHPT 360  Biomechanics  3

SUPPORTING AREA—18 hours
A sequence of courses in an academic field that complements the professional program of choice. A minimum of 18 hours are required. The sequence of courses must be approved by the student’s faculty advisor and the division chair within the supporting area. Options include Business, International Rescue and Relief, Psychology, and Health and Human Performance. A sequence of courses from any other academic field may be taken with program director approval.
MISSION

The Division of Business and Computer Science prepares professionals for Christian service in the business world by providing a quality, student-oriented education that emphasizes ethics and balances practice and theory.

GOALS

Students graduating from the business administration program will be prepared to
• Apply a Christian philosophy to business and technology ethics;
• Demonstrate Christian involvement through volunteering in community activities;
• Apply theory to practical situations;
• Benefit from student/teacher involvement through personalized advising and career planning as well as social and professional activities;
• Integrate technology into the workplace through appropriate use of computer software;
• Work together in effective teams;
• Demonstrate professional communication and business decorum;
• Be prepared for advanced study;
• Analyze comprehensive business problems;
• Apply classroom ideas to current events in business.

The divisional assessment plan helps meet these goals by collecting, evaluating and responding to input from division students, internship evaluations and alumni. Student preparation for careers and graduate school will be measured through tracking graduates’ job placement, graduate school acceptance, and nationally recognized tests.

CONTACT INFORMATION

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FACULTY

Gary Dickerson, Barry Forbes, Lisa Forbes, Malcolm Gaskin, George Gibson, Kent Stahly, Kim Steiner

ADJUNCT FACULTY

Jonathan Rickard, Jonathan Shields, G. Mark Smith
ACADEMIC PROGRAMS

Business Administration, BS
Emphases in Accounting
  Finance
  Financial Aid
  Management
  Marketing
  Science
  Small Business Management

Business, Marketing and Information Technology, BS–Secondary Subject Endorsement
Accounting, AS
Business Administration, AS
Minors in Accounting
  Business Administration
  Marketing
  Small Business Management

BUSINESS CORE—45 HOURS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 211, 212</td>
<td>Principles of Accounting</td>
<td>3,3</td>
</tr>
<tr>
<td>BUAD 376</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 405</td>
<td>Business Ethics</td>
<td>1</td>
</tr>
<tr>
<td>BUAD 425</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 428</td>
<td>Business Policies</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 445</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ECON 235</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 236</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>FNCE 325</td>
<td>Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>MATH 165</td>
<td>Calculus for Managers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 327</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>RELT 305</td>
<td>Christian Ethics</td>
<td>3</td>
</tr>
<tr>
<td>____________</td>
<td>Internship in ACCT, BUAD, FNCE, or MRKT</td>
<td>1</td>
</tr>
</tbody>
</table>

Admission to some graduate programs may require additional courses such as
BUAD 316 Operations and Resource Management 3

BUSINESS ADMINISTRATION—BS

Accounting Emphasis

The accounting emphasis prepares students for careers as professional accountants in the areas of taxation, auditing, financial, managerial and not-for-profit accounting. Both managerial and certified public accountants serve as consultants and advisors to business management and public officials.

Required courses—72 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS CORE</td>
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</tr>
<tr>
<td>ACCT 313, 314</td>
<td>Intermediate Accounting</td>
<td>4, 4</td>
</tr>
<tr>
<td>ACCT 315</td>
<td>Federal Income Tax—Individual</td>
<td>3</td>
</tr>
</tbody>
</table>
Many students choose to obtain certification as Certified Public Accountants (CPAs). Most states require completion of an undergraduate degree in accounting before the CPA exam may be written. Nebraska and many other states have a minimum education requirement of 150 semester hours after high school.

The Union College Accounting Curriculum has been approved by the Nebraska State Board of Public Accountancy as satisfying the accounting and general business requirements for the 150 hours. Close consultation is necessary between the student and the accounting faculty to ensure that state requirements to sit for the exam are met. Students may complete this requirement by taking undergraduate class work with the option of completing a second major or emphasis or by attending graduate school. Careful planning by the student is needed to ensure compliance with the various state requirements for specific classes which must be taken to fulfill the 150-hour requirement. Courses required to sit for the CPA exam in Nebraska in addition to the business core include:

- ACCT 335 Accounting Information Systems 3
- BUAD 316 Operations and Resource Management 3

**BUSINESS ADMINISTRATION—BS**

**Finance Emphasis**

**Required courses—68 hours**

<table>
<thead>
<tr>
<th>BUSINESS CORE</th>
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</thead>
<tbody>
<tr>
<td>ACCT 313, 314</td>
<td>Intermediate Accounting</td>
</tr>
<tr>
<td>FNCE 330</td>
<td>Financial Institutions and Markets</td>
</tr>
<tr>
<td>FNCE 332</td>
<td>Investments</td>
</tr>
<tr>
<td>FNCE 370</td>
<td>International Finance</td>
</tr>
<tr>
<td>Select additional courses from ACCT, BUAD, FNCE, or MRKT 333</td>
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</tbody>
</table>

**BUSINESS ADMINISTRATION—BS**

**Financial Aid Emphasis**

**Required courses—71 hours**

<table>
<thead>
<tr>
<th>BUSINESS CORE</th>
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</thead>
<tbody>
<tr>
<td>ACCT 313</td>
<td>Intermediate Accounting</td>
</tr>
<tr>
<td>ACCT 315</td>
<td>Federal Income Tax – Individual</td>
</tr>
<tr>
<td>BUAD 310</td>
<td>Quality Management</td>
</tr>
<tr>
<td>BUAD 420</td>
<td>Advanced Excel</td>
</tr>
<tr>
<td>BUAD 430</td>
<td>Conflict Management</td>
</tr>
<tr>
<td>COMM 465</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>FNCE 215</td>
<td>Personal Finance</td>
</tr>
<tr>
<td>FNCE 340</td>
<td>Financial Aid Operations</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
</tr>
</tbody>
</table>

At least 200 hours of work in Student Financial Services or some equivalent opportunity is required as part of the internship.
BUSINESS ADMINISTRATION—BS
Management Emphasis

Required courses—69 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUAD 310</td>
<td>Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 316</td>
<td>Operations and Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 430</td>
<td>Conflict Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 455, 456</td>
<td>Advanced Human Resource Management</td>
<td>2, 2</td>
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<tr>
<td>CPTR</td>
<td>Additional CPTR course(s)</td>
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<tr>
<td></td>
<td>190 level or above</td>
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</table>

Select additional courses from (at least one must be ACCT 313 or 325) 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 313</td>
<td>Intermediate Accounting</td>
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</tr>
<tr>
<td>ACCT 325</td>
<td>Cost and Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>FNCE 332</td>
<td>Investments</td>
<td>3</td>
</tr>
</tbody>
</table>

BUSINESS ADMINISTRATION—BS
Marketing Emphasis

Required courses—66 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 333</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 443</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 456</td>
<td>Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
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</table>

Select additional courses from

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 365</td>
<td>Institutional Development</td>
<td>3</td>
</tr>
<tr>
<td>COPR 316</td>
<td>Advertising Practices</td>
<td>3</td>
</tr>
<tr>
<td>COPR 332</td>
<td>Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>COPR 445</td>
<td>Public Relations Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

BUSINESS ADMINISTRATION—BS
Science Emphasis

The degree in business with a science emphasis prepares the student for professional schools in the medical field and trains the student for employment in careers which encourage or require knowledge in both business and scientific principles. Students taking this major should work with both divisions to plan classes that will be the most beneficial for their career goals. Students should be aware that the minimum major requirements will not prepare them for graduate school in science and courses should be chosen carefully to meet business graduate school requirements.

Required courses—84 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 211, 212</td>
<td>Principles of Accounting</td>
<td>3, 3</td>
</tr>
<tr>
<td>BUAD 376</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 425</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 428</td>
<td>Business Policies</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
</tbody>
</table>
ECON 235 Principles of Microeconomics 3
FNCE 332 Investments 3
MATH 165 Calculus for Managers 3
MRKT 327 Marketing 3
RELT 305 Christian Ethics 3

Select four courses from 12
ACCT 300–400 level (3)
BUAD 219 Small Business Management (3)
BUAD 430 Conflict Management (3)
BUAD 445 Business Law (4)
ECON 236 Principles of Macroeconomics (3)
FNCE 215 Personal Finance (3)
FNCE 325 Business Finance (3)
MATH 221 Elementary Statistics and Probability (3)
MRKT 333 Professional Selling (3)

Science Courses
BIOL 151, 152 General Biology 4, 4
CHEM 151, 152 General Chemistry 4, 4
PHYS 151, 152 General Physics 4, 4
or PHYS 251, 252 College Physics (4.5, 4.5)

Select four science courses numbered 200 or above
(two must be 300 or 400 level)
BIOL, CHEM, PHYS 15

BUSINESS ADMINISTRATION—BS
Small Business Management Emphasis

Required courses—64 hours
BUSINESS CORE 45
ACCT 335 Accounting Information Systems 3
BUAD 219 Small Business Management 3
BUAD 310 Quality Management 3
BUAD 455, 456 Advanced Human Resource Management 2, 2
FNCE 215 Personal Finance 3
FNCE 332 Investments 3
or BUAD 316 Operations Management (3)

Additional class recommended
ACCT 315 Federal Income Tax—Individual 3

BUSINESS, MARKETING & INFORMATION TECHNOLOGY—BS
Secondary Subject Endorsement

The teaching major in business prepares candidates for secondary teaching by providing

• An appreciation for and understanding of the American private enterprise business system;
• A broad perspective of the principles, rules, laws and regulations which govern the business world;
• The ability to describe the relationships of individuals, business, government, labor and professional groups in the business world;
• Knowledge of the opportunities for influencing or affecting the American private enterprise system;
- The ability to describe the theories and applications of accounting and bookkeeping principles;
- The ability to describe the art and techniques involved in recording, analyzing, classifying and interpreting financial data;
- An understanding of marketing and public relations concepts;
- Proficiency in technology, media, web design, keyboarding and applications software on a personal computer.

**Required courses—107 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 211, 212</td>
<td>Principles of Accounting</td>
<td>3, 3</td>
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<tr>
<td>BUAD 376</td>
<td>Human Resources Management</td>
<td>3</td>
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<tr>
<td>BUAD 425</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>BUAD 445</td>
<td>Business Law</td>
<td>4</td>
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<tr>
<td>BUAD 475</td>
<td>Internship in Management</td>
<td>3</td>
</tr>
<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
<td>3</td>
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<tr>
<td>CPTR 126</td>
<td>Fundamentals of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 226</td>
<td>Computer Science I</td>
<td>4</td>
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<tr>
<td>CPTR 240</td>
<td>System Administration</td>
<td>3</td>
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<tr>
<td>ECON 235</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<td></td>
<td>or ECON 236 Principles of Macroeconomics (3)</td>
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<tr>
<td>MATH 111</td>
<td>College Algebra</td>
<td>3</td>
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<td>MRKT 327</td>
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<tr>
<td>BUAD 138</td>
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<td>BUAD 310</td>
<td>Quality Management (3)</td>
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<td>FNCE 215</td>
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<td>FNCE 332</td>
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<td>CPTR 227</td>
<td>Computer Science II (4)</td>
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<tr>
<td>CPTR 335</td>
<td>Web Technologies (3)</td>
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<tr>
<td>COPR 316</td>
<td>Advertising Practices (3)</td>
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<td>MRKT</td>
<td>300-400 level (3)</td>
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<td></td>
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<td>EDUC 411</td>
<td>Methods: Business Teacher Education (3)</td>
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<td>Additional Professional Education (51)</td>
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</table>

It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education--Secondary Education Endorsements).

**ACCOUNTING—AS**

**Required courses—32 hours**

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<th>Hours</th>
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<td>Principles of Accounting</td>
<td>3, 3</td>
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<td>ACCT 313</td>
<td>Intermediate Accounting</td>
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<tr>
<td>ACCT 314</td>
<td>Intermediate Accounting</td>
<td>4</td>
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<tr>
<td></td>
<td>or ACCT 455 Auditing (4)</td>
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<tr>
<td>ACCT 315</td>
<td>Federal Income Tax Individual</td>
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<tr>
<td>ACCT 335</td>
<td>Accounting Information Systems</td>
<td>3</td>
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<td>FNCE 325</td>
<td>Business Finance</td>
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<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability</td>
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<td></td>
<td>Select two additional courses from ACCT, BUAD, ECON</td>
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</table>
BUSINESS ADMINISTRATION—AS

This program is designed to allow some latitude in course selection to fit the needs of individual students. The courses should be selected in consultation with the student’s advisor.

**Required courses—27 hours**

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<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
<tr>
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<td>BUAD 138</td>
<td>Dynamics of Business</td>
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<td>BUAD 425</td>
<td>Business Communications</td>
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<tr>
<td>ECON 235</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<tr>
<td></td>
<td>or ECON 236 Principles of Macroeconomics</td>
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<tr>
<td>MATH 165</td>
<td>Calculus for Managers</td>
<td>3</td>
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<tr>
<td></td>
<td>or MATH 221 Elementary Statistics &amp; Probability</td>
<td>3</td>
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*Select additional courses from*

<table>
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<th>Hours</th>
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<tbody>
<tr>
<td>ACCT</td>
<td>Any ACCT course above 212 (3-4)</td>
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<tr>
<td>BUAD 376</td>
<td>Human Resources Management (3)</td>
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<tr>
<td>BUAD 445</td>
<td>Business Law (4)</td>
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<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications (3)</td>
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<tr>
<td>FNCE</td>
<td>Any FNCE 300-400 level course (3)</td>
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<td>MATH</td>
<td>Any MATH course above 111 (3)</td>
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**MINOR IN ACCOUNTING**

**Required courses—19 hours**

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<th>Hours</th>
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<tr>
<td>ACCT 211, 212</td>
<td>Principles of Accounting</td>
<td>3, 3</td>
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<tr>
<td>ACCT 313</td>
<td>Intermediate Accounting</td>
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</tr>
<tr>
<td>ACCT 315</td>
<td>Federal Income Tax Individual</td>
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</table>

*Select 6 hours from any ACCT courses* | 6

**MINOR IN BUSINESS ADMINISTRATION**

**Required courses—18 hours**

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<td>Dynamics of Business</td>
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<td>ECON 235</td>
<td>Principles of Microeconomics</td>
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*Select at least nine hours from*

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<td>BUAD 376</td>
<td>Human Resources Management (3)</td>
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<td>Business Finance (3)</td>
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<td>MRKT 327</td>
<td>Marketing</td>
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**MINOR IN MARKETING**

**Required courses—19 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
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<tr>
<td>MRKT 327</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 333</td>
<td>Professional Selling</td>
<td>3</td>
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<td>MRKT 443</td>
<td>Consumer Behavior</td>
<td>3</td>
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<tr>
<td>MRKT 456</td>
<td>Marketing Research</td>
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<td>MRKT 475</td>
<td>Internship in Marketing</td>
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<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
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MINOR IN SMALL BUSINESS MANAGEMENT

Required courses—21 hours

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<td>ACCT 211</td>
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<td>3</td>
</tr>
<tr>
<td>ACCT 335</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 219</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 475</td>
<td>Internship in Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON 235</td>
<td>Principles of Microeconomic</td>
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</table>

Select two courses from

<table>
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<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 212</td>
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</tr>
<tr>
<td>BUAD 138</td>
<td>Dynamics of Business (3)</td>
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</tr>
<tr>
<td>BUAD 445</td>
<td>Business Law (4)</td>
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<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications (3)</td>
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<td>FNCE 325</td>
<td>Business Finance (3)</td>
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<tr>
<td>FNCE 332</td>
<td>Investments (3)</td>
<td></td>
</tr>
<tr>
<td>MRKT 327</td>
<td>Marketing (3)</td>
<td></td>
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</tbody>
</table>
MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

GOALS

Students graduating from the chemistry program will be prepared to

- Independently access and organize relevant data in the chemical sciences;
- Independently synthesize and communicate relevant data in the chemical sciences;
- Demonstrate familiarity with basic techniques of investigation in varied fields of chemical research;
- Apply knowledge acquired from varied aspects of chemical sciences to critical thinking in research and everyday life;
- Apply knowledge acquired from varied aspects of chemical sciences to ethical decision making, in stewardship and everyday life;
- Demonstrate knowledge of past contributions and awareness of current progress in the chemical sciences;
- Engage in senior-level research;
- Pursue graduate studies.

CONTACT INFORMATION

Carrie Wolfe, Chair, Division of Science and Mathematics
Jorgensen Hall, Room 204
402.486.2515 or 402.486.2548
cawolfe@ucollege.edu
www.ucollege.edu/science-and-mathematics

FACULTY

Richard Clark, Kenneth Osborn, Carrie Wolfe

ADJUNCT FACULTY

Charles E. Freidline

ACADEMIC PROGRAMS

Chemistry, BA
Chemistry, BS
  Emphases in Biochemistry
    General Chemistry
Chemistry Education, BS—Secondary Subject Endorsement
Minor in Chemistry
<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 296</td>
<td>Research Methods I</td>
</tr>
<tr>
<td>CHEM 311</td>
<td>Analytical Chemistry</td>
</tr>
<tr>
<td>CHEM 312</td>
<td>Instrumental Analysis</td>
</tr>
<tr>
<td>CHEM 386</td>
<td>Research Methods II</td>
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<tr>
<td>CHEM 411</td>
<td>Physical Chemistry II (Thermodynamics)</td>
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<tr>
<td>MATH 184, 285</td>
<td>Calculus I, II</td>
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<tr>
<td>PHYS 251, 252</td>
<td>College Physics</td>
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</table>

**CHEMISTRY - BA**

**Required courses—65–70 hours**

**CHEMISTRY CORE**

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<th>COURSE</th>
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<tbody>
<tr>
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<td>Physical Chemistry I (Quantum Mechanics-Kinetics)</td>
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<tr>
<td>CHEM</td>
<td>Chemistry Electives (300 or 400-level)</td>
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<tr>
<td>CPT</td>
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**CHEMISTRY - BS**

**General Chemistry Emphasis**

**Required courses—71–74 hours**

**CHEMISTRY CORE**

<table>
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<tbody>
<tr>
<td>CHEM 396</td>
<td>Research Methods III</td>
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<tr>
<td>CHEM 411</td>
<td>Physical Chemistry I (Quantum Mechanics-Kinetics)</td>
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<tr>
<td>CHEM 496</td>
<td>Research Methods IV</td>
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<tr>
<td>CHEM</td>
<td>Chemistry Electives (300 or 400-level)</td>
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<td>CPT</td>
<td>An approved computer language</td>
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<tr>
<td>MATH 286</td>
<td>Calculus III</td>
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<td>MATH</td>
<td>or MATH 352 Linear Algebra (3)</td>
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<td>MATH</td>
<td>or MATH 385 Differential Equations (3)</td>
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<td>MATH</td>
<td>or MATH 486 Numerical Analysis (3)</td>
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**CHEMISTRY - BS**

**Biochemistry Emphasis**

**Required courses—75-80**

**CHEMISTRY CORE**

<table>
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<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
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<td>BIOL 321</td>
<td>Genetics</td>
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<td>BIOL 404</td>
<td>Cell Biology</td>
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<td>CHEM 445, 446</td>
<td>Biochemistry I, II</td>
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<tr>
<td>CHEM</td>
<td>Chemistry elective (300 or 400-level)</td>
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Select one of the following courses:

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<tr>
<td>BIOL 306</td>
<td>Histology (3)</td>
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</table>
BIOL 314 Immunology (3)
BIOL 411 Human Anatomy (4)
BIOL 416 Mammalian Physiology (4)

CHEMISTRY EDUCATION—BS
Secondary Subject Endorsement

The teaching major in chemistry is designed to prepare the candidates for secondary teaching through a program which will
• Allow them to develop a knowledge of the major concepts of chemistry, its historical development and its significance to the individual and to society;
• Give them a concept of the logic and processes of scientific inquiry;
• Provide a working knowledge of the mechanics of a chemistry teaching program including: ordering of materials and supplies, organizing and operating a laboratory, handling and storage of hazardous materials and safety procedures;
• Acquaint them with professional agencies and professional journals and the value of these to their work.

Required courses—110–113 hours

<table>
<thead>
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<th>Course</th>
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<th>Hours</th>
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<td>ASTR 111</td>
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<td>4, 4</td>
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<td>General Chemistry</td>
<td>4, 4</td>
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<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
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<td>CHEM 296</td>
<td>Research Methods I</td>
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</tr>
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<td>or MATH 221 Elem Statistics &amp; Probability (3)</td>
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<td>or MATH 331 Statistics &amp; Probability (3)</td>
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<tr>
<td>CHEM 311</td>
<td>Analytical Chemistry</td>
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<td>CHEM 312</td>
<td>Instrumental Analysis</td>
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<tr>
<td>CHEM 386</td>
<td>Research Methods II</td>
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<td>CHEM 396</td>
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<td>Calculus I</td>
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<td>General Physics</td>
<td>4, 4</td>
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Professional education

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It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education—Secondary Education Endorsements).

MINOR IN CHEMISTRY

Required courses—20 hours

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<td></td>
<td>or CHEM 412 Physical Chemistry II (4)</td>
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</tbody>
</table>
MISSION

The communication program encourages students to become active and ethical participants in shaping modern culture.

GOALS

Students graduating from the communication program will be prepared to

• Disseminate written, spoken, and visual information;
• Incorporate leadership and ethics as key components to communication practice;
• Write and edit effectively within a communication framework;
• Understand the processes, effects, and theories of human communication;
• Draw on a wide-ranging liberal arts education when engaged in the diverse demands of journalism, public relations, or institutional development;
• Explore a variety of perspectives in the lifelong process of becoming a Christian scholar and practitioner in the field of communication.

CONTACT INFORMATION

Michelle Velázquez Mesnard, Chair, Division of Humanities
Tamara Seiler, Office Manager
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mimesnar@ucollege.edu
www.ucollege.edu/humanities

FACULTY

Chris Blake, Bruce Forbes, Michael Mennard, Michelle Velázquez Mesnard, Mark Robison

ADJUNCT FACULTY

Scott Cushman, LuAnn Davis, Ryan Teller, Brian Weed

ACADEMIC PROGRAMS

Communication, BA
   Emphases in Emerging Media
      Journalism
      Public Relations
Institutional Development, BS
Minors in Communication
Drama
### COMMUNICATION CORE—29 HOURS

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJR 151</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>COJR 221</td>
<td>Reporting</td>
<td>3</td>
</tr>
<tr>
<td>COJR 245</td>
<td>Editing</td>
<td>3</td>
</tr>
<tr>
<td>COJR 457</td>
<td>Magazine Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM 125</td>
<td>Media and Meaning</td>
<td>3</td>
</tr>
<tr>
<td>COMM 290</td>
<td>Sophomore Seminar</td>
<td>1</td>
</tr>
<tr>
<td>COMM 465</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 490</td>
<td>Senior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required specific LEAD/general education course**

- MATH 221  Elementary Statistics and Probability 3

---

### COMMUNICATION—BA

#### Emerging Media Emphasis

**Required courses—54 hours**

**COMMUNICATION CORE** 29

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COJR 360</td>
<td>Communication through Digital</td>
<td>3</td>
</tr>
<tr>
<td>COEM 260</td>
<td>Writing in the Digital World</td>
<td>3</td>
</tr>
<tr>
<td>COEM 324</td>
<td>Web Research and Analytics</td>
<td>3</td>
</tr>
<tr>
<td>COEM 362</td>
<td>Interacting with an Online Audience</td>
<td>3</td>
</tr>
<tr>
<td>COEM 410</td>
<td>Digital Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>COEM 440</td>
<td>Social Media Public Relations and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>COEM 476</td>
<td>Emerging Media Practicum</td>
<td>4</td>
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<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or MRKT 327 Marketing (3)</td>
<td></td>
</tr>
<tr>
<td>CPTR 225</td>
<td>Web Development Basics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or GRPH 301 Web Design (3)</td>
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<tr>
<td>MRKT 456</td>
<td>Marketing Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Major or minor required from another discipline or an emphasis in public relations or journalism

### COMMUNICATION—BA

#### Journalism Emphasis

**Required courses—48 hours**

**COMMUNICATION CORE** 29

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COEM 260</td>
<td>Writing in the Digital World</td>
<td>3</td>
</tr>
<tr>
<td>COJR 458</td>
<td>In-Depth Reporting</td>
<td>3</td>
</tr>
<tr>
<td>COJR 474</td>
<td>Journalism Practicum</td>
<td>4</td>
</tr>
<tr>
<td>COPR 332</td>
<td>Rhetoric</td>
<td>3</td>
</tr>
</tbody>
</table>

Select nine hours from

- COEM 324  Web Research and Analytics (3)
- COEM 410  Digital Storytelling (3)
- COMM 335  Video Production (3)
- COMM 425  Intercultural Communication (3)
- ENGL 378  Technical Writing and Grant Proposals (3)
- GRPH 254  Publication Design (3)

Major or minor required from another discipline or an emphasis in public relations or emerging media
COMMUNICATION—BA  
Public Relations Emphasis  
**Required courses—56 hours**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 365</td>
<td>Institutional Development</td>
<td>3</td>
</tr>
<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td>COPR 377</td>
<td>Crisis Public Relations</td>
<td>2</td>
</tr>
<tr>
<td>COPR 445</td>
<td>Public Relations Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>COPR 475</td>
<td>Public Relations Practicum</td>
<td>4</td>
</tr>
<tr>
<td>MRKT 456</td>
<td>Marketing Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Select twelve hours from  
- COJR 440 Social Media Public Relations and Marketing (3)  
- COMM 335 Video Production (3)  
- COMM 425 Intercultural Communication (3)  
- COMM 480 Advanced Communication Seminar (3)  
- COPR 316 Advertising Practices (3)  
- COPR 332 Rhetoric (3)  
- ENGL 378 Technical Writing and Grant Proposals (3)  
- GRPH 254 Publication Design (3)  
- MRKT 327 Marketing (3)  

INSTITUTIONAL DEVELOPMENT—BS  
Required courses—59 hours  

<table>
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<tr>
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<th>Hours</th>
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<tr>
<td>ACCT 211</td>
<td>Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 138</td>
<td>Dynamics of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 376</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>COMM 365</td>
<td>Institutional Development</td>
<td>3</td>
</tr>
<tr>
<td>COMM 375</td>
<td>Development Practicum</td>
<td>3</td>
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<tr>
<td>COMM 485</td>
<td>Senior Fundraising Project</td>
<td>2</td>
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<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td>COPR 332</td>
<td>Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 327</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
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<tr>
<td>SOCI 105</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</table>

Select nine hours from  
- ACCT 212 Principles of Accounting (3)  
- ACCT 315 Federal Income Tax—Individual (3)  
- CPTR 220 Microcomputer Applications (3)  
- ECON 235 Principles of Microeconomics (3)  
- ECON 236 Principles of Macroeconomics (3)  
- FNCE 325 Business Finance (3)  
- GRPH 150 Introduction to Graphic Arts (3)  

Select nine hours from  
- BUAD 425 Business Communications (3)  
- COMM 125 Media and Meaning (3)  
- COMM 425 Intercultural Communication (3)  
- COMM 465 Interpersonal Communication (3)  
- COPR 316 Advertising Practices (3)  
- COPR 377 Crisis Public Relations (2)  
- ENGL 378 Technical Writing and Grant Proposals (3)  
- GRPH 254 Publication Design (3)  

98
MINOR IN COMMUNICATION

Required courses—19 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COMM 125</td>
<td>Media and Meaning</td>
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<td>COMM 290</td>
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<tr>
<td>COMM 465</td>
<td>Interpersonal Communication</td>
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<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
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Select nine from the following: (3 hours must be 300 or 400 level)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COEM 260</td>
<td>Writing in the Digital World</td>
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<tr>
<td>COEM 324</td>
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</tr>
<tr>
<td>COEM 362</td>
<td>Interacting with an Online Audience</td>
<td>3</td>
</tr>
<tr>
<td>COEM 410</td>
<td>Digital Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>COJR 151</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>COJR 221</td>
<td>Reporting</td>
<td>3</td>
</tr>
<tr>
<td>COJR 245</td>
<td>Editing</td>
<td>3</td>
</tr>
<tr>
<td>COJR 457</td>
<td>Magazine Writing</td>
<td>3</td>
</tr>
<tr>
<td>COJR 458</td>
<td>In-Depth Reporting</td>
<td>3</td>
</tr>
<tr>
<td>COMM 335</td>
<td>Video Production</td>
<td>3</td>
</tr>
<tr>
<td>COMM 425</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COPR 241</td>
<td>Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td>COPR 316</td>
<td>Advertising Practices</td>
<td>3</td>
</tr>
<tr>
<td>COPR 445</td>
<td>Public Relations Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 254</td>
<td>Publication Design</td>
<td>3</td>
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</table>

MINOR IN DRAMA

Required courses—21 hours

Theatre courses are available through Nebraska Wesleyan University or the University of Nebraska-Lincoln.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>Theatre</td>
<td>Introduction to Theatre</td>
<td>3</td>
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<tr>
<td>Theatre</td>
<td>Approved Acting Course</td>
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<tr>
<td>Theatre</td>
<td>Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>CODR 229</td>
<td>Play Production I</td>
<td>3</td>
</tr>
<tr>
<td>CODR 329</td>
<td>Play Production II</td>
<td>3</td>
</tr>
<tr>
<td>CODR 471</td>
<td>Play Direction</td>
<td>3</td>
</tr>
<tr>
<td>COMM 355</td>
<td>Advanced Speech and Oral Interpretation</td>
<td>3</td>
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</tbody>
</table>
MISSION

The Division of Business and Computer Science prepares professionals for Christian service in the business world by providing a quality, student-oriented education that emphasizes ethics and balances practice and theory.

GOALS

Students graduating with degrees in business or computing will be prepared to
• Apply a Christian philosophy to business and technology ethics;
• Demonstrate Christian involvement through volunteering in community activities;
• Apply theory to practical situations;
• Benefit from student/teacher involvement through personalized advising and career planning as well as social and professional activities;
• Integrate technology into the workplace through appropriate use of computer software;
• Work together in effective teams;
• Demonstrate professional communication and business decorum;
• Be prepared for advanced study
• Apply traditional and newer problem-solving techniques to an ever-changing field of computing;
• Understand how various areas of computing relate to each other.

The divisional assessment plan helps meet these goals by collecting, evaluating and responding to input from division students, internship evaluations and alumni. Student preparation for careers and graduate school will be measured through tracking graduates' job placement, graduate school acceptance, and nationally recognized tests.

CONTACT INFORMATION

Barry Forbes, Chair, Division of Business and Computer Science
Dick Building, Room 301 and Room 404
402.486.2521
baforbes@ucollege.edu
www.ucollege.edu/business-and-computer-science

FACULTY

Gary Dickerson, Debra Unterseher

ADJUNCT FACULTY

Arlie Fandrich
ACADEMIC PROGRAMS

Computing, BS
Emphases in Business
- Computer Information Systems
- Computer Science
- Networking
- Web Development

Information Technology Education - Supplemental Secondary Endorsement
Computing, AS
Minor in Computer Information Systems

COMPUTING CORE—23 HOURS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CPTR 126</td>
<td>Fundamentals of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 226</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 240</td>
<td>System Administration</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 245</td>
<td>Web Development Basics</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 322</td>
<td>SQL</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 327</td>
<td>System Analysis and Design</td>
<td>3</td>
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<tr>
<td>CPTR 475</td>
<td>Internship in Computing</td>
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COMPUTING - BS

Business Emphasis

Required courses—69 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPTR 226</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 320</td>
<td>Networking</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 335</td>
<td>Web Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 420</td>
<td>Advanced System Administration</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 424</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 435</td>
<td>Advanced Web Technologies</td>
<td>3</td>
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Other courses required for major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACCT 211, 212</td>
<td>Principles of Accounting</td>
<td>3, 3</td>
</tr>
<tr>
<td>BUAD 376</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUAD 405</td>
<td>Business Ethics</td>
<td>1</td>
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<tr>
<td>BUAD 425</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>BUAD 428</td>
<td>Business Policies</td>
<td>3</td>
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<tr>
<td>ECON 235</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 236</td>
<td>Principles of Macroeconomics</td>
<td></td>
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<tr>
<td>FNCE 325</td>
<td>Business Finance</td>
<td>3</td>
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<tr>
<td>MATH 165</td>
<td>Calculus for Managers</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 221</td>
<td>Elementary Statistics &amp; Probability</td>
<td></td>
</tr>
<tr>
<td>MRKT 327</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>RELT 305</td>
<td>Christian Ethics</td>
<td>3</td>
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</tbody>
</table>

Select six hours from 300-400 level ACCT, BUAD, FNCE 6
Computing—BS
Computer Information Systems Emphasis

Required courses—70 hours

COMPUTING CORE 23

Additional computing courses
CPTR 227 Computer Science II 4
CPTR 320 Networking 3
CPTR 335 Web Technologies 3
CPTR 420 Advanced Systems Administration 3
CPTR 424 Database Systems 3
Select three hours from 300–400 level CPTR 3

Other courses required for major
ACCT 211, 212 Principles of Accounting 3, 3
BUAD 138 Dynamics of Business 3
BUAD 405 Business Ethics 1
BUAD 425 Business Communications 3
ECON 235 Principles of Microeconomics 3
or ECON 236 Principles of Macroeconomics (3)
MATH 165 Calculus for Managers 3
or MATH 221 Elementary Statistics & Probability (3)
RELT 305 Christian Ethics 3
Select six hours from 300–400 level ACCT, BUAD, FNCE 6

Recommended
ACCT 335 Accounting Information Systems (3)
BUAD 376 Human Resource Management (3)
BUAD 445 Business Law (4)
FNCE 325 Business Finance (3)
FNCE 332 Investments (3)

Computing—BS
Computer Science Emphasis

Required courses—71 hours

COMPUTING CORE 23

Additional computing courses
CPTR 227 Computer Science II 4
CPTR 320 Networking 3
CPTR 335 Web Technologies 3
Select nine hours from 300–400 level CPTR 9

Other courses required for major
MATH 121 Precalculus 5
MATH 184 Calculus I 4
MATH 285 Calculus II 4
MATH 286 Calculus III 4
MATH 331 Statistics and Probability 3
MATH 340 Discrete Mathematics 3
MATH Mathematics electives 3
(numbered 300 or above)
MATH 486 Numerical Analysis recommended (3)
RELT 305 Christian Ethics 3
COMPUTING—BS  
Networking Emphasis  
**Required courses—66 hours**  
COMPUTING CORE 23  
Additional computing courses  
CPTR 320 Networking 3  
CPTR 420 Advanced Systems Administration 3  
CPTR 440 Cloud Computing 3  
CPTR 460 Security 3  
Select six hours from 300-400 level CPTR 6  
Other courses required for major  
ACCT 211, 212 Principles of Accounting 3, 3  
BUAD 138 Dynamics of Business 3  
BUAD 405 Business Ethics 1  
BUAD 425 Business Communications 3  
MATH 165 Calculus for Managers 3  
or MATH 221 Elementary Statistics & Probability (3)  
RELT 305 Christian Ethics 3  
Select six hours from ACCT, BUAD, FNCE 6  

COMPUTING—BS  
Web Development Emphasis  
**Required courses—69 hours**  
COMPUTING CORE 23  
Additional computing courses  
CPTR 335 Web Technologies 3  
CPTR 435 Advanced Web Technologies 3  
Select three hours from 300-400 level CPTR 3  
Other courses required for major  
ART 115 Design I 2  
ART 225 Color Theory 2  
BUAD 425 Business Communications 3  
GRPH 150 Introduction to Graphic Arts 3  
GRPH 225 Digital Photography 3  
GRPH 250 Digital Imaging 3  
GRPH 252 Computer Design 3  
GRPH 301 Web Design/Dreamweaver 3  
GRPH 358 Typography 3  
GRPH 401 Interactive Web Design 3  
MATH 221 Elementary Statistics and Probability 3  
or MATH 165 Calculus for Managers (3)  
MRKT 327 Marketing 3  
RELT 305 Christian Ethics 3  

INFORMATION TECHNOLOGY EDUCATION  
Supplemental Secondary Endorsement (Requires another endorsement)  
**Required courses—23 hours**  
CPTR 220 Microcomputer Applications 3  
CPTR 225 Web Development Basics 3
COMPUTING—AS

Required courses—35 hours

Computing courses

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
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<tr>
<td>CPTR 226</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 240</td>
<td>Systems Administration</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 245</td>
<td>Web Development Basics</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 332</td>
<td>SQL</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 335</td>
<td>Web Technologies</td>
<td>3</td>
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</table>

Select six hours from 300-400 level computer courses 6

Other courses required for major

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
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<td>ACCT 211</td>
<td>Principles of Accounting</td>
<td>3</td>
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<tr>
<td>BUAD 138</td>
<td>Dynamics of Business</td>
<td>3</td>
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<tr>
<td>MATH 165</td>
<td>Calculus for Managers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or MATH 221 Elementary Statistics &amp; Probability (3)</td>
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</table>

MINOR IN COMPUTER INFORMATION SYSTEMS

Required courses—23 hours

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<thead>
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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 226</td>
<td>Computer Science I</td>
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<td>CPTR 240</td>
<td>Systems Administration</td>
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<td>SQL</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 335</td>
<td>Web Technologies</td>
<td>3</td>
</tr>
</tbody>
</table>

Select three hours from 300-400 level computer courses 3
MISSION

The Union College education program prepares caring, exemplary teachers who possess exceptional dedication to the profession. They respond to diversity and function effectively in multiple educational settings to help all students develop to their God-given potential. The program is driven by a commitment to holistic development, scholarship and dedication to a life of service that helps others achieve. This happens when the graduate’s mental, physical, social and spiritual capabilities are harmoniously developed.

GOALS

Students graduating with a degree in education will be able to

• Demonstrate academic excellence;
• Practice healthful living;
• Practice spiritual and social caring in their own lives;
• Demonstrate commitment to growth in the lives of their students;
• Respond effectively to diversity in multiple educational settings; Practicum: Student Teaching;
• Perform professional roles with a high degree of competency; Practicum: Student Teaching;
• Pursue advanced study.

CONTACT INFORMATION

Denise White, Chair
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Dick Building, Room 403
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amwebb@ucollege.edu
www.ucollege.edu/humandev or www.ucollege.edu/education

FACULTY

Kathy Bollinger, Y. J. Moses, Denise White

ADJUNCT FACULTY


ACADEMIC PROGRAMS

Elementary Education, BS
Secondary Education, BS (see list of field and subject endorsements below)
### ELEMENTARY EDUCATION—BS

**Required courses**—73 hours (minimum grade of C required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDUC 125</td>
<td>Introduction to Teaching</td>
<td>3</td>
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<tr>
<td>EDUC 218</td>
<td>Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 225</td>
<td>Seminar in Ed Diversity: Multicultural/HRT</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 245</td>
<td>Physical Education in the Elementary School</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 345</td>
<td>Learning Theories and Measurement</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 346</td>
<td>Special Education in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 357</td>
<td>Literature for Children and Adolescents</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 425</td>
<td>Education Organization and Administration</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 446</td>
<td>Reading Assessment</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 450</td>
<td>Methods in Reading and Language Arts</td>
<td>5</td>
</tr>
<tr>
<td>EDUC 458</td>
<td>Methods in Religion, Health, Science, Social Studies K-8</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 465</td>
<td>Math Methods and Materials K-8</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 475</td>
<td>Student Teaching</td>
<td>16</td>
</tr>
<tr>
<td>EDUC 490</td>
<td>Elementary Student Teacher Seminar</td>
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</table>

**Other required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>ART 215</td>
<td>School Art</td>
<td>2</td>
</tr>
<tr>
<td>MATH 320</td>
<td>Mathematical Concepts for Elementary School Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MUED 347</td>
<td>Music in the Elementary School</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>RELB</td>
<td>Religion elective</td>
<td>3</td>
</tr>
<tr>
<td>RELH 310</td>
<td>History of the Seventh-day Adventist Church</td>
<td>3</td>
</tr>
<tr>
<td>RELT 141</td>
<td>Christian Beliefs</td>
<td>3</td>
</tr>
<tr>
<td>RELT 455</td>
<td>Prophetic Guidance in the Advent Movement</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specific program requirements**—35 hours

| Course Code | Course Title                                                   | Hours |
|-------------|                                                               |-------|
| BIOL        | Biology elective                                               | 3     |
| CHEM        | Chemistry elective                                             | 4     |
| CPTR 220    | Microcomputer Applications                                     | 3     |
| GEOG 137    | Introductory Geography                                         | 3     |
|             | or GEOG 227 World Regional Geography (3)                      |       |
| HIST 160 or 161 | The West and the World                                      | 3     |
| HIST 255    | Issues in Early American History                              | 3     |
| HIST 315    | Economic History of the U.S.                                  | 3     |
|             | or HIST 455 Recent American History (3)                       |       |
| LITR 231    | Ancient Western Literature                                    | 3     |
|             | or LITR 232 Modern Western Literature (3)                    |       |
| MATH 111    | College Algebra                                                | 3     |
| PHYS 111    | Principles of Physics                                          | 4     |
|             | or ASTR 111 Astronomy (4)                                      |       |
| PLSC 205    | American Government                                           | 3     |

### SECONDARY EDUCATION

**Required Professional Education courses**—54 hours (minimum grade of C required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 125</td>
<td>Introduction to Teaching</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 218</td>
<td>Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>EDUC 225</td>
<td>Seminar in Education Diversity: Multicultural/HRT</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 345</td>
<td>Learning Theories and Measurement</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 346</td>
<td>Special Education in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 356</td>
<td>General Secondary Methods</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 410-418</td>
<td>Special Methods--In area of Major</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 475</td>
<td>Student Teaching</td>
<td>16</td>
</tr>
<tr>
<td>EDUC 476</td>
<td>Content Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 485</td>
<td>Issues in Education</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>RELB</td>
<td>Religion elective</td>
<td>3</td>
</tr>
<tr>
<td>RELH 310</td>
<td>History of the Seventh-day Adventist Church</td>
<td>3</td>
</tr>
<tr>
<td>RELT 141</td>
<td>Christian Beliefs</td>
<td>3</td>
</tr>
<tr>
<td>RELT 455</td>
<td>Prophetic Guidance in the Advent Movement</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Courses for Major**

Number of hours dependent upon the content area(s). Bachelor of Science requirements are listed by major content area in division sections (see list of field and subject endorsements below).

### Field Endorsements
- Art Education K–12
- Language Arts Education 7–12
- Mathematics Education 7–12
- Music Education K–12
- Natural Science Education 7–12
- Social Science Education 7–12

### Subject Endorsements
- Biology Education 7–12
- Business, Marketing, and Information Technology 7–12
- Chemistry Education 7–12
- English Education 7–12
- General Art Education K–6
- History Education 7–12
- Instrumental Music Education K–8; 7–12
- Physical Education K–6; 7–12
- Physics Education 7–12
- Religious Education K–12
- Vocal Music Education K–8; 7–12

It is strongly recommended that every student finish requirements for at least two subject endorsements.

**Minor in Religion**

If pursuing a Religion minor, EDUC 415 Methods: Social Science and Religious Education is required to obtain an SDA Religion teaching endorsement.

**ADMISSION, PROGRESSION AND PROGRAM COMPLETION REQUIREMENTS**

**Admission to the teacher education program**

Admission into teacher education at Union College is not automatic. The checkpoints of Provisional, Full and Student Teaching Admission are carefully monitored by advisors and the Teacher Preparation Committee (TPC). A self-tracking chart listing all checkpoints is supplied for the teacher candidate to monitor his or her progress.

The four steps of the teacher education program are

- Provisional admission;
• Full admission;
• Student teaching;
• program completion, certification and competencies.

Program Completion, Certification and Competencies

To qualify for program completion each candidate will have
• Earned a minimum of a baccalaureate degree and completed all requirements
  of the “approved program” for which recommendation is desired;
• Met a minimum 2.50 GPA standard of scholarship;
• Shown evidence of physical fitness, emotional maturity and moral character;
• Passed the PPST with minimum scores set by the State of Nebraska;
• Successfully completed student teaching assignment;
• Completed a portfolio with rating of 2 or above on each outcome;
• Taken the PRAXIS II – Elementary Education: Curriculum, Instruction, and
  Assessment;
  PRAXIS II – Secondary Education Content Test;
• A background free of criminal convictions as shown by a professional
  background check.
• Certification ($105.00 for non-resident / $55.00 for resident)

Nebraska State Certification:

Application for certification is made through the Union College Certification
Officer using the forms provided by the Nebraska Department of Education. These
forms can be obtained in the division office or on the Nebraska Department of
Education Web site at http://www.nde.state.ne.us

To qualify for Nebraska State Certification each candidate will have
• Earned a minimum of a baccalaureate degree and completed all requirements
  of the “approved program” for which recommendation is desired;
• Attained a minimum of 18 years of age;
• Shown evidence of physical fitness, emotional maturity and moral character;
• Met a 2.50 minimum GPA standard of scholarship;
• Passed the PPST with minimum scores set by the State of Nebraska
• Taken the PRAXIS II - Elementary Education: Curriculum, Instruction, and
  Assessment;
  PRAXIS II – Secondary Education Content Test; (PPST/PRAXIS II Testing costs
  may vary from $120.00 - $170.00 per test)
• Successfully completed student teaching assignment;
• Completed a portfolio with rating of 2.0 or above on each outcome;
• Background free of criminal convictions as shown by a background check.
  ($40.00 per check)
• Certification ($105.00 for non-resident / $55.00 for resident)

Seventh-day Adventist Denominational Certificate:

Application for SDA certification is made in the division office using the form
provided by the Mid-America Union Conference (MAUC).

