


experience

the all-important details



1978-9 – Islamic Revolution against
Shah Mohammad Reza Pahlavi (above),
Ayatollah Khomeini (right) becomes
supreme leader of the Islamic Republic
of Iran

bulletin

UNION
COLLEGE

2012–2013



**BULLETIN 2012–2013
VOLUME 74**

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UNION
C O L L E G E

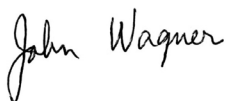
president's message

Union College holds long traditions: strong undergraduate education; encouraging altruistic service in local communities and foreign countries; and an intimate, supportive and spiritually-focused campus environment. School spirit marks this campus, and the alumni reflect that spirit in their enthusiastic support of their alma mater.

Union College welcomes students by building on these traditional strengths. Professors, not graduate students, teach our courses and offer personalized attention. Students who value personal connections appreciate smaller classes, and those who seek practical education value Union's growing emphasis on active, experiential learning. Beyond these academic qualities, I invite our new students to Experience the Spirit by joining a campus community whose student leaders encourage a vibrant spiritual journey and opportunities for a meaningful social life. Find out why Union students smile so much!

Students who attend Union College benefit from valuable experiences tied to the college's practical approach to learning and its location in a major city. Most academic programs involve an internship or practicum, many of them in Lincoln, the state capital. George Stone School, located on campus, provides education majors with the opportunity to practice teaching in a small-school setting. Drama productions; scientific research; a leadership program that trains students for assuming important roles in the future; and travels abroad for first-hand experiences of other cultures, history, and the natural world mark just a few of the ways that Union College offers real-life learning adventures.

By combining long-held traditions with progressive ideas, Union provides an educational experience to meet students' needs in an ever-changing world.

A handwritten signature in black ink that reads "John Wagner". The signature is written in a cursive, flowing style.

John Wagner
President

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contact information

General Information	402.486.2600
Enrollment Services	402.486.2504 800.228.4600 (toll free)
Admission	ucenroll@ucollege.edu
International Students	international@ucollege.edu
Student Financial Services	402.486.2505 800.228.4600 (toll free in the United States) Fax 402.486.2592 sfs@ucollege.edu
Cashier	402.486.2992
Non-current Loans	402.486.2600 x2133
Academic Dean	402.486.2501
Campus Ministries	402.486.2508
Career Planning and Testing/ Student Employment	402.486.2540
Information Systems (computer and telephone services)	402.486.2511 Fax 402.486.2895
Library	402.486.2514
Student Housing	
Vice President for Student Services	402.486.2507
Men's Residence Halls	402.486.2533
Women's Residence Halls	402.486.2535
College-owned Apartments	402.486.2502
Student Records/Academic Information	402.486.2529
Transcript Request Information	402.486.2509 Fax 402.486.2584
Teaching Learning Center	402.486.2506

academic year calendar 2012–2013

2012

May 7	Summer Classes Begin
Aug. 31	Last Day to Complete Summer Graduation Requirements
Aug. 12–19	New Student Orientation
Aug. 20	Registration for Fall Semester
Aug. 21	First Semester Classes Begin
Aug. 21–29	Late Registration Period (\$50 Fee)
Aug. 29	Last Day to Drop (no record)/Add Classes
Sept. 3	Labor Day Holiday
Oct. 12	Midterm Break
Oct. 31	Last Day to Drop a Class/Receive a "W"
Nov. 7	Preregistration for Second Semester Begins
Nov. 19–23	Thanksgiving Vacation
Dec. 11–13	First Semester Examinations
Dec. 14	Last Day to Complete December Graduation Requirements

2013

Jan. 6	Registration for Spring Semester
Jan. 7	Classes Begin
Jan. 8–15	Late Registration Period (\$50 Fee)
Jan. 21	Martin Luther King Day Holiday
Jan. 15	Last Day to Drop (no record)/Add Classes
Feb. 7–