To qualify for Seventh-day Adventist certification in the North American Division
each candidate will
• Meet all state certification requirements;
• Have taken RELT 141 Christian Beliefs, RELB elective, RELT 455 Prophetic Guidance and RELH 310 History of the SDA Church;
• Hold membership in good standing at a Seventh-day Adventist church;
• Affirm a willingness to subscribe to and teach within the framework and philosophy of the church.

Upon graduating, the teacher candidate can request a Union College transcript which indicates completion of a Nebraska, NCATE and an NAD accredited bachelor’s degree program in teacher education and will be recommended to the State and MAUC for certification.

The Teacher Education Program at Union College is accredited by the National Council for Accreditation of Teacher Education (NCATE), www.ncate.org. This accreditation covers the undergraduate elementary and secondary teacher preparation programs at Union College only. It does not include individual education courses that the institution offers to P-12 educators for professional development, re-licensure, or other purposes.

Change of Certification Requirements

In case of changes in Nebraska state certification requirements, it may be necessary for a student who wishes to be recommended for certification to meet certain requirements different from those published in the bulletin above. This is not to be construed to abridge teacher candidates’ right to graduate under any bulletin in force during the time they are in continuous residence as defined in the current bulletin. However, since certification and graduation are two different end goals, candidates for certification may encounter certification law changes they will be required to meet.

Transfer Students and Credits

Transfer students wishing to be endorsed for teaching and who meet the requirements for admission into the teacher education program must complete requirements for their chosen teaching major (Elementary, Secondary field or subject areas) in harmony with the pertinent “approved program” on file.

The teacher education program may selectively accept lower division (general but not professional education) transfer credit from regionally accredited two-year institutions of higher education; credit from regionally accredited four-year institutions also may be accepted.

A transferring student who expects to be recommended for certification must earn a minimum of 30 semester hours of credit at Union College, 22 for secondary and 26 for elementary shall be in Education. Exceptions to this policy may be made by action of the TPC.
MISSION

The engineering program at Union College prepares students to finish advanced studies leading to a baccalaureate degree in engineering. Union College is affiliated with the engineering program at Walla Walla University, College Place, Washington. Our program is designed to mesh with theirs, but prepares the student for entry into other engineering schools as well.

GOALS

Students graduating with an associate degree in engineering will

• Have a firm foundation in chemistry, physics and mathematics to solve engineering problems;
• Demonstrate familiarity with basic techniques of investigation in the sciences and engineering
• Successfully complete course work in preparation for the final two years of the Bachelor of Science degree in engineering.

CONTACT INFORMATION

Carrie Wolfe, chair, Division of Science and Mathematics
Jorgensen Hall, Room 204
402.486.2515 or 402.486.2548
cawolfe@ucollege.edu
www.ucollege.edu/science-and-mathematics

FACULTY

Keith Riese

ACADEMIC PROGRAMS

Engineering, AS

ENGINEERING—AS

Required courses—50 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CPTR</td>
<td>An approved computer language</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 111, 112</td>
<td>Introduction to Engineering</td>
<td>2, 2</td>
</tr>
<tr>
<td>ENGR 211</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 212</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 228</td>
<td>Electric Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 285, 286</td>
<td>Calculus II, III</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH 352</td>
<td>Linear Algebra</td>
<td>3</td>
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<tr>
<td>PHYS 251, 252</td>
<td>College Physics</td>
<td>4.5, 4.5</td>
</tr>
</tbody>
</table>

Consult engineering advisor for general education and elective course selections.
MISSION

The program in English fosters students’ endeavors to be creative and critical readers, writers and thinkers.

GOALS

Students who graduate from the English program will be able to

• Understand and analyze the relevance of texts through the lens of literary and rhetorical criticism;
• Write effectively in a range of genres because students understand the relationship of audience, author and subject.

CONTACT INFORMATION

Michelle Velázquez Mesnard, Chair, Division of Humanities
Tamara Seiler, Office Manager
Dick Building, Room 409
402.486.2523 Phone
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FACULTY

Chris Blake, Tanya Cochran, William Fitts, Michael Mennard, Mark Robison, Peggy Wahlen

ADJUNCT FACULTY

Amanda Funk-Hilton, Jill Morstad

ACADEMIC PROGRAMS

English, BA
  Emphases in Literature
  Writing and Speaking
English Education, BS – Secondary Subject Endorsement
Language Arts Education, BS – Secondary Field Endorsement
Minor in English

Portfolio Requirement

All English majors should begin assembling, by their sophomore year, a portfolio of selected scholarly, creative and professional work. The completed portfolio is to be presented in the final semester before graduation. Advisors may opt for a senior assessment exam. More information is available from English advisors.
ENGLISH CORE—15 HOURS

COMM 355 Advanced Speech and Oral Interpretation 3
ENGL 271 History of the English Language 3
ENGL 272 Grammatical Systems 3
ENGL 378 Technical Writing and Grant Proposals 3
ENGL 379 Creative Writing 3

ENGLISH—BA

Literature Emphasis
Designed for those who desire a second major or plan for graduate study in English.

Required courses—36 hours
ENGLISH CORE 15
Select five courses (300-400 level) from 15
LITR 345 Studies in Early American Literature (3)
LITR 348 Studies in British Literature (3)
LITR 352 Women and Minority Writers (3)
LITR 436 Studies in American Literature (3)
LITR 445 Early British Literature (3)
LITR 475 Twentieth-Century Writers (3)
LITR 485 Advanced Studies Seminar (3)

Required specific general education courses
LITR 231 Ancient Western Literature (3)
or LITR 232 Modern Western Literature (3)
RELB 366 Biblical Literature (3)

ENGLISH—BA

Writing and Speaking Emphasis
Designed for students interested in law, medicine or free-lance writing.

Required courses—39 hours
ENGLISH CORE 15
COJR 457 Magazine Writing (3)
COMM 125 Media and Meaning (3)
COPR 332 Rhetoric (3)
Select two courses (299-400 level) from 6
LITR 299 Seminar in Non-Western Literature (3)
LITR 348 Studies in British Literature (3)
LITR 352 Women and Minority Writers (3)
LITR 436 Studies in American Literature (3)
LITR 445 Early British Literature (3)
LITR 475 Twentieth-Century Writers (3)
LITR 485 Advanced Studies Seminar (3)

Required specific general education courses
LITR 231 Ancient Western Literature (3)
or LITR 232 Modern Western Literature (3)
RELB 366 Biblical Literature (3)
ENGLISH EDUCATION—BS
Secondary Subject Endorsement

Students who plan to teach only writing and literature on the secondary level may pursue this subject endorsement major.

The teaching major in English is designed to prepare candidates for secondary teaching by providing

- An understanding of the structure and development of the English language sufficiently comprehensive to provide teaching competence in traditional and transformational grammars and a general knowledge of other modern grammars;
- Writing skills developed through courses in basic composition, critical, creative and/or journalistic writing;
- A comprehensive knowledge of the different styles of American and British literature;
- The scholarly skills of evaluating various types of literature, including interpretive readings;
- The special knowledge and skills relevant to the teaching of English at the secondary level, developed through a course in the methods of teaching high school and junior high school English, a course in the methods of teaching reading and a course in literature of particular interest and value to adolescents; and
- Experience in the integration of faith and learning, particularly in the teaching of imaginative literature.

Required courses—92 hours

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>COJR 457</td>
<td>Magazine Writing</td>
<td>3</td>
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<tr>
<td>COPR 332</td>
<td>Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 357</td>
<td>Literature for Children and Adolescents</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>College Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 271</td>
<td>History of the English Language</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 272</td>
<td>Grammatical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 378</td>
<td>Technical Writing and Grant Proposals</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 379</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>LITR 231</td>
<td>Ancient Western Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITR 232</td>
<td>Modern Western Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITR</td>
<td>One British Literature (300 level or above)</td>
<td>3</td>
</tr>
<tr>
<td>LITR</td>
<td>One American Literature (300 level or above)</td>
<td>3</td>
</tr>
</tbody>
</table>

Required specific LEAD/general education course

<table>
<thead>
<tr>
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<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELB 366</td>
<td>Biblical Literature</td>
<td>3</td>
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Professional education

<table>
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<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDUC 412</td>
<td>Methods: Language Arts Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Additional Professional Education</td>
<td>48</td>
</tr>
</tbody>
</table>

Recommended

Beginning College Modern Language (6)

It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).
LANGUAGE ARTS EDUCATION—BS
Secondary Field Endorsement

This endorsement qualifies an individual to teach and to direct curricular and extracurricular activities in composition/language, literature, speech, drama, public media, journalism and reading in grades 7-12.

The teaching major in Language Arts Education is designed to prepare candidates for secondary teaching by providing them with

- A knowledge of the evolution of the English language;
- Teaching competence in traditional and transformational grammars and a general knowledge of other modern grammars;
- A knowledge of classical and modern rhetoric;
- Skill in writing developed through courses in basic composition, critical, creative and journalistic writing;
- An awareness of the impact of the mass media;
- Skill in the basics of directing and presenting a stage production;
- The ability to produce school publications;
- A broad and sound knowledge of literature through selected courses, a required core of period courses in British and American literature and a required major figures course;
- The ability to read, analyze and discuss literature with critical intelligence;
- A knowledge of the historical context of British and American letters;
- The ability to carry on independent research in language and literature;
- The special knowledge and skills pertinent to the effective teaching of English at the secondary level, supplied through a course in the methods of teaching high school and junior high school English, a course in the oral interpretation of literature, a course in the methods of teaching reading and a course in literature of particular interest and value to adolescents; and
- Experience in the integration of faith and learning, particularly in the teaching of imaginative literature.

Required courses—127 hours

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>CODR 229</td>
<td>Play Production I</td>
<td>3</td>
</tr>
<tr>
<td>COJR 221</td>
<td>Reporting</td>
<td>3</td>
</tr>
<tr>
<td>COJR 245</td>
<td>Editing</td>
<td>3</td>
</tr>
<tr>
<td>COJR 457</td>
<td>Magazine Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM 105</td>
<td>Public Speaking</td>
<td>2</td>
</tr>
<tr>
<td>COMM 125</td>
<td>Media and Meaning</td>
<td>3</td>
</tr>
<tr>
<td>COMM 355</td>
<td>Advanced Speech and Oral Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>COMM 465</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COPR 332</td>
<td>Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 357</td>
<td>Literature for Children and Adolescents</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 476</td>
<td>Content Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 112</td>
<td>College Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 271</td>
<td>History of the English Language</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 272</td>
<td>Grammatical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 378</td>
<td>Technical Writing and Grant Proposals</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 379</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>LITR 231</td>
<td>Ancient Western Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITR 299</td>
<td>Seminar in Non-Western Literature</td>
<td>3</td>
</tr>
<tr>
<td>or LITR 232</td>
<td>Modern Western Literature (3)</td>
<td></td>
</tr>
</tbody>
</table>

english
LITR 352  Women and Minority Writers  3
LITR  British literature 300 level or above  3
LITR  American literature 300 level or above  3
Select two courses from  6
CODR 329  Play Production II (3)
COJR 151  Photography (3)
COJR 458  In-Depth Reporting (3)
GRPH 150  Introduction to Graphic Arts (3)
GRPH 358  Typography (3)
LITR 345  Studies in Early American Literature (3)
LITR 348  Studies in British Literature (3)
LITR 436  Studies in American Literature (3)
LITR 445  Early British Literature (3)
LITR 475  Twentieth-Century Writers (3)
LITR 485  Advanced Studies Seminar (3)
Required specific LEAD/general education course
RELB 366  Biblical Literature  3
Professional education
EDUC 412  Methods: Language Arts Education  3
Additional Professional Education  48
(See Education-Secondary Education Endorsements)

Auxiliary Requirement
Language arts majors are required to direct, produce and/or coordinate curricular and extracurricular school speech and theater activities.

MINOR IN ENGLISH
Required courses—18 hours
ENGL 271  History of the English Language  3
LITR 345  Studies in Early American Literature  3
or LITR 436  Studies in American Literature (3)
Select twelve hours from  12
ENGL 272  Grammatical Systems (3)
LITR 231  Ancient Western Literature (3)
LITR 232  Modern Western Literature (3)
LITR 235  Approaches to Literature: British and American (3)
LITR 299  Seminar in Non-Western Literature (3)
LITR 348  Studies in British Literature (3)
LITR 352  Women and Minority Writers (3)
LITR 366  Biblical Literature (3)
LITR 445  Early British Literature (3)
LITR 475  Twentieth-Century Writers (3)
MISSION

The mission of the graphic design program is to prepare students to excel in visual communication within a Christian perspective and to become competent and creative graphic designers.

GOALS

Students graduating with a degree in graphic design will be prepared to
• Promote creative ideas to clients;
• Design in a broad spectrum of ways;
• Understand the historical perspective in the visual arts;
• Demonstrate professionalism and a thorough knowledge of the field;
• Apply knowledge of fundamental business and marketing practices.

CONTACT INFORMATION

Nancy Meier, Office Manager
Engel Hall
402.486.2553 Phone
402.486.2528 Fax
b2forbes@ucollege.edu
www.ucollege.edu/fineart

FACULTY

Bruce Forbes, James D. McClelland

ADJUNCT FACULTY

Lynn Davis, Konstantin Lisovskiy, Ed Mejia, Julia Noyes

ACADEMIC PROGRAMS

Graphic Design, BS
   Emphases in Business
   Communication
Graphic Design, AS
Minor in Graphic Design

Auxiliary Requirements for All Baccalaureate Degrees in the Visual Arts
• Presentation of a senior exhibit;
• Participation each year in other exhibitions;
• Regular attendance at professional conferences and/or seminars;
• Participation in regularly scheduled interviews and portfolio reviews;
• The development of a personal and a professional portfolio as a capstone educational record of academic experiences.
ART CORE—17 HOURS
ART 105 Drawing I 2
ART 115 Design I 2
ART 225 Color Theory 2
ART 235 Drawing II 2
ART 315 Design II 2
ART 321 European Art History 3
ART 322 American Art History 3
ART 485 Senior Exhibit 1

GRAPHIC DESIGN—BS
Required courses—63 hours
ART CORE 17
ART 175, 275, 375, 475 Graphic Design Seminar (0.5 each) 2
ART 347 Illustration Techniques I 2
CPTR 245 Web Development Basics 3
GRPH 150 Introduction to Graphic Arts 3
GRPH 210 Page Layout 3
GRPH 225 Digital Photography 3
GRPH 250 Digital Imaging 3
GRPH 252 Computer Design 3
GRPH 254 Publication Design 3
GRPH 301 Web Design 3
GRPH 350 History of Graphic Design/ Contemporary Design 3
GRPH 358 Typography 3
GRPH 401 Interactive Web Design (Flash) 3
GRPH 460 Prepress Production 3
GRPH 464 Advertising Design 3
GRPH 476 Internship 3

Select one emphasis below: Business or Communication

GRAPHIC DESIGN—BS
Business Emphasis
Select 12 hours from 12
BUAD 138 Dynamics of Business (3)
BUAD 219 Small Business Management (3)*
BUAD 376 Human Resources Management (3)*
BUAD 425 Business Communications (3)
BUAD 430 Conflict Management (3)
COMM 465 Interpersonal Communication (3)*
MRKT 327 Marketing (3)*
MRKT 333 Professional Selling (3)
MRKT 443 Consumer Behavior (3)

*Recommended

GRAPHIC DESIGN—BS
Communication Emphasis
Select 12 hours from 12
COJR 221 Reporting (3)
graphic design

COJR 245    Editing (3)*
COJR 457    Magazine Writing (3)
COMM 125    Media and Meaning (3)*
COMM 335    Video Production (3)
COMM 465    Interpersonal Communication (3)*
COPR 241    Public Relations Principles (3)
COPR 316    Advertising Practices (3)*
*Recommended

GRAPHIC DESIGN—AS

Required courses—31–32 hours
ART 105    Drawing I  2
ART 115    Design I  2
ART 225    Color Theory  2
GRPH 150    Introduction to Graphic Arts  3
ART 175, 275    Graphic Design Seminar (0.5 each)  1
GRPH 252    Computer Design  3
GRPH 254    Publication Design  3
GRPH 358    Typography  3
GRPH 460    Prepress Production  3
GRPH 464    Advertising Design  3
ART/GRPH    Electives  6–7

MINOR IN GRAPHIC DESIGN

Required courses—21 hours
ART 105    Drawing I  2
ART 115    Design I  2
ART 225    Color Theory  2
GRPH 150    Introduction to Graphic Arts  3
GRPH 252    Computer Design  3
GRPH 254    Publication Design  3
GRPH 358    Typography  3
GRPH    Elective  3
MISSION

Our mission is to develop leaders through balanced lifestyles and Christian fellowship.

GOALS

Students graduating from the health and human performance program will be prepared to

- Demonstrate an understanding of human movement and its relationship to the physical activities necessary for healthful living;
- Practice leadership, teamwork and Christian service in their daily lives;
- Apply an understanding of the curriculum and fitness/recreation programs that are suitable for various maturity and ability levels;
- Pursue advanced study.

CONTACT INFORMATION

Nancy Petta, Director
402.486.2889 or napetta@ucollege.edu
Larson Lifestyle Center lower level
402.486.2525
www.ucollege.edu/hhp

FACULTY

Nancy Petta, Ric Spaulding

ADJUNCT FACULTY

Ryan Perry

ACADEMIC PROGRAMS

Business/Sport Management, BS
Exercise Science, BS
Fitness and Wellness, BS
Physical Education, BS—K–6, 7–12 Secondary Subject Endorsement
Minors in Business/Sport Management
  Coaching
  Fitness and Wellness
  Personal Training
  Physical Education

HEALTH AND HUMAN PERFORMANCE CORE—44 HOURS

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
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<td>Human Anatomy &amp; Physiology</td>
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<td>CPTR 220</td>
<td>Microcomputer Applications</td>
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<tr>
<td>HHPA 220</td>
<td>Healthy Eating and Fitness</td>
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### Health and Human Performance

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HHPA 235</td>
<td>Weight Training and Physical Conditioning</td>
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<td>HHPT 215</td>
<td>Emergency Health Care</td>
<td>2</td>
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<td>HHPT 216</td>
<td>Athletic Injuries</td>
<td>3</td>
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<tr>
<td>HHPT 345</td>
<td>Sports Nutrition</td>
<td>2</td>
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<td>HHPT 350</td>
<td>Practicum</td>
<td>1</td>
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<td>HHPT 356</td>
<td>Physiology of Exercise</td>
<td>3</td>
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<td>HHPT 357</td>
<td>Motor Learning</td>
<td>3</td>
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<td>HHPT 360</td>
<td>Biomechanics</td>
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<td>HHPT 370</td>
<td>Personal Training</td>
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<td>HHPT 437</td>
<td>Measurement and Evaluation in HHP</td>
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<td>HHPT 475</td>
<td>Internship</td>
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<tr>
<td>HHPT 486</td>
<td>Senior Capstone</td>
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</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
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</table>

### Business/Sport Management—BS

The Business/Sport Management emphasis is designed to prepare students to work in fitness-racquet clubs, lifestyle centers, retail sporting goods stores, YMCA/YWCA's or other recreational businesses. Students can tailor-make the selections and internship to meet their own specific goals. Participation in an annual fitness test is required.

#### Required courses—78 hours

**Health and Human Performance Core**

Business courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ACCT 211, 212</td>
<td>Principles of Accounting</td>
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<tr>
<td>BUAD 219</td>
<td>Small Business Management</td>
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<tr>
<td>or BUAD 138</td>
<td>Dynamics of Business (3)</td>
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<td>BUAD 376</td>
<td>Human Resources Management</td>
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<tr>
<td>BUAD 425</td>
<td>Business Communications</td>
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<tr>
<td>MRKT 327</td>
<td>Marketing</td>
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</table>

Select two health and human performance activity courses from

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HHPA 112</td>
<td>Water Aerobics (1)</td>
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<tr>
<td>HHPA 137</td>
<td>Gymnastics for Everyone (1)</td>
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<tr>
<td>HHPA 145</td>
<td>Beginning Badminton (1)</td>
<td></td>
</tr>
<tr>
<td>HHPA 151</td>
<td>Beginning Volleyball (1)</td>
<td></td>
</tr>
<tr>
<td>HHPA 153</td>
<td>Beginning Basketball (1)</td>
<td></td>
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</table>

### Additional health and human performance required courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HHPA 147</td>
<td>Beginning Tennis</td>
<td>1</td>
</tr>
<tr>
<td>HHPA 149</td>
<td>Beginning Golf</td>
<td>1</td>
</tr>
<tr>
<td>HHPA 215</td>
<td>Intermediate/Advanced Swimming or HHPA 216 Lifeguard Training (1)</td>
<td>1</td>
</tr>
<tr>
<td>or HHPA 219</td>
<td>Water Safety Instruction (1)</td>
<td></td>
</tr>
<tr>
<td>HHPT 235, 236</td>
<td>Principles of Sports Officiating</td>
<td>1.5, 1.5</td>
</tr>
<tr>
<td>HHPT 335</td>
<td>Administration of Intramural Sports</td>
<td>3</td>
</tr>
<tr>
<td>HHPT 340</td>
<td>Introduction to Coaching Theory</td>
<td>2</td>
</tr>
<tr>
<td>HHPT 351</td>
<td>Practicum</td>
<td>1</td>
</tr>
<tr>
<td>HHPT 366</td>
<td>Adapted Physical Education</td>
<td>2</td>
</tr>
</tbody>
</table>
FITNESS AND WELLNESS—BS
The emphasis in fitness and wellness is designed for students who are planning to seek employment in the fitness marketplace, work-site wellness or community health promotion. Participation in an annual fitness test is required.

Required courses—75 hours
HEALTH AND HUMAN PERFORMANCE CORE 44

Business courses
BUAD 219 Small Business Management 3
or BUAD 138 Dynamics of Business (3)
GRPH 150 Introduction to Graphic Arts 3
GRPH 252 Computer Design 3
or GRPH 210 Page Layout: Quark/InDesign (3)
or GRPH 254 Publication Design (3)
MRKT 333 Professional Selling 3
or MRKT 327 Marketing (3)

Additional health and human performance courses
HHPA 216 Lifeguard Training 1
or HHPA 219 Water Safety Instructor (1)
HHPT 129 Intro to Fitness and Wellness Management 3
HHPT 235, 236 Principles of Sports Officiating 1.5, 1.5
HHPT 335 Administration of Intramural Sports 3
HHPT 351 Practicum 1
HHPT 366 Adapted Physical Education 2
HHPT 476 Wellness Methods, Materials and Management 3

Other courses
PSYC 311 Introduction to Counseling Theory and Techniques 3

EXERCISE SCIENCE—BS
The degree in exercise science is designed for students who are planning for graduate studies in exercise physiology, athletic training, physical therapy, wellness or sports medicine. Participation in an annual fitness test is required.

Required courses—66 hours
HEALTH AND HUMAN PERFORMANCE CORE 44

Additional health and human performance courses
HHPT 474 Internship 2
HHPT 256 Medical Terminology 1

Science and math courses
CHEM 151, 152 General Chemistry 4, 4
CHEM 211 Organic Chemistry 4
MATH 221 Elementary Statistics and Probability 3
PHYS 151 General Physics 4

PHYSICAL EDUCATION—BS
K-6, 7-12 Subject Endorsement
The teaching degree in physical education is designed to prepare candidates for elementary and secondary teaching in physical education. The following competencies are required:

• A general knowledge of the history, philosophy and basic purpose of health and physical education;
A basic understanding of the structural, physiological, mechanical and psychological factors affecting human movement and the relationships of physical activity to effective living;

An understanding of the nature of the curriculum and programs that are suitable for various maturity and ability levels and a minimal level of proficiency in specific activities;

Knowledge of and experience with a variety of methods and techniques suitable for teaching including adapted physical activities for the disabled;

An understanding of appropriate evaluative techniques and the utilization of these for motivation and for the determination of progress and outcomes;

An understanding of the value of research and its implication for the improvement of the profession and the development of skill in the scientific method and in the reporting of research.

Participation in annual fitness test is required.

**Required courses—111 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDUC 245</td>
<td>Physical Education in Elementary School</td>
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</tr>
<tr>
<td>HHPA 147</td>
<td>Beginning Tennis</td>
<td>1</td>
</tr>
<tr>
<td>HHPA 149</td>
<td>Beginning Golf</td>
<td>1</td>
</tr>
<tr>
<td>HHPA 151</td>
<td>Beginning Volleyball or HHPA 137 Gymnastics for Everyone (1)</td>
<td></td>
</tr>
<tr>
<td>HHPA 153</td>
<td>Beginning Basketball or HHPA 145 Beginning Badminton (1)</td>
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<td>HHPA 215</td>
<td>Intermediate/Advanced Swimming or HHPA 216 Lifeguard Training (1)</td>
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<td>Emergency Health Care</td>
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<td>Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>HHPT 235, 236</td>
<td>Principles of Sports Officiating 1.5, 1.5</td>
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<tr>
<td>HHPT 316</td>
<td>Leisure and Recreational Activities</td>
<td>2</td>
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<tr>
<td>HHPT 326</td>
<td>Team Activities</td>
<td>2</td>
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<tr>
<td>HHPT 335</td>
<td>Administration of Intramural Sports</td>
<td>3</td>
</tr>
<tr>
<td>HHPT 337</td>
<td>Gymnastics for Teachers</td>
<td>1</td>
</tr>
<tr>
<td>HHPT 340</td>
<td>Introduction to Coaching Theory</td>
<td>2</td>
</tr>
<tr>
<td>HHPT 345</td>
<td>Sports Nutrition</td>
<td>2</td>
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<tr>
<td>HHPT 350</td>
<td>Practicum</td>
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</tr>
<tr>
<td>HHPT 356</td>
<td>Physiology of Exercise</td>
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<td>Personal Training</td>
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<td>HHPT 486</td>
<td>Senior Capstone</td>
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</table>

**Other required courses**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 111, 112</td>
<td>Human Anatomy and Physiology</td>
<td>4, 4</td>
</tr>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
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</tbody>
</table>
It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).

MINOR IN BUSINESS/SPORT MANAGEMENT
Participation in annual fitness test is required.

**Required courses—26 hours**

Health and human performance courses

- **HHPA 220** Healthy Eating and Fitness 1
- **HHPT 215** Emergency Health Care 2
- **HHPT 335** Administration of Intramural Sports 3
- **HHPT 370** Personal Training 3

**Other required courses**

- **BIOL 111, 112** Human Anatomy and Physiology 4, 4
- **BUAD 219** Small Business Management 3
  
  or **BUAD 138** Dynamics of Business (3)
- **GRPH 150** Introduction to Graphic Arts 3
- **MRKT 333** Professional Selling 3
  
  or **MRKT 327** Marketing (3)

MINOR IN COACHING
Participation in annual fitness test is required.

**Required courses—23 hours**

- **BIOL 111, 112** Human Anatomy and Physiology 4, 4
- **HHPA 220** Healthy Eating and Fitness 1
- **HHPA 235** Weight Training and Physical Conditioning 1
- **HHPT 215** Emergency Health Care 2
- **HHPT 216** Athletic Injuries 3
- **HHPT 235, 236** Principles of Sports Officiating 1.5, 1.5
- **HHPT 340** Introduction to Coaching Theory 2
- **HHPT 370** Personal Training 3

MINOR IN FITNESS AND WELLNESS
Participation in annual fitness test is required.

**Required courses—23 hours**

- **HHPA 220** Healthy Eating and Fitness 1
- **HHPT 129** Introduction to Fitness and Wellness Management 3
- **HHPT 215** Emergency Health Care 2
- **HHPT 370** Personal Training 3
- **HHPT 476** Wellness Methods, Materials and Management 3

**Other required courses**

- **BIOL 111, 112** Human Anatomy and Physiology 4, 4
- **GRPH 150** Introduction to Graphic Arts 3
  
  or **MRKT 333** Professional Selling (3)
MINOR IN PERSONAL TRAINING
Participation in annual fitness test is required.

**Required courses—23 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<td>HHPA 220</td>
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<td>HHPA 235</td>
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<td>HHPT 215</td>
<td>Emergency Health Care</td>
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<td>HHPT 216</td>
<td>Athletic Injuries</td>
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<td>HHPT 345</td>
<td>Sports Nutrition</td>
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<tr>
<td>HHPT 356</td>
<td>Physiology of Exercise</td>
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<tr>
<td>HHPT 370</td>
<td>Personal Training</td>
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MINOR IN PHYSICAL EDUCATION
Participation in annual fitness test is required.

**Required courses—23 hours**

<table>
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<td>HHPT 216</td>
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<tr>
<td>HHPT 235, 236</td>
<td>Principles of Sports Officiating</td>
<td>1.5, 1.5</td>
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<tr>
<td>HHPT 326</td>
<td>Team Activities</td>
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<td>HHPT 335</td>
<td>Administration of Intramural Sports</td>
<td>3</td>
</tr>
<tr>
<td>HHPT 340</td>
<td>Introduction to Coaching Theory</td>
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</table>
The major in Health Sciences combines courses at the undergraduate and masters levels to enable exceptional, qualified Union College students to enter the Master of Physician Assistant Studies (MPAS) program after three years of undergraduate study and receive the bachelor’s degree during graduate MPAS studies.

CONTACT INFORMATION
Michelle Buller, Director, Physician Assistant Program
Larson Lifestyle Center, Second Floor
402.486.2527
paprog@ucollege.edu
www.ucollege.edu/pa

FACULTY
Michelle Buller, Jodi Chewakin, Cliff Korf, Dwain Leonhardt

ACADEMIC PROGRAMS
Health Sciences, BS

ADMISSION REQUIREMENTS
By the conclusion of the fall semester of the junior year, Union College students must have completed
- Application for MPAS program (See Graduate Program)
- 240 hours of health care experience
- CHEM 151, 152 General Chemistry
- CHEM 211 Organic Chemistry
- BIOL 151, 152 General Biology
- BIOL 416 Mammalian Physiology
- Students must complete the last 30 of 36 hours on Union College campus.

PROGRESSION REQUIREMENTS
Before entering the PHAS graduate courses, health sciences majors must have
- Acceptance into MPAS program (students who have been denied may reapply only after completion of a baccalaureate degree with another major);
- 480 hours of health care experience;
- 30 semester hours of credit at Union College;
- All major and prerequisite requirements except PHAS courses;
- All general education requirements;
- Electives as needed for a total of 101 semester hours (only 27 hours of PHAS courses apply toward the BS degree);
- All progression and graduation requirements associated with the MPAS degree.
HEALTH SCIENCES—BS
Required courses—77 hours

<table>
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<tr>
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<td>BIOL 205</td>
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<td>BIOL 416</td>
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<td>CHEM 445</td>
<td>Biochemistry</td>
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<td>PSYC 415</td>
<td>Abnormal Psychology</td>
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<td>PHAS 510</td>
<td>Clinical Nutrition</td>
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<td>PHAS 511</td>
<td>Human Anatomy</td>
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<td>PHAS 514</td>
<td>Medical History and Physical Examination Skills</td>
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<td>PHAS 525</td>
<td>Physician Assistant Professional Issues</td>
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<td>PHAS 533</td>
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<td>PHAS 539</td>
<td>Christian Health Care and Bioethics</td>
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<td>PHAS 559</td>
<td>Clinical Pathophysiology</td>
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<tr>
<td>PHAS 584</td>
<td>Pharmacology</td>
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Prerequisite courses

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HHPT 215</td>
<td>Emergency Health Care or evidence of CPR certification</td>
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<tr>
<td>HHPT 256</td>
<td>Medical Terminology</td>
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<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability</td>
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<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
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<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
GOALS

Student graduating from the history program will have

• A knowledge of American and European history appropriate for admission to graduate school;
• Become prepared for law or professional schools;
• Conducted independent historical study and research;
• Familiarity with schools of historical thought and the contributions of significant historians.

CONTACT INFORMATION

Michelle Velázquez Mesnard, Chair, Division of Humanities
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www.ucollege.edu/humanities

FACULTY

George Gibson, Benjamin Tyner

ACADEMIC PROGRAMS

History, BA
History Education, BS – Secondary Subject Endorsement
Minor in History

HISTORY—BA
Required courses—48 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 377</td>
<td>Origins or SCNC 377 Origins (3)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 137</td>
<td>Introductory Geography or GEOG 227 World Regional Geography (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 160</td>
<td>The West and the World, Part 1 or HIST 161 The West in the World, Part 2 (3)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 255</td>
<td>Issues in Early American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 485</td>
<td>Seminar in History</td>
<td>3</td>
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</table>

Select 21 hours from

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HIST 308</td>
<td>Early Antiquity (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 315</td>
<td>Economic History of the U.S. (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 335</td>
<td>Civil War and Reconstruction, 1840-1877 (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 349</td>
<td>Medieval Civilizations (3)</td>
<td></td>
</tr>
<tr>
<td>HIST 378</td>
<td>Modern Europe (3)</td>
<td></td>
</tr>
</tbody>
</table>
HIST 428 Renaissance and Reformation (3)
HIST 445 American Frontier (3)
HIST 455 Recent American History (3)
HIST 458 Classical Civilizations (3)

Other required courses
PLSC 205 American Government 3
PLSC 327 Comparative Governments 3
Select six hours from humanities or social science 300-400 level 6

HISTORY EDUCATION—BS
Secondary Subject Endorsement
The teaching major in history is designed to prepare candidates for secondary teaching by

• Providing a general knowledge of American and world history with each student having a detailed knowledge of American and/or European history;
• A basic undergraduate historical knowledge that prepares a student for graduate or law school;
• An understanding of democracy as exemplified in the political process of the government of the United States and other countries;
• The basic skills to undertake independent study and research, to be effective in the use of a library, to have the ability to analyze documents and to be able to write fluently;
• The ability to contribute to more responsible citizenship of students through a broader understanding of history;
• A physical and human geographical approach to the world;
• The special knowledge and skills pertinent to the effective teaching of history at the secondary level, supplied through a course in the methods of teaching high school and junior high school social studies, a course in secondary methods and a course in methods of historical research.

Required courses—93 hours
HIST 160 The West and the World, Part 1 3
or HIST 161 The West and the World, Part 2 (3)
HIST 255 Issues in Early American History 3
HIST 485 Seminar in History 3
Select 21 hours from 21
HIST 308 Early Antiquity (3)
HIST 315 Economic History of the U.S. (3)
HIST 335 Civil War and Reconstruction, 1840-1877 (3)
HIST 349 Medieval Civilizations (3)
HIST 378 Modern Europe (3)
HIST 428 Renaissance and Reformation (3)
HIST 445 American Frontier (3)
HIST 455 Recent American History (3)
HIST 458 Classical Civilizations (3)

Other required courses
GEOG 137 Introductory Geography 3
or GEOG 227 World Regional Geography (3)
PLSC 205 American Government 3
PLSC 327 Comparative Governments 3
Professional Education
EDUC 415 Methods: Social Science and Religious Education 3

Additional Professional Education 51
Recommended: Beginning College Modern Language (6)

It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education Secondary Education Endorsements).

MINOR IN HISTORY
Required course–18 hours

HIST 160 The West and the World, Part 1 3
or HIST 161 The West and the World, Part 2 (3)
HIST 255 Issues in Early American History 3
HIST Choose HIST 300 level and above 12
The International Rescue and Relief program is designed for students seeking careers in community service and the skills to serve in times of disaster and humanitarian need. There are three foundational elements of the program: a summer session in Colorado dedicated to survival and rescue training; a semester abroad studying and providing humanitarian relief; and clinical emergency training throughout the entirety of the program. The curriculum also provides graduates with the knowledge, skills, and ability for professional certification in emergency response or management. The IRR program prepares students for a variety of career opportunities depending on their degree focus; such as in mission service, public health, public services, non-profit agencies, business, and social services. The two emphases either prepares students in pre-professional graduate studies to become a doctor, dentist, physician assistant, or physical therapist; and the public safety emphasis, as a paramedic, emergency medical services, emergency manager, firefighter, forest or park ranger, search and rescue, and law enforcement. Union College offers this program in its long-standing tradition of Christian service.

MISSION

The International Rescue and Relief program prepares students for numerous career opportunities while providing students with the skill sets that will enable them to effectively respond to humanity’s needs during disaster and tragedy. Through traditional coursework, experiential environments, and training in remote and wilderness settings, students will prepare to lead in challenging circumstances, rescue others, provide humanitarian relief and compete for professional placement and graduate study.

GOALS

Students graduating with a major in International Rescue and Relief will be prepared to
• Serve enthusiastically, effectively and compassionately in other cultures;
• Competently respond to disasters as trained professionals;
• Obtain professional certification in emergency response and management;
• Pursue advanced study.

CONTACT INFORMATION

Rick Young, Director
IRR/PA Building
402.486.2980
r2young@ucollege.edu
www.ucollege.edu/irr

FACULTY

Aaron Kent, Rick Young
ACADEMIC PROGRAMS
International Rescue and Relief, BS
Emphases in Pre-Professional (Pre-medical, pre-dental, pre-physician assistant, pre-physical therapy)
Public Safety (firefighter, law enforcement, paramedic)
Minors in Disaster Management
Survival and Rescue

Preparatory Coursework for Admission to the Program
Recommended high school preparation for admission includes full-year courses in biology and chemistry, two years of algebra, and two years of foreign language.

ADMISSION AND PROGRESSION REQUIREMENTS
Admission into the International Rescue and Relief Program requires Union College enrollment and a meeting with an IRR advisor to determine the best academic program to help meet career goals.

Criteria for Admission to the IRR Program
• Acceptance into Union College
• The physical, mental, and emotional capacity to function as a professional emergency responder
• Passport for international travel

Progression in the program requires the student to
• Maintain physical, mental, and emotional capacity to function as a professional emergency responder;
• Maintain ability to hike, swim, run, adapt and function well in a broad range of climates and austere settings;
• Compliance with health policy requirements, including completion of the Hepatitis B series, an annual TB test, and annual influenza vaccine
• Complete the prerequisite CPR certification: American Heart Association Basic Life Support for the Health Care Provider by spring semester
• Successful criminal background check through the IRR program;
• Obtain and maintain certifications for CPR, NREMT, and NEEMT;
• Obtain all designated advanced EMT II certifications;
• Successfully complete summer survival and rescue certifications before junior year;
• Complete general education requirements (physical science and physical activity requirements are met by INRR courses);
• Fulfill at least eight hours per semester of approved community service (must be approved by advisor);
• Maintain a cumulative GPA of 2.5.

Program Specific Fees
Additional fees are charged for the summer training courses, diving, and the overseas semester. A program fee is also assessed each semester for all students admitted to the program, with the exception of the overseas semester. Information regarding current fees can be found online in the IRR Student Handbook under Program Specific Fees or contact the IRR program office.
INTERNATIONAL RESCUE AND RELIEF CORE—50 HOURS

HHPA 217 Skin and Scuba Diving* 1
INRR 100 Emergency Medical Technician* 7
INRR 110 Search and Rescue* 2
INRR 112 Swift Water Rescue and Flood Management* 1
INRR 114 Technical Rope Rescue* 1
INRR 116 Basic Survival* 1
INRR 117 Wilderness Upgrade for Medical Professionals * 1
INRR 202 Emergency Medical Technician II 4
INRR 210 Principles of Emergency Management 3
INRR 220 Social Dimensions of Disaster 3
INRR 302 HIV and Emerging Diseases 1
INRR 310 Emergency Care I 3
INRR 311 Emergency Care II 3
INRR 316 Jungle, Coastal and Ocean Survival 1
INRR 321 Global Health 3
INRR 330 Travel and Tropical Medicine 3
INRR 351 Stress and Rescue Diving* 1
INRR 430 Expeditionary Leadership 3
INRR 482 Int’l Development and Cultural Integration (WR) 3
INRR 491 Disaster Management and Terrorism 3
RELT 347 World Religions 3
*Certificate course

INTERNATIONAL RESCUE AND RELIEF—BS

Required courses—75 hours
INTERNATIONAL RESCUE AND RELIEF CORE 50
INRR 420 IRR Preceptorship 1
SOCI 415 Crisis and Resilience 3
Select a minor from below that enhances career choice goals* 21
Accounting—19 History—18
Biology—32 Marketing—19
Business Administration—18 Mathematics—23
Business Sports Management—26 Missions—20
Chemistry—20 Physical Education—23
Communication—19 Physics—21
Computer Information Systems—22 Pre-law—18
Computer Science—25 Psychology—18
English—18 Religion—18
Fitness and Wellness—23 Small Business Management—21
Graphic Design—21 Social Science—18
Youth Ministry—18
*Minor and electives must total 21 hours and be approved by the advisor.

INTERNATIONAL RESCUE AND RELIEF—BS
Pre-Professional Emphasis (Pre-dental, pre-medical, pre-physical therapy, pre-physician assistant)

Required courses—90 hours
INTERNATIONAL RESCUE AND RELIEF CORE 50
### Pre-Professional Emphasis (pre-dental, pre-medical)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology*</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 445</td>
<td>Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry*</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Precalculus*</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology*</td>
<td>3</td>
</tr>
</tbody>
</table>

### Required courses—91 hours

**INTERNATIONAL RESCUE AND RELIEF CORE** 50

**Pre-Professional Emphasis (pre-physical therapy)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology*</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry*</td>
<td>4, 4</td>
</tr>
<tr>
<td>HHPT 256</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability*</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 151, 152</td>
<td>General Physics</td>
<td>4, 4</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 415</td>
<td>Abnormal Psychology</td>
<td>3</td>
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</tbody>
</table>

### Required courses—99 hours

**INTERNATIONAL RESCUE AND RELIEF CORE** 50

**Pre-Professional Emphasis (pre-physician assistant)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology*</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 445</td>
<td>Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry*</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>HHPT 256</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Elementary Statistics and Probability*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 415</td>
<td>Abnormal Psychology</td>
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</table>

**Highly recommended elective courses for pre-professional emphasis:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 321</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 345</td>
<td>Biology of Bacteria</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 411</td>
<td>Human Anatomy</td>
<td>4</td>
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<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 151, 152</td>
<td>General Physics (4, 4)</td>
<td></td>
</tr>
</tbody>
</table>

*Meets general education requirements*
INTERNATIONAL RESCUE AND RELIEF—BS
Public Safety Emphasis

Required courses – 79-80 hours
INTERNATIONAL RESCUE AND RELIEF CORE 50
INRR 420 IRR Preceptorship 1
BIOL 106 Human Biology* 3
or BIOL 111 Human Anatomy and Physiology (4)
SOCI 415 Crisis and Resilience 3
Select a minor that enhances your career choice goals^ 22
Accounting—19
Biology—32
Business Administration—18
Chemistry—20
Communication—19
Computer Information Systems—22
Computer Science—25
Pre-law—18
Psychology—18
Social Science—18

^Minor and electives must total 22 hours and be approved by the advisor.

Public Safety Emphasis (Firefighter)
Students complete the first three years at Union College. Students complete this emphasis by submitting a copy of their certification as a Firefighter I, Firefighter II, and Hazardous Materials Operations, as well as an official college transcript showing completion of an accredited Fire Protection Technology program. Thirty credit hours are accepted for the Fire Protection program and will satisfy the Union College upper division requirement.

Required courses – 87 hours
INTERNATIONAL RESCUE AND RELIEF CORE 50
Completion of an Accredited Firefighter Program 30
Other required courses
BIOL 106 Human Biology* 3
HHPT 256 Medical Terminology 1
SOCI 415 Crisis and Resilience 3

Public Safety Emphasis (Paramedic)
Students complete the first three years at Union College. Students complete this emphasis by submitting a copy of their National Registry Paramedic Certificate as well as an official college transcript from a CAAHEP accredited institution for Paramedic training. Students who complete the paramedic portion of the program after the junior year at Union College may meet the residency requirement for graduation during the junior year. Thirty credit hours are accepted for the Paramedic program and the upper division courses in IRR, plus the Paramedic coursework will satisfy the Union College upper division requirement.

Students who will complete their paramedic training and national certification during the following summer may apply to participate in the graduation ceremonies in May as prospective summer graduates.
**Required courses—92 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>INTERNATIONAL RESCUE AND RELIEF CORE</td>
<td>50</td>
</tr>
<tr>
<td>Completion of an Accredited Paramedic Program</td>
<td>30</td>
</tr>
<tr>
<td>BIOL 111, 112 Human Anatomy and Physiology*</td>
<td>4, 4</td>
</tr>
<tr>
<td>HHPT 256 Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 415 Crisis and Resilience</td>
<td>3</td>
</tr>
</tbody>
</table>

*Meets general education requirements

**MINOR IN DISASTER MANAGEMENT**

**Required courses—18 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INRR 210 Principles of Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>INRR 220 Social Dimensions of Disaster</td>
<td>3</td>
</tr>
<tr>
<td>INRR 302 HIV and Emerging Diseases</td>
<td>1</td>
</tr>
<tr>
<td>INRR 482 Int'l Development &amp; Cultural Integration (WR)</td>
<td>3</td>
</tr>
<tr>
<td>INRR 491 Disaster Management and Terrorism (WR)</td>
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*Select five hours from*

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<tbody>
<tr>
<td>COMM 365 Institutional Development</td>
<td>3</td>
</tr>
<tr>
<td>COMM 425 Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COPR 377 Crisis Public Relations</td>
<td>2</td>
</tr>
<tr>
<td>NURS 391 Frontier Nursing</td>
<td>2</td>
</tr>
<tr>
<td>SOCI 388 International Social Services</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 389 Leadership of an NPO/NGO</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 415 Crisis and Resilience</td>
<td>3</td>
</tr>
</tbody>
</table>

**MINOR IN SURVIVAL AND RESCUE**

**Required courses—18 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HHPA 217 Skin and Scuba Diving*</td>
<td>1</td>
</tr>
<tr>
<td>INRR 100 Emergency Medical Technician*</td>
<td>7</td>
</tr>
<tr>
<td>INRR 110 Search and Rescue*</td>
<td>2</td>
</tr>
<tr>
<td>INRR 112 Swift Water Rescue and Flood Management *</td>
<td>1</td>
</tr>
<tr>
<td>INRR 114 Technical Rope Rescue*</td>
<td>1</td>
</tr>
<tr>
<td>INRR 116 Basic Survival*</td>
<td>1</td>
</tr>
<tr>
<td>INRR 202 Emergency Medical Technician II*</td>
<td>4</td>
</tr>
<tr>
<td>INRR 351 Stress and Rescue Diving*</td>
<td>1</td>
</tr>
</tbody>
</table>

*Certificate course
GOALS

Students with a major in international studies will be prepared for
• Careers in global service for church related groups, international business
corporations, government service, and/or other enterprises requiring a
background in global issues;
• Graduate study in related fields.

CONTACT INFORMATION

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mimesnar@ucollege.edu
www.ucollege.edu/humanities

FACULTY

Malcolm Gaskin, George Gibson, Benjamin Tyner, Debra Unterseher

ACADEMIC PROGRAMS

International Studies, BA, BS

INTERNATIONAL STUDIES

The student will select one area from disciplines such as agriculture, economics,
political relations, marketing, management, or modern language. A combination
of disciplines might be arranged. Courses selected should reflect an international
emphasis. Student and advisor will submit a list of courses from offerings at Union
College, other area colleges, or Adventist Colleges Abroad. The program must
be approved by the International Studies Committee, consisting of the program
coordinator and chairpersons of the Division of Business and Computer Science
and the Division of Humanities. At least 15 hours of the concentration must be at or
above the 300 level.

INTERNATIONAL STUDIES CORE—60 HOURS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BUAD 445</td>
<td>Business Law</td>
<td>4</td>
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<tr>
<td>ECON 235</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 236</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 227</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 378</td>
<td>Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 327</td>
<td>Comparative Governments</td>
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Select 12 hours from

<table>
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<tbody>
<tr>
<td>ACCT 211</td>
<td>Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ANTH</td>
<td>Introductory Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 220</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ECON</td>
<td>International Economics Course</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 137</td>
<td>Introductory Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 315</td>
<td>Economic History of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>MRKT</td>
<td>International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 321</td>
<td>Issues of Diversity</td>
<td>3</td>
</tr>
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</table>

Required specific LEAD/general education courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>RELT 305</td>
<td>Christian Ethics</td>
<td>3</td>
</tr>
<tr>
<td>RELT 347</td>
<td>World Religions</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 105</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Select an area of concentration (see above).

INTERNATIONAL STUDIES—BA
Required courses—66 hours

INTERNATIONAL STUDIES CORE 60

201, 202 Intermediate Foreign Language 3, 3

INTERNATIONAL STUDIES—BS
Required courses—72 hours

INTERNATIONAL STUDIES CORE 60

101, 102 Beginning Foreign Language 3, 3
COPR 241 Public Relations Principles 3
MRKT 327 Marketing 3
A leader needs a wide variety of knowledge, skills, and dispositions to be effective. These attributes may be innate, or they may be learned and absorbed through observation. A wide variety of classroom and practical experiences will assist students who pursue the leadership minor to assimilate and develop these qualities.

This nineteen-hour minor is designed to be completed within four years plus one summer. Several of the required courses fulfill LEAD requirements for general education or requirements within a student’s major discipline.

MISSION

By providing scholarship, support and encouragement, the Leadership Minor empowers students to grow and position themselves as leaders with a commitment to service.

GOALS

Students graduating with the Leadership Minor will

• Understand leadership theory;
• Practice moral and ethical leadership;
• Be effective in interpersonal communication and conflict resolution;
• Evaluate information using critical thinking skills;
• Appreciate the power of forgiveness and acceptance;
• Value the leadership qualities of Jesus

CONTACT INFORMATION

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Lynn Davis, M.A., Administrative Director
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lydavis@ucollege.edu

FACULTY

Linda Becker, George Gibson, Ben Holdsworth, Benjamin Tyner
MINOR IN LEADERSHIP

Required courses—19 hours

HMNT 332 Historical Issues in Leadership  2
LEAD 225 Creative Leadership    3
LEAD 245 Leadership Cohort       1
LEAD 345 Leadership Cohort       1
LEAD 425 Experiences in Leadership 3
LEAD 475* Leadership Internship  3
RELT 305 Christian Ethics       3

* Program specific internship, practicum, and preceptorship can be substituted by petition.

Students will select three hours from

BUAD 310 Quality Management (3)
BUAD 430 Conflict Management (3)
COMM 365 Institutional Development (3)
COMM 425 Intercultural Communication (3)
COMM 465 Interpersonal Communication (3)
COMM 480 Advanced Communication Seminar (3)
INRR 430 Expeditionary Leadership (3)
NURS 453 Management and Leadership (3)
SOCI 321 Issues in Diversity (3)
MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

GOALS

Students graduating from the mathematics program will be prepared to
• Read mathematical literature and communicate mathematically and statistically;
• Think logically and analytically based on methods of mathematical proof;
• Solve a variety of problems using standard heuristic techniques;
• Connect knowledge from one branch of mathematics to another and to other disciplines;
• Pursue life-long learning of mathematically related concepts;
• Value and enjoy mathematics through a growing understanding of its historical context and relationship to other sciences;
• Value its power, and its application to societal needs.

CONTACT INFORMATION

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www.ucollege.edu/science-and-mathematics

FACULTY

Larry Ray, Keith Riese

ACADEMIC PROGRAMS

Mathematics, BA, BS
Mathematics Education, BS – Secondary Subject Endorsement
Minor in Mathematics

MATHEMATICS CORE—49 HOURS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Calculus II, III</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH 331</td>
<td>Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>MATH 340</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 351</td>
<td>Abstract Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>
MATH 352  Linear Algebra  3
Other required courses
CPTR 226  Computer Science I  4
CPTR 227  Computer Science II  4
Supporting Area* (to be approved by the mathematics faculty)  12
*A sequence of courses requiring extensive use of mathematics chosen from biology, chemistry, computer science, engineering, or physics.

MATHEMATICS—BA
Required courses—55 hours
MATHEMATICS CORE  49
MATH 385  Differential Equations—recommended  3
    if supporting area is in science or engineering
    or MATH 486 Numerical Analysis—recommended
    if supporting area is in computer science (3)
MATH  Mathematics electives (numbered 300 or above)  3

MATHEMATICS—BS
Required courses—61 hours
MATHEMATICS CORE  49
MATH 385  Differential Equations  3
MATH 491  Real Analysis  3
MATH 492  Complex Variables  3
MATH  Mathematics electives (numbered 300 or above)  3

MATHEMATICS EDUCATION—BS
Secondary Subject Endorsement
The teaching major in mathematics is designed to prepare candidates for secondary teaching by providing
• The ability to inspire and motivate students in mathematics;
• An understanding of the cultural heritage and the place of mathematics in the school curriculum as a creative and expanding subject;
• An understanding of the interplay of mathematics and science in today’s scientific society;
• The conceptualization of mathematics as a science built upon postulates;
• The investigation of the application of mathematics in order to:
  o Interpret data, and
  o Discern and apply mathematical relationships and understanding of the nature of proofs;
• A knowledge of the language of mathematics;
• The ability to give clear explanations of the meaning of certain fundamental concepts, statements and notations;
• The ability to read mathematical literature with understanding;
• The foresight to use present methods of teaching mathematics;
• The ability to make and test conjectures;
• Acquisition of a degree of facility with selected mathematical techniques

Required courses—93 hours
MATH 121  Precalculus  5
MATH 184  Calculus I  4
MATH 285, 286  Calculus II, III  4, 4
MATH 331  Statistics and Probability  3
MATH 340  Discrete Mathematics  3
MATH 351  Abstract Algebra  3
MATH 352  Linear Algebra  3
MATH 409  Modern College Geometry  3
MATH 451  Mathematical Connections for Secondary Teachers  3
Other required course
CPTR 226  Computer Science I  4

Professional Education
EDUC 413  Methods: Mathematics Education  3

Additional Professional Education
(See Education-Secondary Education Endorsements)  51

MINOR IN MATHEMATICS

Required courses—23 hours
MATH 121  Precalculus  5
MATH 184  Calculus I  4
MATH 285  Calculus II  4
MATH 286  Calculus III  4
MATH 331  Statistics and Probability  3
or MATH 340  Discrete Mathematics (3)
MATH  Mathematics electives (numbered 300 or above)  3
MISSION

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FACULTY


ADJUNCT FACULTY

Charles E. Freidline, Angie Hardt, Marcia A. Kilsby

ACADEMIC PROGRAMS

Medical Laboratory Science, BS

MEDICAL LABORATORY SCIENCE

The Bachelor of Science degree with a major in medical laboratory science is granted after completion of the general education and clinical course requirements outlined below. The first three years are offered at Union College. The senior, clinical year, must be completed at an affiliated school of medical laboratory science. Currently, affiliation is maintained with Andrews University, Berrien Springs, MI 49104, mls@andrews.edu, www.andrews.edu/shp/mls

ACADEMIC REQUIREMENTS

• A minimum of 92 semester hours of liberal arts credits must be earned with a minimum cumulative GPA of 2.50. These 92 hours must include all the bachelor’s degree general education requirements as outlined for the major and a minimum of 10 hours of courses numbered above 300.

• The residence requirement of 30 hours must be satisfied in the junior year at Union College.

• The major is satisfied in the senior year at an affiliated professional school.

• Specific requirements for entrance into the clinical program are found in the bulletin of the affiliated professional school. At the time of application to the clinical program, the student must also meet the current minimum prerequisites for
admission to a clinical facility as prescribed by the National Accrediting Agency for Medical Laboratory Science.

- Acceptance into the clinical program is on a competitive basis. Completion of the outlined requirements at Union College does not guarantee admission to the affiliated school of medical laboratory science.
  - A GPA of 3.00 or higher will, of course, increase the likelihood of acceptance into a clinical program.
- The degree is granted in December, May or August after all clinical experience has been completed.
- To be eligible for a degree at the completion of the clinical year, students must
  - register as a student at Union College for clinical year (no credit until completion);
  - make application for the degree by September for participation in May as an August graduate (applications must include the listing of any credits to be completed by correspondence or to be transferred from any other college);
  - send pictures or make arrangements with the yearbook editor.

**MEDICAL LABORATORY SCIENCE—BS**

**Required courses—83–85 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL</td>
<td>Biology electives</td>
<td>6-8</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH</td>
<td>College level math (MATH 221 recommended)</td>
<td>3</td>
</tr>
</tbody>
</table>

Clinical courses at Andrews University 50

**Additional courses recommended (Choose from)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 205</td>
<td>Microbiology (4)</td>
</tr>
<tr>
<td>BIOL 306</td>
<td>Histology (3)</td>
</tr>
<tr>
<td>BIOL 314</td>
<td>Immunology (3)</td>
</tr>
<tr>
<td>BIOL 321</td>
<td>Genetics (4)</td>
</tr>
<tr>
<td>BIOL 345</td>
<td>Biology of Bacteria (4)</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Mammalian Physiology (4)</td>
</tr>
<tr>
<td>CHEM 311</td>
<td>Analytical Chemistry (4)</td>
</tr>
<tr>
<td>CHEM 312</td>
<td>Instrumental Analysis (4)</td>
</tr>
<tr>
<td>PHYS 111</td>
<td>Principles of Physics (4)</td>
</tr>
<tr>
<td></td>
<td>or PHYS 151, 152 General Physics (4, 4)</td>
</tr>
</tbody>
</table>
Majors in Modern Foreign Language and Second Language Studies with emphases in French, German, Portuguese, and Spanish can be acquired through Union College’s participation in Adventist Colleges Abroad. These majors are designed for students who want proficient speaking skills along with an appreciation of the culture, history and literature associated with the language. Students participate in a minimum of two semesters on an ACA campus (see Academic Resources section).

CONTACT INFORMATION
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Tamara Seiler, Office Manager
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mimesnar@ucollege.edu
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ACADEMIC PROGRAMS
Modern Foreign Language, BA
Emphases: French, German, Portuguese or Spanish
Second Language Studies, BA
Emphases: French, German, Portuguese or Spanish

Minors in French
German
Italian
Portuguese
Spanish

MODERN FOREIGN LANGUAGE—BA
Emphases available in French, German, Portuguese or Spanish.
 Required courses—46 semester hours (69 quarter credits)
LANG* prefix beyond 102, twelve semester hours (18 quarter credits) of which must be at or above the 300-level, including
LANG* History and/or civilization 6 SH (9 QC)
LANG Literature (300 level or above) 6 SH (9 QC)
LANG Language or grammar (300 level or above) 6 SH (9 QC)
LANG Modern language electives 28 SH (42 QC)
*LANG is replaced by the language studied.
Minor required from another discipline.

SECOND LANGUAGE STUDIES – BA
Available as a second major only.
Emphases available in French, German, Portuguese or Spanish.
Required courses—30 semester hours (45 quarter credits)
LANG* prefix beyond 102, twelve semester hours (18 quarter credits) of which must be at or above the 300-level, including
LANG* History and/or civilization 2-3 SH (3-5 QC)
LANG Literature (300 level or above) 2-3 SH (3-5 QC)
LANG Language or grammar (300 level or above) 3 SH (4-5 QC)
LANG Modern language electives 21-22 SH (32 QC)
*LANG is replaced by the language studied

MINORS IN MODERN FOREIGN LANGUAGES
Minors in French, German, Italian, Portuguese and Spanish can be acquired through participation in the Adventist Colleges Abroad program by living and studying on an ACA campus (see Academic Resources section).

Required courses—20 semester hours (30 quarter credits)
Twenty semester hours (30 quarter credits) of courses with LANG* prefix beyond 102. To include, at or above the 300-level, two of the following:
(6 SH; 10 QH)
LANG* History and/or civilization (3 SH; 5 QH)
LANG Language or grammar (3 SH; 5 QH)
LANG Literature (3 SH; 5 QH)
LANG Modern language electives (14 SH; 21 QH)
*LANG is replaced by the language studied.

SH=semester hours
QH=quarter hours
MISSION

The mission of the music program is to educate, challenge, and inspire the Union College student for Christian service through excellence in music.

GOALS

Students graduating with a degree in music will be prepared to
• Show improvement in the areas of technical proficiency and artistic musicianship;
• Analyze musical materials and structures;
• Organize musical thoughts through composition and arranging;
• Articulate historical and theoretical perspective with an understanding of stylistic trends and their evolution;
• Communicate musical ideas and knowledge;
• Demonstrate proficiencies in the use of current music technologies.

CONTACT INFORMATION

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www.ucollege.edu/fineart

FACULTY

Daniel Lynn

ADJUNCT FACULTY

Marina Fabrikant, Ryan Wells

ACADEMIC PROGRAMS

Music, BA
Music Education, BMusic - K-12 Field Endorsement
  Emphases in Instrumental
    Keyboard
    Vocal
Music Performance, BMusic
  Emphases in Instrumental
    Keyboard
    Vocal
Music Education Instrumental, BS - Subject Endorsement K-8 or 7-12
Music Education Vocal, BS - Subject Endorsement K-8 or 7-12
Music Pedagogy, AS
Minor in Music
Auxiliary Requirements for All Baccalaureate Degrees in Music
(except K-8 subject endorsements)
• Presentation of senior recital.
• Participation during each semester of residence in a large or small ensemble which features the student’s primary performing medium, i.e., band, choir or orchestra. Credit for ensembles is optional.
• Regular attendance at all division-sponsored recitals and concerts.
• Functional piano proficiency. All students will reach the required minimum proficiency level. An outline of requirements containing illustrative models is available from the piano instructors.
• Performance area. All music majors are required to take a minimum of nine hours of performance studies in at least one performance area. Some majors require up to 18 hours in a primary performance area and six hours in a secondary area. Students are expected to take private lessons in a primary performance area each semester.

MUSIC CORE—30 HOURS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUHL 351</td>
<td>Music History I</td>
<td>2</td>
</tr>
<tr>
<td>MUHL 352</td>
<td>Music History II</td>
<td>2</td>
</tr>
<tr>
<td>MUHL 353</td>
<td>Music History III</td>
<td>2</td>
</tr>
<tr>
<td>MUHL 354</td>
<td>Music History IV</td>
<td>2</td>
</tr>
<tr>
<td>MUPF 257</td>
<td>Introduction to Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUTH 151</td>
<td>Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 152</td>
<td>Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 161</td>
<td>Sight-Singing and Ear Training I</td>
<td>1</td>
</tr>
<tr>
<td>MUTH 162</td>
<td>Sight-Singing and Ear Training II</td>
<td>1</td>
</tr>
<tr>
<td>MUTH 253</td>
<td>Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 254</td>
<td>Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 263</td>
<td>Form and Analysis</td>
<td>2</td>
</tr>
<tr>
<td>MUTH 462</td>
<td>Introduction to Counterpoint</td>
<td>2</td>
</tr>
<tr>
<td>MUTH 465</td>
<td>Orchestration</td>
<td>2</td>
</tr>
</tbody>
</table>

MUSIC—BA

Required courses—42 hours

MUSIC CORE 30
MUPF Performance Studies 12
MUPF 451 Senior Recital (1)
MUPF Concentration in voice or one instrument (8)
(4 hours must be 200-400 level and 4 hours must be 400 level)
MUPF Performance electives (3)
MUPF Participate in a large ensemble each semester; elect additional experiences in chamber ensembles.

MUSIC PERFORMANCE—BMUSIC

Required courses—62 hours

MUSIC CORE 30
MUED 307 Keyboard Pedagogy 2
or MUED 317 Instrumental Pedagogy (2)
or MUED 327 Vocal Pedagogy (2)
MUPF 341 Choral Conducting 1
MUPF 342  Instrumental Conducting 1
 Primary Performance Area 19
MUPF 351  Junior Recital (1)
MUPF 451  Senior Recital (1)
Select one emphasis:
 Instrumental or Keyboard Emphasis
MUPF  Concentration in one instrument (17)
     (11 hours must be 200-400 level
     and 6 hours must be 400 level)
 Vocal Emphasis
MUPF 266  English/Italian Diction (1)
MUPF 267  German/French Diction (1)
MUPF 201, 401  Voice (15)
     (9 hours must be 200-400 level
     and 6 hours must be 400 level)
 Secondary Performance Area
Select four hours from
 MUAP  Techniques and Materials (1-4)
     (and/or MUPF Performance Studies (1-4)
 MUPF  Music electives
 MUPF  Participate in a large ensemble each semester; elect additional experiences in chamber ensembles
MINOR IN MUSIC
 Required courses—21–22 hours
MUHL  Select Music history in consultation with advisor 2-3
MUTH 151  Theory I 3
MUTH 152  Theory II 3
MUTH 161  Sight-Singing and Ear Training I 1
MUTH 162  Sight-Singing and Ear Training II 1
MUPF  Performance Studies 8
     (6 hours in a concentration - 2 at 300 level) (6)
     Performance electives (2)
     Partial recital
MUPF  Electives: ensembles (recommended) 3
     (One hour must be 300-400 level)
MUSIC EDUCATION
 Students graduating with a degree in music education will be able to
• Develop a conceptual understanding of the elements of music in order to form a basis for listening, composing, performing, conducting and teaching;
• Perform in a variety of ways in the role of listener, composer, performer, conductor, scholar and teacher;
• Develop a repertoire in musical styles that embraces different cultures and historical periods;
• Develop an understanding of music within its historical framework, including knowledge of the major periods of music.
MUSIC EDUCATION—BMUSIC

K-12 Field Endorsement

Required courses—109–110 hours

MUSIC CORE 30
MUED 307 Keyboard Pedagogy 2
or MUED 317 Instrumental Pedagogy (2)
or MUED 327 Vocal Pedagogy (2)
MUED 347 Music in the Elementary School 2
MUPF 341 Choral Conducting 1
MUPF 342 Instrumental Conducting 1
Primary Performance Area
MUPF 451 Senior Recital 1

Select one emphasis: 12-13

Instrumental or Keyboard Emphasis
MUPF Concentration in one instrument (12)
(6 hours must be 200-400 level
and 6 hours must be 400 level)

Vocal Emphasis
MUPF 201, 401 Voice (12)
(6 hours must be 200-400 level
and 6 hours must be 400 level)
MUPF 266 English/Italian Diction (1)
or MUPF 267 German/French Diction (1)

Secondary Performance Area
MUAP 207 Brass Techniques and Materials 1
MUAP 217 Guitar Techniques and Materials 1
MUAP 227 Percussion Techniques and Materials 1
MUAP 237 String Techniques and Materials 1
MUAP 247 Vocal Techniques and Materials 1
MUAP 257 Woodwind Techniques and Materials 1

Candidates are strongly encouraged to take up to six hours in a second
performance area. Example: voice majors take instrumental, or instrumental
majors take voice. Candidates must participate in a large ensemble each
semester. They may choose to gain additional experiences in chamber
ensembles.

Professional Education
EDUC 414 Methods: Music Education (Required for 7-12 only) 3
Additional Professional Education 51
(See Education-Secondary Education Endorsements)

INSTRUMENTAL MUSIC EDUCATION—BS

K-8 or 7-12 Subject Endorsement

Required courses—101 hours

MUSIC CORE 30
MUED 317 Instrumental Pedagogy 2
MUED 347 Music in the Elementary School 2
MUPF 342 Instrumental Conducting 1
MUPF 451 Senior Recital 1
Select three courses from MUAP 207–257 3
MUAP 207 Brass Techniques and Materials (1)
MUAP 217  Guitar Techniques and Materials (1)
MUAP 227  Percussion Techniques and Materials (1)
MUAP 237  String Techniques and Materials (1)
MUAP 247  Vocal Techniques and Materials (1)
MUAP 257  Woodwind Techniques and Materials (1)

Primary Performance Area
8
MUPF  Concentration in one instrument
(4 hours must be 300-400 level.)
MUPF  Participate in a large ensemble each semester;
Select additional experiences in chamber ensembles.

Professional Education
EDUC 414  Methods: Music Education (Required for 7-12 only)  3
Additional Professional Education  51
It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).

VOCAL MUSIC EDUCATION—BS
K-8 or 7-12 Subject Endorsement

Required courses—102 hours
MUSIC CORE  30
MUAP 247  Vocal Techniques and Materials  1
MUED 327  Vocal Pedagogy  2
MUED 347  Music in the Elementary School  2
MUPF 341  Choral Conducting  1
MUPF 451  Senior Recital  1
Select one course from  1
MUAP 207  Brass Techniques and Materials (1)
MUAP 217  Guitar Techniques and Materials (1)
MUAP 227  Percussion Techniques and Materials (1)
MUAP 237  String Techniques and Materials (1)
MUAP 257  Woodwind Techniques and Materials (1)

Primary Performance Area  10
MUPF  Concentration in voice or keyboard instrument (8)
(4 hours must be 200-400 level
and 4 hours must be 400 level)
MUPF 266  English-Italian Diction (1)
MUPF 267  German-French Diction (1)
MUPF  Participate in a large ensemble each semester;
Select additional experiences in chamber ensembles.

Professional Education
EDUC 414  Methods: Music Education (Required for 7-12 only)  3
Additional Professional Education  51
It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).

MUSIC PEDAGOGY—AS
Requirements—42 hours
Required courses
MUED 307  Keyboard Pedagogy  2
or MUED 317 Instrumental Pedagogy (2)
or MUED 327 Vocal Pedagogy (2)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUTH 151</td>
<td>Theory I</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 152</td>
<td>Theory II</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 161</td>
<td>Sight-Singing and Ear Training I</td>
<td>1</td>
</tr>
<tr>
<td>MUTH 162</td>
<td>Sight-Singing and Ear Training II</td>
<td>1</td>
</tr>
<tr>
<td>MUTH 253</td>
<td>Theory III</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 254</td>
<td>Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 263</td>
<td>Form and Analysis</td>
<td>2</td>
</tr>
</tbody>
</table>

**Primary Performance Area**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUPF</td>
<td>Concentration in instrument, voice or keyboard</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>(2 hours must be 300-400 level)</td>
<td></td>
</tr>
<tr>
<td>MUPF</td>
<td>Electives: ensembles (recommended)</td>
<td>6</td>
</tr>
</tbody>
</table>

Participate in an ensemble each semester; select other electives in diction, conducting, techniques and materials, or music history.

**Other required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUAD 138</td>
<td>Dynamics of Business</td>
<td>3</td>
</tr>
<tr>
<td>MUED 275</td>
<td>Music Practicum</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
natural science education

MISSION
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CONTACT INFORMATION
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FACULTY

ADJUNCT FACULTY
Charles E. Freidline

ACADEMIC PROGRAMS
Natural Science Education, BS—Secondary Subject Endorsement

NATURAL SCIENCE EDUCATION—BS
Secondary Subject Endorsement
The teaching major in natural science is designed to prepare for secondary teaching by providing the ability to

• Demonstrate knowledge and understanding and be able to teach the concepts, skills and processes of science;
• Design and manage safe and supportive learning environments for science instruction;
• Apply unifying concepts to help students integrate science with the natural world and relate science to their community;
• Apply the processes of scientific inquiry, including the ability to design and conduct scientific investigations and evaluate and interpret data;
• Apply physical and life science facts, concepts and theories;
• Establish connections between science and technology;
• Apply science concepts, principles and processes to personal and social decision making;
• Understand the history and nature of science.
### Required courses—86 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 111</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>PHYS 151, 152</td>
<td>General Physics</td>
<td>4, 4</td>
</tr>
<tr>
<td></td>
<td>or PHYS 251, 252 College Physics</td>
<td>4.5, 4.5</td>
</tr>
<tr>
<td>BIOL 477</td>
<td>Issues in Origins and Speciation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science Elective</td>
<td>1</td>
</tr>
</tbody>
</table>

**Professional Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 418</td>
<td>Methods: Science Education</td>
</tr>
<tr>
<td>Additional Professional Education</td>
<td>51</td>
</tr>
</tbody>
</table>

It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).

### NATURAL SCIENCE EDUCATION—BS

#### Biology Emphasis—25 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 321</td>
<td>Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 375</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 111, 112</td>
<td>Anatomy and Physiology</td>
<td>4, 4</td>
</tr>
<tr>
<td></td>
<td>or BIOL 416 Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>and Biology Elective</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Precalculus</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Chemistry Emphasis—25 hours

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
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<tr>
<td>CHEM 311</td>
<td>Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 445</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>BIOL</td>
<td>Biology Elective with Lab</td>
<td>4</td>
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</tbody>
</table>

#### Physics Emphasis—32 hours

<table>
<thead>
<tr>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 286</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>PHYS 228</td>
<td>Electric Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 350</td>
<td>Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 412</td>
<td>Physical Chemistry – Thermal Dynamics</td>
<td>4</td>
</tr>
</tbody>
</table>
Union College offers a four-year curriculum in nursing, leading to a Bachelor of Science in Nursing degree. The program is approved by the Nebraska State Board of Nursing and is accredited by the Commission on Collegiate Nursing Education. Graduates are eligible to write the National Council Licensing Examinations-RN (NCLEX-RN) for professional licensure.

MISSION

The mission of the Union College nursing program is to prepare students from diverse backgrounds to be competent, caring generalists in the profession of nursing. The program reflects a commitment to Christian values, professional standards, holistic care, and service as modeled by Jesus Christ.

GOALS

Students graduating with a bachelor’s degree in nursing will be prepared to:

• Use Christian values as a foundation of professional practice standards to demonstrate accountable, patient-centered care, and servant leadership.
• Demonstrate leadership in collaboration with the interprofessional team to design and manage patient-centered care.
• Utilize current technological resources to manage information, mitigate error, foster effective communication, and support decision making in provision of safe, quality patient-centered care.
• Integrate best, current evidence with clinical judgment and patient preferences to provide safe, quality care across the lifespan in a variety of health care systems.
• Participate in quality improvement activities promoting individual performance and system effectiveness to achieve optimal patient outcomes.
• Demonstrate knowledge, skills, and attitudes in preparation for lifelong learning required in a changing practice environment.
• Synthesize knowledge from liberal education and nursing courses to provide patient-centered care.

CONTACT INFORMATION

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FACULTY
Kelly Boyd, Debbie Eno, Kristine Follett, Amy Golter, Tracy Hagele, Jackie Halley, Laura Karges, Valeree Krueger, Ruth Mendenhall, Elysia Ockenga, Nicole Orian, Ellen Rose, Charlotte Schober, Theresa Stimson

SIMULATION CENTER COORDINATOR
Tracy Hagele

ADMISSION, PROGRESSION AND GRADUATION REQUIREMENTS
The Division of Nursing Admissions Committee intends that an applicant to the Nursing Program is qualified for the proposed curriculum and is capable of profiting from the educational experience offered by Union College. The Admissions and Academic Evaluation Committee (AAEC) of the Division of Nursing accomplishes this by examining evidence of scholastic competence, moral and ethical standards, and significant qualities of character and personality. Applicants are considered for admission at the recommendation of the Division of Nursing.

Students may enter the Nursing Program as a traditional student, transfer student (pre-nursing or nursing), licensed practical nurse, or registered nurse. Based on point of entry, pathways have been designed to support student learning and progression while recognizing appropriate prior work to ensure content mastery and program outcomes.

Transfer students petitioning to have a nursing course accepted in place of a Union College nursing course must provide a syllabus to the Program Development and Enrollment Counselor for the lead faculty member of that course to evaluate for content equivalence. If a content deficiency of one hour or less is identified during syllabus review, the deficient content may be remediated through directed study with the lead faculty member. If the content deficiency requires greater than one hour of remediation, the student will be required to take the petitioned course at Union College.

All transfer students must provide an additional letter of reference from their previous Nursing Program director upon application. The student may also be required to take the corresponding Assessment Technology Institute (ATI) assessment * to demonstrate sufficient content mastery according to the Nursing Program Admission Policy.

The Division of Nursing begins reviewing applications on March 1 for fall admission and October 1 for spring admission and continues until the class is full. Applicants will be notified of their status by the Division of Nursing. Once admitted to the Nursing Program, students who interrupt their studies must confirm eligibility in writing to resume nursing courses by March 1 for continuation in the fall semester or October 1 for the spring semester.

Upon selection of nursing as a major, students will be assigned an academic advisor from the Nursing Program to provide guidance in their academic program.

Minimum criteria for application to the Nursing Program
• A cumulative GPA of 2.75 or above on a 4.00 scale in general education and required courses for a Union College nursing major

Minimum criteria for acceptance in the nursing program
• Acceptance into Union College;
• Completion of required prerequisite courses with a grade of C or above
## Required Prerequisites and Semester Hours

<table>
<thead>
<tr>
<th>Prerequisite</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy and Physiology (with lab)</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry for Nursing (or equivalent with lab)</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology (with lab)</td>
<td>4</td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>English (College Writing II)</td>
<td>3</td>
</tr>
</tbody>
</table>

- A cumulative GPA of 2.75 or above on a 4.00 scale in general education and required courses for a Union College nursing major;

- Completion of application process including:
  - NursingCAS application
  - Test of Essential Academic Skills (TEAS) exam * (excluding U.S. licensed registered nurses)
  - All college transcripts
  - Two letters of recommendation
  - A Test of English as a Foreign Language (TOEFL) for students whose native language is other than English regardless of prior college course credit and receive an Internet score of 92 or a score of 580 on the Union College administered TOEFL (not including essay portion).

- A personal interview with the program director or members of the nursing Admissions and Academic Evaluation Committee (AAEC) may be required.

Following **admission to the nursing program** students will need to complete:

- Payment of $250 confirmation fee*
  - $125 is refundable if student declines acceptance according to Nursing Program policy or
  - $125 will be applied to student financial account after the Drop/Add date.
- Health Policy requirements
- CPR certification (American Heart Association for Health care Providers)*
- Satisfactory drug screen and background checks
- the Critical Thinking Entrance Exam (ATI)
- the Self Assessment Inventory Web (ATI)
- ATI course assessments* to determine Nursing Program placement when applicable
- Acceptance into the Nursing Program is provisional contingent upon satisfactory completion of all admission requirements and until findings from the drug and criminal background screening are available.

* *indicates an additional fee for student

### Progression in the nursing program

Nursing courses are arranged in a progressive curriculum. Learning proceeds from the concrete and simple to abstract and complex. It begins with conceptualization, then moves to application and, finally, to integration. To facilitate student learning, the Nursing Program has organized nursing course sequences by a progression pathway. Individual student academic plans may vary depending on entry point and courses accepted in transfer. A student’s academic plan is developed with the assistance of a Nursing Program advisor.
Criteria for progression in the nursing program
• A grade of C (2.00) or above in all nursing, prerequisite and required contextual courses;
• A cumulative GPA and nursing course GPA of 2.50;
• A grade of C (2.00) must be achieved in theory
• Pass the clinical component of each clinical course;
• No nursing course may be attempted more than twice to achieve a grade of C;
• Withdrawal from a nursing course after the Drop/Add date is considered a course attempt;
• Failure of two nursing courses is considered a Nursing Program failure and the student will be unenrolled from the program;
• Regular and prompt attendance at all classes and clinical appointments;
• Compliance with health policy requirements:
  o Hepatitis B vaccination is required prior to first clinical course,
  o Tuberculin skin test (TST) annually;
  o Influenza vaccination annually;
• Personal health insurance;
• Current CPR certification (American Heart Association for health care providers).

Generic/Traditional Student Curriculum in Nursing Program
1st Semester
NURS 204 Introduction to Professional Nursing
NURS 208 Fundamentals of Nursing
NURS 243 Evidence-Based Practice
NURS 305 Physical Assessment

2nd Semester
NURS 310 Pharmacology
NURS 311 Pathophysiology I
NURS 312 Medical-Surgical I
NURS 334 Gerontology

3rd Semester
NURS 312 Pathophysiology II
NURS 322 Medical-Surgical II
NURS 383 Mental Health

4th Semester
NURS 415 Maternal Child Health
NURS 423 Medical-Surgical III
NURS 433 Disaster Nursing

5th Semester
NURS 453 Management and Leadership
NURS 474 Community Health
NURS 495 Transition to Professional Practice
NURS 499 Preceptorship
Licensed Practical Nurse Student Curriculum
Sequencing is varied for the second-step degree completion program and assumes that the student has completed prerequisites. Licensed practical nurses will complete required medical-surgical courses and demonstrate content mastery through successful completion of corresponding ATI assessments for placement.*

1st Semester
NURS 243 Evidence-based Practice
NURS 305 Physical Assessment
NURS 310 Pharmacology
NURS 311 Pathophysiology #
NURS 347 Nursing Program Integration

2nd Semester
NURS 312 Pathophysiology #
NURS 322 Medical-Surgical II
NURS 383 Mental Health

3rd Semester
NURS 415 Maternal Child Health
NURS 423 Medical-Surgical III
NURS 433 Disaster Nursing

4th Semester
NURS 453 Management & Leadership
NURS 474 Community Health
NURS 495 Transition to Professional Practice
NURS 499 Preceptorship

#NURS 311 Pathophysiology I and NURS 312 Pathophysiology II may be transferred in with petition for course equivalence.

Registered Nurse Student Curriculum
Program Requirements
NURS 243 Evidence-Based Practice
NURS 347 Nursing Program Integration
NURS 433 Disaster Nursing
NURS 453 Management & Leadership
NURS 474 Community Health
NURS 499 Preceptorship
RELT 110 Introduction to Christian Faith & Adventism
RELT 305 Christian Ethics
HHPA (2 credits)

Four Additional credits from the following: ^
HMNT 332 Historical Issues in Leadership (2)
LEAD 225 Creative Leadership (3)
NURS 310 Pharmacology (3)
NURS 391 Frontier Nursing (2)
If all LEAD requirements have been met, 4 additional credits from the following are required. If LEAD requirements are not met at the time of admission, then the 4 credit hours to meet the last 30 of 36 hours will be replaced by LEAD credits.

CRITERIA FOR GRADUATION AND ELIGIBILITY FOR STATE BOARD LICENSURE EXAMINATION

- Good standing in the nursing program,
- A cumulative GPA of 2.50 and nursing courses GPA of 2.50 with no grade lower than C (2.00) on nursing or required prerequisite classes; and
- Completion of 65 credit hours of NRSG/NURS courses.

During the last semester of the senior year, a standardized comprehensive nursing examination is given. A passing score must be achieved on this exam to graduate. Graduation will be delayed and the student will not be eligible to take the NCLEX-RN unless a satisfactory score is achieved. A student who fails the ATI Comprehensive on a third attempt will be required to take a pre-approved NCLEX-RN review course at the student’s own expense. The timeframe for completion is determined by the Division of Nursing program policy. Virtual ATI, an NCLEX-RN online review course, is available to students that are preparing to take the NCLEX-RN.

The Nursing Program will notify the Nebraska State Board of Nursing when the graduate has met all graduation requirements. Graduation date and diploma conferral will occur according to Union College policy.

PROGRAM SPECIFIC FEE

In addition to regular college fees, a fee is assessed each semester for all students enrolled in the Nursing Program. Part-time students will be assessed this fee for each semester they are taking clinical nursing courses. These fees are published annually in the college's schedule of Scholarships, Tuition and Fees.

BACHELOR OF SCIENCE IN NURSING FOR LICENSED PERSONNEL
(Second-step program)

Licensed practical nurses (LPNs), diploma and associate degree registered nurses (RNs) must hold requisite U.S. nursing licensure to apply. Each applicant is evaluated for placement in the program and contingent upon space available. Applicants with any disciplinary action on their LPN or RN license will not be eligible for admission to the Nursing Program.

Tuition scholarships are given to eligible individuals licensed in Nebraska reducing the cost from the usual rate. Students are not generally eligible for other institutionally funded aid, scholarships, or discounts.

Chemistry for Nursing with lab (or equivalent) and English (College Writing II) must be taken no more than five years prior to entry into the Nursing Program. All other prerequisites must be completed within 10 years of entry into the Nursing Program. The following prerequisites or their equivalents must be completed before acceptance into the Nursing Program and may be taken at Union College:

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy and Physiology (with lab)</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry (with lab)</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology (with lab)</td>
<td>4</td>
</tr>
<tr>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>
To allow more flexibility, second-step program students are required to take six hours of religion (nursing requirement RELT 305 Christian Ethics and general education requirement RELT 141 Christian Beliefs or RELT 110 Introduction to Christian Faith and Adventism), and two hours of physical activity in place of the general education requirements for traditional students of twelve hours of religion and four hours of physical education activities. The eight hour difference must be made up by taking electives to complete the 128 credit hours required for graduation.

Progression in the baccalaureate Nursing Program may be completed on a part-time or full-time basis provided completion is within the five year allotted timeframe. A schedule will be designed to meet the needs of each candidate on an individual basis. To graduate from Union College, a student must take thirty of the last thirty-six credit hours at Union College. Transfer courses will be evaluated for content equivalency by Union College lead course faculty, and clinical skills may require validation. LPNs and RNs who are admitted to the second-step program must transfer their previous nursing education courses to Union College and document successful completion of the NCLEX-LPN or NCLEX-RN. The transferred courses will then be considered equivalent to the Union College courses and will apply to 1) the upper division minimum nursing hour’s requirement, 2) credits required from a four-year institution, and 3) credits required to grant a bachelor’s degree.

Licensed Practical Nurses (LPNs)

Regardless of prior education or experience NURS 305 Physical Assessment, NURS 347 Nursing Program Integration must be completed at Union College. Students are evaluated individually for subsequent courses in the program utilizing Assessment Technology Institute (ATI)* assessments. A level 2 must be achieved on ATI assessments to demonstrate content mastery and allow recognition of the course.

Registered Nurses (RNs)

Associate degree or diploma RNs who have graduated from an accredited nursing program are eligible to receive up to 35 hours of credit for Introduction to Professional Nursing, Fundamentals, Gerontology, Pharmacology, Medical-Surgical I and II, Maternal Child Health, and Mental Health from their previous nursing education after successfully completing nine semester hours of NURS courses at Union College.

Non-United States educated RNs not licensed in the United States must pass standardized assessments for Fundamentals, Medical-Surgical, Maternal Child Health, Mental Health, and successfully validate clinical performance in nursing courses to receive challenge credit for previous nursing education.

NURSING—BSN

Required courses—93 hours

Required nursing courses
NURS 204 Introduction to Professional Nursing 3
NURS 208 Fundamentals 6
NURS 243  Evidence-Based Practice  3  
NURS 305  Physical Assessment  3  
NURS 310  Pharmacology  3  
NURS 311  Pathophysiology I  2  
NURS 312  Pathophysiology II  2  
NURS 321  Medical-Surgical I  6  
NURS 322  Medical-Surgical II  6  
NURS 334  Gerontology and Geriatric Care  2  
NURS 383  Mental Health  3  
NURS 415  Maternal Child Health  6  
NURS 423  Medical-Surgical III  5  
NURS 453  Management and Leadership  3  
NURS 433  Disaster Nursing  2  
NURS 474  Community Health  4  
NURS 495  Transition to Professional Practice  2  
NURS 499  Preceptorship  4  

Program Required Courses
BIOL 111, 112  Human Anatomy and Physiology  4, 4  
BIOL 205  Microbiology  4  
CHEM 104  Intro to General, Organic & Biochemistry for Nursing  4  
ENGL 112  College Writing II  3  
MATH 221  Elementary Statistics and Probability  3  
PSYC 215  Developmental Psychology  3  
RELT 305  Christian Ethics  3  

Nursing electives for the major
NURS 391  Frontier Nursing (2)  

In addition to the above requirements, the student will select other courses to fulfill the general education curriculum (see Graduation Requirements section). A minimum of 128 semester hours is necessary for a bachelor’s degree at Union College.

* Additional fee for student
MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

GOALS

Students graduating from the physics program will be prepared to
• Exhibit competence in understanding and application of physics principles;
• Connect knowledge about physics to other disciplines;
• Think logically and analytically;
• Solve a variety of problems using standard techniques;
• Value physics through an understanding of its historical context and its relationship to other sciences;
• Value its power and its application to societal needs;
• Pursue graduate studies.

CONTACT INFORMATION

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FACULTY

Keith Riese, Richard Webb

ACADEMIC PROGRAMS

Physics, BA, BS
Physics Education, BS – Secondary Subject Endorsement
Minor in Physics

<table>
<thead>
<tr>
<th>PHYSICS CORE—58 HOURS</th>
<th></th>
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<tbody>
<tr>
<td>CHEM 151, 152 General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CPTR An approved computer language</td>
<td>3</td>
</tr>
<tr>
<td>MATH 184, 285, 286 Calculus I, II, III</td>
<td>4, 4, 4</td>
</tr>
<tr>
<td>MATH 385 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 209 Electromagnetic Theory (at Nebraska Wesleyan Univ)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 228 Electric Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 241, 242 Classical Mechanics (at Nebraska Wesleyan Univ)</td>
<td>3, 3</td>
</tr>
<tr>
<td>PHYS 251, 252 College Physics</td>
<td>4.5, 4.5</td>
</tr>
<tr>
<td>PHYS 296 Research Methods I</td>
<td>1</td>
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<tr>
<td>PHYS 350</td>
<td>Modern Physics</td>
</tr>
<tr>
<td>PHYS 351</td>
<td>Quantum Mechanics</td>
</tr>
<tr>
<td>PHYS 386</td>
<td>Research Methods II</td>
</tr>
</tbody>
</table>

PHYSICS—BA
Union College offers its physics program in cooperation with Nebraska Wesleyan University in Lincoln, Nebraska. Students seeking a bachelor’s degree in physics must take at least two courses on the NWU campus.

**Required courses—61 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS CORE</td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>PHYS</td>
<td>Electives (at Nebraska Wesleyan University)</td>
<td>3</td>
</tr>
</tbody>
</table>

PHYSICS—BS

**Required courses—75 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICS CORE</td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>MATH</td>
<td>Elective (above 310)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 210</td>
<td>Optics (at Nebraska Wesleyan University)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 261</td>
<td>Thermal Physics (at Nebraska Wesleyan University)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 396</td>
<td>Research Methods III</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 496</td>
<td>Research Methods IV</td>
<td>1</td>
</tr>
<tr>
<td>PHYS</td>
<td>Electives (at Nebraska Wesleyan University)</td>
<td>6</td>
</tr>
</tbody>
</table>

PHYSICS EDUCATION—BS
Secondary Subject Endorsement
The teaching major in physics is designed to prepare candidates for secondary teaching by providing

- An understanding that the disciplines of physical science have a definite position in the society of today;
- An ability to demonstrate their observational, investigative competence in the successful completion of at least one experimental project;
- A competence in discussion of scientific problems in their field along with the ability to demonstrate impromptu reactions in drawing from their factual background;
- An ability to construct at least one unit of study, including selection of audiovisual material, laboratory type activities, field trips; construction of a model or other demonstration equipment to emphasize some area of the unit; a study guide; and an evaluative instrument for the unit.

**Required courses—127 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 111</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CPTR</td>
<td>An approved computer language</td>
<td>3</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 285, 286</td>
<td>Calculus II, III</td>
<td>4, 4</td>
</tr>
<tr>
<td>MATH 385</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 228</td>
<td>Electric Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 251, 252</td>
<td>College Physics</td>
<td>4.5, 4.5</td>
</tr>
</tbody>
</table>
PHYS 296 Research Methods I 1  
or MATH 221 Elem Statistics & Probability (3)  
or MATH 331 Statistics & Probability (3)  
PHYS 350 Modern Physics 4  
PHYS 351 Quantum Mechanics 4  
PHYS 386 Research Methods II 1  
PHYS Electives (three hours must include a lab) 9  

Professional Education  
EDUC 418 Methods: Science Education 3  
Additional Professional Education 5  

It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).  

MINOR IN PHYSICS  
Required courses—21 hours  
PHYS 228 Electric Circuit Analysis 4  
PHYS 251, 252 College Physics 4.5, 4.5  
PHYS 351 Quantum Mechanics 4  
PHYS Electives 4
pre-allied health and preprofessional

MISSION

Founded upon a firm belief in the Creator and guided by a Christian worldview, the Division of Science and Mathematics prepares students for service and leadership.

CONTACT INFORMATION

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FACULTY


ADJUNCT FACULTY

Charles E. Freidline

ACADEMIC PROGRAMS

Pre-Allied Health, AS

Union College offers many of the courses necessary to prepare students for admission to professional schools. In addition there are certain minimum requirements relative to secondary school and college credits.

Students interested in entering a professional school should acquaint themselves with the particular requirements of that school and should pattern their preprofessional courses to be taken at Union College in harmony with such requirements. Advisors in the Division of Science and Mathematics will help plan a program of study.

Allied Health programs are available in

Dental Hygiene
Nutrition and Dietetics, Dietetic Technology
Occupational Therapy and Occupational Therapy Assistant
Physical Therapy and Physical Therapy Assistant
Radiation Therapy
Respiratory Therapy

Professional programs are available in

Dentistry
Medicine
Pharmacy
PRE-ALLIED HEALTH—AS

Required courses—20 hours

HHPT 256 Medical Terminology 1

Select eight hours from 8

BIOL 111, 112 Human Anatomy and Physiology (4, 4)
BIOL 151, 152 General Biology (4, 4)
BIOL 205 Microbiology (4)

Select four hours from 4

CHEM 104 Introduction to General, Organic and Biochemistry (4)
CHEM 151 General Chemistry (4)
PHYS 111 Principles of Physics (4)
PHYS 151 General Physics (4)

Select four additional hours from 4

BIOL 111, 112 Human Anatomy and Physiology (4, 4)
BIOL 151, 152 General Biology (4, 4)
BIOL 205 Microbiology (4)
CHEM 101 Introduction to Inorganic Chemistry (4)
CHEM 104 Introduction to General, Organic and Biochemistry (4)
CHEM 151 General Chemistry (4)
CHEM 152 General Chemistry (4)
PHYS 111 Principles of Physics (4)
PHYS 151 General Physics (4)
PHYS 152 General Physics (4)

Select one course from PSYC or SOCI 3

Consult advisor for general education and elective courses. Students should consult with their advisor to verify that their program of study includes the requirements for the allied health major they wish to enter upon completion of Union’s Associate of Science in pre-allied health.

ALLIED HEALTH PROFESSIONS—ANDREWS UNIVERSITY

Andrews University offers a Doctor of Physical Therapy program. The first three years of pre-requisites may be taken at Union College.

ALLIED HEALTH PROFESSIONS—LOMA LINDA UNIVERSITY

The Division of Science and Mathematics works with the Loma Linda University School of Allied Health Professions to offer educational programs in

- Dental Hygiene
- Nutrition and Dietetics, Dietetic Technology
- Occupational Therapy and Occupational Therapy Assistant
- Physical Therapy and Physical Therapy Assistant
- Radiation Therapy and Medical Radiography
- Respiratory Therapy

One year of studies at Union College is required prior to admission into programs leading to the Associate of Science degree and two years of studies are required prior to admission to the programs leading to the Bachelor of Science degree at Loma Linda University. Consult the appropriate sections of Loma Linda University bulletins for information on these programs.
ACCEPTANCE

In selecting students to clinical programs, the Admissions Committee looks for evidence of intellectual vigor, self-discipline, integrity and good health. Manual dexterity, aptitude in science, a sensitive concern for the sick and a capacity for unusual devotion and personal effort are essential.

Consideration is given first to applicants who are seeking to transfer from one of the colleges in the Seventh-day Adventist system of higher education. Other applicants are accepted as vacancies permit.

APPLICATION

For the Occupational Therapy and Physical Therapy programs, application should be made early in the school year prior to admission. Application deadlines for other programs are later. Students should consult their academic advisor or Andrews University or Loma Linda University for exact application information.

DENTISTRY—LOMA LINDA UNIVERSITY

APPLICATION

Preference is given to applicants who will have completed the baccalaureate degree prior to starting dentistry. The Dental Admissions Test (DAT), taken within the last two years, and a minimum of three years (96 semester hours) of collegiate preparation are required. Candidates should have demonstrated ability in the sciences.

Application to the Loma Linda University School of Dentistry is made directly to the American Dental Education Association through its application service (AADSAS). Applications are accepted from June 1 through January 1 for entry into the next first-year dental class. Applicants are urged to take the DAT complete their ADDSAS application during the summer one year before their anticipated enrollment in dental school. Both AADSAS and DAT application forms and deadline information are available from the predental advisor.

MINIMUM REQUIREMENTS FOR ADMISSION (in terms of Union College courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL/CHEM 445</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 151, 152</td>
<td>General Physics</td>
<td>4, 4</td>
</tr>
<tr>
<td>ENGL 111, 112</td>
<td>College Writing I and II</td>
<td>3, 3</td>
</tr>
<tr>
<td></td>
<td>20 hours of observation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLEP and pass/fail performances are not acceptable for the required courses.</td>
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</tr>
</tbody>
</table>

Strongly recommended electives include CHEM 446 Biochemistry II and anatomy. Other recommended electives include calculus, genetics, histology, management, and physiology.

MEDICINE—LOMA LINDA UNIVERSITY APPLICATION

Preference is given to applicants who will have completed the baccalaureate degree prior to starting medicine. The Medical College Admissions Test (MCAT), taken within the last two years, and a minimum of three years (85 semester hours)
of collegiate preparation are required. Candidates should have demonstrated ability in the sciences.

Application to the Loma Linda University School of Medicine is made directly to the Association of American Medical Colleges through its application service (AMCAS). Applications are accepted from June 1 through November 1 for entry into the next first-year medical class. Applicants are urged to take the MCAT in the spring of the year of application and to have the basic requirements completed at the time of application. Both AMCAS and MCAT application forms and deadline information are available from the premedical advisor.

**MINIMUM REQUIREMENTS FOR ADMISSION** (in terms of Union College courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>PHYS 151, 152</td>
<td>General Physics</td>
<td>4, 4</td>
</tr>
<tr>
<td>ENGL 111, 112</td>
<td>College Writing I and II</td>
<td>3, 3</td>
</tr>
</tbody>
</table>

CLEP and pass/fail performances are not acceptable for the required courses.

Although Loma Linda University does not have a list of recommended courses, most successful medical school candidates will have studied additional courses taken from histology, biochemistry, anatomy, physiology, genetics, cell biology, and molecular biology.

**PHARMACY – LOMA LINDA UNIVERSITY APPLICATION**

Preference is given to applicants who will have completed the baccalaureate degree prior to starting pharmacy. The Pharmacy College Admission Test (PCAT) or Graduate Record Examination (GRE) is not required and is not considered in the application process. Candidates should have demonstrated ability in the sciences. It is highly recommended that applicants obtain volunteer or paid pharmacy work experience.

Application to the Loma Linda University School of Pharmacy begins with application to the Pharmacy College Application Service (PharmCAS). Applications are accepted from June 3 to November 1 for entry into the next first-year pharmacy class. Prerequisites must be completed by the end of Spring Term prior to entering pharmacy school.

**MINIMUM REQUIREMENTS FOR ADMISSION** (in terms of Union College courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 151, 152</td>
<td>General Biology</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 151, 152</td>
<td>General Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>CHEM 211, 212</td>
<td>Organic Chemistry</td>
<td>4, 4</td>
</tr>
<tr>
<td>PHYS 151, 152</td>
<td>General Physics</td>
<td>4, 4</td>
</tr>
<tr>
<td>BIOL 111</td>
<td>Human Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL 411 Human Anatomy (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM/BIOL 445</td>
<td>Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 235</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 236 Principles of Macroeconomics (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Units</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------</td>
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</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COMM 105</td>
<td>Public Speaking</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>or COMM 355 Advanced Speech and Oral</td>
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<tr>
<td></td>
<td>Communication (3)</td>
<td></td>
</tr>
</tbody>
</table>

CLEP credit is not accepted. Recommended additional courses: BIOL 403 Molecular Biology, BIOL 404 Cell Biology, BIOL 306 Histology, BIOL 314 Immunology, BIOL 112 Human Anatomy and Physiology (or BIOL 416 Mammalian Physiology).
MISSION

The psychology program at Union College prepares students to be seekers of knowledge, and thinkers who practice service to all humanity with a Christ-centered attitude.

GOALS

Upon completion of the psychology program at Union College, graduates will be able to

Knowledge
• Exhibit knowledge of the major concepts and theoretical perspectives in the general field of psychology and its sub-fields;
• Identify ways in which psychological research and application impact everyday functioning;

Skills
• Integrate psychological theory with practice;
• Carry out the research process;
• Critically assess data and general information;
• Successfully pursue graduate studies;

Values
• Evaluate psychological theories from a Christian perspective;
• Demonstrate interest, respect and concern for others, regardless of religion, race, gender, sexual orientation or any other differences;
• Exhibit ethical behavior when interacting with others in all settings;
• Demonstrate integration of Christian compassion and psychological application.

CONTACT INFORMATION

Trudy Ann Holmes-Caines or Melanie Gabbert
Dick Building, Room 403
402.486.2522
humandev@ucollege.edu
www.ucollege.edu/psychology

FACULTY

Melanie Gabbert, Trudy Ann Holmes-Caines

ADJUNCT FACULTY

Richard Carlson, Jeannie McCarter

ACADEMIC PROGRAMS

Psychology, BS
Minor in Psychology
PSYCHOLOGY—BS

Required courses—54 hours

- PSYC 100 Careers in Psychology .5
- PSYC 105 Introduction to Psychology 3
- PSYC 215 Developmental Psychology 3
- PSYC 225 Psychology of Religion 3
- PSYC 300 Career and Graduate School Preparation .5
- PSYC 337 History and Systems of Psychology 3
- PSYC 340 Research Methods I 3
- PSYC 341 Research Methods II 3
- PSYC 475 Current Issues in Psychology 2
- PSYC 476 Senior Research Project 3

Select five courses from the following two groups: 15

Select at least one course from
- PSYC 315 Social Psychology (3)
- PSYC 338 Cognitive Psychology (3)
- PSYC 380 Biopsychology (3)

Select at least two courses from
- PSYC 311 Introduction to Counseling Theory and Techniques (3)
- PSYC 375 Theories of Personality (3)
- PSYC 415 Abnormal Psychology (3)
- PSYC 425 Human Sexuality (3)
- PSYC 427 Clinical Assessment (3)
- PSYC 450 Psychological Testing (3)

Select at least nine additional hours from PSYC or SOCI electives 9

Recommended
- PSYC 455 Internship (1-3)
- SOCI 315 Marriage and Family (3)
- SOCI 415 Crisis and Resilience (3)

Participate in department senior assessment.

Other required courses
- SOCI 105 Introduction to Sociology 3
- SOCI 321 Issues of Diversity 3

MINOR IN PSYCHOLOGY

Required courses—18 hours

- PSYC 105 Introduction to Psychology 3
- PSYC 215 Developmental Psychology 3
- PSYC 337 History and Systems of Psychology 3

Select nine hours of approved PSYC electives (3 hours must be 300-400 level) 9
MISSION

The religion program will prepare students for graduate studies leading to Christian service in a professional setting.

GOALS

Students graduating from the religion program will be prepared to

• Demonstrate knowledge of the Old and New Testaments;
• Demonstrate substantial knowledge of the history, mission and theological beliefs of the Seventh-day Adventist church;
• Pursue graduate studies;
• Acquire a knowledge of biblical and ethical principles;
• Express an active faith in a life of Christian discipleship.

CONTACT INFORMATION

Robert Fetrick, Chair, Division of Religion
Sandy Tallman, Office Manager
Dick Building, Room 412
402.486.2526
rofetric@ucollege.edu
www.ucollege.edu/religion

FACULTY

Edward Allen, Robert Fetrick, Ben Holdsworth, Thomas Toews

ADJUNCT FACULTY

Richard Carlson, Sylvester Case, Shane Daughenbaugh, Ron Halvorsen Jr., Stan Hardt

ACADEMIC PROGRAMS

Religion, BS
  Emphases: Business
  Mission Service
  Pastoral Care
Religious Education, BS—Secondary Subject Endorsement
Social Media Ministry, BS
Minors: Missions
  Religion
  Social Media Ministry
  Youth Ministry

RELIGION CORE—45 HOURS

RELB 226 Old Testament Survey  3
or RELB 325 Prophets (3)
RELB 255 Jesus and the Gospels  3
RELIGION—BS

Business Emphasis

This pre-professional program prepares students for graduate work in an MBA program with an opportunity for a career in Christian service such as a school or church business administrator.

**Required courses—66 hours**

RELIGION CORE 45

ACCT 211, 212 Principles of Accounting 3, 3
BUAD 376 Human Resource Management 3
or MRKT 327 Marketing (3)
BUAD 430 Conflict Management 3
or BUAD 445 Business Law (4)
ECON 235 Principles of Microeconomics 3
ECON 236 Principles of Macroeconomics 3
MATH 221 Elementary Statistics and Probability 3
or MATH 165 Calculus for Managers (3)

RELIGION—BS

Mission Service Emphasis

This program provides a strong biblical foundation for students to prepare for Christian service in mission work with frontier missions, and international development and relief ministries.

**Required courses—59 hours**

RELIGION CORE (RELT 347 is required for this emphasis) 45
COMM 425 Intercultural Communication 3
RELP 361 Church Leadership 3
or LEAD 225 Creative Leadership (3)
RELIGION—BS
Pastoral Care Emphasis
This pre-professional program enables students to pursue graduate studies and prepare for opportunities in Christian counseling careers such as an academy dean, guidance counselor, psychologist or marriage and family counselor.

Required courses—69 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELG 465</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 225</td>
<td>Psychology of Religion</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 311</td>
<td>Introduction to Counseling Theory and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 415</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 105</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 315</td>
<td>Marriage and Family</td>
<td>3</td>
</tr>
</tbody>
</table>

RELIGIOUS EDUCATION—BS
Secondary Subject Endorsement
Students graduating from the religious education program will be prepared for state and church certification for teaching biblical studies classes on the secondary level.

In addition to the general goals of the Division of Religion students graduating with this major will
• Demonstrate substantial knowledge of the Old and New Testaments;
• Demonstrate substantial knowledge of the history, mission and doctrinal beliefs of the Seventh-day Adventist church;
• Demonstrate knowledge of Christian church history;
• Apply skills in communicating biblical faith and values to adolescents through teaching, preaching, and personal evangelism;
• Be prepared to pursue graduate studies.

Required courses—79 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELB 226</td>
<td>Old Testament Survey</td>
<td>3</td>
</tr>
<tr>
<td>REHB 226</td>
<td>or RELB 325 Prophets (3)</td>
<td></td>
</tr>
<tr>
<td>RELB 255</td>
<td>Jesus and the Gospels</td>
<td>3</td>
</tr>
<tr>
<td>RELB 335</td>
<td>New Testament Epistles</td>
<td>3</td>
</tr>
<tr>
<td>RELB 348</td>
<td>Daniel</td>
<td>3</td>
</tr>
<tr>
<td>RELB 349</td>
<td>Revelation</td>
<td>3</td>
</tr>
<tr>
<td>RELH 310</td>
<td>History of the Seventh-day Adventist Church</td>
<td>3</td>
</tr>
<tr>
<td>RELH 410</td>
<td>History of the Christian Church</td>
<td>4</td>
</tr>
<tr>
<td>RELP 175</td>
<td>How to Study the Bible</td>
<td>3</td>
</tr>
<tr>
<td>RELP 235</td>
<td>Introduction to Youth Leadership</td>
<td>3</td>
</tr>
<tr>
<td>RELP 321</td>
<td>or RELP 465 Personal Witnessing (3)</td>
<td></td>
</tr>
</tbody>
</table>
RELT 141  Christian Beliefs  3  
RELT 455  Prophetic Guidance in the Advent Movement  3  

Professional education  
EDUC 415  Methods: Social Science and Religious Education  3  

Additional Professional Education  39  
It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education—Secondary Education).

SOCIAL MEDIA MINISTRY – BS  
This major provides a strong biblical background united with courses that will enable a student to provide social media ministry and evangelism for churches, schools, conferences, and other organizations using existing and emerging social media tools.  

Required courses—75 hours  

Religion  
RELB 226  Old Testament Survey  3  
or RELB 325 Prophets 3  
RELB 246  Sanctuary and Salvation  3  
RELB 255  Jesus and the Gospels  3  
RELB 335  New Testament Epistles  3  
RELB 348  Daniel  3  
RELB 349  Revelation  3  
RELT 141  Christian Beliefs  3  
or RELT 205 Developing Christian Mind 3  
RELT 306  Christian Ethics  3  
RELT 347  World Religions  3  
RELT 455  Prophetic Guidance  3  
RELP 287  Tpc: Social Media Evangelism  3  
RELP 321  Biblical Preaching I  3  
RELP 361  Church Leadership  3  
or LEAD 225 Creative Leadership 3  

Communication  
COEM 260  Writing in the Digital World  3  
COEM 410  Digital Story Telling  3  
COEM 440  Social Media Public Relations and Marketing  3  
COJR 360  Communication through Digital and Emerging Media  3  
COMM 465  Interpersonal Communication  3  
COPR 241  Public Relations Principles  3  

Graphics  
CPTR 225  Web Development Basics  3  
GRPH 150  Intro to Graphic Arts  3  
GRPH 225  Digital Photography  3  
or COJR 151 Photography 3  
GRPH 301  Web Design  3  

Marketing  
MRKT 327  Marketing  3  
MRKT ___ One upper division MRKT  3  

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### MINOR IN MISSIONS
**Required courses—20 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 425</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>RELB 255</td>
<td>Jesus and the Gospels</td>
<td>3</td>
</tr>
<tr>
<td>RELP 175</td>
<td>How to Study the Bible</td>
<td>3</td>
</tr>
<tr>
<td>RELP 361</td>
<td>Church Leadership</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or LEAD 225 Creative Leadership (3)</td>
<td></td>
</tr>
<tr>
<td>RELP 465</td>
<td>Personal Witnessing</td>
<td>3</td>
</tr>
<tr>
<td>RELT 347</td>
<td>World Religions</td>
<td>3</td>
</tr>
<tr>
<td>UCSM 205</td>
<td>Introduction to Overseas Service</td>
<td>2</td>
</tr>
<tr>
<td>UCSM 490, 491</td>
<td>Student Mission Service I and II (6 and 3 non-credit)*</td>
<td>0</td>
</tr>
<tr>
<td>UCSM 495</td>
<td>Student Mission Service III (3 elective hours only)*</td>
<td>0</td>
</tr>
</tbody>
</table>

### MINOR IN RELIGION
**Required courses—18 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELT 141</td>
<td>Christian Beliefs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or RELT 205 Developing the Christian Mind (3)</td>
<td></td>
</tr>
<tr>
<td>RELT 455</td>
<td>Prophetic Guidance in the Advent Movement</td>
<td>3</td>
</tr>
<tr>
<td>RELB 348</td>
<td>Daniel</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or RELB 349 Revelation (3)</td>
<td></td>
</tr>
<tr>
<td>Select one New Testament course from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELB 255</td>
<td>Jesus and the Gospels (3)</td>
<td></td>
</tr>
<tr>
<td>RELB 335</td>
<td>New Testament Epistles (3)</td>
<td></td>
</tr>
<tr>
<td>RELB 360</td>
<td>Interpretation of Romans (3)</td>
<td></td>
</tr>
<tr>
<td>Select one Old Testament course from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELB 226</td>
<td>Old Testament Survey (3)</td>
<td></td>
</tr>
<tr>
<td>RELB 246</td>
<td>Sanctuary and Salvation (3)</td>
<td></td>
</tr>
<tr>
<td>RELB 325</td>
<td>Prophets (3)</td>
<td></td>
</tr>
<tr>
<td>Select one additional course from RELB, RELH, RELP, RELT</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### MINOR IN SOCIAL MEDIA MINISTRY
**Required courses—19 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 125</td>
<td>Media and Meaning</td>
<td>3</td>
</tr>
<tr>
<td>COMM 290</td>
<td>Sophomore Seminar</td>
<td>1</td>
</tr>
<tr>
<td>COMM 465</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>GRPH 150</td>
<td>Introduction to Graphic Arts</td>
<td>3</td>
</tr>
<tr>
<td>RELP 287</td>
<td>Social Media Evangelism</td>
<td>3</td>
</tr>
<tr>
<td>Select six hours from: (3 hours must be 300 or 400 level)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>COEM 260</td>
<td>Writing in the Digital World (3)</td>
<td></td>
</tr>
<tr>
<td>COEM 324</td>
<td>Web Research and Analytics (3)</td>
<td></td>
</tr>
<tr>
<td>COEM 362</td>
<td>Interacting with an Online Audience (3)</td>
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</tr>
<tr>
<td>COEM 410</td>
<td>Digital Storytelling (3)</td>
<td></td>
</tr>
<tr>
<td>COJR 151</td>
<td>Photography (3)</td>
<td></td>
</tr>
<tr>
<td>COJR 221</td>
<td>Reporting (3)</td>
<td></td>
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<tr>
<td>COJR 245</td>
<td>Editing (3)</td>
<td></td>
</tr>
<tr>
<td>COJR 457</td>
<td>Magazine Writing (3)</td>
<td></td>
</tr>
<tr>
<td>COJR 458</td>
<td>In-Depth Reporting (3)</td>
<td></td>
</tr>
<tr>
<td>COMM 335</td>
<td>Video Production (3)</td>
<td></td>
</tr>
<tr>
<td>COMM 425</td>
<td>Intercultural Communication</td>
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</tbody>
</table>
MINOR IN YOUTH MINISTRY

Youth ministry is an enhancing minor to be combined with a major such as theology or secondary education, for those who would like additional training in counseling and specific youth ministry techniques.

**Required courses—18 hours**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
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<tr>
<td>PSYC 105</td>
<td>Introduction to Psychology</td>
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<td>PSYC 311</td>
<td>Introduction to Counseling Theory and Techniques</td>
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<td>RELP 235</td>
<td>Introduction to Youth Leadership</td>
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<td>RELP 335</td>
<td>Youth Leadership in the SDA Church</td>
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<tr>
<td>RELP 336</td>
<td>Youth Leadership Practicum*</td>
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</tr>
</tbody>
</table>

*Students who take the Youth Ministry minor must establish a portfolio with Campus Ministries in their first year at Union College.*
GOALS

Students graduating with a degree in social science will have
• A general knowledge of world and American history;
• Adequate preparation for graduate or law school;
• An understanding of political theory as exemplified in the political process of
  the governments of the United States and of other nations;
• Basic skills needed to undertake independent study and research and the
  ability to clearly write the results of that research;
• An awareness of a Christian perspective regarding the problems of society and
  its environment.

Assessment will be accomplished through
• The history capstone course (HIST 485) in which students will research and
  write a historiographical paper;
• Focus groups of humanities majors, including social science majors;
• Questionnaires given to alumni who earned majors from the humanities division,
  including social science majors.

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www.ucollege.edu/humanities

FACULTY

George Gibson, Benjamin Tyner

ACADEMIC PROGRAMS

Social Science, BA
Social Science Education, BS – Secondary Subject Endorsement
Minors in Pre-Law
  Social Science

SOCIAL SCIENCE—BA

Required courses—39 hours

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<th>Course</th>
<th>Title</th>
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<td>ECON 235</td>
<td>Principles of Microeconomics</td>
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<td>GEOG 137</td>
<td>Introductory Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 227</td>
<td>World Regional Geography</td>
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<tr>
<td>HIST 160 or 161</td>
<td>The West and the World</td>
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<tr>
<td>HIST 255</td>
<td>Issues in Early American History</td>
<td>3</td>
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<td>HIST 455</td>
<td>Recent American History</td>
<td>3</td>
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<td>HIST 485</td>
<td>Seminar in History</td>
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<td>PLSC 205</td>
<td>American Government</td>
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</table>
PLSC 327  Comparative Governments    3
SOCI 105  Introduction to Sociology    3
Select electives from economics or sociology (300 level or above) 3

SOCIAL SCIENCE EDUCATION—BS
Secondary Field Endorsement

The teaching major in social science is designed to prepare candidates for secondary teaching by providing them with

• A general knowledge of American and world history;
• A basic knowledge that would enable students to go into advanced training such as law, teaching or other professional fields;
• An understanding of political theory as exemplified in the political process of the governments of the United States and other nations;
• A knowledge of the social problems of the modern community through courses in sociology, geography, economics and psychology;
• The basic skills to undertake independent study and research, which include a technical vocabulary, effective use of a library, the ability to analyze documents and to write fluently;
• An awareness of the Christian perspective toward the problems of society and its environment;
• The special knowledge and skills pertinent to the effective teaching of social science at the secondary level.

The program for a comprehensive studies endorsement consists of six components: economics, geography, history, political science, psychology, sociology.

The hours shall be distributed as follows:

• A minimum of 24 hours in history;
• A minimum of 6 hours in each of the five remaining social science areas.

Required courses—60 hours

Economics—6 hours
ECON 235  Principles of Microeconomics    3
ECON 236  Principles of Macroeconomics    3

Geography—6 hours
GEOG 137  Introductory Geography    3
GEOG 227  World Regional Geography    3

History—24 hours
HIST 160 or 161  The West and the World    3
HIST 255  Issues in Early American History    3
HIST 485  Seminar in History    3
HIST  World-European history electives 6-9
HIST  American history electives 6-9

Political Science—6 hours
PLSC 205  American Government    3
PLSC 327  Comparative Governments    3

Psychology—6 hours
PSYC 215  Developmental Psychology    3
PSYC  Psychology Elective    3

Sociology—6 hours
SOCI 105  Introduction to Sociology    3
SOCI  Sociology Elective    3
Approved Electives—6 hours
Approved electives 6
Select with the advisor’s approval sufficient ANTH, ECON, GEOG, PLSC, PSYC, or SOCI electives to reach a grand total of 60 hours for the program.

Professional education
EDUC 415 Methods: Social Science Education 3
Additional Professional Education 48
(See Education-Secondary Education Endorsements)

MINOR IN PRE-LAW
The pre-law minor allow the student to pursue an interdisciplinary program of study, taking courses in philosophy, political science, writing, history and business. The pre-law minor requires a minimum of 18 semester hours of which 12 must be 300-400 level distributed as follows:

Required courses—19 hours (12 hours must be 300-400 level)

Writing and Communication 3-9
COPR 332 Rhetoric 3
Select 0-6 hours from
COMM 355 Advanced Speech and Interpretation (3)
COMM 465 Interpersonal Communication (3)
ENGL 378 Technical Writing and Grant Proposals (3)

History and Political Science 3-9
HIST 315 Economic History of the US 3
or PLSC 205 American Government (3)
or PLSC 327 Comparative Governments (3)
Select 0-6 hours from HIST and PLSC not chosen above

Sociology and Philosophy 0-6
PHIL 335 Introduction to Philosophy (3)
SOCI 210 Group Dynamics (3)
SOCI 321 Issues of Diversity (3)

Business, Economics and Marketing 4-10
BUAD 445 Business Law 4
Select 0-6 hours from
BUAD 425 Business Communications (3)
BUAD 430 Conflict Management (3)
ECON 236 Principles of Macroeconomics (3)
MRKT 333 Professional Selling (3)

MINOR IN SOCIAL SCIENCE
Required course—18 hours

HIST 160 or 161 The West and the World 3
HIST 255 Issues in Early American History 3
HIST History electives (300 level or above) 3
Select three hours each from three of the following fields: economics, geography, political science, and sociology.
The social work program prepares students for entry-level generalist social work practice and graduate-level education. The program trains and educates people from all walks of life to be empowering agents of healing and change for individuals, families and communities. Students who successfully complete this program, which is accredited by the Council on Social Work Education, receive a Bachelor of Social Work (B.S.W.) degree.

MISSION

With a foundation of Christian values the social work program at Union College trains students to be competent general practitioners, empowering agents of healing and change for individuals, families and communities; professionals who value service, social justice, human rights and self-determination.

GOALS

Students graduating from the social work program will be develop critical thinking skills with a broad liberal arts foundation and be prepared to

• Identify as a professional social worker and conduct oneself accordingly.
• Apply social work ethical principles to guide professional practice.
• Apply critical thinking to inform and communicate professional judgments.
• Engage diversity and difference in practice.
• Advance human rights and social and economic justice.
• Engage in research-informed practice and practice-informed research.
• Apply knowledge of human behavior and the social environment.
• Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
• Respond to contexts that shape practice.
• Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.
• Enter graduate social work programs with advanced standing. For complete list of program goals, see the Union College social work web page at: www.ucollege.edu/humandev/socialwork or the social work program manual.

CONTACT INFORMATION

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www.ucollege.edu/socialwork

FACULTY

Jody Detwieler, Shawna Kolbek
### ACADEMIC PROGRAM

Social Work, BSW

#### SOCIAL WORK—BSW

**Required courses—62 hours**

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<td>Introduction to Social Work</td>
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<td>Human Behavior in the Social Environment I</td>
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<td>SOWK 228</td>
<td>Human Behavior in the Social Environment II</td>
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<td>SOWK 316</td>
<td>Social Welfare Policy and Practice</td>
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<td>SOWK 336</td>
<td>Social Work Practice I</td>
<td>3</td>
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<td>SOWK 337</td>
<td>Social Work Practice II</td>
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<td>SOWK 345</td>
<td>Social Work in Healthcare</td>
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<td>SOWK 390</td>
<td>Research Seminar</td>
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<td>SOWK 405</td>
<td>Social and Economic Justice</td>
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<td>SOWK 415</td>
<td>Crisis and Resilience</td>
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<td>SOWK 437</td>
<td>Social Work Practice III</td>
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<td>SOWK 475</td>
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**Other required courses**

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<td>PSYC 340</td>
<td>Research Methods I</td>
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<tr>
<td>PSYC 341</td>
<td>Research Methods II</td>
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<td>SOCI 105</td>
<td>Introduction to Sociology</td>
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<td>SOCI 321</td>
<td>Issues of Diversity</td>
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**Select three hours from**

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<td>Introduction to Counseling Theory and Techniques (3)</td>
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<td>PSYC 415</td>
<td>Abnormal Psychology</td>
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<td>PSYC 425</td>
<td>Human Sexuality</td>
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<tr>
<td>SOCI 315</td>
<td>Marriage and Family</td>
<td>3</td>
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</tbody>
</table>
MISSION
The theology program will prepare students for gospel ministry in the Seventh-day Adventist Church.

GOALS
Students graduating from the theology program will be prepared to
• Cultivate proficiency in biblical languages;
• Demonstrate competency in the knowledge and interpretation of the Bible;
• Apply skills of pastoral ministry in preaching, personal and public evangelism, and interpersonal dynamics;
• Demonstrate substantial knowledge of the history, mission and theological beliefs of the Seventh-day Adventist church;
• Demonstrate knowledge of Christian theology and church history;
• Demonstrate the ability to interpret and apply biblical and ethical principles;
• Express an active faith in a life of Christian discipleship;
• Pursue graduate studies

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FACULTY
Edward Allen, Robert Fetrick, Ben Holdsworth, Thomas Toews

ADJUNCT FACULTY
Richard Carlson, Sylvester Case, Shayne Daughtenbaugh, Buffy Halvorsen, Ron Halvorsen Jr., Stan Hardt

ACADEMIC PROGRAMS
Theology, BA
Minor in Biblical Languages

CANDIDACY FOR MINISTRY
A call to gospel ministry is a divine calling from God, affirmed by the church, and demonstrated in the practical skills of ministry. This calling develops a high level of spiritual commitment and an exemplary lifestyle. The Bachelor of Arts degree with a theology major helps to prepare students to fulfill their call to gospel
ministry. Because ministry involves more than the completion of a course of study, the Division of Religion has established a program of candidacy for ministry. Participation in the candidacy program includes:

• Freshman year—In Introduction to Ministry class students begin the religion division portfolio.

• Sophomore year—In the second semester of the sophomore year students formally apply for candidacy to ministry. In evaluating applicants, faculty will consider spiritual commitment, academic progress, emotional stability, and social and professional skills in order to determine the student’s overall potential for success in ministry. Transfer students with sophomore standing or above must apply to enter the candidacy program during the second semester of their college residency.

• Junior year—In Biblical Preaching and Church Leadership classes students are assigned to serve in local congregations for two years.

• Senior year—Students will participate in the capstone Leadership in Ministry experience

• Completion of the Bachelor of Arts degree with a major in theology with a cumulative GPA of 2.5, the required GPA for recommendation to seminary.

If after being admitted into the candidacy program a student fails to meet the criteria of a candidate for ministry, the candidate forfeits the standing and privilege of being recommended for pastoral ministry.

THEOLOGY—BA

The general education requirement RELT 141 Christian Beliefs is met in RELT 337 Christian Theology I, RELT 338 Christian Theology II. The language requirement is met by the required biblical languages minor.

**Required courses—78 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>RELB 255</td>
<td>Jesus and the Gospels</td>
<td>3</td>
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<tr>
<td>RELB 326</td>
<td>Old Testament Survey</td>
<td>3</td>
</tr>
<tr>
<td>RELB 335</td>
<td>New Testament Epistles</td>
<td>3</td>
</tr>
<tr>
<td>RELB 348</td>
<td>Daniel</td>
<td>3</td>
</tr>
<tr>
<td>RELB 349</td>
<td>Revelation</td>
<td>3</td>
</tr>
<tr>
<td>RELH 310</td>
<td>History of the SDA Church</td>
<td>3</td>
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<td>RELH 410</td>
<td>History of the Christian Church</td>
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<td>RELP 125</td>
<td>Introduction to Ministry</td>
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<td>RELP 321, 322</td>
<td>Biblical Preaching</td>
<td>3, 3</td>
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<td>RELP 361, 362</td>
<td>Church Leadership</td>
<td>3, 3</td>
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<td>RELP 465</td>
<td>Personal Witnessing</td>
<td>3</td>
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<td>RELT 305</td>
<td>Christian Ethics</td>
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<td>RELT 337, 338</td>
<td>Christian Theology I and II</td>
<td>3, 3</td>
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<td>RELT 455</td>
<td>Prophetic Guidance in the Advent Movement</td>
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<tr>
<td>RELP 490</td>
<td>Senior Seminar</td>
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*Additional required courses*

- Biblical Languages Minor (see below) 20
- PSYC 105 Introduction to Psychology 3
- PSYC 311 Introduction to Counseling Theory and Techniques 3
  or COMM 465 Interpersonal Communications (3)
Additional courses recommended
EDUC 218 Philosophy of Education (3)
FNCE 215 Personal Finance (3)
HIST 308 Early Antiquity (3)
LITR 366 Biblical Literature (3)
RELB 246 Sanctuary and Salvation (3)
SOCI 315 Marriage and Family (3)

MINOR IN BIBLICAL LANGUAGES
Required course—20 hours
RELL 171, 172  New Testament Greek I and II  4, 4
RELL 273, 274  New Testament Greek III and IV  3, 3
RELL 385, 386  Biblical Hebrew I and II  3, 3
The descriptions of the various courses offered are listed under the following headings which begin on the page numbers listed:

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<thead>
<tr>
<th>Discipline</th>
<th>Prefix</th>
<th>Page</th>
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<td>Accounting</td>
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<td>International Rescue and Relief</td>
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<td>Journalism</td>
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COURSE DESCRIPTIONS FOR TOPICS AND DIRECTED STUDIES

In addition to the courses described in this section, Topics and Directed Study courses are available for most disciplines. These and practicum courses that are not regularly listed in the class schedule require special procedures and division approval before they can be taken. Forms with instructions for enrolling in these classes may be obtained from the Records Office.

Topics, Directed Readings and Directed Study courses are generally described as follows: (In actual practice a specific discipline prefix will be used.)

____ 195 Directed Readings 1
Designed for students needing a lower division credit by summarizing assigned readings. Written approval of the division chair is required before registration for Directed Readings courses.

____ 287 Topics 1–3
Designed for students needing a lower division course not listed in the regular course offerings. Written approval of the division chair is required before registration for Topics courses.

____ 295 Directed Study 1–3
Designed for students doing library research or other special projects at the lower division level under faculty supervision. Written approval of the division chair is required before registration for Directed Studies courses.

____ 487 Topics 1–3
Designed for students needing an upper division course not listed in the regular course offerings. Written approval of the division chair is required before registration for Topics courses.

____ 495 Directed Study 1–3
Designed for students doing library research or other special projects at the upper division level under faculty supervision. Written approval of the division chair is required before registration for Directed Studies courses.

ACCOUNTING

ACCT 211 Principles of Accounting 3
An introduction to the basic principles of accounting. Students learn basic techniques for organizing and presenting financial data, using generally accepted accounting principles. Upon completion of this course, the students will be able to set up and maintain accounting records and prepare basic financial statements (Income Statement, Owner’s Equity Statement, and Balance Sheet). Fall semester.

ACCT 212 Principles of Accounting 3
Prerequisite: ACCT 211 with a minimum grade of C
A continuation of ACCT 211 with additional discussion of basic accounting principles. Students gain further experience in setting up and maintaining basic accounting records, as well as preparing financial statements (including the statement of cash flows) with coverage of corporations and partnerships. Financial statement analysis is also introduced. Spring semester.
ACCT 313 Intermediate Accounting  
Prerequisite: ACCT 212 with a minimum grade of C  
Covers accounting principles involved in the preparation and interpretation of financial statements. Topics include cash, receivables, inventory, property, depreciation, intangible assets and current liabilities. Accounting research using the FASB Codification is also introduced. Fall semester.

ACCT 314 Intermediate Accounting  
Prerequisite: ACCT 313 with a minimum grade of C  
A continuation of ACCT 313. Students learn to apply and understand generally accepted accounting principles for the following areas: long-term liabilities, corporate equity, earnings per share, investments, deferred income taxes, pensions, leases, revenue recognition and the statement of cash flows. Spring semester.

ACCT 315 Federal Income Tax-Individual  
An introductory course in U.S. income taxation of individuals. Upon successful completion of this course the student will have a fundamental understanding of the tax laws and regulations affecting individuals. The class focuses on preparation of a variety of income tax returns allowing the student to become acquainted with various scenarios common in the public accounting tax world. Fall semester.

ACCT 316 Federal Tax-Corporate, Partnership and Fiduciary  
Recommended preparation: ACCT 315  
Study of U.S. income taxation of corporations, partnerships, estates, and trusts. Examines the federal internal revenue code and income tax regulations as they apply to basic federal gift and estate tax principles, corporation and partnership formation and operation, and the restructuring of organizations. Emphasizes tax planning, including the timing of transactions, the election of methods when alternative tax methods are available, and other means to minimize the impact of taxation. Spring semester.

ACCT 325 Cost and Managerial Accounting  
Prerequisites: ACCT 212 with a minimum grade of C  
Students learn the uses of accounting information by managers in directing internal affairs of business organizations. Emphasizes: planning and controlling routine operations; non-routine decisions, policy-making and long-range planning; and inventory valuation and income determination. Spring semester.

ACCT 335 Accounting Information Systems  
Prerequisite: ACCT 211 with a minimum grade of C  
Study of the concepts of accounting information systems, especially those pertaining to managerial decision-making and internal control. Students are provided with hands-on experience in setting up and operating commercial accounting software packages. Spring semester.

ACCT 443 Governmental and Not-for-Profit Accounting  
Prerequisite: ACCT 314  
Study of fund accounting according to GASB principles for governmental entities, as well as FASB principles related to not-for-profit organizations. Financial statement reporting requirements under both models are also studied. Fall semester.
ACCT 449 Advanced Accounting 3
Prerequisite: ACCT 314 with a minimum grade of C
Accounting principles and financial statement concepts as they relate to business combinations, partnerships and international transactions. Fall semester.

ACCT 455 Auditing 4
Prerequisite: ACCT 313 with a minimum grade of C; ACCT 314 preferred
Study of generally accepted auditing standards and rules of professional conduct as they relate to planning an audit, performing tests of controls and substantive tests, and issuing audit reports. Students will complete a case-study audit. Spring semester.

ACCT 475 Internship in Accounting 1–3
Prerequisites: Junior or senior standing and permission of division chair
Real-life experiences in a wide variety of settings providing creative and conventional hands-on learning opportunities.

ART
ART 104 Drawing for Everyone 2
Introduction to principles and techniques of drawing. Students gain experience in using a number of drawing media such as pencil, ink, scratchboard, charcoal and pastel. Figures, animals, landscape and still life objects constitute the subject matter to be drawn. May be repeated for additional credit. Fall/spring semesters.

ART 105 Drawing I 2
Exploration of principles and techniques of drawing. Student demonstrate a basic ability in such drawing media as pencil, ink, scratchboard, watercolor, conte crayon, charcoal and pastel. Figures, animals, landscape and still-life objects constitute the subject matter to be drawn. Fall semester.

ART 115 Design I 2
Principles of design such as proportion, balance, rhythm, emphasis and unity are studied together with elements of design such as line, form, space, time, movement, texture, light and color. Projects are done in a variety of media. Fall semester, alternate years.

ART 125 Oil Painting 2
Exploration of the basic techniques and elements of painting in oil. Students demonstrate their mastery of such principles as style, line, color, texture, value and composition in a variety of paintings. May be repeated for additional credit. Fall/ spring semesters.

ART 135 Pottery 2
Introduction to ceramics by addressing clays, glazes, kilns and firing. Construction methods such as pinch, coil and slab are learned. Students develop a working vocabulary of ceramics tools, equipment and materials. Attention is given to form and function of individualized projects. Fall/spring semesters.

ART 145 Watercolor 2
Beginning techniques and mechanics in working with watercolor as a transparent medium are stressed. A series of exercises is used for this purpose.
Various techniques of watercolor painting are demonstrated in finished paintings. *May be repeated for additional credit. Fall/spring semesters.*

**ART 215 School Art**
- **2**
- An exploration of the theory and practice of teaching art to children.
- Discussions and readings constitute a portion of the study. Students explore various media, resulting in a body of both two- and three-dimensional projects appropriate for teaching art in K-12 educational settings. *Fall semester.*

**ART 225 Color Theory**
- **2**
- Prerequisites: ART 105, 115, a painting course, or permission of instructor
- Study of color as a communicator. Varied projects accompany the theory of color and how it affects the viewer, to determine the effects of value, intensity, ground, etc. in the visual experience. *Spring semester, alternate years.*

**ART 235 Drawing II**
- **2**
- Prerequisite: ART 105 or permission of instructor
- A focus on composition in drawing includes a variety of subject matter, media and expression. Principles of design such as proportion, balance, rhythm, emphasis and unity are studied, together with elements such as line, form, space, time, movement, texture, light and color. *Spring semester, alternate years.*

**ART 245 Sculpture**
- **2**
- An exploration of media suitable for sculpture such as clay, wood, paper, plastic, plaster, stone, or metal. Emphasis is given to construction methods while allowing individual expression of three-dimensional design principles. *Fall semester, alternate years.*

**ART 250 Travel Photography**
- **3**
- Emphasizes practical applications of photographic technique in areas such as landscape, portraiture, photojournalism, nature, and wildlife photography with emphasis on development of a personal vision. Participants are required to contribute to a class exhibition. *Summer, alternate years.*

**ART 315 Design II**
- **2**
- The study of both two- and three-dimensional design. Students explore the structural elements of design in a variety of media. Emphasis is on creative expression. The concepts of design principles and elements are stressed. *Fall semester, alternate years.*

**ART 321 European Art History (WR)**
- **3**
- Prerequisite: HIST 160 or 161
- A study of the history of art in Europe from 1750 to the present time. Emphasis is on the study of art periods and artists within these periods. Paintings are stressed, as well as some study of sculpture and architecture. *Fall semester, alternate years.*

**ART 322 American Art History (WR)**
- **3**
- A history of American art from the art of Native Americans to the present. Attention is given to a conceptual understanding of stylistic movements in America.
while emphasis is on individual painters and their specific works. Fall semester, alternate years.

**ART 347 Illustration Techniques I**  
Prerequisites: ART 105 and 115 or permission of instructor  
An introduction to a wide variety of approaches to illustration style and technique. A variety of media is explored. Spring semester, alternate years.

**ART 445 Illustration Techniques II**  
Prerequisites: ART 105 or 145 or permission of instructor  
Advanced concepts of illustration focusing on a variety of techniques and the development of a personal style. Spring semester, alternate years.

**ART 450 Travel Photography**  
Prerequisite: Previous photography experience or coursework and permission of instructor  
Emphasizes practical applications of photographic technique in areas such as landscape, portraiture, photojournalism, nature, and wildlife photography with emphasis on development of a personal vision. Participants are required to contribute to a class exhibition. Summer, alternate years.

**ART/GRPH 476 Internship**  
Prerequisites: Junior or senior standing; permission of supervising instructor  
A real-life experience in a wide variety of settings proving a hands-on learning opportunity. Each hour of credit represents 50 clock hours of contact time. For majors only. May be repeated for additional credit.

**ART 485 Senior Exhibit**  
The final event in an art major’s college experience. Students exhibit a body of works, develop a statement of philosophy and a résumé, and present themselves to an oral examination. Spring semester.

**ASTRONOMY**

**ASTR 111 Astronomy**  
Prerequisite: A knowledge of high school Algebra and fulfillment of MATH general education requirement  
An introduction for the general student to the basic elements of astronomy. Emphasizes the development of scientific ideas and models for the structure and contents of the universe. Laboratory activities emphasize personal observations of various astronomical objects, as weather permits. Three lectures and one evening laboratory weekly. Fall semester.

**BIOLOGY**

Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

**BIOL 102 Environment and Life Science**  
Designed for students who are not science majors. Covers basic ecological principles, environmental pollution and environmental challenges from a global perspective. Social, ethical and Christian stewardship views of environmental issues
are discussed. Does not apply toward a major or minor offered in the Division of Science and Mathematics. Fall or spring semester.

**BIOL 104 Insects and You**

An introductory entomology course designed for students who are non-science majors. This course will focus on not just the basic structure and function of insects, but how insects interact with other insects, their environment and people. More specifically, this course will introduce the beneficial and damaging impacts that insects have on their environment, and how insects were/are important to people not only in biblical, folklore and current cultures, but also as pollinators, parasites, vectors of disease, pests of agriculture and urban areas, bio-control agents, environmental quality indicators, and crime-solving forensic agents. **Spring semester.**

**BIOL 106 Human Biology**

A survey of the human body and focusing on the structure and function of each physiological system. This course is designed for those not requiring the depth offered in BIOL 111, 112. May be taken with or without BIOL 107. **Does not apply toward a major or minor offered in the Division of Science and Mathematics.** May not be taken for credit if BIOL 111 or 112 previously taken. **Fall semester.**

**BIOL 107 Human Biology Lab**

Corequisite or prerequisite: BIOL 106

Laboratory to accompany BIOL 106 covering the major structures and functions of the human body. **Fall semester.**

**BIOL 111 Human Anatomy and Physiology**

Recommended prerequisite: One year of high school chemistry

An introduction to the fundamentals of anatomy and physiology including the chemistry of life, cytology, histology, cellular respiration, skeletal, muscular, integumentary, and nervous systems of the body. Three lectures and one three-hour laboratory per week. **Does not apply toward a biology major or minor. Fall semester.**

**BIOL 112 Human Anatomy and Physiology**

Prerequisite: BIOL 111 with a minimum grade of C

Anatomy and physiology of the endocrine, digestive, respiratory, circulatory, excretory and reproductive systems of the human body. Three lectures and one three-hour laboratory per week. **Does not apply toward a biology major or minor. Spring semester.**

**BIOL 151 General Biology**

Prerequisites: One year of high school chemistry or CHEM 101 or 151 and an ACT Math Score of 18 (SAT430) or sophomore standing or permission of instructor

An introduction to the science of biology including the chemistry of life, cell biology, cellular respiration, photosynthesis, Mendelian, population and molecular genetics, speciation and macroevolution versus creation as models for origins. Three lectures, one tutorial session and one three-hour laboratory per week. **Fall semester.**
BIOL 152 General Biology
Prerequisite: BIOL 151 with a minimum grade of C
   A continuation of topics in BIOL 151 with coverage of protist diversity, plant and animal diversity; anatomy, physiology and reproduction in plants; animal anatomy and physiology including digestive, circulatory, respiratory, endocrine, nervous, reproductive, and immune systems; sensory specializations of humans and animal development. Three lectures, one tutorial session and one three-hour laboratory per week. Spring semester.

BIOL 205 Microbiology
Recommended prerequisite: CHEM 104
   A survey of major groups of microbes with relationships to health and disease. Basic principles of microbial nutrition, metabolism, genetics, ecology, microbial control and microbe-human interactions are also considered. The laboratory introduces a variety of procedures, including asepsis, culture, isolation and identification of microorganisms, especially bacteria. Three lectures and one three-hour laboratory per week. Does not apply toward a biology major or minor. Fall semester and summer.

BIOL 207 Introductory Field Biology
   A field study of plants and/or animals in their natural settings. Identification by means of keys, field guides, etc. Special attention is given to ecological systems. Locale of study may vary from year to year. Does not apply toward a major in biology. May apply as a life science laboratory course. Summer, alternate years.

BIOL 230 Introductory Tropical Field Ornithology
   Designed to introduce students to the diversity of birds in Central America (the locale may vary from year to year). Focus on aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. This course is conducted during a three-week intensive study tour. Does not apply toward a major in biology. May apply as a life science laboratory course. Summer, alternate years.

BIOL 234 Ornithology
   Introduction to the diversity of birds, with emphasis of birds endemic to the Midwest United States. Course will focus on all aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. Participation in scheduled field trips are required as part of this course. Does not apply towards Biology major. Spring semester, alternate years.

BIOL 296 Research Methods I
Prerequisite: ACT Math Score of 20 (SAT 480) or MATH 100
   An introduction to the fields of descriptive and inferential statistics. Data sampling techniques, hypothesis testing and some applications of probability theory to science situations are examined. Fall semester.
BIOL 306 Histology 3
Prerequisite: BIOL 152
A study of the structure, organization and function of mammalian tissues, with emphasis on identification. Two lectures and one three-hour laboratory per week. Spring semester, alternate years.

BIOL 310 Seminar in Biology (WR) 1
Prerequisite: BIOL 152
Current topics in biology are presented by Union College faculty, students, and by guests. Students receiving seminar credit present a seminar. All biology majors are encouraged to attend these seminars while they are enrolled as Union College students. An evaluation of investigative methods of biologists, the development of techniques for oral presentations, the discussion of topics of current interest in biology, and the development of skills in critical evaluation and summarization of the biological literature are required. May be repeated for credit. Spring semester.

BIOL 314 Immunology 3
Prerequisite: BIOL 152
Biology of the immune response. Topics include organs and cells of the immune system, development and effector functions of immune cells and their chemical mediators, process of recognition of self and non-self antigens, medical immunology including autoimmune diseases, immune deficiencies, hypersensitivity, transplantation, and tumor immunology. Three lectures each week. Summer, alternate years.

BIOL 321 Genetics (WR) 4
Prerequisite: BIOL 152
A study of molecular, classical and population genetics. Topics include the physical and chemical nature of genes, DNA replication, RNA transcription, protein translation, inheritance patterns, chromosome anomalies, behavior of genes in populations and speciation. Three lectures and one three-hour laboratory per week. Spring semester.

BIOL 330 Tropical Field Ornithology 3
Prerequisite: BIOL 152 with a minimum grade of C
Designed to introduce students to the diversity of birds in Central America (the locale may vary from year to year). It will focus on aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. A major paper or project is required. This course is conducted during a three-week intensive study tour. Biology major elective. Summer, alternate years.

BIOL 334 Ornithology 4
Prerequisite: BIOL 152
Introduction to the diversity of birds, with emphasis of birds endemic to the midwest United States. Course will focus on all aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. Participation in scheduled field trips are required as part of this course. A major paper or project is required as part of this course. Biology major elective. Spring semester, alternate years.
BIOL 345 Biology of Bacteria  
Prerequisite: BIOL 152  
A study of microbial diversity, bacterial structure, nutrition and cultivation, metabolism and biosynthesis, genetics, ecology and major bacterial groups of significant medical and industrial interest. Three lectures and one three-hour laboratory per week.

BIOL 355 Vertebrate Natural History  
Prerequisite: BIOL 152  
Introduction to the major classes of vertebrates endemic to the midwest United States. Course will focus on aspects of ichthyology, herpetology, ornithology, and mammalogy, with an emphasis on comparative anatomy & physiology, diversity, taxonomy, ecology, behavior, and life history strategies. Several field trips are a required element of this course. Biology major elective. Spring semesters, alternate years.

BIOL 365 Plant Biology  
Prerequisite: BIOL 152  
A survey of plant morphology, plant anatomy and physiology, plant ecology and the impact of plants in human life.. Two lectures and one three-hour laboratory per week and one required four-day field trip. Fall semester, alternate years.

BIOL 375 Ecology (WR)  
Prerequisite: BIOL 152  
An analysis of the factors affecting the distribution and abundance of organisms. Emphasizes the structure and functions of populations, communities, and ecosystems. Three lectures and one three-hour laboratory per week and one required four-day field trip. Fall semester.

BIOL/SCNC 377 Origins (WR)  
Prerequisites: Completion of one laboratory science course; junior standing  
A study of issues in science and religion as they relate to origins. Consideration is given to interpretation of inspiration and scripture relating to evidence from nature and the scientific method. Data from the biological and physical sciences are evaluated as they relate to earth history and the origin of life. Evidence for change, mechanisms of change, speciation, the fossil record and issues of time are considered. Class may be taken to meet the general education requirements for either the Life Sciences (BIOL 377) or Physical Sciences (SCNC 377). Does not apply toward a biology major or minor. Spring semester.

BIOL 386 Research Methods II  
Prerequisite: BIOL 296 or MATH 221  
An introduction to the methods and mechanics of the research process. Topics include the nature, methods, literature, funding, limitations and strengths of scientific research. A proposal and literature search are required. Spring semester.

BIOL 396 Research Methods III  
Prerequisite: BIOL 386  
An emphasis upon research design. A research project is proposed, a research plan developed for the project and, depending upon the nature of the study, research initiated. Fall/spring semesters.
BIOL 403 Molecular Biology  3
Prerequisite: BIOL 321
A study of DNA and RNA structure and function at the molecular level, understanding gene regulation and DNA technology and analysis. This course is organized in four parts: (1) Nucleic acid structure; (2) Molecular mechanisms related to both the flow of genetic information and regulation of gene expression (3) Genetic Recombination; and (4) DNA technology. Three lectures per week. Fall semester, alternate years.

BIOL 404 Cell Biology  4
Prerequisites: BIOL 321, CHEM 212 or concurrent enrollment in CHEM 212
A study of cell structures and functions with an emphasis on cell signaling and regulation at the molecular level. The course is organized in four parts: (1) Methods of cellular research, cell composition and organization; (2) Cell and organelle structure and function; (3) Cell signaling and regulation; and (4) Cell cycle regulation and cancer. Three lectures and one three-hour laboratory per week. Spring semester.

BIOL 411 Human Anatomy  4
Prerequisite: BIOL 152 with a minimum grade of C
A study of the structure and organization of the human body with particular emphasis on macroscopic anatomy. Three lectures and one three-hour laboratory per week. Cadaver work included. Spring semester, alternate years. Summer, alternate years.

BIOL 416 Mammalian Physiology (WR)  4
Prerequisite: BIOL 152
Studies the physiology of the musculo-skeletal, nervous, endocrine, cardiovascular, respiratory, digestive, reproductive, immune and renal systems and metabolism with emphasis on regulatory mechanisms and integration. Three lectures and one three-hour laboratory per week. Fall semester.

BIOL 436 Developmental Biology (WR)  4
Prerequisite: BIOL 321
Development of organisms from the formation of the germ cells in the parents to the completion of the early stages of organo-genesis in the embryo. Includes molecular and genetic control of embryology as well as environmental effects on development. Three lectures and one three-hour laboratory per week. Spring semester.

BIOL/CHEM 445 Biochemistry I  4
Prerequisite: CHEM 212 and BIOL 151 or 111
A study of the chemical properties and biological functions of amino acids, proteins, enzymes, carbohydrates, and lipids. Covers metabolism including glycolysis, Krebs cycle and oxidative phosphorylation. The laboratory includes basic techniques and instruments used for biochemical research and biotechnology. Three lectures and one laboratory per week. Fall semester.
BIOL 477 Issues in Origins and Speciation 3
Prerequisite: One of BIOL/CHEM/PHYS 151
Designed for science majors or Union Scholars.
Examination of the biological, paleontological and geological factors affecting the study and interpretation of historical events in geological and biological systems. Evaluation of data, methods, assumptions, and theories relating to origins, the diversity of life, and historical biology are studied within the context of both a biblical and naturalistic world view. Spring semester.

BIOL 496 Research Methods IV (WR) 1
Prerequisite: BIOL 396
- Emphasizes active research and both oral and written reporting of the results of research. The project proposed in BIOL 396 is carried out and both written and oral presentations of the research are made. Spring semester.

The following courses are offered during the summer at the Walla Walla University marine station. Each course is not necessarily offered every summer.

BIOL 101, 102, 103 General Biology 2.67 each
(equivalent to BIOL 151, 152 UC)
Prerequisite: High school chemistry strongly recommended
- Study of the basic principles of biology of animals, plants, and microorganisms. Topics include the cell, physiology, genetics, development, taxonomy, and ecology. Must be taken in sequence. Summer.

BIOL 426 Systematic Botany 3.33
Prerequisite: BIOL 101 (WWU) or BIOL 152 (UC)
- Study of the principles of plant classification, together with a systematic survey of vascular plants, with emphasis on natural history and ecology. Summer.

BIOL 460 Marine Ecology - “marine-oriented course” 3.33
Prerequisite: BIOL 103 (WWU) or BIOL 152 (UC)
- Study of interspecific, intraspecific and community relationships demonstrated by marine organisms. Summer.

BIOL 468 Comparative Physiology - “marine-oriented course” 3.33
Prerequisite: BIOL 392 (WWU) or BIOL 406 (UC)
- Comparative study of the physiology and life processes of animals with emphasis on invertebrates. Summer.

BIOL 475 Marine Invertebrates - “marine-oriented course” 3.33
Prerequisite: BIOL 103 (WWU) or BIOL 152 (UC)
- A study of the biology of selected groups of marine invertebrates.

BIOMEDICAL SCIENCE
BIOM 301 Professional Shadowing 1
Prerequisite: Sophomore standing
- Provides students with opportunities to job shadow health professionals. Students will gain an understanding of their chosen profession and relate their experiences to each other during class time. Spring Semester.
BUSINESS ADMINISTRATION

BUAD 138 Dynamics of Business  3
Introductory exploration of the principles and practices of modern global business. Examines accounting, business law, computers, economics, ethics, finance, insurance, investments, management, marketing, and small business. Credit will not be given for BUAD 138 taken after completing or while concurrently taking any upper division business course. Fall/spring semesters.

BUAD 219 Small Business Management  3
A practical course on the principles and problems of organizing and operating a small business. Topics include: procedures for starting a new business; physical facilities and layout; financing, organizing and managing a small business. Students complete a comprehensive business plan. Spring semester.

BUAD 310 Quality Management (WR)  3
Familiarizes the student with ideas on how to be an innovative and effective manager. Students study a variety of management styles and learn principles to prepare for leadership positions. Fall semester.

BUAD 316 Operations and Resource Management  3
Prerequisite: MATH 111
Analysis of various decision-making models useful in making efficient managerial decisions. Topics covered include productivity, resource allocation, linear programming, inventory management, and queuing theory. Methods include the use of correct models and software. Spring semester.

BUAD 376 Human Resources Management  3
Prerequisite: junior standing or permission of instructor
Emphasizes the basics of human management in business organizations, and considers a variety of topics in human relations, personnel management, and organizational behavior. Spring semester.

BUAD 405 Business Ethics  1
Prerequisite: RELT 305
Using class discussion format, introduces the student to ethical concepts relevant to identifying and resolving ethical issues in business. Spring semester.

BUAD 420 Advanced Excel  1
Prerequisites: CPTR 220; junior standing
Using Microsoft Excel to study how to use other data sources, data tables, pivot tables, array formulas, charts and graphs, what-if analysis and an assortment of Excel functions helpful in business. Spring semester.

BUAD 425 Business Communications (WR)  3
Prerequisites: COMM 105, CPTR 220; junior standing
Instruction in the principles and techniques of effective written and oral communication in business. Considers both individual and group communication skills. Includes the process of resume writing, interview preparation, and professional wardrobe selection. Fall semester.
BUAD 428 Business Policies  3
Prerequisite: 30 hours of business courses; senior standing
Designed as the capstone class for business administration majors. Includes study of the specific functions of top management with a particular focus on the elements of strategic planning. Students integrate the various functional areas of business through case study analysis and a comprehensive business simulation. Spring semester.

BUAD 430 Conflict Management  3
Prerequisite: Junior standing
Provides a framework for how to effectively manage conflict in the workplace. Time is spent contrasting situations involving both positive and negative conflict. Topics include building effective teams, Biblical approaches to conflict, negotiation and effective accountability. Fall semester.

BUAD 445 Business Law  4
Prerequisite: Junior standing or permission of instructor
A study of the following: legal institutions and origins; laws of contracts; agency; employment; negotiable instruments; personal property; bailments; transportation; suretyship and guaranty; partnerships; corporations; real property; mortgages; leases; trusts; decedents’ estates; bankruptcy; business torts and crimes. Fall semester.

BUAD 455 Advanced Human Resource Management  2
Prerequisites: BUAD 376; Small Business Management or Management Emphasis
Implementation of topics covered in BUAD 376 through a project-based structure. Topics covered include job descriptions, hiring, managing and evaluating employees, designing compensation plans, creating employee policies, and structuring orientation/training programs. Some topics are covered in BUAD 456. Fall semester.

BUAD 456 Advanced Human Resource Management  2
Prerequisites: BUAD 455; Management Emphasis
Continuation of the topics covered in BUAD 455. Spring semester.

BUAD 475 Internship in Management  1–3
Prerequisites: Junior or senior standing and permission of the division chair
Real-life experiences in a wide variety of settings providing creative and conventional hands-on learning opportunities.

CHEMISTRY
Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

CHEM 101 Introduction to Inorganic Chemistry  4
Prerequisite: An ACT math score of 18 or SAT math score of 430 or higher or MATH 100 with a C or better as a prerequisite or MATH 100 as a corequisite or permission of instructor.
Introduction to inorganic chemistry including atomic structure, chemical bonding, states of matter, chemical equations, mole problems and concepts, nomenclature, and energetics. Includes instruction on the metric system, the
scientific method and some history of chemistry. Three lectures and one three-hour laboratory per week. **Does not apply toward a division major or minor. Fall semester.**

**CHEM 104 Introduction to General, Organic and Biochemistry for Nursing**

Prerequisite: ACT math score of 18 or SAT math score of 430 or higher or MATH 100 with a C or better or MATH 100 as a corequisite

Comprehensive study of the basic principles of chemistry applicable to the health science professions. Topics covered include measurements, the scientific method, atomic structure, the use of radiation in cancer treatment, pH, acids, bases and buffers in the body, organic functional groups and reactions, glycolysis, the citric acid cycle, oxidative phosphorylation and the biochemical functions of carbohydrates, nucleic acids, fats and proteins in the body. Three lectures and one three-hour laboratory per week. **Does not apply toward a division major or minor. Spring semester.**

**CHEM 151 General Chemistry**

Prerequisites: MATH 111, or Algebra II and an ACT math score of 19 (SAT 500), CHEM 101, or high school chemistry, or permission of the instructor.

A comprehensive introduction to the fundamental principles of chemistry for chemistry majors and pre-professional students (medical, dental, etc.). Topics include chemical nomenclature, unit analysis, reactions, the mole, stoichiometry, thermochemistry, atomic theory and structure, periodicity, molecular structure and bonding, gas laws, and kinetic theory. Three lectures and one laboratory per week. **Fall/Spring semester.**

**CHEM 152 General Chemistry**

Prerequisite: CHEM 151 with a minimum grade of C

A continuation of CHEM 151. Topics include intermolecular forces, crystal structure, solutions, chemical kinetics, chemical equilibrium, acid-base chemistry, reaction thermodynamics, electrochemistry, and nuclear chemistry. Three lectures and one laboratory per week. **Spring semester.**

**CHEM 211 Organic Chemistry**

Prerequisite: CHEM 152 with a minimum grade of C

A systematic study of the important classes of carbon compounds including their nomenclature, preparation, characteristic reactions and reaction mechanisms. Three lectures and one four-hour laboratory per week. **Fall semester.**

**CHEM 212 Organic Chemistry**

Prerequisite: CHEM 211

A continuation of CHEM 211. A systematic study of the physical and chemical properties of organic functional groups including aldehydes through amines and aromatic compounds. Includes an introduction to the theory and practice of Infrared spectroscopy, NMR, and Mass Spectrometry. Three lectures and one four-hour laboratory per week. **Spring semester.**
CHEM 296 Research Methods I  1  
Prerequisite: ACT Math Score of 20 (SAT 480) or MATH 100 with a minimum grade of C  
An introduction to the fields of descriptive and inferential statistics. Data sampling techniques, hypothesis testing and some applications of probability theory to business situations are examined. Fall semester.

CHEM 311 Analytical Chemistry  4  
Prerequisites: CHEM 152  
An introduction to the principles and processes of chemical analysis with emphasis on classical techniques. Topics include solution concentration manipulation, analytical applications of statistics, gravimetric and volumetric analysis, calibration techniques, activity equilibria, titration equilibria, simultaneous equilibria, and basic electrochemistry. Labs employ gravimetric, volumetric, spectrophotometric, and potentiometric techniques. 3 lectures and one laboratory per week. Fall semester.

CHEM 312 Instrumental Analysis (WR)  4  
Prerequisite: CHEM 311 or permission of instructor  
A continuation of CHEM 311. A study of the analytical process emphasizing instrumentation. Topics include applications of electronics, spectrometric, chromatographic, and electrochemical methods. Writing is emphasized through laboratory reports. Two lectures and one laboratory per week. Spring semester.

CHEM 386 Research Methods II  1  
Prerequisites: CHEM 152  
An introduction to the methods and mechanics of the research process. Topics include the nature, methods, literature, funding, limitations and strengths of scientific research. A literature search and proposal are required. Spring semester.

CHEM 396 Research Methods III  1  
Prerequisite: CHEM 386  
An emphasis upon research design. A research project is proposed, a research plan developed for the project and depending upon the nature of the study, experimental research initiated. Chemistry education majors complete the entire sequence of skills listed for Research Methods III and IV, but with a briefer project. Fall semester.

CHEM 411 Physical Chemistry: Quantum Mechanics and Kinetics  4  
Prerequisites: CHEM 152, MATH 286, PHYS 252. Class joins PHYS 351 for most of semester.  
Introductory course in quantum mechanics including wave-particle duality, time-independent Schrödinger equation, harmonic oscillators, matrix treatment, and the wave treatment of the hydrogen atom. Uses and applications of differential equations and matrices are developed along with a historical perspective of the development of our understanding of quantum mechanics. Kinetics: The dynamics of chemical reactions are studied, as well as methods to determine rates, and common interpretations of mechanisms of chemical reactions from rate data. Four lectures per week. Fall semester, alternate years.
CHEM/PHYS 412 Physical Chemistry: Thermodynamics 4
Prerequisites: CHEM 152, MATH 285, PHYS 252
Chemical thermodynamics is developed to describe energy and entropy changes in ideal and real gases and extended to a range of chemical systems. Manipulation of multiple variables is achieved by use of partial differential equations, and skill in identifying the conditions of the problem to derive the appropriate equations for a particular application are developed. Attention is given to the results of applying Gibbs Energy and other thermodynamic constructs to a variety of uses including electrochemistry and phase equilibria. Three lectures and one laboratory per week. Spring semester, alternate years.

CHEM 423 Advanced Inorganic Chemistry 4
Prerequisites: CHEM 311, MATH 184
A theoretical study of the reactions, mechanisms and structures of inorganic chemical systems with emphasis on coordination compounds of the transition elements, including an in-depth comparison of the three major bonding theories applicable to inorganic complexes. Theory and laboratory synthesis and study of a variety of inorganic compounds by different techniques. Three lectures and one four-hour laboratory per week. Spring semester, alternate years.

CHEM/Biol 445 Biochemistry I 4
Prerequisites: CHEM 212 and BIOL 151 or 111
A study of the chemical properties and biological functions of amino acids, proteins, enzymes, nucleic acids, carbohydrates, lipids and cellular membranes. Covers metabolism including glycolysis, Krebs cycle and oxidative phosphorylation. The laboratory includes basic techniques and instruments used for biochemical research and biotechnology. Three lectures and one laboratory per week. Fall semester.

CHEM 446 Biochemistry II 3
Prerequisite: CHEM/Biol 445 with a C or better
A continuation of CHEM 445 Biochemistry I. An in-depth study of metabolism including the catabolism and biosynthesis of glycogen, fatty acids, amino acids, and nucleotides. In addition, the class examines other aspects of biochemical systems. Two lectures per week. Spring semester, alternate years.

CHEM 496 Research Methods IV (WR) 1
Prerequisite: CHEM 396
Emphasizes active research and both oral and written reporting of research. The project proposed in CHEM 396 is carried out and both written and oral presentations of the research made. Spring semester.

COMMUNICATION—DRAMA
CODR 229 Play Production I 1–3
Prerequisite: Permission of instructor
Emphasizes a team-based approach to producing a play. Class members form a production company in which each student contributes to the success of the production by fulfilling responsibility in several aspects which include stage management, acting, lighting, sound, costuming, props management, set design and construction, publicity, and house management. Instruction in theater terminology, elements and practice is delivered within the context of preparing
CODR 229 and 329 offered concurrently: appropriate course level is based on the student’s experience level and is selected in consultation with the instructor. Number of credits is determined by the instructor based upon the extent of the student’s involvement in a production. May be repeated for credit with permission of the instructor. Spring semester.

CODR 329 Play Production II 1–3
Prerequisite: Permission of instructor
Continuation of CODR 229. Spring semester.

CODR 471 Play Direction 3
Prerequisite: CODR 229, 329 and permission of instructor
Provides instruction and practice in the skills needed to direct a play: script selection; script preparation; budgeting; casting; conducting rehearsals; and overseeing various production elements. Culminates in public performance of a student-directed play. Spring semester.

COMMUNICATION—EMERGING MEDIA
COEM 260 Writing in the Digital World 3
Teaches students the techniques and technology of writing for digital audiences including blogging, social media, and content management systems. Fall semester.

COEM 324 Web Research and Analytics 3
Discover the power of the Internet as a research tool for journalism, marketing, and public relations, while learning to analyze data to develop effective communication strategies. Fall semester.

COEM 362 Interacting with an Online Audience 3
Explore the ramifications of communicating with a world-wide audience and learn to leverage the interactive nature of social media to improve communication strategies. Spring semester.

COEM 410 Digital Storytelling 3
Master modern technologies including video, audio, and interactive multimedia to effectively tell stories online. Spring semester.

COEM 440 Social Media Public Relations and Marketing 3
Prerequisite: COPR 241 or MRKT 327
Study techniques and strategies for using social media as a public relations and marketing tool. Students will examine the application of communication theories in the context of social media. Spring semester

COEM 476 Emerging Media Practicum 1–4
Represents 200 clock hours of on-the-job training with authorities in a particular field off campus.

COMMUNICATION—JOURNALISM
COJR 151 Photography 3
A study of the basic techniques and principles of photography, including camera usage, photographic technique, composition and aesthetic concerns. Fall semester.
COJR 221 Reporting (WR)  3
Prerequisite: Sophomore standing or permission of instructor
Introduces the student to basic newspaper reporting and writing. Students are encouraged to submit articles to The Clocktower. Spring semester.

COJR 245 Editing  3
Covers principles of editing, copy editing, layout, headline writing, handling of graphic elements, and achieving editorial balance and integrity. Students concentrate on practical applications for actual publications. Fall semester.

COJR 360 Communication through Digital and Emerging Media  3
Prerequisite: COJR 221
Teaches students how to communicate interactive stories using emerging media. Students learn to build the written, visual, and auditory aspects of a story and to use new technologies in communicating the story to the audience. Spring semester, alternate years.

COJR 457 Magazine Writing (WR)  3
Prerequisite: COJR 221 or permission of instructor
Covers techniques for writing and marketing publishable magazine articles on secular and religious topics. Students are encouraged to submit at least three articles to periodicals. Spring semester.

COJR 458 In-Depth Reporting (WR)  3
Prerequisite: COJR 221
Advanced reporting skills developed by guiding the student in utilizing fact-finding and research methods. Spring semester, alternate years.

COJR 474 Journalism Practicum  1–4
Prerequisite: 16 hours of journalism and communication courses
Represents 200 clock hours of on-the-job training with authorities in a particular field off campus. Open only to majors.

COMMUNICATION

COMM 105 Public Speaking  2
Combines basic theories of public speaking, listening, and interpersonal communication with actual speaking experiences in the classroom. Fall/spring semesters.

COMM 125 Media and Meaning  3
Surveys mass communication in the U.S. (radio, television, film and print) and looks at the history, content, economics and social impact of these media. Fall semester.

COMM 290 Sophomore Seminar  1
Prepares students to apply for internships with specific attention given to resume preparation, preparation for job interviewing, development of a portfolio, and assistance in the job search process. Fall semester. First half of the semester.
COMM 335 Video Production 3
Introduction to video production including electronic news gathering, electronic field production, video editing and television graphics. Each student produces a completed video program. Fall semester.

COMM 355 Advanced Speech and Oral Interpretation 3
Prerequisite: COMM 105
Emphasizes: understanding and employment of effective rhetoric in public speaking events; and improving skills in oral interpretation of varied texts through enhancing personal versatility in body language, vocal control and delivery. Spring semester, alternate years.

COMM 365 Institutional Development 3
A practical approach to the basic principles of fundraising for nonprofit organizations. Familiarizes students with annual giving programs, capital campaigns, deferred giving plans and common sources of financial support. Includes specific instruction on writing grant proposals, maintaining donor records, using direct mail and planning special events. Spring semester, alternate years.

COMM 375 Development Practicum 3
Participation in the activities of a development office which put into practice principles learned in COMM 365. Students are involved with prospect research, direct mailings, phonathons and similar work. Open only to institutional development majors.

COMM 425 Intercultural Communication 3
The effects of both verbal and nonverbal communication between cultures are studied. The course provides assessments of the media and business cultures around the world with an emphasis on how professionals can effectively function in other cultural settings. Spring semester, alternate years.

COMM 465 Interpersonal Communication 3
Prerequisite: COMM 105
Explores traditional and contemporary models of communication theory, with special application to the psychology of communication and human relations on an interpersonal level. Spring semester.

COMM 480 Advanced Communication Seminar 3
The configuration of the course varies each time the class is taught: employee communication, event planning, public relations and the Web, or topics not covered in another course. May be repeated for credit with permission of the instructor. Fall semester, alternate years.

COMM 485 Senior Fundraising Project 2
Selected readings and practical work focused on an aspect of the institutional development field relevant to each student’s career objectives.

COMM 490 Senior Seminar 1
As the capstone for all communication majors, this course: prepares students to enter the job market, with specific attention given to résumé preparation, preparation for job interviewing, and development of a portfolio; discusses selected topics in
communication. The setting is informal with a discussion-centered format.

**COMMUNICATION—PUBLIC RELATIONS**

**COPR 241 Public Relations Principles** 3
Examines the philosophy, objectives and methods of an effective public relations program, with an emphasis on the role of public relations in a formal setting. Uses tools and techniques of communication which build positive relationships with an organization’s various publics. Provides opportunities for practical experiences. **Fall semester.**

**COPR 316 Advertising Practices** 3
An introduction to advertising, especially in the print, broadcast, direct mail and out-of-home media. Also covers marketing strategies and operations of advertising agencies and similar organizations. **Fall semester, alternate years.**

**COPR 332 Rhetoric (WR)** 3
Explores the classical approaches to rhetoric and logic; discusses modern avenues of persuasion as found in politics, advertising, and social issues. **Fall semester, alternate years.**

**COPR 377 Crisis Public Relations** 2
Applications of public relations in a crisis situation. Students learn how to prepare for a crisis and what to do when a crisis occurs. In addition, students learn about assessment strategies following a crisis. Case studies take a central role in instruction. **Spring semester, alternate years.**

**COPR 445 Public Relations Campaigns (WR)** 3
Prerequisite: COPR 241
Practical applications of public relations principles including: case studies; planning of campaigns and special events; and specific communication techniques for internal and external audiences. Students create material for newsletters, media publicity and audio-visual pieces that contribute to portfolio development. **Spring semester.**

**COPR 475 Public Relations Practicum** 1–4
Prerequisite: 16 hours of public relations and communication courses
Represents 200 clock hours of on-the-job training with authorities in a particular field off campus. **Open only to majors.**

**CORE**

**CORE 108 Connections** 1
While learning fundamental concepts and methods for academic achievement in higher education, students experience the world within their chosen major. A course expected for all freshmen. **Fall semester.**

**COMPUTING**

**CPTR 126 Fundamentals of Computer Science** 3
Introduction to elements of computer science. Provides an overview of the different areas that make up the computing field, including an introduction to
number systems (binary, octal, and hex), Boolean logic, computer hardware design and an introduction to high-level computer programming. The student is also introduced to areas of ethics as related to computing. Fall semester.

**CPTR 220 Microcomputer Applications**  
Prerequisite: High school course in computer applications or equivalent  
Extensive hands-on experience in word processing, electronic spreadsheets, presentations software, database management and basic Windows operating system commands. Designed for students with working knowledge of word processing (tables, formatting, graphics), spreadsheet basics and the Internet. Fall/ spring semesters.

**CPTR 226 Computer Science I**  
Prerequisites: MATH 111 or ACT math score 20 (SAT of 480), Recommended CPTR 126 with a minimum grade of C  
Introduction to computer science, programming, and problem solving. Structured and object-oriented programming techniques are presented and applied through the creation of programming assignments. Fall semester.

**CPTR 227 Computer Science II**  
Prerequisite: CPTR 226 with a minimum grade of C  
Advanced programming principles and problem solving techniques are applied in an object-oriented programming environment. Abstraction and data structures (stacks, queues, linked lists, etc.) are explored. Spring semester, alternate years.

**CPTR 240 System Administration**  
Prerequisite: CPTR 126 with a minimum grade of C  
An introductory course to systems administration. Topics include user management, computing systems management, server management, security, file management, backup management and scripting. Also covers how to communicate with customers/users. Fall semester.

**CPTR 245 Web Development Basics**  
An introduction to static web pages. Major emphasis is placed on designing and creating web pages using HTML5 with Cascading Style Sheets. Spring semester.

**CPTR 320 Networking**  
Prerequisite: CPTR 240 with a minimum grade of C  
Overview of networking including networking hardware and software, local area networks, wide area networks and network communication. Emphasis is placed on how to apply networking theory and troubleshoot networking problems. Spring semester.

**CPTR 322 SQL**  
Prerequisite: CPTR 226 with a minimum grade of C  
Introduction to using the Structured Query Language. The course focuses on the Data Manipulation Language (DML) division of SQL. The use of SELECT, INSERT, UPDATE and DELETE are covered in detail. Also covered are triggers, stored procedures, cursors and embedded SQL. Spring semester.
CPTR 325 Programming Languages 3
Prerequisites: CPTR 227 with a minimum grade of C
Survey of programming languages, including structure, runtime systems, syntax specification, and semantics. Topics include lexical and syntax analysis, data abstraction, concurrency, functional and logic programming paradigms. The focus is on comparing languages and evaluating their strengths and weaknesses. This course is updated for newer languages and technologies. Fall semester.

CPTR 327 Systems Analysis and Design 3
Prerequisite: CPTR 220 with a minimum grade of C or CPTR 226 with a minimum grade of C
An introductory systems analysis and design course for those who want to be an information systems analyst, consultant, or project manager; and for those who will be users or managers involved in systems development projects. Covers information systems concepts, and the systems analysis and design methodologies and techniques, as well as techniques used during the development of information systems. Also explores project management concepts and issues that impact the development and acceptance of information systems. Fall semester.

CPTR 335 Web Technologies 3
Prerequisites: CPTR 225 with a minimum grade of C and CPTR 245 with a minimum grade of C
Introduction to web site publishing. Topics may include PHP, JavaScript, Ajax, database connectivity, application security and other related topics. Major emphasis is placed on designing and creating dynamic web sites. The course includes a group project to build an application for a web site. Fall semester.

CPTR 405 Software Engineering 3
Prerequisites: CPTR 227 with a minimum grade of C and CPTR 327 with a minimum grade of C
Explores contemporary methodologies used in software development. Includes a major software development project that applies one of the methodologies studied. Fall semester, alternate years.

CPTR 420 Advanced System Administration 3
Prerequisite: CPTR 320 with a minimum grade of C
Continuation course that focuses on Directory services, project management, security issues, advanced scripting, and advanced interactions between services such as DNS, DHCP, web server, SQL and Mail Server. Emphasizing upfront design considerations, redundancy, scalability and total cost of ownership. Spring semester.

CPTR 424 Database Systems 3
Prerequisites: CPTR 322 with a minimum grade of C and CPTR 327 with a minimum grade of C
Covers both a theoretical and practical understanding of database management systems. Emphasizes the relational database model. The Data Definition Language (DDL) of SQL is covered. Implementation of a database application that uses a relational database and SQL is required. Fall semester.
CPTR 435 Advanced Web Technologies 3
Prerequisites: CPTR 335 with a minimum grade of C
The course consists of a major project for developing a web site using a framework of the students’ choice. The project selected must be a comprehensive project showing the proficiency for the skills learned in other computer classes including but not limited to JavaScript, SQL, CSS and Ajax. The project may include applications for phones or tablets to integrate with the web site. Spring semester, alternate years.

CPTR 440 Cloud Computing 3
Prerequisites: CPTR 320 with a minimum grade of C
Introduction course to cloud computing. Topics explored may include distributed data crunching, cloud and datacenter file systems, virtualization, security & privacy, and interactive web-based applications. Spring semester, alternate years.

CPTR 451 Operating Systems Principles 3
Prerequisites: CPTR 230 with a minimum grade of C and CPTR 227 with a minimum grade of C

CPTR 460 Security 3
Prerequisites: CPTR 320 with a minimum grade of C
Covers various topics of computer security, which may include: network security, database security, security auditing, data encryption, operating system security, vulnerabilities, user authentication, access control, malicious software, secure software development techniques, firewalls and intrusion detection, site security, legal and ethical security issues, and risk management. Spring semester, alternate years.

CPTR 475 Internship in Computing (WR) 3
Prerequisites: Minimum of Junior standing and CPTR 240 with a minimum grade of C, CPTR 245 with a minimum grade of C, CPTR 324 with a minimum grade of C and CPTR 327 with a minimum grade of C.
A capstone course that integrates knowledge and abilities gained through the computer curriculum with “real-life” work experiences in a computer related field.

ECONOMICS
ECON 235 Principles of Microeconomics 3
Prerequisites: ENGL 111, MATH 100 or ACT Math score of 20 (SAT of 480)
Emphasizes basic economic concepts and problems, the capitalistic system, markets, price systems, allocation of resources, production, consumption, and employment. Fall semester.
ECON 236 Principles of Macroeconomics  3
Prerequisites: ENGL 111, MATH 100 or ACT Math score of 20 (SAT of 480); may be taken before ECON 235

An introduction to the principles of economic analysis, economic institutions and issues of economic policy. Emphasizes aggregative economics, including national income, monetary and fiscal policy and international trade. Spring semester.

EDUCATION
EDUC 125 Introduction to Teaching  3
Includes a study of the historical and philosophical backgrounds, aims, curriculum, organization, finance and current issues of American public and nonpublic education. Also provides training in the use of audiovisual equipment/technology. Twenty hours of field experience required. Fall/spring semesters.

EDUC 218 Philosophy of Education (WR)  3
Prerequisites: ENGL 112 and provisional admission to the teacher preparation program

Includes a survey of the traditional and modern philosophies and their influence on educational practices, and the relationship of educational theories to their philosophic sources. Helps students understand the need for and develop a personal philosophy of Christian education. The missions of the Seventh-day Adventist Church and Union College influence the content of this course. Up to 15 hours of field experience required. Spring semester.

EDUC 225 Seminar in Education Diversity: Multicultural/HRT  1
Prerequisite: Provisional admission to the teacher preparation program or permission of division chair

Focuses on three major areas: the ability to recognize personal and societal dehumanizing biases including, but not limited to, sexism, racism, prejudice and discrimination; the ability to recognize the ways these biases may be reflected in instructional materials and processes; and the ability to translate this knowledge into attitudes and strategies which result in favorable experiences for all students. Gives education majors opportunity to interact with diverse school populations, especially those of other cultures. Twenty hours of field experience required. Fall semester.

EDUC 245 Physical Education in Elementary School  2
Prerequisite: EDUC 125 or permission of program director

Investigates the sequence of development of fundamental motor patterns and perceptual motor skills, factors influencing this development, assessment and evaluation, and methods, activities and technology for developing these skills. Up to 20 hours of field experience required. Spring semester.

EDUC 302 ESL Teaching Methodology and Materials  3

Explores strategies and practical methods for teaching non-native English speaking students. Training includes techniques for the development of the K-12 ESL student’s listening, speaking, reading, writing, grammar, vocabulary and pronunciation skills. Up to 20 hours of field experience required. Summer.
EDUC 342 Human Relations  
Prerequisite: Practicing teacher  
Focuses on three major areas: the ability to recognize personal and societal dehumanizing biases including, but not limited to, sexism, racism, prejudice and discrimination; the ability to recognize the ways these biases may be reflected in instructional materials and processes; and the ability to translate this knowledge into attitudes and strategies which result in favorable experiences for all students.  
Summer.

EDUC 345 Learning Theories and Measurement  
Prerequisites: EDUC 218, PSYC 215, Successful completion of the Pre-Professional Skills Test (PPST), and full admission to the teacher preparation program or permission of division chair  
An interdisciplinary approach to fundamentals of learning and measurement. Includes a survey of behavioral, cognitive, social learning, constructivist, and humanistic learning theories; teaching, motivational strategies, management and discipline, and assessment. Up to 20-30 hours of field experience required.  
Fall semester.

EDUC 346 Special Education in the Classroom  
Prerequisite: EDUC 345 or permission of division chair  
Causes of developmental patterns, behavioral characteristics and educational alternatives associated with specific exceptionalities which include students with visual impairments, speech and language impairments, orthopedic handicap and other health impairments, mental handicaps, learning disabilities, behavior disorders, students who are gifted and talented, children whose first language (and home culture) is not English, and those who are abused and/or neglected or at-risk for school failure are all briefly studied. Overview of PL 94-142 is included. Course does not apply toward psychology minor. Twenty hours of field experience required (15 hours special needs; 5 hours gifted).  
Spring semester.

EDUC 355 Secondary Methods  
Prerequisite: Practicing teacher  
Helps the teacher translate teaching/learning theory into practice on the secondary level. Includes study of lesson planning, scheduling, managing the learning environment, discussion techniques, legal responsibilities, state and denominational standards and working with various publics. A choice of up to two subject areas methods EDUC 361-370 may be taken concurrently.  
Summer.

EDUC 356 General Secondary Methods  
Prerequisite: EDUC 345  
Designed to help the teacher candidate translate teaching/learning theory into practice. Includes study of lesson planning, instruction, management, assessment, selected instructional strategies, legal responsibilities, state and denominational standards, and working with education’s various publics. Students demonstrate micro-teaching competence. Up to 30-35 hours of field experience required.  
Spring semester.
EDUC 357 Literature for Children and Adolescents 2
Prerequisite or co requisite: EDUC 345 or permission of division chair
A survey of youth literature and teaching strategies to encourage application of languages and literacy genre, to foster personal-social growth and to encourage life-long enjoyment of literature. Fall semester.

EDUC 358 Special Child in the Classroom 3
Prerequisite: Practicing teacher
Causes of developmental patterns, behavioral characteristics and educational alternatives associated with specific exceptionalities which include students with visual impairments, speech and language impairments, orthopedic handicap and other health impairments, mental handicaps, learning disabilities, behavior disorders, students who are gifted and talented, children whose first language (and home culture) is not English, and those who are abused and/or neglected or at-risk for school failure are all briefly studied. Overview of PL 94-142 is included. Course does not apply toward psychology minor. Twenty hours of field experience required (15 hours special needs; 5 hours gifted). Summer.

EDUC 360 General Elementary Methods 2
Prerequisite: Practicing teacher
Helps the teacher translate teaching/learning theory into practice. Includes study of lesson planning, scheduling, managing the learning environment, discussion techniques, legal responsibilities, state and denominational standards and working with education's various publics. A choice of up to two subject areas methods EDUC 361-370 may be taken concurrently. Summer.

EDUC 361 Art Methods 1
Prerequisite: Practicing teacher; prerequisite or co requisite: EDUC 355 or 360
Directed specific assignments in subject area as applications of EDUC 355 or 360. Summer.

EDUC 362 Health Methods 1
Prerequisite: Practicing teacher; prerequisite or co requisite: EDUC 355 or 360
Directed specific assignments in subject area as applications of EDUC 355 or 360. Summer.

EDUC 363 History Methods 1
Prerequisite: Practicing teacher; prerequisite or co requisite: EDUC 355 or 360
Directed specific assignments in subject area as applications of EDUC 355 or 360. Summer.

EDUC 364 Language Arts/Reading Methods 1
Prerequisite: Practicing teacher; prerequisite or co requisite: EDUC 355 or 360
Directed specific assignments in subject area as applications of EDUC 355 or 360. Summer.

EDUC 365 Math Methods 1
Prerequisite: Practicing teacher; prerequisite or co requisite: EDUC 355 or 360
Directed specific assignments in subject area as applications of EDUC 355 or 360. Summer.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>EDUC 366</td>
<td>Music Methods</td>
<td>1</td>
<td>Practicing teacher; prerequisite or co requisite: EDUC 355 or 360</td>
<td>Directed specific assignments in subject area as applications of EDUC 355 or 360.</td>
</tr>
<tr>
<td>EDUC 367</td>
<td>Elementary Reading Methods</td>
<td>1</td>
<td>Practicing teacher; prerequisite or co requisite: EDUC 355 or 360</td>
<td>Directed specific assignments in subject area as applications of EDUC 355 or 360.</td>
</tr>
<tr>
<td>EDUC 368</td>
<td>Religion Methods</td>
<td>1</td>
<td>Practicing teacher; prerequisite or co requisite: EDUC 355 or 360</td>
<td>Directed specific assignments in subject area as applications of EDUC 355 or 360.</td>
</tr>
<tr>
<td>EDUC 369</td>
<td>Science Methods</td>
<td>1</td>
<td>Practicing Teaching; prerequisite or co requisite: EDUC 355 or 360</td>
<td>Directed specific assignments in subject area as applications of EDUC 355 or 360.</td>
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<tr>
<td>EDUC 370</td>
<td>Social Science Methods</td>
<td>1</td>
<td>Practicing Teaching; prerequisite or co requisite: EDUC 355 or 360</td>
<td>Directed specific assignments in subject area as applications of EDUC 355 or 360.</td>
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<tr>
<td>EDUC 410</td>
<td>Methods: Art Education</td>
<td>3</td>
<td>EDUC 218</td>
<td>An exploration of the theory and practice of teaching art in grades 7-12 as well as assessment strategies. Includes approximately 20 hours of classroom experiences and use of appropriate technology. Spring semester.</td>
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<tr>
<td>EDUC 411</td>
<td>Methods: Business Education</td>
<td>3</td>
<td>Prerequisite or co requisite: EDUC 218</td>
<td>Explores history of business subjects, techniques for teaching secondary students, textbook and resources selection, use of technology, organization, motivation, assessment, planning and ethics. Includes 20 hours of classroom experiences. Fall semester.</td>
</tr>
<tr>
<td>EDUC 412</td>
<td>Methods: Language Arts Education</td>
<td>3</td>
<td>Prerequisite or co requisite: EDUC 218</td>
<td>A study of various teaching methods appropriate for the secondary classroom. Attention is given to planning, motivation, instruction, assessment, technology, textbook and resource selection. Includes 10 to 20 hours of classroom experiences. Fall semester.</td>
</tr>
<tr>
<td>EDUC 413</td>
<td>Mathematics Education</td>
<td>3</td>
<td>Prerequisite: EDUC 218 or permission of instructor</td>
<td>Includes the theoretical and practical aspects of secondary mathematics education. Students study current journals, teaching and assessment strategies, textbook selection and use of technology. Includes 10 to 20 hours of classroom experiences. Spring semester.</td>
</tr>
</tbody>
</table>
EDUC 414 Methods: Music Education  3
Prerequisite or co requisite: EDUC 218
Goals, objectives, organization, interrelationships between music and the entire curriculum. Includes 10 to 20 hours of classroom experiences and use of technology. Fall semester.

EDUC 415 Methods: Social Science and Religious Education (K–12)  3
Prerequisite: EDUC 218
An exploration of secondary social science, teaching strategies, textbook selection criteria, planning and assessment. Also emphasizes techniques for teaching K-12 religion. Includes 10 to 20 hours of classroom experiences and use of technology. Fall semester.

EDUC 416 Methods: Physical Education  3
Prerequisite or co requisite: EDUC 218
Study strategies for teaching secondary students physical fitness, individual skills and team sports. Includes 10 to 20 hours of planning, assessment and classroom experiences and use of technology. Fall semester.

EDUC 417 Methods: Information Technology  3
Explores methods of delivering technology instruction as both a tool and a subject. Students participate in delivering instruction in a supervised setting as well as in a lab setting. Topics covered include the integration of Office Suites such as Microsoft Office, Word Perfect Office, or Open Office in the classroom, the Internet as a classroom resource, educational software as an aid to learning, and the use of digital imaging, course management systems and other technologies to assist the educational process.

EDUC 418 Methods: Science Education  3
Prerequisite or co requisite: EDUC 218
An exploration of secondary science teaching strategies, materials, textbooks, planning, assessment, ethics and preparation and supervision techniques for selected laboratory activities. Includes 10 to 20 hours of classroom experiences and use of appropriate technology. Fall semester.

EDUC 420 Elementary / Secondary Bible Methods  1
Prerequisite: Practicing teacher
Designed to help practicing elementary and secondary teachers strengthen their walk with Christ, gain insights into the importance of Bible lessons, develop Bible lessons that inform and inspire, search the Web for resources to enhance Bible lessons, develop a unit of study and lead their students to Christ. This course fulfills denominational certification requirements.

EDUC 425 Educational Organization and Administration (K–8)  3
Prerequisite: EDUC 345
An overview of curriculum development: basic concepts and principles of educational organization and administration, classroom management and pupil adjustment, and legal aspects of teaching. Fall semester.
EDUC 446 Reading Assessment (K–8)  2
Prerequisite: EDUC 345
Instruction in assessing the reading abilities and progress of elementary students. Emphasizes stages of literacy and techniques of informal reading, spelling and writing assessment. Students gain experience by conducting assessments and planning literacy activities in field-based, one-on-one sessions with elementary learners. Fall semester.

EDUC 450 Methods in Reading and Language Arts (K–8)  5
Prerequisite: EDUC 345
Emphasis is placed on elementary (K-8) language arts skills (viewing, listening, reading, speaking, visually representing, and writing) and reading skills (reading proficiencies, readiness, vocabulary instruction, study skills, comprehension, questioning, management, diagnostic skills, and assessment. Spelling, grammar, handwriting and reference skills are specifically included. A survey of language arts and reading programs, including Pathways is included. Opportunity is given to plan and use varied instructional approaches in development of oral language, reading and writing. Traditional and whole language approaches are studied, as are multicultural literature. An evaluation and use of technology and the Internet will be included. Microteaching and up to 20 hours of field experience are included. Spring semester.

EDUC 458 Methods in Religion, Health, Science and Social Studies (K–8)  4
Prerequisite: EDUC 345
Instruction and practice in teaching Bible, health, science and social studies to grades K-8. Students learn to use scope and sequence charts and curriculum guides. Students develop lesson plans and learning centers, use technology and learn a variety of teaching and assessment techniques. Students demonstrate microteaching competence. Up to 20 hours of field experiences are included. Fall semester.

EDUC 465 Math Methods and Materials (K–8)  3
Prerequisite: EDUC 345
K-8 math content taught in conjunction with appropriate teaching strategies. For each concept presented, a variety of interpretations and possible applications are given, followed by related activities for children that develop specific concepts and skills. Practicum and technology module are included. Fall semester.

EDUC 475 Student Teaching  1–16
Prerequisite: Student Teaching Authorization from Teacher Preparation Committee
Real-life experiences in a wide variety of settings providing creative conventional and nontraditional hands-on teaching/learning opportunities for those planning to enter the helping professions. May be repeated for additional credit. Secondary -Fall semester. Elementary* -Spring semester.
*Elementary: Pre-Session Student Teaching must be completed in August, even though Student Teaching does not begin until January. This experience consists of 10 days spent in an assigned classroom. It is considered to be part of EDUC 475.

EDUC 476 Content Reading and Writing  3
Corequisite: EDUC 345
Designed to help prepare secondary classroom instructors to utilize reading and writing to enhance the teaching of their subject areas. Included are affective...
learning, vocabulary, comprehension and study skills, instructional strategies for individual content areas, and use of multiple resources. Students apply literacy strategies in field settings and through microteaching. *Fall semester.*

**EDUC 477 Secondary Reading Methods**  
Prerequisite: Practicing teacher  
Designed for the in-service teacher, this course explores using metacognition, interactive reading and writing strategies, and current research on vocabulary development, comprehension, and graphic organizers in 7-12 classrooms. *Summer.*

**EDUC 485 Issues in Education**  
Prerequisite: EDUC 345  
This course for secondary education majors includes discussion of contemporary educational trends and issues and certification procedures. *Spring semester.*

**EDUC 490 Student Teaching Seminar—Elementary**  
Prerequisite: EDUC 345  
This course for elementary education majors includes discussion of classroom practice and management experiences, teaching methodology and materials, and current educational issues. *Spring semester.*

**ENGLISH**

Courses numbered below 100 are considered developmental and do not count toward the 128 semester hours required for graduation. Similarly, grades in these courses do not affect a student’s grade point average (GPA).

**ENGL 080 Basic Skills in Grammar**  
Prerequisites: TOEFL PBT Structure/Written Expression score below 47 or a TOEFL iBT Writing score below 13 or an ACT English score below 14 or an SAT Writing score below 390  
Emphasizes the basic sentence structures in English, including phrases and clauses. Provides skills needed for improved performance on the TOEFL and ACT English. Three class sessions and one 50-minute lab per week. A minimum grade of C in ENGL 080 is required to enter ENGL 100. *Fall/spring semesters.*

**ENGL 100 Basic Skills in English**  
Prerequisites: TOEFL PBT Structure/Written Expression score between 47 and 54 or a TOEFL iBT Writing score between 13 and 16 or an ACT English score between 14 and 16 or an SAT Writing score between 390 and 420  
Focuses on the skills necessary to successfully complete ENGL 111 including sentence creation, paragraph development and essay writing. Stresses critical thinking, analytical reading and the writing processes of invention, drafting, peer review and revision. A minimum grade of C in ENGL 100 is required to enter ENGL 111. The course does not satisfy general education requirements but does count toward elective credit. *Fall/spring semesters.*

**ENGL 103 Reading Skills**  
Prerequisites: TOEFL PBT Reading score below 47 or a TOEFL iBT Reading score below 14 or an ACT Reading score below 17 or an SAT Reading score below 430  
Emphasizes vocabulary development and comprehension skills for academic reading, including increased reading rate. Three class sessions and one 50-minute lab per week. *Fall/spring semesters.*
ENGL 111 College Writing I  
Prerequisites: Minimum ACT English score of 17 or a minimum SAT Writing score of 430 or ENGL 100 with a minimum grade of C or a minimum TOEFL PBT Structure/Written Expression score of 55 or a minimum TOEFL iBT Writing score of 17

The writing of clear, concise and well-developed exposition. Objectives include peer evaluation, learning to revise and edit drafts and evaluation of models for writing. Critical thinking and editing skills are emphasized. Fall/spring semesters.

ENGL 112 College Writing II  
Prerequisite: ENGL 111; a minimum ACT Reading score of 17 or a minimum SAT Reading score of 430 or a minimum TOEFL PBT Reading score of 55 or a minimum TOEFL iBT Reading score of 20 or successful completion of ENGL 103

The application of rhetorical principles to further expository and persuasive writing and sharpening of skills in basic research writing. Readings, class discussions and writing assignments foster critical thinking skills (including the recognition of logical fallacies) and acquaint students with academic language. Includes an introduction to various styles of documentation. Fall/spring semesters.

ENGL 271 History of the English Language  
Prerequisite: ENGL 112

Introduces the student to the origin, history, and development of the English language including morphemes, phonemes, and parts of speech. Fall semester, alternate years.

ENGL 272 Grammatical Systems  
Prerequisite: ENGL 112

Introduces the student to various grammatical systems, including structuralism, transformational grammar, and prescriptive grammar for writing formal documents. Spring semester, alternate years.

ENGL 378 Technical Writing and Grant Proposals (WR)  
Prerequisite: ENGL 112

Provides intensive instruction in the essentials of technical writing including instructional and manual writing, report writing, letter writing, electronic documentation, managerial communication and grant-proposal writing. Spring semester, alternate years.

ENGL 379 Creative Writing (WR)  
Prerequisite: ENGL 112

Focuses on the writing of short creative narratives and poetry. Spring semester, alternate years.

ENGINEERING

Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.
ENGR 111 Introduction to Engineering  2
Engineering communications with emphasis on problem solving skills, graphic techniques, engineering sketching and drafting practices including descriptive geometry and an introduction to Computer Aided Design. Fall semester.

ENGR 112 Introduction to Engineering  2
Prerequisite: ENGR 111
Continuation of ENGR 111. Includes a study of elementary engineering mechanics, electric circuits, energy concepts, the design process, elements of professional engineering and advanced CAD. Spring semester.

ENGR 211 Statics  3
Prerequisite: MATH 184; co requisite: MATH 285
Includes a study of two- and three-dimensional statics, analytical and graphic methods using a modified vector approach. Fall semester.

ENGR 212 Dynamics  3
Prerequisite: ENGR 211; co requisite: MATH 286
Continuation of ENGR 211. Includes a study of kinetics, work and energy, dynamics of rotation, translation and plane motion, impulse and momentum. Spring semester.

ENGR/PHYS 228 Electric Circuit Analysis  4
Prerequisite: MATH 184
Introduces electric circuit variables and parameters, Ohm's and Kirchoff's laws, circuit equations, AC steady-state analysis, frequency characteristics. Three lectures and one three-hour laboratory per week. Fall semester.

FINANCE
FNCE 215 Personal Finance  3
Emphasizes practical financial planning dealing with the day-to-day issues that confront an individual or family, such as budgeting, taxes, housing, credit, insurance, savings, investments, wills, and retirement planning. Fall semester.

FNCE 325 Business Finance  3
Prerequisite: ACCT 212, MATH 111 or higher with a minimum grade of C
Emphasizes the fundamental principles of short- and long-term financial policy in business organization and operation. Also includes valuation models for stocks and bonds, analysis of financial statements, capital budgeting, working capital management, and a review of financial markets. Fall semester.

FNCE 330 Financial Institutions and Markets  3
Prerequisites: ACCT 212, ECON 235 or 236
A study of capital markets and financial institutions such as banks, thrifts and insurance companies. The study of capital markets focuses on a wide range of instruments for financing, investing, and controlling risk in today's financial markets. Fall semester.

FNCE 332 Investments  3
A study of investment alternatives and investment objectives for the individual. Major types of investments studied in detail include stocks, bonds, money market
instruments, mutual funds, and tax-sheltered investments. Approaches studied and contrasted for the review of equities include an analysis of company fundamentals and broad market indicators, as well as an examination of mathematical models. Tools and methodologies employed include an analysis of Risk and Return, Time Value of Money, Online Sources, Asset Allocation and Portfolio Management. Spring semester.

**FNCE 340 Financial Aid Operations** 3
Familiarizes the student with the basics of financial aid systems, government regulations and related topics. A focus is on learning the different types of aid and the rules on how they are administered. Done on a directed study basis.

**FNCE 370 International Finance** 3
A study of the international financial environment and operation of multinational enterprises, with major focus on trade, balance of payments, foreign exchange, money and capital markets, investment decisions and comparative financial systems. *Spring semester.*

**FNCE 475 Internship in Finance** 1–3
Prerequisites: Junior or senior standing and permission of division chair
Real-life experiences in a wide variety of settings providing creative and conventional hands-on learning opportunities.

**GEOGRAPHY**

**GEOG 137 Introductory Geography** 3
A study of the basic concepts in contemporary geography. Includes population patterns, mapping techniques, locational analysis, spatial diffusion, landforms, climates, modeling, and urban and environmental concerns. *Spring semester, alternate years.*

**GEOG 227 World Regional Geography** 3
The study of contemporary concepts of geography with emphasis on the cultural-systematic approach. Major concern given to man-land relationships in a spatial analysis of world regions. *Spring semester, alternate years.*

**GRAPHIC DESIGN**

**GRPH 150 Introduction to Graphic Arts** 3
An introduction to the field of graphic design and to the three major types of computer applications used in print design. Students use Adobe Illustrator, Photoshop and InDesign applications to create corporate logos, business materials, photo collages and print projects. *Fall/spring semesters.*

**GRPH 175 Graphic Design Seminar** .5
First in a series of courses designed to guide graphic design majors through the ongoing process of building and developing a portfolio. Related issues include career decisions, networking, interviewing, portfolio packaging, matting, framing, photographing art work, exhibition display and self promotion. See GRPH 275, 375 and 475. *Spring semester.*
GRPH 210 Page Layout  
Prerequisite: GRPH 150 or permission of instructor
Reviews fundamental skills and stresses intermediate and advanced skills using computer-based page layout software on the Macintosh platform. Students learn the use of master pages, style sheets, typographic controls, and to flow and format text, to place and manipulate images, to combine images and text, to create tables, gradients and PDF's, and to correctly prepare digital files for offset printing. Fall semester, alternate years

GRPH 225 Digital Photography  
Prerequisite: GRPH 150 or permission of instructor
A study of photography using digital tools, technology, and output. Students will learn the core concepts of photography and how to manage a digital workflow, with emphasis on practical control of image making for application such as journalism, commercial photography, and fine art photography. Digital camera required. DSLR preferred. Spring semester, alternate years

GRPH 250 Digital Imaging  
Prerequisite: GRPH 150 or permission of instructor
Focuses on image manipulation and enhancements using Adobe Photoshop, the industry standard for digital imaging. Students learn image enhancement and retouching, color correction, combining images and text, collaging, and high-quality digital output. Fall semester, alternate years

GRPH 252 Computer Design  
Prerequisite: GRPH 150
Building on basic computer and design skills, this course allows students to master Illustrator and Photoshop while making real-world design applications such as posters, logos, corporate identity, photo manipulation and compositing. Fall semester, alternate years.

GRPH 254 Publication Design  
Prerequisite: GRPH 150
Further study of design principles and page layout software. Includes production of print projects such as programs, brochures, magazine spreads and newsletters. Spring semester.

GRPH 275 Graphic Design Seminar  
See GRPH 175 for description. Spring semester.

GRPH 301 Web Design  
Prerequisite: CPTR 245 or permission of instructor
Introduction to the visual design and management of web sites. Includes the basics of site set up, user-centered design and integration of rich media. Spring semester, alternate years.

GRPH 350 History of Graphic Design/Contemporary Design  
A study of the historical development of graphic design and its influence on design trends today, including national and international styles, influences, major artists/designers, and their influence on current design trends. Spring semester, alternate years.
course descriptions

GRPH 358 Typography  
Prerequisites: GRPH 150  
A study of the history, terminology, practical and creative use of type in communication graphics. Comprehensive coverage of copy editing and fitting, illustration editing, print planning, and paper selection. Each student produces a final major project from plan to product. **Spring semester, alternate years.**

GRPH 375 Graphic Design Seminar  
See GRPH 175 for description. **Spring semester.**

GRPH 401 Interactive Web Design  
Prerequisite: CPTR 245 and GRPH 301 or permission of instructor  
Explores the place and basic concepts of animation and interactivity on the web and introduces students to Adobe Flash, the industry standard for creating dynamic web content and interactive multimedia, with the goal of presenting animation principles and getting the learner comfortable with the Flash authoring environment: interface, basic terminology, functions, and processes. **Fall semester, alternate years.**

GRPH 460 Prepress Production  
Prerequisite: GRPH 254  
A technical look at how graphic materials are traditionally and electronically prepared for the printing process. Emphasizes preparation for offset lithography including ink and paper selection. Students develop a working knowledge necessary to successfully communicate with a service bureau or printer. **Fall semester, alternate years.**

GRPH 464 Advertising Design  
Prerequisite: GRPH 150  
Emphasizes the development of graphic design as it relates to advertising in the print media. Subjects include the creative process, design elements and principles, layout, production, typography and copy writing. Special attention is given to creativity and craftsmanship. **Spring semester, alternate years.**

GRPH 475 Graphic Design Seminar  
See GRPH 175 for description. **Spring semester.**

GRPH/ART 476 Internship  
Prerequisites: Junior or senior standing and permission of supervising instructor  
A real-life experience in a wide variety of settings providing a hands-on learning opportunity. Each hour of credit represents 50 clock hours of contact time. **For majors only. May be repeated for additional credit.**

**HEALTH AND HUMAN PERFORMANCE ACTIVITY**

HHPA credits may be applied to the general education requirements only once, but may be repeated for additional credit with permission of the instructor.

HHPA 112 Water Aerobics  
Using water resistance, this course is designed to promote aerobic fitness, greater flexibility, and improve muscle tone. Taught in shallow water, it requires no swimming skills. **Fall/spring semesters.**
HHPA 115 Beginning Swimming 1
Prerequisite: Non-swimmer, minimal swimming skills, familiar with water
Assists students in developing skills equivalent to the level of Red Cross
Beginner and Advanced Beginners Swimming Certificates. Fall/spring semesters.

HHPA 116 Leisure and Recreational Activities 1
Provides instruction as well as participation in selected leisure and recreational
activities. Fall semester, alternate years.

HHPA/INRR 120 Climbing Wall Management 1
Designed to deal with the increasingly popular elements of climbing walls as
elements of larger programs. Discussion will pertain to proper construction and
maintenance, successful rock wall programming, and liability for high risk adventure
activities. Multiple site visits will be required, as well as an off campus weekend
climbing trip. Fall Semester.

HHPA 126 Team Activities 1
Aids the student in learning and applying the skills and strategies common to
major team sports. Basic sports covered include basketball, flagball, soccer, softball
and volleyball. Spring semester, alternate years.

HHPA 137 Gymnastics for Everyone 1
Gives basic instruction in cheerleading, acrosports and ground tumbling.
Students have a conditioning component and are required to perform a basic
routine in an area of their choice. Fall/spring semesters.

HHPA 141 Self-directed Physical Education Activity 1
Designed to track an individual's exercise online. Activity could range from team
and individual sports to an approved activity such as virtual reality exercise. This
class involves a research paper approved by the instructor. Fall/spring semesters.

HHPA 145 Beginning Badminton 1
Instruction and practice of the fundamental skills and techniques essential for
successfully playing badminton. Students provide their own equipment.
Fall/spring semesters.

HHPA 146 Beginning Pickleball 1
Instruction and practice of the fundamental skills and techniques essential for
successfully playing Pickleball. Students provide their own equipment.
Fall/spring semesters.

HHPA 147 Beginning Tennis 1
Instruction and practice in the fundamental skills involved in playing tennis.
Students provide their own equipment. Fall/spring semesters.

HHPA 149 Beginning Golf (Fee) 1
Instruction and practice in the skills essential to playing golf. Expenses in
addition to tuition are necessary for greens fees. Students provide their own
equipment. Fall semester.
course descriptions

HHPA 151 Beginning Volleyball 1
 Instruction and practice of basic skills for volleyball team participation.
Fall semester.

HHPA 153 Beginning Basketball 1
 Instruction and practice of basic skills for basketball team participation.
Fall semester.

HHPA 155 Concepts of Wellness 2
Assists students in developing a practical theory of general and cardiovascular fitness. Reviews the principles of health instruction as cited in the Scriptures and counsels of Ellen White. Application in aerobics, aquatics, calisthenics, running and weight training accomplishes improved fitness. Individual programs are made so that students with disabilities can develop better fitness. May not be repeated for additional credit. Fall/spring semesters.

HHPA 215 Intermediate/Advanced Swimming 1
Prerequisite: HHPA 115 or equivalent
Designed to assist students in developing skills equivalent to the level of Red Cross Intermediate and Advanced Swimmer Certificates. Fall semester.

HHPA 216 Lifeguard Training 1
Focuses on the development and refinement of skill for individuals who have good swimming techniques, first aid and CPR background. Leads to the Red Cross, Lifeguarding, First Aid and CPR Certification upon successful completion of the class requirements. Spring semester.

HHPA 217 Skin and Scuba Diving (Fee) 1
Prerequisite: HHPA 215 or equivalent
Provides knowledge and skills necessary for underwater diving. A fee in addition to tuition is necessary for equipment rental. Other expenses may be incurred in connection with test dives. Students must provide their own fins, mask and snorkel. The additional class fee can be reduced if the student has more personal scuba gear. Fall/spring semesters.

HHPA 219 Water Safety Instruction 1
Prerequisite: HHPA 215 or equivalent or permission of instructor
Designed to assist students in refining and developing skills necessary to teach aquatic courses. Leads to the Red Cross Water Safety Instructor Certificate upon successful completion of class requirements. Fall semester.

HHPA 220 Healthy Eating and Fitness 1
Prerequisite: HHPA 155
A comprehensive approach to weight loss that focuses on healthy eating, physical activity and exercise. Without eliminating enjoyable foods, students will learn a simple, fun, whole-diet approach that shows how to make gradual changes to improve healthy living. Fall/spring semesters.
HHPA 235 Weight Training and Physical Conditioning
1
- Designed to give instruction for knowledge and experience in weight training relative to total fitness. *Fall/spring semesters.*

HHPA 242 Cardio Fitness
1
- The emphasis is cardiovascular exercise in a variety of formats and includes instruction on proper warm up, cool down, heart rate monitoring, and stretching. *Fall/spring semesters.*

HHPA 249 Fitness Walking
1
- Designed to assist walkers of any age, background, or fitness level to acquire the knowledge, skills, and attitudes necessary for participation in a lifelong program of fitness walking. *Fall/spring semesters.*

HHPA 250 Running for Fitness
1
- Designed to increase cardiovascular fitness and a practical knowledge of the healthy benefits of running as a lifestyle. *Fall/spring semesters.*

HEALTH AND HUMAN PERFORMANCE THEORY

HHPT 129 Introduction to Fitness and Wellness Management
3
- An introduction to the fitness marketplace with emphasis in administration. Laboratory experience includes selected aspects of fitness including fitness screenings, weight management programs and fitness assessments. Visitation to hospitals, private clubs and corporate clubs are included. This course requires ten (10) hours of field-based experience. *Fall semester, alternate years.*

HHPT 215 Emergency Health Care
2
- Leads to certification in CPR/AED for the Professional Rescuer and Responding to Emergencies First Aid. Provides hands-on experience for the knowledge and skills necessary in an emergency to help sustain life and to minimize pain and the consequences of injury or sudden illness until professional medical help arrives. *Fall semester, alternate years.*

HHPT 216 Athletic Injuries
3
- Focuses on skills for the treatment and care of athletic and recreational injuries. *Spring semester, alternate years.*

HHPT 235 Principles of Sports Officiating
1.5
- Prerequisite: Permission of the instructor
- Covers rules, mechanics and practical experience in officiating flag football, soccer and volleyball. Also covers interpretation and officiating techniques for intramural sports. Course meets twice a week throughout the semester with laboratory experience required. Completion of this course prepares students for National Intramural-Recreational Sports Association (NIRSA) officiating certification. Students are required to have a complete official’s uniform. *Fall semester, alternate years.*

HHPT 236 Principles of Sports Officiating
1.5
- Prerequisite: HHPT 235 or permission of the instructor
- Covers rules, mechanics and practical experience in officiating basketball, floor hockey and softball. Also covers interpretation and officiating techniques for
intramural sports. Course meets twice a week throughout the semester with laboratory experience required. Completion of this course prepares students for National Intramural-Recreational Sports Association (NIRSA) officiating certification. Students are required to have a complete official’s uniform. Spring semester, alternate years.

**HHPT 256 Medical Terminology**  
This self-study module enables students to pace their learning of medical terms. Fall/spring semesters.

**HHPT 316 Leisure and Recreational Activities**  
Prerequisite: Permission of the instructor  
Provides instruction as well as participation in selected leisure and recreational activities, and instruction in the methods and techniques of teaching these activities. Fall semester, alternate years.

**HHPT 326 Team Activities**  
Prerequisite: Permission of the instructor  
Aids the student in learning and applying the skills and strategies common to major team sports that will be used in teaching or coaching. Basic sports skills covered include basketball, flagball, floor hockey, soccer, softball and volleyball. Spring semester, alternate years.

**HHPT 335 Administration of Intramural Sports**  
Prerequisites: HHPT 235, 236  
Designed to provide instruction and develop skills necessary to administer a successful intramural program. Emphasis is also given to refining knowledge and skill from HHPT 235, 236. Laboratory experience required in administering, supervising and officiating intramural sports activities. Fall semester, alternate years.

**HHPT 337 Gymnastics for Teachers**  
Prerequisite: HHPA 137 or permission of the instructor  
Designed to further develop skills in cheerleading, acrosports and ground tumbling. Students become aware of safety considerations, create lesson plans and develop routines. Completion of this course prepares students to take the USA Gymnastics University Safety/Risk Management online course to obtain safety certification. Spring semester, alternate years.

**HHPT 340 Introduction to Coaching Theory**  
Designed to develop coaching strategies and practical coaching theories. Includes information on sport psychology, sport pedagogy, and management. Completion of this course prepares students for the American Sport Education Program (ASEP) coaching certification. Fall semester, alternate years.

**HHPT 345 Sports Nutrition**  
Examines the interrelationships among nutrition, health, and exercise performance. General principles include: eating disorders, weight management, hydration, and ingested ergogenic aids, all of which are common among physically active individuals. Fall semester, alternate years.
HHPT 350 Practicum  1
Prerequisite: Permission of instructor
Affords the opportunity to observe practical work in a student's chosen field, and to assist in the organization and administration of the program (on-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the practicum experience. Fall/spring semesters.

HHPT 351 Practicum  1
Prerequisite: Permission of instructor
Affords the opportunity to observe practical work in a student's chosen field, and to assist in the organization and administration of the program (on-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the practicum experience. Fall/spring semesters.

HHPT 356 Physiology of Exercise  3
Prerequisites: BIOL 111, 112
Covers training, sedentary lifestyle and the study of the physiological factors related to human movement. Fall semester, alternate years.

HHPT 357 Motor Learning (WR)  3
Prerequisite: BIOL 111, 112
Covers neurological and psychological factors affecting the learning of movement skills. Spring semester, alternate years.

HHPT 360 Biomechanics  3
Prerequisites: BIOL 111, 112
Designed so the student may learn and apply the anatomical and mechanical principles relative to human movement. Spring semester, alternate years.

HHPT 366 Adapted Physical Education  2
Covers the physical educator's role in identifying and providing appropriate activities for individuals who have structural, physical, neurological or psychological disorders. Fall semester, alternate years.

HHPT 370 Personal Training  3
Prerequisites: BIOL 111, 112, HHPT 215, or permission of instructor
Designed to develop the skills necessary for being a personal trainer. Completion of this course prepares students for the National Council on Strength and Fitness (NCSF) personal training certification. Spring semester, alternate years.

HHPT 437 Measurement and Evaluation in HHP  2
Prerequisite: MATH 111 or above
Covers elementary statistics applicable to test construction, evaluation and grading. Students develop appropriate measurement and evaluation techniques essential for all professionals in the exercise and sport science and physical education fields. Fall semester, alternate years.
HHPT 474 Internship  2
Prerequisite: HHPT 370
Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the program (off-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the intern experience.

HHPT 475 Internship  1–4
Prerequisite: HHPT 370
Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the program (off-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the intern experience. Repeatable to total of four credits.

HHPT 476 Wellness Methods, Materials and Management  3
A course in planning, implementing and evaluating worksite and community health promotion activities, including stress management, smoking cessation, cardiovascular fitness, body composition and cholesterol testing. Oral presentation required. Spring semester, alternate years.

HHPT 485 Seminar in Health and Human Performance  1
A study of health and human performance from a cultural perspective--past and present. Spring semester, alternate years.

HHPT 486 Senior Capstone (WR)  1
All HHP majors are required to apply the principles of research design by selecting, designing and, depending upon the nature of the study, initiating research in a project directly applicable to health and human performance. Each student produces a report presenting their research process and findings. Additionally a significant portion of the grade includes explanation of the completed portfolio. Spring semester.

HEALTH AND HUMAN PERFORMANCE VARSITY
Varsity athletics do not apply toward the Human Health and Performance Activity general education requirements but count as elective credit toward the total hours for graduation.

HHPV 125 Acrosports  1
College gymnastics team. Registration must be concurrent with participation on the college gymnastics team. May be repeated for credit with permission of the instructor. Graded CR/NC. Fall/spring semesters.

HHPV 140 Women's Basketball  1
Intercollegiate basketball. Registration must be concurrent with participation on the intercollegiate basketball team. Credit available second semester only. May be repeated for credit with permission of the instructor. Graded CR/NC. Spring semester.

HHPV 150 Men's Basketball  1
Intercollegiate basketball. Registration must be concurrent with participation on the intercollegiate basketball team. Credit available second semester only. May be repeated for credit with permission of the instructor. Graded CR/NC. Spring semester.
HHPV 165 Golf  .5
Intercollegiate golf (men). Registration must be concurrent with participation on the intercollegiate golf team. Credit available second semester only. May be repeated for credit with permission of the instructor. Graded CR/NC. Spring semester.

HHPV 175 Volleyball  .5
Intercollegiate volleyball (women). Registration must be concurrent with participation on the intercollegiate volleyball team. Credit available first semester only. May be repeated for credit with permission of the instructor. Graded CR/NC. Fall semester.

HISTORY
HIST 160 The West and the World, Part 1  3
Deals topically with the interactions and unique contributions of Europe, Asia, the Americas, and Africa in the shaping of the modern world. Students are also introduced to the problems facing the historian who studies the past of various peoples and cultures. Fall semester.

HIST 161 The West and the World, Part 2  3
Deals topically with the interactions and unique contributions of Europe, Asia, the Americas, and Africa in the shaping of the modern world from 1500 to the present. Students are also introduced to the problems facing the historian who studies the past of various peoples and cultures. Spring semesters.

HIST 255 Issues in Early American History  3
Brief account of the discoveries, colonization and struggle for independence, growth of slavery, expansion and the Civil War. Fall semester.

HIST 308 Early Antiquity (WR)  3
Prerequisite: HIST 160 or HIST 161
Introduction to the civilizations of Mesopotamia, Egypt and Palestine with special emphasis on the history of Biblical civilizations. Fall semester, alternate years.

HIST 315 Economic History of the U.S. (WR)  3
An economic and business history of the U.S. that emphasizes events during and following the Civil War, the Depression and the growth of the U.S. as a major international economic power. Spring semester, alternate years.

HIST 335 Civil War and Reconstruction, 1840-1877 (WR)  3
Studies the causes of the Civil War, slavery, the Southern resistance and the preservation of the Union under Lincoln. Explores the post-war problems of the North and South against the background of the emerging industrial society. Fall semester, alternate years.

HIST 349 Medieval Civilizations (WR)  3
Prerequisite: HIST 160 or HIST 161
Studies major institutional, intellectual, political and economic developments in Europe between the fourth century and 1400. Fall semester, alternate years.
HIST 378 Modern Europe (WR) 3
Prerequisite: HIST 160 or HIST 161
Studies the political, economic, social and cultural developments in Europe from
the French Revolution to the present. Fall semester, alternate years.

HIST 428 Renaissance and Reformation (WR) 3
Prerequisite: HIST 160 or HIST 161
Examines the Early Modern Atlantic world including the political culture of
Renaissance Italy and the Protestant Reformation as well as the age of exploration,
piracy and Atlantic slavery. Spring semester, alternate years.

HIST 445 American Frontier (WR) 3
Covers the westward push of settlement beyond the Mississippi River and out
on the plains until all tillable land was occupied. Fall semester, alternate years.

HIST 455 Recent American History (WR) 3
Begins with the period following the Civil War and places special emphasis on
events in the twentieth century. Spring semester, alternate years.

HIST 458 Classical Civilizations (WR) 3
Prerequisite: HIST 160 or HIST 161
Covers the development of Greek civilization and the rise of the Roman Empire.
Emphasis given to Greek culture and the birth of Christianity within the Roman
Empire. Spring semester, alternate years.

HIST 485 Seminar in History (WR) 3
Prerequisite: Permission of the division chair
Research course for history and social science majors and minors. Includes
historical method, research and preparation of a paper. Spring semester.

HUMANITIES
HMNT 305 Arts and Ideas 2
Prerequisite: HIST 160 or 161 or permission of instructor
A survey of the fine arts with an emphasis on recognizing and understanding
the great styles from antiquity to 1900. Fall semester.

HMNT 332 Historical Issues in Leadership 2
Prerequisite: LEAD 225
An introduction to famous and infamous historical leaders. Students will be
encouraged to develop their own leadership styles in dialogue with leaders and
events of world history.

HONORS—UNION SCHOLARS
HONS 112 Research and Composition 3
Prerequisite: Acceptance into Union Scholars and completion of ENGL 111 or
equivalent with a grade of B
Introduction to the study of literacies, that is, how reading, writing, listening
and meaning-making arise out of specific cultural, political and historical contexts
and, in turn, engender particular discourses. Students explore the rhetorical aspects
of writing while honing research skills. Includes the application of MLA, APA, and
Chicago documentation styles in the writing of a research paper. Spring semester.
HONS 125 Western Culture I 3
Prerequisite: Acceptance into Union Scholars.
Significant issues in Western civilization approached through reading major works, considering artistic creations, and disciplined reflection in discussion and writing. Explores cultural and reflects artistic and literary themes against the historical background of the ancient, classical medieval and Renaissance eras. Small group projects and discussions, field trips and cultural events enrich the lectures. Disciplines: Primarily history and literature. Fall semester, alternate years.

HONS 126 Western Culture II 3
Prerequisite: Acceptance into Union Scholars.
Continuation of HONS 125, however, HONS 126 may be taken prior to HONS 125. Covers the Enlightenment to the modern world. Disciplines: Primarily history and literature. Fall semester, alternate years.

HONS 215 Self and Society (WR) 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor
Explores answers to the question, "Who am I?" from the viewpoints of the disciplines of psychology, sociology, and religion. It looks at the self and how the individual is shaped by and related to society at large in various cultures around the globe. The course contains a component of public speaking. Spring semester.

HONS 245 Freedom and Responsibility (WR) 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor
Explores the issues of personal freedom, responsibility, and authority in political life from the viewpoint of the disciplines of political science, history, psychology and communications. It examines the respective roles of the individual and the state in historical settings around the globe. The course contains a component of public speaking. Fall semester, alternate years.

HONS 265 Conflict and Peacemaking 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor
Explores conflict resolution from the viewpoint of the disciplines of communications, history, political science and religion. Its focus is on the practice of non-violence and peacemaking in personal and global situations. Spring semester, alternate years.

HONS 287 Topics 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor
Various interdisciplinary topics have been taught including the following: Romans in Context, The US Presidency, The Holocaust, and Critiquing Film. These courses or other selected topics may be taught as needed.

HONS 325 Science and Religion (WR) 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor; completion of one laboratory science course, and junior standing
Explores the nature of scientific inquiry, the history of scientific thought around the globe, and the relationship between science and religion in various cultures. The course contains a component of public speaking. Spring semester.
HONS 335 Wealth and Poverty 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor
Explores the causes and consequences of wealth and poverty globally from the viewpoint of the disciplines of economics, sociology and religion. It then explores possible responses to the disparities of wealth and poverty. Summer semester.

HONS 345 The Global Environment 3
Prerequisite: Acceptance into Union Scholars or permission of the instructor
Explores issues related to the ecology of the globe from the viewpoint of the disciplines of biology, environmental science and religion. It explores the causes of, results of, and possible solutions to the environmental impact of human beings. Spring semester, alternate years.

HONS 360 Romans in Context 3
An intensive study of Paul's Epistle to the Romans within its socio-cultural context that includes interpretation by the initial readers, and theological interpretation of Romans in relation to the contemporary world. Students make presentations and write research papers on issues related to the Pauline Epistles and Romans. Satisfies the Scholars requirement for one RELB or one HONS topics course. Spring semester.

HONS 398 Research Methods 1
Prerequisite: Acceptance into Union Scholars
Preparation of the Honors Independent Study project. Expectations for the independent study project are addressed, including the choice of a topic, refining the proposal, the role of literature review, formal public speaking presentation software, and evaluation. The letter grade assigned reflects the presentation of the project to the Scholars Advisory Committee. Fall semester.

HONS 498 Honors Thesis 1–3
Prerequisite: Acceptance into Union Scholars
Students conduct independent research or create a work of art typically within their major field under the primary supervision of a professor in that discipline and with the additional support of two other advisors. Culminates in a public presentation with the research paper filed in the Scholars Office and in the Ella Johnson Crandall Memorial Library.

INTERNATIONAL RESCUE AND RELIEF
INRR 100 Emergency Medical Technician 7
Prerequisite: Completion of criminal background check, annual TB test, and annual influenza vaccine; current American Heart Association BLS for the Health Care Provider CPR certification
Prepares students to deliver basic emergency care to individuals at the scene of an accident or medical emergency and to transport individuals to a medical facility in a safe and expedient manner. Emphasizes accurate observation, evaluation of emergency situations, effective communications with the medical network and high skill proficiency. At the completion of the course, student is eligible to take the examinations for state and national registry certification as an Emergency Medical Technician. Spring semester.
INRR 110 Search and Rescue 2
Prerequisite: INRR 100, INRR 114 or permission of instructor
Provides knowledge concerning the general responsibilities, skills and equipment needed by persons who would be participating in wilderness search and rescue missions. The course provides opportunities for skill development in practical search missions. The course provides instruction in three main areas: survival and support, search, and rescue. Summer semester.

INRR 112 Swift Water and Flood Management 1
Prerequisite: INRR 100, INRR 114 or permission of instructor
The course meets NFPA 1670 and 1006 standards for swift water rescue. The initial emphasis is on self-rescue skills. Other objectives include an in-depth look at water dynamics, handling hazards and obstacles, using basic rescue equipment, setting technical rope systems, and controlling in-water contact rescues. Also covers pre-planning; rescue and recovery management; specific problems which arise with floods; rescue from class I-VI whitewater; raising/lowering systems; a Search and Rescue (SAR)night scenario, and other subjects. Summer semester.

INRR 114 Technical Rope Rescue 1
Students are trained in pre-planning and size-up of rope rescue operations; knots, hitches and anchor systems; belay operations; ascending and descending; raising and lowering systems; and patient packaging and litter attending. Also covers advanced problem solving and highline systems. Safety of the rescuer, rescue team, patient and bystanders is stressed at all times. TRR meets NFPA 1670 standards. Summer/Fall semester.

INRR 116 Basic Survival 1
Prerequisite: INRR 100, INRR 114 or permission of instructor
Instructs and trains students to: prioritize the seven basic needs for survival; build a foul weather fire using a spark and wet wood; construct a natural shelter without rope, cord or nails; identify, prepare and eat indigenous wild edible plants; navigate on land using natural aides. Summer semester.

INRR/HHPA 120 Climbing Wall Management 1
Designed to deal with the increasingly popular elements of climbing walls as elements of larger programs. Discussion will pertain to proper construction and maintenance, successful rock wall programming, and liability for high risk adventure activities. Multiple site visits will be required, as well as an off campus weekend climbing trip. Fall semester.

INRR 202 Emergency Medical Technician II 4
Prerequisite: INRR 100, successful completion of NREMT Exam
Instructs and trains students in non-visualized advanced airway management and IV administration. The course also includes the Pre-Hospital Trauma Life Support (PHTLS), a program designed to reduce death and disability for patients who suffer traumatic emergencies such as accidents, drowning, and other injury related illnesses. Fall semester.
INRR 210 Principles of Emergency Management  
An overview of the major principles vital to emergency responders that includes mitigation, preparedness, response, and recovery. Also includes the role of major stakeholders and the components of an effective emergency response organization. Covers both short- and long-term mass care services including sheltering, feeding, and distribution of relief supplies. Fall semester.

INRR/SOCI 220 Social Dimensions of Disaster  
Explores how broad concepts such as social conflict and social inequality are manifested in disasters throughout the world. Topics include demographics and disaster behavior distinctions, disaster culture, individual versus group response to disasters, and the link between social vulnerability and sustainable development. More broadly, students will examine the relationship between the social sciences and public policies in emergency management. Spring semester.

INRR 302 HIV and Emerging Diseases  
Focuses on the wide-spread effects of HIV and new emerging diseases. Treatment skills and knowledge of prevention for these and other rapid rising, life-threatening illnesses are essential to avoid both endemic and pandemic health catastrophes. Fall semester.

INRR 310 Emergency Care I  
Prerequisites: BIOL 106, 111, or 205 (except for Pre-professional), INRR 100, 110, 112, 114, 116, 202, or permission of the instructor  
The first part of emergency care for those in rural areas, disaster situations and the wilderness environment. Students learn how to treat themselves and patients when there are virtually no medical supplies and resources available. Contains lecture and didactic components. Fall semester.

INRR 311 Emergency Care II  
Prerequisite: INRR 310, BIOL 205 or permission of the instructor  
The second part of emergency care for those in rural areas, disaster situations and the wilderness environment. Students learn to treat themselves and patients when there are limited medical supplies and resources available. Contains lecture and didactic components with clinical experiences in dental emergencies, wound management and fracture management. Overseas—Spring semester.

INRR 316 Jungle, Coastal and Ocean Survival  
Prerequisite: INRR 310  
Jungle survival covers shelter, fire, food and water needs in the jungle setting. Includes instruction in identification and avoidance of dangerous plants and venomous creatures.

Coastal survival covers the same topics as the Basic Survival course with a special emphasis on a coastal environment situation. Students learn how to find fresh water, as well as how to successfully obtain a wide variety of foods. Fire-craft, shelter building, signaling and all other topics from the Basic Survival class are reviewed. While emphasis is placed on the coastal environment, discussion includes how to adapt the skills for any environment.

Ocean survival covers survival of a downed aircraft or capsized boat. Includes: how to use a life raft; how to survive in an aquatic environment; helicopter rescue; practical use of signaling devices; meteorology; medical emergencies. Students
spend 24 hours in a survival scenario on a life raft with survival gear. Overseas—Spring semester.

**INRR 321 Global Health**  
Prerequisite: INRR 310  
Topics include: assessing local health needs and conditions; recognition and treatment of diseases; prevention of spread of disease; developing and implementing strategies to improve health (nutrition, hygiene, water purification, waste control and safe living conditions); environmental toxicology; microbiology with field laboratory testing. A hands-on course in rural Central American villages. Overseas—Spring semester.

**INRR 330 Travel and Tropical Medicine**  
Prerequisite: INRR 310  
Covers the health risks of travel from dengue fever to jet lag. Emphasizes safe travel and how to avoid and treat diseases primarily found in developing countries. Overseas—Spring semester.

**INRR 351 Stress and Rescue Diving**  
Prerequisite: HHPA 217 or recognized dive certification  
Students learn the fundamentals of dive operations from scene evaluation through incident debriefing. Public safety divers and surface-support personnel will be prepared to respond effectively to the water-incident scene. The program is presented in a classroom and at an open-water training site. Fall semester.

**INRR 420 IRR Preceptorship**  
Prerequisite: 30 hours of IRR courses; senior standing  
Designed as the individualized capstone class for international rescue and relief majors. Applies knowledge and skills in a clinical setting of the students’ choice, bridging the gap between theory and practice at an entry level position. Joint planning between the student, instructor, preceptor and agency determines the students’ activities and experiences. No previous experience is accepted for credit. Fall semester.

**INRR 430 Expeditionary Leadership**  
This course’s focus lies in learning the intricacies of leadership. Students practice planning trips, orienting groups, and learning expedition dynamics. Leadership theory is studied in depth to show advantages of different styles, and the incorporation of those styles in a group setting. Overseas—Spring semester.

**INRR 482 International Development and Cultural Integration (WR)**  
Prerequisite: Junior or Senior standing  
A class that examines the skills and tools needed to adjust to life and work in a developing country. Cultural sensitivity and integration is emphasized in the context of sensible, sustainable development. Students are asked to examine critical shifts between their primary cultural perspective and the social dynamics of other cultures. Fall semester.
INRR 491 Disaster Management and Terrorism (WR) 3
Prerequisite: Junior or senior standing
Explores and researches current concepts of disaster management. An emphasis is placed on recovery needs, covering natural, man-made disasters, and acts of terrorism. Students explore the roles of the local, state and federal agencies during disasters and mass casualty events. Fall semester.

LEADERSHIP
LEAD 225 Creative Leadership 3
Through the study of major leadership models, students will understand their personal leadership strengths and incorporate them into a personal philosophy of leadership. They will develop a personal leadership portfolio, complete a citizen leadership project, and complete a servant leadership project as a group. Fall/Spring semesters.

LEAD 245 Leadership Cohort 1
Prerequisite: LEAD 225
Cohort members will read leadership literature, discuss leadership issues and visit local leaders. Credit/No Credit.

LEAD 345 Leadership Cohort 1
Prerequisite: LEAD 245
Cohort members will read leadership literature, discuss leadership issues and visit local leaders. Credit/No Credit.

LEAD 425 Experiences in Leadership 3
Prerequisite: LEAD 225
Based on leadership theories and models, students will apply their knowledge in group and individual leadership projects. They will test one a model in a leadership situation and participate in a leadership experience. Previous experiences have varied, including an extended canoe trip, visits with political leaders in Washington, and service projects. Summer.

LEAD 475 Leadership Internship 1–3
Prerequisite: LEAD 225 and junior or senior standing
Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the off-campus program. Approximately 45 clock hours of contact time per credit hour are spent in the completion of the intern experience. May be repeated for additional credit.

LITERATURE
LITR 231 Ancient Western Literature (WR) 3
Prerequisite: ENGL 112
A chronological approach to major works of literature influencing Western culture from major genres. The course covers the ancient Hebrew, Greek and Roman worlds through the Renaissance. A chief aim is the appreciation and enjoyment of various cultures. Either this class or LITR 232 will meet the LEAD/general education requirement for educational certification. Fall/spring semesters.
LITR 232 Modern Western Literature (WR) 3
Prerequisite: ENGL 112
A chronological approach to major works of literature influencing Western
culture from major genres. The course covers the seventeenth century through today
including non-U.S. Western Hemisphere. Either this class or LITR 231 will meet the
LEAD/general education requirement for educational certification. Spring semester.

LITR 235 Approaches to Literature: British and American (WR) 3
Prerequisite: ENGL 112
The writing of analytical persuasive papers on the major literary genres: poetry,
short story, novel and drama. Writers demonstrate a working knowledge of the tools
of literary criticism in analyzing several works. Fall semester.

LITR 240 Travel Literature (WR) 3
Prerequisite: ENGL 112
Explores texts that reveal authors in relation to an environment that is foreign.
Activities include close reading of texts, thinking about, discussing, and writing about
those texts with attention to genre, historical period, and employment of various
literary techniques. Summer, alternate years.

LITR 299 Seminar in Non-Western Literature (WR) 3
Prerequisites: ENGL 112
An overview of major non-Western writers, including African, Indian, Chinese,
Japanese, et al. Encouraged for students interested in international service. Fall
semester, alternate years.

LITR 345 Studies in Early American Literature (WR) 3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of the instructor
A consideration and evaluation of significant literary works in the Colonial,
Revolutionary and Romantic Periods (1607-1865). Recommended for students
with some experience in literature. May be repeated for credit with permission of
instructor. Spring semester, alternate years.

LITR 348 Studies in British Literature (WR) 3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of instructor
Configuration varies each time the course is offered, with alternate
concentration on the Enlightenment, Romantic and Victorian Eras. May be repeated
for credit with permission of instructor. Fall semester, alternate years.

LITR 352 Women and Minority Writers (WR) 3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of instructor
A consideration and evaluation of major works by women and minority writers (in
America and England from the eighteenth century to the present) in conjunction with
an overview of feminist and minority critical stances. Fall semester, alternate years.

LITR/RELB 366 Biblical Literature (WR) 3
Prerequisites: ENGL 112
A survey of the Bible’s literary masterpieces from an archetypal perspective.
Literary patterns, techniques and terminology are applied to Bible writers and their
writings. May be used to meet LITR or RELB general education requirements but not both. Fall semester, alternate years.

LITR 436 Studies in American Literature (WR)  3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of instructor
   A consideration and evaluation of the significant literary works of American Realism and selected twentieth century authors, Post-Civil War to early twentieth century. Recommended for students with some experience in literature. Fall semester, alternate years.

LITR 440 Travel Literature (WR)  3
Prerequisite: ENGL 112
   Explores texts that reveal authors in relation to an environment that is foreign. Activities include close reading of texts, thinking about, discussing, and writing about those texts with attention to genre, historical period, and employment of various literary techniques. Readings in critical theory are also assigned. Summer, alternate years.

LITR 445 Early British Literature (WR)  3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of instructor
   Presents major authors and traditions from the Anglo-Saxon period through the seventeenth century. Configuration varies each time course is offered, with alternate concentration on separate periods. May be repeated for credit. Fall semester, alternate years.

LITR 475 Twentieth-Century Writers (WR)  3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of instructor
   Presents an overview of twentieth century American (or British) literature (novel, poetry or drama) and critical stances. May be repeated for credit. Spring semester, alternate years.

LITR 485 Advanced Studies Seminar (WR)  3
Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of instructor
   Configuration varies each time the class is taught: Christian literature, biography or a period not covered in another course. May be repeated for credit with permission of instructor. Spring semester, alternate years.

MATHEMATICS
   Mathematics Placement Policy: ACT or SAT scores are used for placing students into appropriate mathematics courses. Those with scores lower than the published cutoff for the course must receive permission from the instructor before enrolling. Granting of permission is based on performance in secondary mathematics courses and in related college courses. An additional placement examination may also be required.
   Prerequisites are listed for each course and students must present grades of C or higher in prerequisite courses.
   Credit: After MATH 165 or 184 have been passed with a grade of C or higher, credit will not be given for taking MATH 017, 100, 111 or 121.
   Courses numbered below 100 are considered developmental and do not count toward the 128 semester hours required for graduation. Similarly, grades in these courses do not affect a student’s grade point average (GPA).
MATH 017 Elementary Algebra
A course in basic algebra covering the standard topics of first-year algebra in high school. Emphasis is on problem solving using algebra. Students with little or no previous background in algebra require both MATH 017 and 100 prior to taking MATH 111, 121 or 221. Fall semester.

MATH 100 Intermediate Algebra
Prerequisites: One year of high school algebra and an ACT math score of 16 (SAT of 380) or completion of MATH 017 with a minimum grade of C
A second course in basic algebra covering polynomial and rational expressions, factoring, exponents, graphing linear and quadratic functions, and solving related equations. A continuation of MATH 017. Does not meet general education requirements. Fall/spring semesters.

MATH 111 College Algebra
Prerequisites: Two years of high school algebra and an ACT math score of 20 (SAT of 480) or MATH 100
Study of the properties of the real and complex number systems, linear and quadratic equations, factoring, exponents, inequalities, and polynomials. Emphasizes functions (algebraic, exponential, and logarithmic). A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Does not apply toward a mathematics major or minor. Fall/spring semesters.

MATH 121 Precalculus
Prerequisites: Two years of high school algebra and a year of high school geometry and an ACT math score of 20 (SAT of 480) or MATH 100
Provides instruction and experience that enable the student to: apply algebra/trigonometry to model, analyze, and predict physical phenomena; and analyze scientific and business problems verbally, graphically, numerically, and symbolically. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Fall semester.

MATH 165 Calculus for Managers
Prerequisites: Two years of high school algebra and a year of high school geometry and an ACT math score of 21 (SAT of 500) or MATH 111
Provides instruction and experience that enables students to apply calculus to solve problems in business, economics, management, and the social sciences. A TI-84 (highly recommended) or other graphics calculator with comparable features is required for this course. Does not apply toward a mathematics, chemistry or physics major or minor. Spring semester.

MATH 184 Calculus I
Prerequisite: MATH 121
Provides instruction and experience that enable the student to apply calculus, related mathematics, and a graphical calculator to structure an understanding of the world around us and to investigate related questions. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Spring semester.
MATH 221 Elementary Statistics and Probability 3
Prerequisites: Two years of high school algebra and an ACT math score of 20 (SAT of 480) or MATH 100
Explores basic frequency distributions, probability, sampling, estimations, testing hypotheses, correlation, regression, chi-square and analysis of variance. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Does not apply toward a mathematics major or minor. Fall/spring semesters.

MATH 285 Calculus II 4
Prerequisites: MATH 184
Continuation of MATH 184 with emphasis on methods of integration in rectangular and polar coordinate systems, indeterminate forms, and infinite sequences and series. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Fall semester.

MATH 286 Calculus III 4
Prerequisite: MATH 285
Continuation of the Calculus sequence. Includes function of several variables, partial derivatives, multiple integrals, vector differential operators, line integrals and Green's theorem. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Spring semester.

MATH 320 Mathematical Concepts for Elementary School Teachers 3
Prerequisite: MATH 111; corequisite: EDUC 345
Builds upon previous mathematics courses as well as classroom observation. Standards for mathematics published by the National Council of Teachers of Mathematics (NCTM) form the basis for the selection of topics: number, operations, and elementary algebra. This course is directed toward thorough comprehension of elementary mathematics and interconnections among mathematical ideas and grade levels. Cooperative learning teams prepare, present, and critically reflect on lessons to guarantee their students will gain in-depth understanding of mathematics. Fall semester.

MATH 331 Statistics and Probability 3
Corequisite: MATH 286
A calculus based introduction to basic concepts in statistics (such as the Central Limit Theorem and hypothesis testing) and classical probability theory. Includes Bayes' rule, bivariate distributions, and moment generating functions. Application of several discrete distributions (such as Poisson, binomial and hypergeometric) and continuous distributions (such as exponential and normal). A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Spring semester, alternate years.

MATH 340 Discrete Mathematics 3
Prerequisite: MATH 184
Concerned with finite processes, sequences of individual steps, and sets that can be listed (e.g. whole numbers). This contrasts with calculus, which has to do with infinite processes, continuous change, and intervals of real numbers. A TI-84 (highly
recommended) or other graphing calculator with comparable features is required for this course. Fall semester.

MATH 351 Abstract Algebra 3
Prerequisite: MATH 286
Introduction to the basic concepts of abstract algebra presenting the elements of the theory of number systems, groups, fields, etc. Spring semester, alternate years.

MATH 352 Linear Algebra 3
Prerequisite: MATH 184
Provides instruction and experience that enable students to: solve systems of linear equations; apply the properties of vectors spaces, inner product spaces, and linear transformations to real-world problems; and answer various questions in engineering, computer science, and statistics. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Spring semester.

MATH 385 Differential Equations 3
Prerequisite: MATH 286
Ordinary differential equations with emphasis on the solutions and analysis of systems of first- and higher-order differential equations drawn from fields of physics, chemistry, geometry and engineering. Fall semester, alternate years.

MATH 401 Math Connections I for K–12 Teachers 2
Prerequisite: Currently teaching mathematics at the elementary or secondary level
Provides instruction and experience in number operations and elementary algebra. It is directed toward thorough comprehension of elementary mathematics and of interconnections among mathematical ideas and grade levels. Cooperative learning teams (a mix of elementary and secondary teachers) prepare, present and critically reflect on lessons to guarantee their students gain in-depth understanding of mathematics. May be repeated for additional credit. Summer.

MATH 402 Math Connections II for K–12 Teachers 2
Prerequisite: Currently teaching mathematics at the elementary or secondary level
Provides instruction and experience in elementary geometry, measurement, and data analysis. It is directed toward thorough comprehension of elementary mathematics and of interconnections among mathematical ideas and grade levels. Cooperative learning teams (a mix of elementary and secondary teachers) prepare, present and critically reflect on lessons to guarantee their students gain in-depth understanding of mathematics. May be repeated for additional credit. Summer.

MATH 409 Modern College Geometry 3
Prerequisite: MATH 285 or experience teaching secondary geometry
Studies advanced Euclidean geometry and introduces modern geometrical concepts in non-Euclidean geometry. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Spring semester, alternate years.
MATH 451 Mathematical Connections for Secondary Teachers  3
Prerequisites: EDUC 475 or 29 of the 38 MATH hours required for the BS in Mathematics Education or permission of instructor

Provides a capstone experience for prospective mathematics teachers enabling them to build insightful connections between the advanced mathematics of their college courses and the high school mathematics they will be teaching. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Spring semester.

MATH 486 Numerical Analysis  3
Prerequisites: MATH 285 and CPTR 226

Numerical techniques to model physical phenomena. Topics cover error analysis, matrices, numerical solutions of linear and nonlinear equations, polynomial approximations, numerical differentiation and integration and interval algebra. Fall semester, alternate years.

MATH 491 Real Analysis  3
Prerequisite: MATH 286

Studies properties of real numbers and sets of real numbers, limits of sequences and functions, series, modes of convergence and their consequences (such as continuity). Introduction to elementary topological notion of the real line. Theory of the Riemann Integral. Fall semester, alternate years.

MATH 492 Complex Variables  3
Prerequisite: MATH 286

Introduces theory of functions of a complex variable as well as applications. Includes uses of the residue theory, contour integration, and conformal mapping. Fall semester, alternate years.

MARKETING
MRKT 327 Marketing (WR)  3

A general survey of major marketing methods, institutions and practices, and their effects on producers and consumers. Students integrate marketing concepts through case study analysis and a business simulation. Fall semester.

MRKT 333 Professional Selling  3

Examination and practice of the sales process from prospecting to successful closing of the sale and effective follow up. Also considers ethical issues. Spring semester, alternate years.

MRKT 443 Consumer Behavior  3
Prerequisite: MRKT 327 with a minimum grade of C or PSYC 105 with a minimum grade of C

Studies people's actions as they relate to obtaining, consuming, and disposing of products and services. Includes consumer decision processes and their relevance for marketing decision-making. Spring semester, alternate years.

MRKT 456 Marketing Research  3
Prerequisites: COPR 241 or MRKT 327

Focuses on planning investigations, gathering and interpreting data, and presenting findings in a professional manner. Fall semester, alternate years.
MRKT 475 Internship in Marketing 1–3
Prerequisite: Junior or senior standing or permission of the division chair
Real-life experiences in a wide variety of settings providing creative and
conventional hands-on learning opportunities.

MUSIC APPLICATIONS

MUAP 207 Brass Techniques and Materials 1
Designed to give future teachers experience with the various techniques of,
and the materials for, teaching brass instruments to beginning and intermediate
students. Class members also gain a basic proficiency in playing a variety of brass
instruments. Fall semester, alternate years as needed.

MUAP 217 Guitar Techniques and Materials 1
Designed to give future teachers experience with the techniques of, and the
materials for, teaching guitar to beginning and intermediate students. The members
of this class also gain a basic proficiency in playing the guitar. Spring semester,
alternate years as needed.

MUAP 227 Percussion Techniques and Materials 1
Designed to give future teachers experience with the various techniques of, and the
materials for, teaching percussion instruments to beginning and intermediate
students. The members of this class also gain a basic proficiency in playing a
variety of percussion instruments. Spring semester, alternate years as needed.

MUAP 237 String Techniques and Materials 1
Designed to give future teachers experience with the various techniques of, and the
materials for, teaching stringed instruments to beginning and intermediate
students. The members of this class also gain a basic proficiency in playing a
variety of stringed instruments. Spring semester, alternate years as needed.

MUAP 247 Vocal Techniques and Materials 1
Develops a foundation of vocal principles which can be applied to teaching the
young (ages 15 to 22) singing voice. Includes fundamental anatomy and physiology
of the singing voice, acoustics, resonance, and articulation concepts necessary for
efficient and healthy vocal production. Choral singing, solo singing, the adolescent
voice, the aging voice, the speaking voice, and vocal hygiene are discussed.
Students are also exposed to basic resources for vocal literature and methodology.
Fall semester, alternate years as needed.

MUAP 257 Woodwind Techniques and Materials 1
Designed to give future teachers experience with the various techniques of, and
the materials for teaching woodwind instruments to beginning and intermediate
students. The members of this class also gain a basic proficiency in playing a
variety of woodwind instruments. Fall semester, alternate years as needed.
MUSIC EDUCATION
MUED 275 Music Practicum  1–4
Prerequisite: Permission of supervising instructor
Teach private music lessons under the supervision of your instructor. Participate in other hands-on activities of a music teacher. Each hour of credit represents 50 clock hours of contact time. *May be repeated for additional credit.*

MUED 307 Keyboard Pedagogy  2
Prerequisite: Permission of instructor
A survey of methods and materials for effective piano teaching starting with the child beginner and proceeding through the high school student. Particular emphasis given to age appropriate techniques, literature, and musicianship development. Includes observations and practical experience with professional piano teachers from the community. *Offered as needed.*

MUED 317 Instrumental Pedagogy  2
Prerequisite: Permission of instructor
Designed to give future teachers experience with a variety of more advanced techniques for teaching instrumentalists of all skill levels, through normal classroom study as well as supervised practicum. *Alternate years as needed.*

MUED 327 Vocal Pedagogy  2
Prerequisite: Permission of instructor
Develops a comprehensive understanding of the singing voice. Students learn the introductory skills necessary to teach efficient and healthy singing in both the choral and solo setting. Principles of respiration, phonation, resonation, and articulation are presented and applied in a supervised teaching practicum. A written project is required as well as the teaching practicum. *Fall semester, alternate years as needed.*

MUED 347 Music in the Elementary School  2
Prerequisite: EDUC 218 or permission of instructor
Prepares future elementary teachers for teaching music at the K-8 level by teaching how to set goals and objectives for the music program and how to organize and institute a music program. Studies the various methods and techniques available to the elementary music teacher and considers the interrelationship between music and the entire curriculum. *Fall semester.*

MUSIC HISTORY AND LITERATURE
MUHL 260 Music in the Western World  3
Focuses on the development of music in Western civilization. Students become acquainted with important styles and genres of art music, as well as influential composers and specific pieces from Medieval to contemporary times. *Fall semester.*

MUHL 261 Traditional and World Music  3
Designed to increase cultural awareness through an overview of traditional music styles and performance practices from around the world. The cultural and historical context for each musical tradition is examined. *Spring semester.*
MUHL 315 Music and Christian Worship 2
A survey of congregational song and its use in Christian worship. Emphasis is placed on relationships between church history, theology, scripture, music and literature, criteria for planning and evaluation. Offered as needed.

MUHL 351 Music History I (WR) 2
Prerequisite: Permission of instructor
Western music from early Christian times through the medieval period and the early Renaissance. Fall semester, alternate years.

MUHL 352 Music History II (WR) 2
Prerequisite: Permission of instructor
Western music from late Renaissance through the Baroque period. Spring semester, alternate years.

MUHL 353 Music History III (WR) 2
Prerequisite: Permission of instructor
A study of the Classical and early Romantic periods. Fall semester, alternate years.

MUHL 354 Music History IV (WR) 2
Prerequisite: Permission of instructor
Music from late Romantic period to the present, including an overview of jazz. Spring semester, alternate years.

MUSIC PERFORMANCE
Music Performance Studies
Private lessons with studio classes as required. May be repeated for additional credit. Thirteen 30-minute lessons per semester and daily practice amounting to at least four periods per week shall yield one hour of academic credit. Credit will not be given until these requirements are met. All new students in music performance register at the 100 level. Upon successfully passing a jury examination, music majors, minors and other advanced students may be transferred to the 200 level. Upper-division students who have studied at the 200 level for four semesters may, upon a successful jury examination, move to the 400 level. The 300 level is reserved for upper-division students who are not majors.

MUPF 101, 201, 301, 401 Voice 1–3
MUPF 105, 205, 305, 405 Flute 1–3
MUPF 106, 206, 306, 406 Oboe 1–3
MUPF 107, 207, 307, 407 Clarinet 1–3
MUPF 108, 208, 308, 408 Bassoon 1–3
MUPF 109, 209, 309, 409 Saxophone 1–3
MUPF 111, 211, 311, 411 Piano 1–3
MUPF 112, 212, 312, 412 Organ 1–3
MUPF 113, 213, 313, 413 Harpsichord 1–3
MUPF 114, 214, 314, 414 Harp 1–3
MUPF 115, 215, 315, 415 Trumpet 1–3
MUPF 116, 216, 316, 416 Horn 1–3
MUPF 117, 217, 317, 417 Euphonium (Baritone Horn) 1–3
MUPF 118, 218, 318, 418 Trombone   1–3
MUPF 119, 219, 319, 419 Tuba   1–3
MUPF 121, 221, 321, 421 Percussion   1–3
MUPF 125, 225, 325, 425 Violin   1–3
MUPF 126, 226, 326, 426 Viola   1–3
MUPF 127, 227, 327, 427 Cello   1–3
MUPF 128, 228, 328, 428 String Bass   1–3
MUPF 129, 229, 329, 429 Guitar   1–3
MUPF 130, 230, 330, 430 Composition   1–3

MUPF 175/375 Symphonic Concert Band*  1
Prerequisite: Permission of instructor

MUPF 176/376 Chamber Orchestra*  1
Prerequisite: Permission of instructor

MUPF 177/377 Chamber Choir*  1
Prerequisite: Permission of instructor.  

MUPF 185/385 Advanced Choir (Unionaires)*  1
Prerequisite: Permission of instructor

MUPF 191/391 Brass Ensemble (Brass Union)*  1
Prerequisite: Permission of instructor

MUPF 192/392 Guitar Ensemble*  1
Prerequisite: Permission of instructor

MUPF 193/393 Handbell Ensemble*  1
Prerequisite: Permission of instructor

MUPF 194/394 Keyboard Ensemble*  1
Prerequisite: Permission of instructor

MUPF 195/395 String Ensemble (Golden Cords)*  1
Prerequisite: Permission of instructor

MUPF 196 Vocal Ensemble*  1
Prerequisite: Permission of instructor

MUPF 197 Woodwind Ensemble*  1
Prerequisite: Permission of instructor

MUPF 257 Introduction to Conducting  2
Prerequisite: Permission of instructor

MUPF 266 English-Italian Diction  1
Prerequisite: Permission of instructor

Fall semester, alternate years.
MUPF 267 German-French Diction 1
Prerequisite: Permission of instructor
Spring semester, alternate years.

MUPF 341 Choral Conducting 1
Prerequisite: MUPF 257; permission
Spring semester, alternate years as needed.

MUPF 342 Instrumental Conducting 1
Prerequisite: MUPF 257; permission
Alternate years as needed.

MUPF 346 Service Playing 1
Prerequisite: Permission of instructor
The role of the organist in the church service; practical procedures. As needed.

MUPF 351 Junior Recital 1
Prerequisite: Permission of instructor

MUPF 451 Senior Recital 1
Prerequisite: MUTH 254 and permission of instructor

*MAY BE REPEATED FOR ADDITIONAL CREDIT. FALL/SPRING SEMESTERS.

MUSIC THEORY

MUTH 151 Theory I 3
Prerequisite: Permission of instructor
Emphasis of fundamentals, nonharmonic tones, figured bass and melody harmonization techniques in 4-part style, and melody writing. Fall semester.

MUTH 152 Theory II 3
Prerequisite: MUTH 151 with a minimum grade of C
Continuation of MUTH 151 with emphasis on part-writing, analysis, keyboard harmonization and music composition. Specific topics covered are seventh chords, secondary dominants and modulation techniques. Spring semester.

MUTH 161 Sight-Singing and Ear Training I 1
Corequisite: MUTH 151
This is the lab course to accompany Theory I. Fall semester.

MUTH 162 Sight-Singing and Ear Training II 1
Prerequisite: MUTH 161; Corequisite: MUTH 152
Lab course to accompany Theory II. Spring semester.

MUTH 253 Theory III 3
Prerequisites: MUTH 152, 162 with a minimum grade of C
Continuation of MUTH 152 with emphasis on 19th-century chromaticism. Score reading, analysis and original composition. Fall semester.
MUTH 254 Theory IV  
Prerequisite: MUTH 253 with a minimum grade of C  
Continuation of MUTH 253 with emphasis on 20th-century techniques and materials. Score reading, analysis and original composition. Spring semester.

MUTH 263 Form and Analysis  
Corequisite: MUTH 253  
Advanced tonal and structural analysis. Alternate years as needed.

MUTH 462 Introduction to Counterpoint  
Prerequisite: MUTH 254 or permission; MUHL 352 recommended  
Introduction to contrapuntal procedures from the 18th century. Spring semester, alternate years as needed.

MUTH 465 Orchestration  
Prerequisite: MUTH 254  
Fall semester, alternate years as needed.

NURSING
NRSG 363 Medical-Surgical II  
Prerequisites: NRSG 263, 335, 359, PSYC 215, SOCI 105  
Building upon prior knowledge from relevant arts and sciences, students use the nursing process to provide direct and indirect care for acutely-ill individuals with varied stressors and acuity in medical, surgical, and progressive environments. While seeking new knowledge and opportunities to think critically and resolve nursing problems, students demonstrate the use of technical, assessment, and communication skills as a member of the health care team. Forty-five class hours and ninety clinical hours per semester.

NRSG 383 Junior Seminar  
Prerequisites: NRSG 363 or permission of instructor  
Examines the historical as well as the future trends of the nursing profession. Nursing education, image and professional behavior, nursing theorists, and the political process are discussed. Fifteen class hours per semester.

NRSG 385 Maternal Newborn Health  
Prerequisites: NRSG 335, 359, 363  
Emphasizes the promotion of high-level wellness during the childbearing cycle. Students utilize the nursing process to meet the physical, mental, social-cultural, and spiritual needs of patients, taking into consideration the total family unit. Clinical experiences include care of childbearing families in hospital and community settings. Forty-five class hours and ninety clinical hours per semester.

NRSG 387 Nursing Research (WR)  
Prerequisites: MATH 221, NRSG 363  
Focuses on basic research concepts and methodology involved in conducting studies in nursing. Students learn to critique research studies in order to apply findings to clinical nursing practice. The overall focus is a thorough understanding of the scientific method from a Christian perspective. Forty-five class hours per semester.
NRSG 391 Frontier Nursing
Prerequisite: NRSG 363
Corequisite: NRSG 385 or permission of instructor
An elective course that introduces the nursing student to principles and practices of health care on the frontiers of developing and third world countries, and opportunities for professional practice in these areas throughout the world. Concepts of basic health education, use of natural remedies, and prevention of diseases throughout the life cycle are emphasized. Thirty class hours. Spring semester.

NRSG 392 Frontier Nursing—Field Experience
Prerequisite: NRSG 385, 391, or permission of instructor
An elective two-week field experience that allows students to apply the principles that were learned in NRSG 391 Frontier Nursing. Students have the opportunity, as part of a multidisciplinary healthcare team, to perform village health assessments, provide basic public health education, and assist in providing healthcare to patients in a developing country. The field trip utilizes the Tasba Raya Adventist Clinic in Francia Sirpi, North Atlantic Autonomous Region, Nicaragua. This clinic provides health care to Miskito Indians who reside in this region. Summer.

NRSG 423 Pediatrics
Prerequisites: NRSG 363, 383, 385, 387, PSYC 215
Provides an opportunity to develop awareness of the needs of children and their families at various stages of development. The nursing process is utilized in providing nursing care. Students learn nursing interventions that promote wellness and prevent illness, as well as caring for the ill child and family. The concept of wholeness is considered as it relates to the child and family. Clinical experience is obtained in hospital and community settings. Forty-five class hours and ninety clinical hours per semester.

NRSG 435 Mental Health
Prerequisites: NRSG 363, 385, 387, PSYC 105, 215, SOCI 105
Studies thought, emotion and behavior through the application of mental health principles and current developments in the field of mental health. Students apply the nursing process in the psychiatric setting. Clinical experiences provide the student opportunities to develop therapeutic nurse-patient relationships while working with patients experiencing psychosocial stressors. Focus is on the promotion and maintenance of mental health, so that wholeness is facilitated and movement toward optimal health is achieved. Forty-five class hours and ninety clinical hours per semester.

NRSG 439 Complex Care
Prerequisites: NRSG 435, NRSG 423
Builds upon the previous nursing courses to develop a systematic approach to caring for diverse adult patients with multiple stressors affecting many systems. Students apply the nursing process to facilitate removal or modification of stressors for persons of varying ages, who are primarily in acute care and partially in the community settings. Students address the critically ill adult with complex health problems as well as the legal, ethical and psychosocial aspects of nursing. Forty-five class hours and ninety clinical hours per semester.
NRSG 447 Community Health (WR)  5
Prerequisites: NRSG 385, 387, 423, 435, 437
Corequisite: NRSG 439
Focuses on nursing knowledge and skill needed to provide health care for the community. Students are able to provide care to a variety of diverse individuals, families and groups in the community who are at various positions on the age and health continuum. The focus of care is promotion of health with consideration for all dimensions of wholeness. Students apply the nursing process in the clinical setting and develop awareness and experience with the community. Forty-five class hours and ninety clinical hours per semester.

NRSG 483 Senior Seminar  1
Prerequisites: NRSG 383, 385, 387, 423, 435, 437; corequisite: NRSG 439
Focuses on issues which will confront new graduates in the workplace. Discusses licensure, résumés and interviewing, ethical decision making, collective bargaining and legal concerns. Explores career options and further professional development of nurses. Synthesis of nursing knowledge from past and current learning demonstrated through an NCLEX-RN readiness assessment is included. Fifteen class hours per semester.

NRSG 499 Preceptorship  3
Prerequisite: Completion of all NRSG required courses
Preceptorship is the final capstone course in the nursing program. This class provides students the opportunity to demonstrate competencies consistent with program outcomes. It is a clinical immersion experience allowing students to build clinical reasoning, management and evaluation skills. This class will foster increased confidence, begin to develop a professional image and introduce the student to the sense of belonging in the nursing profession.

NURS 204 Introduction to Professional Nursing  3
Prerequisites: Admission to the nursing program, BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215
Focuses on the role of the professional nurse in the current system of healthcare delivery. Sociological theories are included. Basic concepts of communication, safety, quality patient-centered care, and clinical judgment are introduced.

NURS 208 Fundamentals  6
Prerequisites: PSYC 215, NURS 305, 310, 311, 312, 322, 383
Corequisite: NURS 305
Introduces basic psychomotor skills and other concepts of physiologic and psychosocial integrity. Nutritional concepts and basic medical terminology are included. Students provide safe care to one adult patient per clinical experience in a variety of healthcare settings. Withdrawal from NURS 305 requires withdrawal from NURS 208.

NURS 243 Evidence-Based Practice (WR)  3
Prerequisites: Admission to the nursing program, BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215
Corequisite: NURS 204, NURS 208, NURS 305
Focuses on the process of evidence-based research and its relationship to the profession of nursing. Students learn the components of the research process and
the basic concepts and terms associated with research. Emphasis is placed on evaluation of published research studies for use in evidence based nursing practice.

NURS 305 Physical Assessment 3
Prerequisites: Admission to the nursing program, BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215
Corequisite: NURS 208
Introduces skills, concepts, and medical terminology necessary to obtain a health history, perform a physical examination, and accurately document findings. Emphasis is placed on how to differentiate between normal and abnormal findings for patients of varying ages and cultural backgrounds. Withdrawal from NURS 305 requires withdrawal from NURS 208.

NURS 310 Pharmacology 3
Corequisite: NURS 311
Focuses on the nursing application of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics of medications related to health promotion and treatment of disease processes.

NURS 311 Pathophysiology I 2
Prerequisites: NURS 208, 305, or permission of instructor
Corequisite: NURS 310, 321
Examines normal physiology and pathophysiologic responses that accompany commonly occurring acute and chronic illnesses. Discussion includes physiologic responses that begin at the cellular level and progress to individual and related organ systems. Pathophysiologic alterations to disease management and prevention to promote quality patient-centered care are included. Withdrawal from NURS 311 requires withdrawal from NURS 321

NURS 312 Pathophysiology II 2
Prerequisite: NURS 311, or permission of instructor
Corequisite: NURS 311, 322
Builds upon concepts from NURS 311. Examines normal physiology and pathophysiologic responses that accompany more complex acute and chronic illnesses. Discussion includes physiologic responses that begin at the cellular level and progress to individual and related organ systems. Pathophysiologic alterations to disease management and prevention to promote quality patient-centered care are included. Withdrawal from NURS 312 requires withdrawal from NURS 322.

NURS 321 Medical-Surgical I 6
Prerequisites: NURS 208, 305
Corequisite: NURS 310, 311
Introduces the application of concepts necessary to provide safe, patient-centered care to adults with commonly-occurring acute and/or chronic illnesses. Students provide safe care for one or more patients per clinical experience in an acute care environment.
NURS 322 Medical-Surgical II  6
Prerequisites: NURS 208, 305, 321
Corequisite: NURS 312
    Expands on the application of advanced concepts necessary to provide safe, patient-centered care to adults with acute and/or chronic illnesses of more complex body systems. Students manage safe care for two or more patients per clinical experience in an acute care environment.

NURS 334 Gerontology  2
Corequisite: NURS 310, 311, 321
    Focuses on foundational concepts and issues important for the care of older adults. Nutritional concepts, psychological and sociological theories related to elderly are included. Nursing care implications related to the physiologic and psychosocial changes of aging are explored.

NURS 347 Nursing Program Integration  2
Prerequisite: Admission to the nursing program as an LPN, RN, or transfer student
    Enhances learning, facilitates Division of Nursing integration, and explores/addresses gaps in content knowledge for Second-step and transfer students. Hybrid course.

NURS 383 Mental Health  3
Prerequisites: PSYC 215, NURS 208, 305, 310, 311, 312, 321, 334
    Builds upon sociological and psychological concepts and involves the study of thoughts, emotions, and behavior. Students provide safe, quality mental health care to patients experiencing disorders that affect thinking, cognition, behavior, and communication in the psychiatric-mental health settings.

NURS 391 Frontier Nursing  2
Prerequisites: NURS 322
Corequisite: NURS 415 or permission of instructor
    Introduces the nursing student to principles and practices of healthcare on the frontiers of developing countries. Students may have the opportunity as part of a multidisciplinary healthcare team to provide patient-centered care with cultural humility in a global community. Limited enrollment and an additional fee for field experience. Elective course. Spring semester.

NURS 415 Maternal Child Health  6
Prerequisites: PSYC 215, NURS 305, 310, 311, 312, 322, 383
    Focuses on family-centered care from the development of a family through adolescence. Nutritional, psychological, and sociological concepts related to this stage of life are included. Students care for one or more patients and their families per clinical experience in acute and ambulatory settings to promote wellness and restore health.

NURS 423 Medical-Surgical III  5
Prerequisites: NURS 305, 310, 311, 312, 322, 383
    Focuses on the application of critical care concepts necessary to provide safe, patient-centered care to critically-ill adults with multisystem or complex healthcare needs. Students provide safe care for one to two patients per clinical experience in an acute care environment.
NURS 433 Disaster Nursing  
Prerequisites: NURS 243, 305, 311, 312  
Focuses on emergency preparedness and disaster response management concepts with an emphasis on essential safety, communication, collaboration, and leadership skills. Clinical judgment and decision-making skills are evaluated for appropriate, safe nursing care during a mock disaster and mass casualty event. Sociological theories related to disaster management are included.

NURS 453 Management & Leadership  
Prerequisites: NURS 415, 423  
Focuses on the nurse as a leader and manager of care in professional practice. an awareness of complex healthcare systems and the impact of power, politics, policy, and regulatory guidelines in a changing environment will be developed.

NURS 474 Community Health (WR)  
Prerequisites: NURS 383, 415, 433  
Focuses on family and community health promotion including disease and injury prevention. Indicators of global and population health are studied in vulnerable groups across the lifespan with application of clinical prevention strategies and inter-professional collaboration. Clinical experiences are in the community setting. Nutritional and sociological concepts related to the community are included.

NURS 495 Transition to Professional Practice  
Prerequisites: Completion or concurrent registration of all required NURS courses except NURS 499  
Focuses on workplace and new graduate issues including interviewing, résumés, licensure, and professional practice standards. Synthesis of knowledge and skill is demonstrated by successful completion of an NCLEX-RN® readiness assessment.

NURS 499 Preceptorship  
Prerequisites: Completion or concurrent registration of all required NURS courses  
The capstone experience for students to demonstrate competencies consistent with Union College Division of Nursing New Graduate Outcomes. The clinical immersion experience refines clinical reasoning, fosters self-confidence, and promotes a sense of belonging in the nursing profession. Students manage care for multiple patients under the guidance of a qualified preceptor.

PHYSICIAN ASSISTANT STUDIES  
Prerequisite for all PHAS courses: Admission to the Physician Assistant Program

PHAS 505 Medical Literature Review (WR)  
Focuses on common research concepts and methodology involved in health care research. Students learn to critique research literature for application of findings to clinical practice. Experience is gained in identifying researchable health care problems utilizing principles of evidence based medicine. Summer.

PHAS 510 Clinical Nutrition  
After a review of basic human nutrition science, students study nutrition during the life cycle, medical nutrition therapy for a variety of disease states,
weight management, eating disorders and sports nutrition. Students examine personal eating behaviors and their nutritional adequacy compared to current recommendations. Spring semester.

**PHAS 511 Human Anatomy**

Recommended: Undergraduate anatomy

A graduate-level study of human anatomy and related clinical applications. Relationship of structures at the different regions of the body are studied in depth, including discussions of consequences of malfunction. Instruction using donor bodies is required. Fall semester.

**PHAS 514 Medical History and Physical Examination Skills**

Introduces communication skills related to obtaining a comprehensive medical history. Also covers the techniques required in performing a thorough and technically correct physical examination. Forms and descriptive language used to compile reports are utilized. Though the course emphasizes normal and typical findings on examination, selected normal variants and abnormal findings are reviewed. In addition to the adult physical examination, specific aspects of a comprehensive neurological, neonatal/pediatric, geriatric and obstetric examination are included. Fall semester.

**PHAS 515 Clinical Diagnostic Procedures**

Presents indications for the use and interpretation of fundamental diagnostic tests including blood cell counts, serum chemistries, urinalysis, HIV tests, radiology overview of common diagnostic imaging modalities—their indications, limitations, benefits and potential risks, culture and sensitivity tests, Pap smears and other common pathologic reports. Indications for more specialized procedures such as MRI, CT, ultrasound, and endoscopy are reviewed. Fall semester.

**PHAS 518 Psychiatry and Behavioral Medicine**

Involves learning to identify, diagnose, treat, and counsel all ages of patients facing common psychologic and psychiatric presentations (e.g., schizophrenias, mood disorders including depression and bipolar disorders, anxiety disorders including obsessive-compulsive and post traumatic stress disorders, somatiform, factitious, delirium and dementias, and mental retardation). Therapies discussed include cognitive behavioral therapy, interpersonal therapy, mindfulness and motivational interviewing. Topics are discussed and role-played, integrating appropriate diagnostic and therapeutic interventions. Management of the dying patient, skills needed to communicate under difficult or sensitive patient scenarios (e.g., domestic violence, obstinate/manipulative patients, physically challenged patients, multicultural sensitivity issues, polypharmacy, sexual education and dysfunction, and unwanted pregnancy concerns) are addressed. Summer.

**PHAS 519 Differential Diagnosis and Case Development**

Emphasizes problem-based learning with applied exam skills required to properly diagnose various diseases. Clinical cases are presented and students integrate the given information with physical exam clues leading to appropriate and prioritized differential diagnoses. Application of diagnostic testing modalities is highlighted and treatment regimes discussed. Summer.
PHAS 525 Physician Assistant Professional Issues  
Explores the history and practice issues of the physician assistant profession including the present day scope and roles of PA practice. Legal and ethical issues confronting the profession, enabling legislation at the state and federal levels, medical economics, and quality of care issues are discussed. Includes student-led discussions and debates to hone communication skills. Seminars on personal study skills and community health education are included. Fall semester.

PHAS 531 Clinical Medicine I  
With PHAS 532 provides a comprehensive review of the different organ systems of the body, their normal function, and the diseases that affect them. Emphasizes the diagnosis, differential diagnosis, and management of various disease states. Clinical concerns specific to pediatrics, women’s health and geriatrics are included. Fall semester.

PHAS 532 Clinical Medicine II  
Continuation of PHAS 531. Spring semester.

PHAS 533 Preventive Health  
Various strategies of preventive medicine are described including smoking prevention and cessation, drug use/abuse, principles for optimal health, treatment of sleep disorders, genetic screening, management of cardiac risk factors, stress management, and cancer screening and prevention. Public health programs are examined with emphasis on the role of the PA in tailoring successful preventive health goals for patients of all ages. Principles of motivational interviewing are practiced to support helping others make positive changes in their lives. 5 individual OSCES (Outpatient Simulated Clinical Examinations) are performed. Spring semester.

PHAS 539 Christian Health Care and Bioethics (WR)  
Examines the Christian ministry of the healing professions and bioethics and includes study of the healing ministry of Jesus Christ, a presentation of themes of the biblical theology of health, and an interactive study of topics in bioethics and health care practice. Fall semester.

PHAS 546 Clinical Skills I  
Provides specific skill instruction in universal/standard precautions, sterile technique, gowning/gloving, injections, IV techniques and infusions, wound assessment, suturing, specialized wound care, airway management, nasogastric tube placement, splinting, casting, joint procedures, catheterizations, biopsies, foreign body removal and specialty practice procedures. Includes exposure to actual clinical patient care and assessment of clinical competency of specified skills, diagnostic modalities, and therapeutic interventions related to professional responsibilities and practices in patient care. The BDLS certification course is provided. Fall semester.

PHAS 547 Clinical Skills II  
Emphasizes application of clinical skills in the actual clinical arena with students performing physical examinations in real and simulated health care settings under the guidance of physicians and PAs. In the classroom students perform appropriate IV line placement and become experienced with the pediatric, obstetric/gynecologic,
geriatric and genitourinary examination with models and facilitators. The ACLS certification course is provided. Spring semester.

PHAS 553 Cultural Competencies in Medicine
Prepares the students for developing an awareness of the differences in our race, gender, class, sexual preference and physical ability. Students will experience a variety of opportunities to develop skills, knowledge, and attitudes that will demonstrate an understanding of and respect for the values, beliefs, and expectations of their patients. Fall semester.

PHAS 557 Electrocardiography
Specific instruction is presented in understanding electrophysiology of the heart and deviations from the normal electrocardiography. Fall semester.

PHAS 559 Clinical Pathophysiology
Studies the pathophysiology of cellular, immune, nervous, endocrine, cardiovascular, respiratory, renal, reproductive genomic, musculoskeletal, hepatic and gastrointestinal systems with an emphasis on mechanisms which move the body away from homeostasis. Particular focus is given to correlation of theoretical material with clinical case studies. Spring semester.

PHAS 564 Clinical Therapeutics
Explores concepts in disease management using problem-based learning principles, identifying the process of caring for patients using standardized treatment designs based on scientific, economic and human strategies that ensure appropriate utilization and high quality care across the continuum. Topics include routine clinical disease syndromes but emphasize chronic, costly disease states with high co-morbidity as well as acute, catastrophic episodes of care. Spring semester.

PHAS 584 Pharmacology
Introduces a wide variety of pharmacological agents used in the practice of medicine. Categorizes drugs into various classes according to their primary actions with emphasis on prototypical drugs to treat disease and on relevant clinical information. An introduction to prescription writing is also presented. Spring semester.

PHAS 585 Master’s Research Seminar
Builds on the foundation provided in PHAS 505 to involve students in independent research review projects that are presented in both written and oral formats. The topic for review may be chosen by the student, meeting provided guidelines that confirm clinical relevancy and patient-oriented evidence that matters (POEM). Students are assigned an individual faculty advisor for the project and oral presentations are given during quarterly meetings scheduled during the year of clinical rotations. Spring semester.

PHAS 595 Master’s Capstone Project
Prerequisite: PHAS 505, PHAS 585
The culmination of skills learned in Medical Literature Review and Medical Research Seminar are presented in a written paper and an oral presentation of the students’ individual research review project or original research project. Students will work with assigned faculty advisors. The presentations will be presented during the Spring semester of the 2nd didactic year. Spring semester.
PHAS 620–630 Clinical Rotations
Prerequisite: Completion of didactic program of studies in the PA Program
During clinical rotations with an assigned physician preceptor, the PA student will elicit a problem-oriented medical history, perform a pertinent physical examination, obtain and assess the results of indicated diagnostic studies, formulate a management plan and assist in providing the appropriate therapy for common problems encountered in a variety of disciplines. In addition to those listed, four weeks of elective rotations (PHAS 630) are required for graduation. Examples of potential disciplines available are: Dermatology, ENT, Trauma, Radiology, Sports Medicine, or any additional rotation from the required rotations.

PHAS 620 Family Practice I Rotation   4
PHAS 621 Family Practice II Rotation   4
PHAS 622 Internal Medicine Rotation   4
PHAS 623 Surgery Rotation           4
PHAS 624 Obstetrics & Gynecology Rotation 4
PHAS 625 Pediatrics Rotation        4
PHAS 626 Cardiology Rotation         4
PHAS 627 Emergency Medicine Rotation 4
PHAS 628 Orthopedics Rotation        4
PHAS 629 Psychiatry Rotation         4
PHAS 630 Elective Rotation           4

PHILOSOPHY
PHIL 335 Introduction to Philosophy  3
Prerequisite: Junior or senior standing
A systematic study of the history and methods of major philosophers and their systems of thought from the Pre-Socratics to the present. Spring semester.

PHYSICS
Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

PHYS 111 Principles of Physics   4
Prerequisites: A knowledge of high school algebra and fulfillment of MATH general education requirement
Course intended to give the non-science major an insight into the physical world. Emphasis is placed on the scientific method as Newtonian mechanics, thermodynamics, sound, optics, electricity, magnetism, and modern physics topics are explored. Three lectures and one laboratory per week. Credit will not be given for this course if PHYS 151 or 251 have been previously completed with a grade of C or better. Does not apply toward a physics major or minor. Spring semester.

PHYS 151 General Physics   4
Prerequisite: MATH 111 or higher
Introduces linear and rotational mechanics including energy and momentum considerations, thermodynamics, and waves. Includes discussion of the historical development of our understanding along with references to environmental and social impacts of applied technology. Three lectures and one three-hour laboratory per week. Credit not given for both this course and PHYS 251. Fall semester.
PHYS 152 General Physics
Prerequisite: PHYS 151 or 251
A continuation of PHYS 151 covering electricity, magnetism, simple circuits, optics, special relativity and modern physics. Appropriate discussion of the historical development of our understanding is included along with references to environmental and social impacts of applied technology. Three lectures and one three-hour laboratory per week. Credit not given for both this course and PHYS 252. Spring semester.

PHYS 209 Electromagnetic Theory*
Prerequisites: PHYS 252 and MATH 285 and computer programming skills or permission of the instructor
Corequisite: MATH 286 or 385
A development of Maxwell's equations from basic principles with the objective of achieving a macroscopic description of the electric and magnetic properties of matter, including a relativistic description of electromagnetic fields and their interaction with charged particles. Vector calculus is developed and used as needed. Three lectures per week. Fall semester, alternate years.

PHYS 210 Optics*
Prerequisites: PHYS 252 and MATH 285 and computer programming skills or permission of the instructor
Corequisite: MATH 286 or 385
The study of the production, transmission, diffraction, interference, refraction, polarization, and absorption of electromagnetic radiation. Three lectures per week. Spring semester, alternate years.

PHYS/ENGR 228 Electric Circuit Analysis
Prerequisite: MATH 184
Introduces electric circuit variables and parameters, Kirchhoff's law and circuit equations, AC steady-state analysis, frequency characteristics. Three lectures and one three-hour laboratory per week. Fall semester.

PHYS 241 Classical Mechanics*
Prerequisites: PHYS 251 and MATH 285 and computer programming skills or permission of the instructor
Corequisite: MATH 286 or 385
A theoretical treatment of classical mechanics of particles and systems of particles, with emphasis on the conservation laws of energy, momentum and angular momentum. Particular topics in Newtonian, celestial and continuum mechanics are studied. Vector calculus is developed and used as needed. Three lectures per week. Fall semester, alternate years.

PHYS 242 Classical Mechanics*
Prerequisite: PHYS 241
A continuation of PHYS 241, involving the use of LaGrangian and Hamiltonian formalisms. Matrix methods are used in the study of rigid body motion, oscillation theory and the theory of relativity. The mechanics of continuous media is also investigated. Three lectures per week. Spring semester, alternate years.
PHYS 251 College Physics 4.5
Prerequisite: MATH 184
Same as PHYS 151 except that a calculus emphasis is added. Four lectures and one three-hour laboratory per week. Fall semester.

PHYS 252 College Physics 4.5
Prerequisite: PHYS 251
Same as PHYS 152 except that a calculus emphasis is added. Four lectures and one three-hour laboratory per week. Spring semester.

PHYS 261 Thermal Physics* 3
Prerequisites: PHYS 251 and MATH 285 and computer programming skills or permission of the instructor
Corequisite: MATH 286 or 385
A theoretical treatment of macrophysics. The basic principles of information theory, statistical mechanics, thermodynamics and fluid mechanics are developed and applied to topics of current interest. Three lectures per week. Fall semester, alternate years.

PHYS 262 Fluid Dynamics* 3
Prerequisites: PHYS 251 and MATH 285 and computer programming skills or permission of the instructor
Corequisite: MATH 286 or 385
A theoretical treatment of macrophysics, emphasizing examples of large scale mass and energy transport in our physical environment as applications of techniques in geophysical fluid dynamics. Three lectures per week. Spring semester, alternate years.

PHYS 296 Research Methods I 1
Prerequisite: ACT Math Score of 20 (SAT 480) or MATH 100
Introduces the fields of descriptive and inferential statistics. Data sampling techniques, hypothesis testing and some applications of probability theory to business situations are examined. Fall semester.

PHYS 350 Modern Physics (WR) 4
Prerequisites: PHYS 252, MATH 286
An introduction to the revolutionary changes in physics understanding that occurred in the 20th century. Topics include special relativity, elementary quantum physics, solid state physics, nuclear physics and elementary particles. Designed to prepare physics students for advanced physics courses in these fields and others. The laboratory experiments provide a first-hand view of the information that led to the modern understanding of physics. Three lectures and one three-hour laboratory per week. Spring semester.

PHYS 351 Quantum Mechanics 4
Prerequisites: CHEM 152, MATH 286, PHYS 252
Recommended: MATH 352 and 385, PHYS 350
Introductory course in quantum mechanics including wave-particle duality, time-independent Schrödinger equation, harmonic oscillators, matrix treatment,
and the wave treatment of the hydrogen atom. Both the differential equations approach and the matrix approach are explored and utilized along with a historical perspective of the development of our understanding of quantum mechanics. Four lectures per week. Fall semester, alternate years.

**PHYS 386 Research Methods II**
Prerequisites: PHYS 251 and PHYS 296 or MATH 221
An introduction to the methods and mechanics of the research process. Topics include the nature, methods, literature, funding, limitations and strengths of scientific research. A proposal and literature search may be required. Spring semester.

**PHYS 396 Research Methods III**
Prerequisite: PHYS 386
Emphasizes research design. A research project is proposed, a research plan developed for the project, and depending upon the nature of the study, research initiated. Fall semester.

**PHYS/CHEM 412 Physical Chemistry: Thermodynamics**
Prerequisite: PHYS 351
Chemical thermodynamics is developed to describe energy and entropy changes in ideal and real gases and extended to a range of chemical systems. Manipulation of multiple variables is achieved by use of partial differential equations, and skill in identifying the conditions of the problem to derive the appropriate equations for a particular application are developed. Attention is given to the results of applying Gibbs Energy and other thermodynamic constructs to a variety of uses including electrochemistry and phase equilibria. Three lectures and one laboratory per week. Spring semester, alternate years.

**PHYS 496 Research Methods IV (WR)**
Prerequisite: PHYS 396
Emphasizes active research and both oral and written reporting of research. The project proposed in PHYS 396 is carried out and both written and oral presentations of the research are made. Spring semester.

*Available through Nebraska Wesleyan University, Lincoln, NE.*

**POLITICAL SCIENCE**

**PLSC 205 American Government**
Covers the making and functioning of the United States Constitution as well as the national judiciary, state, county and local government. Spring semester.

**PLSC 327 Comparative Governments**
An analysis of political philosophies and of governments in the modern world. Spring semester, alternate years.

**PSYCHOLOGY**

**PSYC 100 Careers in Psychology**
Exposes students to the variety of careers available in the field of psychology and gives instruction about the academic choices to be made in order to be qualified for the various careers. Credit/no credit. Fall semester. Does not apply to LEAD requirements.
PSYC 105 Introduction to Psychology  3  
Explores the science of psychology, its theories, basic concepts, and research methods. Students are introduced to the major subfields in psychology. Fall/spring semesters.

PSYC 215 Developmental Psychology  3  
Studies the physical, emotional, cognitive and psycho-social development through each of the life stages, prenatal through old age. Fall/spring semesters.

PSYC 225 Psychology of Religion  3  
An examination of the psychological processes involved in religious experiences from personal, developmental, social and emotional perspectives. Religious experiences will be considered from the perspective of Christianity as well as other persuasions. Fall semester.

PSYC 300 Career and Graduate School Preparation  .5  
Prerequisite: Junior standing  
Helps students examine their personal career goals and make choices best aligned with those goals. Students are also provided with information needed to prepare for choosing appropriate graduate programs, making graduate applications and preparing for graduate testing. Credit/no credit. Fall semester.

PSYC 311 Introduction to Counseling Theory and Techniques  3  
Prerequisite: PSYC 105  
Provides a comprehensive study of various theories of counseling examined from a Christian perspective. Students participate in skill development activities. Fall semester.

PSYC 315 Social Psychology  3  
Prerequisite: PSYC 105  
A general study of the individual in relationships to other people. Includes such topics as social thinking, social influence and social relations. Spring semester.

PSYC 337 History and Systems of Psychology (WR)  3  
Prerequisite: PSYC 105  
Examines the theories and historical aspects of the major psychological schools of thought. Spring semester.

PSYC 338 Cognitive Psychology  3  
Prerequisite: PSYC 105  
A study of the processes involved in human memory and cognition. Topics include attention and perception, information processing models, development of language and comprehension, and processes of thinking and reasoning. Spring semester.

PSYC 340 Research Methods I  3  
Prerequisite: PSYC 105  
An integrated approach to the study of the basic statistical procedures used in behavioral science research along with basic research methods they support. Principles of research design and ethics related to behavioral research are also covered. Fall semester.
PSYC 341 Research Methods II (WR) 3
Prerequisite: PSYC 340
A continuation of PSYC 341, covering experimental and descriptive research methods. A research proposal is required for completion of this class. Spring semester.

PSYC 375 Theories of Personality 3
Prerequisite: PSYC 105
Involves examination of the factors that influence personality development and introduces students to major psychological theories of personality. Fall semester, alternate years.

PSYC 380 Biopsychology 3
Prerequisite: PSYC 105 or 215
An introduction to the biological basis of behavior. Students will be presented with information on the basic functioning of the nervous system and the physiological basis of behaviors including such topics as sleep, sex, aggression, learning and memory, and psychopathology. Spring semester, alternate years.

PSYC 415 Abnormal Psychology 3
Prerequisite: PSYC 105
Investigates the causes, symptoms and treatment of psychological disorders. Spring semester.

PSYC 425 Human Sexuality 3
Prerequisites: PSYC 105, junior standing
Multiple aspects of sexual behavior are examined from the perspectives of varying methods of investigation and within a Christian framework. Fall semester, alternate years.

PSYC 427 Clinical Assessment 3
Prerequisites: PSYC 105, 215
Trains the student to think clinically about persons they interact with in their professional role. Students are introduced to a wide range of objective instruments as means of assessment as well as the role of the professional’s subjective experience in the process of assessment. Spring semester, alternate years.

PSYC 450 Psychological Testing 3
Prerequisites: PSYC 105, 340, 341
Introduction to psychometric methods and the practice involved in individual and group testing of ability, personality, interest and achievement. Spring semester.

PSYC 455 Internship 1–3
Provides students with opportunities to observe practice in real life settings and to participate in human service professional activities and research. Students complete 45 clock hours of internship for one hour credit. Fall/spring semesters.

PSYC 475 Current Issues in Psychology 2
Prerequisite: PSYC 105
Investigates the research and dialogue surrounding issues that are current in the field of professional psychology. Students are required to do in-depth investigation on two issues and to defend a personal position on each issue. Fall semester.
PSYC 476 Senior Research Project (WR)  3
Prerequisite: PSYC 341
   Students select, design, carry out, and statistically analyze an empirical study
which deals with an aspect of behavior. Fall semester.

RELIGION—BIBLICAL STUDIES
RELB 226 Old Testament Survey  3
   A survey of the Old Testament providing an overview of the significant historical
events and people whom God called into a covenant relationship with Himself.
Special emphasis is placed on the Creation and fall, the calling of Israel, the Exodus
and Conquest, the Monarchy and Exile and the Return of the exiles. Developing an
appropriate understanding of the God revealed in this time period. Spring semester.

RELB 246 Sanctuary and Salvation  3
   A study of the biblical teaching of salvation in the books of Leviticus, Daniel,
Hebrews, and Revelation through the events and offices of the earthly sanctuary
and their relationships to the sacrifice of Christ and the heavenly fulfillments in
Christ’s ministry. Fall semester.

RELB 255 Jesus and the Gospels  3
   A study of the life, ministry and teachings of Jesus, with applications for daily
living, based upon an inductive study of the four gospels. Fall/spring semester.

RELB 325 Prophets  3
   Exegetical study of selected Old Testament prophets. Emphasizes the eternal
principles of their messages as applied to present-day conditions. Spring semester.

RELB 326 Old Testament Survey  3
Prerequisite: Theology major
   A survey of the Old Testament providing an overview of the significant historical
events and people whom God called into a covenant relationship with Himself.
Special emphasis is placed on the Creation and fall, the calling of Israel, the Exodus
and Conquest, the Monarchy and Exile and the Return of the exiles. Developing an
appropriate understanding of the God revealed in this time period. Spring semester.

RELB 335 New Testament Epistles  3
using selected passages to illustrate themes of New Testament thought.
Spring semester.

RELB 348 Daniel (WR)  3
   An introduction to the narrative and prophetic portions of the book of Daniel
rooted in its historical context, emphasizing the spiritual and prophetic applications
relevant to Christian leadership and life. Fall semester.

RELB 349 Revelation  3
   An introduction to apocalyptic literature and an inductive study of the book of
Revelation within the context of Christian history and the church today.
Spring semester.
**RELB 360 Interpretation of Romans**  
Prerequisite: ENGL 112  
Examines the interpretation of Romans within its socio-cultural context. This includes interpretation by the initial readers, and theological interpretation of Romans in relation to our contemporary world. *Spring semester.*

**RELB/LITR 366 Biblical Literature (WR)**  
Prerequisites: ENGL 112 and LITR 232 or 235, or permission of the instructor  
A survey of the Bible’s literary masterpieces from an archetypal perspective. Literary patterns, techniques, and terminology are applied to Bible writers and their writings. May be used to meet RELB or LITR general education requirements but not both. *Fall semester, alternate years.*

**RELIGION—RELIGIOUS HISTORY**

**RELH 310 History of the Seventh-day Adventist Church**  
A study of the Advent movement of the early 19th century and the subsequent growth of the Seventh-day Adventist Church. *Spring semester.*

**RELH 410 History of the Christian Church (WR)**  
History of the development of the Christian church from the first century to modern times. *Spring semester.*

**RELIGION—BIBLICAL LANGUAGES**

**RELL 171 New Testament Greek I**  
The elements of Greek grammar and basic vocabulary. Translation from the New Testament combined with a systematic approach to vocabulary building and the rules of Biblical Greek syntax. Four lectures and one tutorial session per week. *Fall semester.*

**RELL 172 New Testament Greek II**  
Prerequisite: RELL 171  
Continuation of RELL 171. Four lectures and one tutorial session per week. *Spring semester.*

**RELL 273 New Testament Greek III**  
Prerequisite: RELL 172 or equivalent  
Extensive translation of various portions of the New Testament and introduction to the science of exegesis, with emphasis on the acquisition of those skills and tools which will make Greek a useful aid in pastoral work and study. *Fall semester.*

**RELL 274 New Testament Greek IV**  
Prerequisite: RELL 273  
Continuation of RELL 273. *Spring semester.*

**RELL 385 Biblical Hebrew I**  
A study of the fundamentals of the Hebrew language. The emphasis is on translating portions of the Old Testament by applying vocabulary, grammar and syntax learned in the class. *Fall semester.*

**RELL 386 Biblical Hebrew II**  
Prerequisite: RELL 385  
Continuation of RELL 385. *Spring semester.*
RELIGION—PROFESSIONAL TRAINING

RELP 125 Introduction to Ministry 2
A study of the principle elements in pastoral ministry and spiritual formation through class discussion, observation and report writing. Fall semester.

RELP 149 Dynamics of Christian Living 3
A small group based class designed to introduce students to the inter-dynamics of personal relationships with others, the power of a relationship with God and the joys of a life of assurance in salvation. Spring semester.

RELP 175 How to Study the Bible 3
Introduces the principles of interpreting the Bible including practical skills in using concordances, Bible dictionaries, and commentaries, instruction in how to evaluate and choose a Bible translation, and Bible study for application in personal life. Fall semester.

RELP 235 Introduction to Youth Leadership 3
A survey of youth ministry, examining youth culture, the theology of youth ministry, and specific skills to equip and empower students to be effective in ministry to young people. Spring semester, alternate years.

RELP 321 Biblical Preaching 3
Prerequisite: COMM 105
A study of sermon methodology designed to train students to be biblical preachers. Preaching skills are developed through theory, class and field experience. Emphasizes narrative and expository preaching. Spring semester.

RELP 322 Biblical Preaching 3
Prerequisite: RELP 321
Continuation of RELP 321. Taken in conjunction with the capstone Leadership in Ministry senior year. Fall semester.

RELP 335 Youth Leadership in the SDA Church 3
Developing an understanding of youth culture and a theology of youth ministry, this course focuses on the implementation and practice of youth ministry. Its design is to better prepare those interested in life long youth ministry, both professional and volunteer. Spring semester, alternate years.

RELP 336 Youth Leadership Practicum 3
Prerequisite: RELP 235, 335
Internship in Union College Campus Ministries and/or externships in a local academy, Youth Sabbath School, Pathfinder organization, summer camp, and conference office. Open only to Youth Ministry minors.

RELP 361 Church Leadership 3
Combines a study of the theology of church leadership and on-the-job training assisting pastors in nearby churches. Taken in conjunction with RELP 321. Spring semester.
RELP 362 Church Leadership  
Prerequisite: RELP 361  
Continuation of RELP 361. Taken in conjunction with the capstone Leadership in Ministry senior year. Fall semester.

RELP 375 Missions Internship  
Cross-cultural missionary service under the direction of a local supervisor and one of the religion faculty. Students prepare an internship proposal, give monthly reports while carrying out the project, and give a final report of the outcomes.

RELP 465 Personal Witnessing  
Designed to help students gain the knowledge and skill needed to share their faith through personal influence, conversation and Bible studies. Examines the beliefs of other churches and compares them with Adventist beliefs. Laboratory required. Taken in conjunction with the capstone Leadership in Ministry senior year. Fall semester.

RELP 466 Public Evangelism  
Prerequisite: RELP 321  
Studies public evangelism practices and develops skills through the preaching, planning, conducting and follow-up of an evangelism series. Laboratory required. Spring semester.

RELP 490 Senior Seminar  
As part of the capstone for all Theology majors, this course gives students the opportunity to review and report the competencies they have learned in their academic experience. Specific attention is given to résumés preparation, preparation for job interviewing, and development of a portfolio. Taken in conjunction with the capstone Leadership in Ministry senior year. Fall semester.

RELIGION—THEOLOGICAL STUDIES

RELT 110 Introduction to Christian Faith and Adventism  
Prerequisite: Permission of the instructor or the religion chair  
The teaching of the Seventh-day Adventist church in the context of other belief systems, designed specifically for those not familiar with or newly introduced to the Seventh-day Adventist church. Fall semester.

RELT 141 Christian Beliefs  
Surveys fundamental biblical doctrines of the Christian Church from a Seventh-day Adventist perspective. Fall/spring semesters.

RELT 205 Developing the Christian Mind  
Prerequisite: Acceptance into Union Scholars or permission of instructor  
Examines worldview perspectives and biblical teachings. Incorporating information from biblical, philosophical, world religions and sociological sources, this class seeks to help the student define, discern and develop more fully "the mind of Christ." 1 Cor. 2:16. Fall semester.
RELT 305 Christian Ethics 3
An introduction to the systems and methods used in making ethical decisions viewed from the perspective of the Christian faith. Discusses questions of current interest in the area of personal and social ethics. Fall/spring semesters.

RELT 337 Christian Theology I 3
Prerequisite for non-theology majors: RELT 141
A systematic study of the major theological tenets of Christianity within the Seventh-day Adventist perspective, informed by their biblical foundations, their historical formulations, and their contemporary applications. Fall semester.

RELT 338 Christian Theology II 3
Prerequisite: RELT 337
Continuation of RELT 337. Spring semester.

RELT 347 World Religions 3
A study of the major religions of the world including primal religions, Hinduism, Buddhism, the religions of China, Judaism, Islam and Christianity. The relationship of Christianity to these religions is discussed, including the Christian mission to the world. Fall semester.

RELT 455 Prophetic Guidance in the Advent Movement (WR) 3
Study of the gift of prophecy as a method of divine communication. Special attention given to the life and writings of Ellen G. White. Spring semester.

SCIENCE
Prerequisites are listed for each course but in some cases permission may be granted by the instructor.

SCNC 301 Science and Society 1
Prerequisites: Completion of science and mathematics general education; junior standing
Explores selected societal and ethical issues raised by the investigation and application of science. Students are expected to seek possible solutions to the problems that are raised by these issues.

SCNC/Biol 377 Origins (WR) 3
Prerequisites: Completion of one laboratory science course; junior standing
A consideration of issues in science and religion as they relate to origins. Consideration is given to interpretation of inspiration and scripture relating to evidence from nature and the scientific method. Data from the biological and physical sciences are evaluated as they relate to earth history and the origin of life. Evidence for change, mechanisms of change, speciation, the fossil record and issues of time are considered. Class may be taken to meet the general education requirements for either the Life Sciences or Physical Sciences. Does not apply toward a biology major or minor. Spring semester.
SOCIOLGY

SOCI 105 Introduction to Sociology  
Introduces the fundamental principles and concepts of sociology. Studies forms and processes of societal organization and social institutions. Teaches sociological theory from a functionalist, conflict and symbolic interactionist perspective. Traditional theorists are discussed. Sociological topics include culture, socialization, stratification, class structure, healthcare, education, minority groups, and family. *Fall/spring semesters.*

SOCI/INRR 220 Social Dimensions of Disasters  
Explores how broad concepts such as social conflict and social inequality are manifested in disasters in the United States and internationally. Topics include demographics and disaster behavior distinctions, disaster culture, individual versus group response to disasters and community social systems in relation to pre-and post-disaster situations. More broadly, students will examine the relationship between the social sciences and public policies in emergency management. *Spring semester.*

SOCI 315 Marriage and Family  
Assists students in their understanding and negotiating of relationships by examining friendships, dating, courtship, marriage and family life. Uses a strengths-based approach to relationship development with emphasis on positive communication and problem solving. Discusses the issues of divorce, single parenting, sexuality, death and dying, finances and pre-marital counseling. *Fall semester.*

SOCI 321 Issues of Diversity (WR)  
Prerequisite: SOCI 105
Builds on sociological theory and concepts. Applies functionalist, conflict and symbolic interaction theory to majority-minority relations. Develops understanding of racism, prejudice, stereotypes, discrimination, institutional discrimination, assimilation and pluralism. Minority groups are the primary focus of the course. *Fall semester.*

SOCI/SOWK 415 Crisis and Resilience  
Prerequisite: permission of instructor
Developing generalist practice skills in crisis management. Fundamentals of crisis including violence, rape, suicide, natural disasters and terrorism with an emphasis on ability not only to survive, but thrive after crisis. Prepares the student to develop creative coping skills, and promote crisis resolution within themselves as well as with individuals, groups and communities. *Spring semester, alternate years.*

SOCIAL WORK

SOWK 115 Introduction to Social Work  
Prerequisite: SOCI 105 or permission of instructor
Survey of the field of professional social work. Covers the history of social work and its professional roles and functions. Explores professional areas of practice such as mental health, disabilities, youth, elderly, families, healthcare, schools, and criminal justice. Laboratory required. *Spring semester.*

SOWK 227 Human Behavior in the Social Environment I  
Prerequisite: SOWK 115 or permission of instructor
Reviews and analyzes theory and knowledge from the behavioral and social environment sequence of courses to discover specific implications for social work
practice. Areas of focus include social system, community, groups, family and the individual. Covers the age span from birth to young adulthood. *Fall semester.*

**SOWK 228 Human Behavior in the Social Environment II**  
Prerequisite: SOWK 227  
Reviews and analyzes theory and knowledge from the behavioral and social environment sequence of courses to discover specific implications for social work practice. Areas of focus include social system, community, groups, family and the individual. Covers the age span from middle-adulthood to old age. *Spring semester.*

**SOWK 316 Social Welfare Policy and Practice**  
Studies the history of social welfare and the nature and purpose of social policy. Additionally teaches methods to analyze policy and methods for policy change. Examines and monitors current state and federal bills relevant to U.S. social welfare. *Spring semester, alternate years.*

**SOWK 336 Social Work Practice I**  
Prerequisite: SOWK 228  
Assists students in developing generalist social work skills in work with individuals. Students practice relationship-building, problem solving, interviewing, assessment, intervention, termination, and documentation. Special focus is given to the evaluation process with the introduction of qualitative research methods to evaluate and improve practice. *Fall semester.*

**SOWK 337 Social Work Practice II**  
Prerequisite: SOWK 228  
Assists students in developing generalist social work skills in work with couples, families and group levels of practice. Students practice relationship-building, problem solving, interviewing, assessment, intervention, termination, and documentation. Special focus is given to the evaluation process with the introduction of qualitative research methods to evaluate and improve practice. *Spring semester.*

**SOWK 345 Social Work in Healthcare**  
Prerequisite: SOWK 228 or permission of instructor  
Provides basic orientation to the new generalist practitioner preparing to work as a medical social worker in a hospital, nursing home or outpatient setting. Surveys the field of medical social services, providing information regarding the administrators in both health care in general and social services in particular and a discussion of the various groupings of illnesses, their impact on individual, family, employment, etc. *Fall semester, alternate years.*

**SOWK 390 Research Seminar**  
Prerequisite: PSYC 341  
Student groups apply the principles of research design by selecting, designing, and carrying out a research project directly applicable to the social work field. Each group produces a report presenting their research process and findings. *Fall semester.*

**SOWK 405 Social and Economic Justice (WR)**  
Prerequisite: SOWK 228  
Uses critical thinking to examine basic human rights such as freedom, safety, privacy, an adequate standard of living, health care, and education from a social work
perspective. Explores the forms and mechanisms of oppression and discrimination. Uses a strength’s perspective to advocate for human rights and social and economic needs of vulnerable populations. Includes engagement in practices that advance social and economic justice within local, national and international communities. Fall semester.

**SOWK/SOCI 415 Crisis and Resilience**

3

Prerequisite: SOWK 228 or permission of instructor

Developing generalist practice skills in crisis management. Fundamentals of crisis including violence, rape, suicide, natural disasters and terrorism with an emphasis on ability not only to survive, but thrive after crisis. Prepares the student to develop creative coping skills, and promote crisis resolution within themselves as well as with individuals, groups and communities. Spring semester, alternate years.

**SOWK 437 Social Work Practice III**

3

Prerequisite: SOWK 228

An introductory course to the administration and planning of social service organizations with major emphasis upon community, organizational and legislative analysis; management skills; program planning and evaluation. Includes simulations, in-class projects, volunteer experience and personal introspection. Spring semester.

**SOWK 475 Field Practicum**

1–12

Prerequisite: SOWK 228

Professional experience in a social service agency, under the mentorship of an MSW or BSW professional. A total of 480 hours are required. Placements are completed over a two-semester plan in the senior year. Attendance at weekly seminars is required. Fall/spring semesters.

**SPANISH**

**SPAN 101 Beginning Spanish**

3

Introduction to basic Spanish conversation, structure, vocabulary and culture. Includes dictations, simple readings, written exercises, with the emphasis on oral communication. Laboratory required. Fall semester.

**SPAN 102 Beginning Spanish**

3

Prerequisite: SPAN 101

Continuation of SPAN 101. Spring semester.

**TEACHING LEARNING CENTER**

**TLCM 100 Bridge: Building Connections**

1

Focusing on college life, students discuss topics regarding academic skills, self-advocacy, campus and community resources. Fall semester only. Open to all first year students.

**TLCM 101 Bridge: Learning and Communities**

1

Concentrating on enhancing student’s academic skills while they are gaining a perspective of college experiences and college culture. Spring semester only. Open to all first year students.
UNION COLLEGE STUDENT MISSION SERVICE

UCSM 205 Introduction to Overseas Service 2
An orientation course limited to those who have applied as student missionaries that prepares them for service by focusing on cross-cultural mission ministry. Does not apply toward religion general education requirement. Spring semester.

There is no tuition charge for 400-level UCSM courses, but the students are considered half-time and eligible for most loan deferments.

UCSM 490 Student Mission Service I 6
Prerequisite: Permission of Student Mission Director
Credit for service as a student missionary serving in an official General Conference recognized call or as arranged with the Union College Student Mission Director. Credits do not count toward graduation. Graded CR/NC. May be repeated. Fall semester.

UCSM 491 Student Mission Service II 3
Prerequisite: UCSM 490; Permission of Student Mission Director
Continuation of the student mission service. Credits do not count toward graduation. Graded CR/NC. May be repeated. Spring semester.

UCSM 495 Student Mission Service III 3
Prerequisite: UCSM 490
Corequisite: UCSM 491
Continuation of the student mission service. Credits count toward graduation as elective credit only. Graded CR/NC. May be repeated. Spring semester.

UNION COLLEGE TASK FORCE SERVICE

There is no tuition charge for UCTF courses, but the students are considered half-time and eligible for most loan deferments.

UCTF 490 Task Force Service I 6
Prerequisite: Permission of Student Mission Director
Credit for service as a task force worker serving in an official North American Division recognized call or as arranged with the Union College Student Mission Director. Credits do not count toward graduation. Graded CR/NC. May be repeated. Fall semester.

UCTF 491 Task Force Service II 3
Prerequisite: UCTF 490; Permission of Student Mission Director
Continuation of the task force service. Credits do not count toward graduation. Graded CR/NC. May be repeated. Spring semester.

UCTF 495 Task Force Service III 3
Prerequisite: UCTF 490; Corequisite: UCTF 491
Continuation of the task force service. Credits count toward graduation as elective credit only. Graded CR/NC. May be repeated. Spring semester.
college organization

BOARD OF DIRECTORS— (AS OF 2/11/13)

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<tr>
<th>Name</th>
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<tr>
<td>Tom Lemon, Chair</td>
<td>NE</td>
<td>Elaine Hagele</td>
<td>NE</td>
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<tr>
<td>Gil Webb, Vice Chair</td>
<td>NE</td>
<td>Ron Halvorsen</td>
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<td>John Wagner, Secretary</td>
<td>NE</td>
<td>Rob Koch</td>
<td>KS</td>
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<td>Ken Bacon</td>
<td>CO</td>
<td>John Kriigelstein</td>
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<td>Steve Bascom</td>
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<td>Rick Krueger</td>
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<td>Neil Biloff</td>
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<td>Jerome Lang</td>
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<td>Mardian Blair</td>
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<td>James Boyle</td>
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<td>Larry Pitcher</td>
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<td>Barbara Prowant</td>
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<td>Rich Reiner</td>
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<td>Gary DeCamp</td>
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<td>Jessica Saxton*</td>
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<td>Tanya Dick</td>
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<td>Kent Seltman</td>
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<td>Mike Dunlap</td>
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<td>Kent Thompson</td>
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<td>Garth Fletcher</td>
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<td>Gary Thurber</td>
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<td>Derald Goetz</td>
<td>NE</td>
<td>Maurice Valentine</td>
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<td>Mildred Greer</td>
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By Invitation: Director, North American Division Higher Education Cabinet
*Honorary Board Member

COMMITTEES OF THE UNION COLLEGE BOARD OF TRUSTEES:
Academic Committee
Campus Life and Retention Committee
Executive Committee
Finance and Development Committee
Master Planning and Facilities Committee
Marketing and Recruitment Committee
Trusteeship Committee

Current membership of these committees can be found in the Union College President’s Office.

MIDWEST FOUNDATION FOR HIGHER EDUCATION BOARD
Jerome Lang, Chair
Rick Krueger, Vice Chair
Gary Bollinger, Secretary/Treasurer
LuAnn Davis
Charles Henkelmann
Tom Lemon, Ex Officio
John Wagner, Ex Officio
UNION COLLEGE PRESIDENTS
W. W. Prescott 1891-1893
J. W. Loughhead 1893-1896
E. B. Miller 1896-1897
N. W. Kauble 1897-1898
W. T. Bland 1898-1901
L. A. Hoopes 1901-1904
C. C. Lewis 1904-1910
Frederick Griggs 1910-1914
H. A. Morrison 1914-1922
O. M. John 1922-1924
W. W. Prescott 1924-1925
Leo Thiel 1925-1928
P. L. Thompson 1928-1931
M. L. Andreasen 1931-1938
A. H. Rulkoetter 1938-1942
E. E. Cossentine 1942-1946
R. W. Woods 1946-1950
H. C. Hartman 1950-1957
D. J. Bieber 1957-1964
M. O. Manley 1973-1980
Dean L. Hubbard 1980-1984
Benjamin R. Wygal 1985-1985
David C. Smith 1998-2011
John Wagner 2011-Present

COLLEGE ADMINISTRATION—2012–2013
Dates in parentheses indicate the date of current appointment.

OFFICERS OF THE COLLEGE
John Wagner (2011-) President;

Malcolm Russell (2003-) Vice President for Academic Administration; Professor of
   History and Economics
   University

Gary Bollinger (1989-) Vice President for Financial Administration
   B.S. 1971, Union College; M.A. 1975, Seattle University

MAJOR ADMINISTRATIVE OFFICERS
Linda Becker (2001-) Vice-President for Student Services
   B.A. 1972, Pacific Union College; M.A.T. 1974, Andrews University; PhD. 2000,
   University of Nebraska-Lincoln
Richard Carlson (1981-) Vice President for Spiritual Life; Associate Professor of Psychology  
B.A. 1973, Union College; M.A. 1977, Andrews University; Ph.D. 1996, University of Nebraska-Lincoln  

LuAnn Davis (1992-) Vice President for Advancement  
B.S. 1982, Union College; M.B.A. 1996, University of Nebraska-Lincoln  

Nadine Nelson (2009-) Vice-President for Enrollment Services  

FACULTY EMERITI—2012–2013  
Arlie Fandrich, MAT, Professor Emeritus of Computer Science  
Wayne Fleming, EdD, Professor Emeritus of Health and Human Performance  
Charles Friedline, PhD, Professor Emeritus of Chemistry  
Lowell Hagele, EdD, Professor Emeritus of Mathematics  
H. Ward Hill, PhD, Professor Emeritus of Religion and Sociology  
Marilyn McArthur, PhD, Professor Emerita of Nursing  
Robert Murray, PhD, Professor Emeritus of Music  
Beatrice Neall, PhD, Professor Emerita of Religion  
Ralph Neall, PhD, Professor Emeritus of Religion  
Walter E. Page, PhD, Professor Emeritus of Biology  
Sieg Roeske, PhD, Professor Emeritus of Religion  
Ruth C. Rolls, MA, Associate Professor Emerita of Secretarial Science  
Karl-Heinz Schroeder, MA, Professor Emeritus of History  
Virginia Simmons, Professor Emerita of Education and Psychology

FACULTY—2012–2013  
Date(s) in parentheses indicate years of faculty service at Union College  

Edward M. Allen (2005-) Professor of Religion  
BA 1975, Loma Linda University; MDiv 1979, Andrews University; DMin 1991, PhD 2008, Fuller Theological Seminary

Chris Blake (1993-) Associate Professor of English  
BA 1977, California State Polytechnic University-San Luis Obispo; MA 1980, Pacific Union College

Kathy Bollinger (2002-) Associate Professor of Education  
BS 1971, Union College; MEd 1981, University of Nebraska-Lincoln

Michelle Buller (2009-) Assistant Professor of Physician Assistant Studies  
BS 2000, University of Nebraska-Lincoln; MMS 2004, Midwestern University

Jody Chewakin (2011-) Assistant Professor of Physician Assistant Studies  
BSN 1991, University of Mary; PA-C 1996, University of North Dakota; MS 2008, Arizona School of Health Sciences, A T Still University

Richard Clark (2012-) Professor of Chemistry  
BA 1979, Union College; PhD 1992, Kansas State University
Tanya R. Cochran (2005-) Associate Professor of English
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BS 1998, Union College; MEd 2000, University of Nebraska-Lincoln; PhD 2006, Texas Woman’s University

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BA 1980, Columbia Union College; MBA 1987, Florida Institute of Technology; MA 2003, Newbold College; PhD 2010, University of Durham

Trudy Ann Holmes-Caines (1994-) Professor of Psychology  
BA 1986, West Indies College; MA 1991, PhD 1995, Andrews University

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Aaron Kent (2010-) Instructor in International Rescue and Relief  
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Cliff Korf (2000-2003, 2005-) Associate Professor of Physician Assistant Studies  
BHS 1980, Wichita State University; MPAS 2001, University of Nebraska Medical Center

Valeree Krueger (1979-) Associate Professor of Nursing  
BS 1977, Union College; MSN 1983, Vanderbilt University

Dwain Leonhardt (1996-) Professor of Physician Assistant Studies  
BA 1972, Union College; MD 1975, Loma Linda University

Daniel Lynn (1986-) Professor of Music  
BME 1972, University of Nebraska-Lincoln; MM 1975, University of Hartford; DMA 1987, University of Colorado

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BA 1964, Andrews University; MA 1977, Western Michigan University

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BS 1980, Union College; MSN 1986, University of Texas at Arlington

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BA 1964, MA 1966, Pacific Union College; PhD 1977, University of Southern California

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BS 1970, Walla Walla College; MSEE 1972, Oregon State University

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BS 1987, Union College; MA 1993, University of Nebraska-Lincoln

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BA 1970, Union College; MA 1979, Loma Linda University;  
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Richard Webb (2003-) Professor of Physics  
BS 1988, Loma Linda University; MS 1990, PhD 1995, Washington State University

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Carrie Wolfe (1999-) Professor of Chemistry  
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Rick Young (2011-) Assistant Professor of International Rescue and Relief  
BA 2009, MEd 2011, Regis University

Wendy VanSkiver (2012-) Assistant Professor of Physician Assistant Studies  
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LIBRARIANS HOLDING FACULTY RANK
Gillian Connors (2011-) Technical Services Librarian; Instructor  
BA 2007, Canadian University College; MLIS 2011, University of Alberta

Sabrina Riley (2003-) Library Director; Associate Professor  
BA 1996, Andrews University; MILS 1998, University of Michigan

Jeannette Wetmore (2009-) Public Services Librarian; Instructor  
BA 2003, Union College; MLLS 2007, University of North Carolina

TEACHERS AT LABORATORY SCHOOL
Jacquelyn Simpson (1989-95, 2000-) Assistant Professor of Education  
BS 1988, Union College; MA 1993, La Sierra University

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BA 1990, Jamestown College; MEd 1997, University of North Dakota

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Program Director, Medical Laboratory Sciences  
Andrews University, Berrien Springs, Michigan
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BSN 2002, Union College

Jackie Halley (2012-) Clinical Instructor
BSN 2009, University of Nebraska Medical Center

Elycia Ockenga (2011-) Clinical Instructor
BSN 2002, Union College

Ellen Rose (2012-) Clinical Instructor
BSN 2002, Union College

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Bailey Barnard, MA, Fine Arts
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Terry Bock, MDiv, Human Health and Performance
Denise Bulling, PhD, International Rescue and Relief
Rich Carlson, PhD, Human Health and Performance, Religion
Sylvester Case, PhD, Religion
Scott Cushman, MA, Humanities
Shayne Daughenbaugh, MDiv, Religion
LuAnn Davis, MA, Humanities
Lynn Davis, MFA, Fine Arts
Ron Dodds, BS, Human Health and Performance
Marina Fabrikant, DMA, Fine Arts
Charles Freidline, PhD, Science and Mathematics
Amanda Funk-Hilton, MA, Humanities
Jodi Gabel, MS, Social Work
Sarah Gilbert, MM, Education
Phyllis Gorton, BS, Human Health and Performance
Buffy Halvorsen, MS, Sociology, Religion
Angie Hardt, MA, Science and Mathematics
Stan Hardt, MA, Religion
David Hartman, PhD, Education
Greg Hines, BSN, Nursing
Jack Kinworthy, PhD, Humanities
Jenienne Kriegelstein, MEd, Education, Humanities
Konstantin Lisovskiy, BA, Fine Arts
Jeannie McCarter, PhD, Psychology, Social Work
Ed Mejia, BS, Fine Arts
Kelly Moguel, BA, Leadership Minor
Jill Morstad, PhD, Humanities
Michelle Nash, BS, Education
Noyes Julia, MA, Fine Arts
Marcelo Plioplis, MA, Fine Arts
Linda Robison, MA, Education
Robert Ruyle, PhD, Science and Mathematics
Wayne Schaber, MA, Education
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Jackie Simpson, MA Curriculum, Education
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Cindy Spaulding, BS, Human Health and Performance
Ric Spaulding, MEd, Education, Human Health and Performance
Greg Steiner, MEd, Human Health and Performance
Ron Stump, , Human Health and Performance
David Subiabre, MA, Humanities
Ryan Teller, BA, Humanities
Peggy Walthen, MA, Humanities

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Marina Fabrikant, DMA
Sarah Gilbert, MM
Kevin Kroon, BS
Daniel Martinez, BS
Darcy Jo Pearcy, MM
Char Reid, BS
Jenny Tyner, MA
Lisa Watkins, MM
Ryan Wells, DMA
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Jean Allen, APRN  
Colene Anderson, MD  
Ray Andreassen, DO  
Steve Bascom, MD  
David Bigler, MD  
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Dennis Bozarth, MD  
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Erin Masada, MD  
Jeanette Masek, MD  
Roy Maurer, PA-C  
Michael McGahn, MD  
Robert McKeeman, MD  
Scott McPherson, MD  
Philip Meyer, MD  
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Anne Moore, PA-C  
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Harry Mueller, MD  
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Melissa Muhs, PA-C  
Richard Mulder, MD  
Stephen Nagengast, MD  
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Roy Nelson, MD  
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Stephen Swanson, MD  
J. Terry Symonds, DO  
Kellie Symonsbergen, PA-C  
Raymond Taddeucci, MD  
Bruce Taylor, MD  
Deb Taylor, PA-C  
Douglas Tewes, MD  
Kendra Theim, PA-C  
Michelle Tyser, PA-C  
Fernando Ugarte, MD  
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Rebecca Waegli, PA-C  
Kristin Weber, APRN  
Paul Welch, MD  
Stuart Westburg, MD  
David Whitney, MD  
Ryan Whitney, MD  
Richard Whittier, MD  
Rick Windle, MD  
Charlotte Wirges, MD  
Kelli Woltemath, DO  

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Date(s) in parentheses indicate years of employment at Union College.

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Theresa Edgerton (2010-) Career Center Coordinator
BS 2001, Union College

Deborah Forshee-Sweeney (2001-) Director of Teaching Learning Center; Instructor
BSW 1994, Union College; MEd 2008, University of Nebraska-Lincoln

Sabrina Riley (2003-) Library Director
BA 1996, Andrews University; MILS 1998, University of Michigan

Greg Steiner (2005-) Director of Institutional Research
AS 2000, Union College; BS 2000, Union College; MA 2004, University of Redlands

Michelle Younkin (2010-) Director of Records
BS 2003, Southern Adventist University; MBA 2009, LaSierra University

CAMPUS SERVICES
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BS 1969, Union College

Peter Blankenship (2009-) Director of Food Service
BS 2003, Eastern Washington University

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AS 1986, Southern College; BS 2008, Capella University

Paul Jenks (2012-) Director of Plant Services

Terri Lair (2004-) Manager of Campus Store
BA 1985, Union College

Ric Spaulding (1988-) Director of Lifestyle Center; Athletic Director; Assistant Professor
BS 1983, Andrews University; MEd 1988, University of Missouri

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BS 2000, Union College

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BS 2008, Union College

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BS 2006, Union College

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BS 1986, Union College

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BS 1986, Union College

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Sharon Russell (2003-) Conference and Guest Services Coordinator
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BS 1983, Loma Linda University

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BA 1973, Union College

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BS 1976, Southern Adventist College; MA, 2011, Doane College
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PRESIDENT’S COUNCIL
John Wagner, President, Chair
Linda Becker, Vice President for Student Services
Gary Bollinger, Vice President for Financial Administration
Richard Carlson, Vice President for Spiritual Life
LuAnn Davis, Vice President for Advancement
Nadine Nelson, Vice President for Enrollment and Student Financial Services
Malcolm Russell, Vice President for Academic Administration
Richard Webb, Faculty Senate Chair (2012-2013)

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Malcolm Russell, Vice President for Academic Administration, Chair
Michelle Buller, Director, Physician Assistant Studies
Robert Fetrick, Chair, Division of Religion
Barry Forbes, Chair, Division of Business and Computer Science
Deborah Forsee-Sweeney, Director, Teaching Learning Center
Michelle Velázquez Mesnard, Chair, Division of Humanities
Sabrina Riley, Director, Library
Theresa Stimson, Chair, Division of Health Sciences
Cynthia Stokes, Chair, Division of Fine Arts
Denise White, Chair, Division of Human Development
Carrie Wolfe, Chair, Division of Science and Mathematics
Rick Young, Chair, Division of Emergency Management and Exercise Science
Michelle Younkin, Director of Records

DEAN’S COUNCIL
Linda Becker, Chair
Donene Castor-Braithwaite
Ron Dodds
Leann Merth
Kim Steiner
Doug Tallman
Ryan Teller
Head Resident Assistants
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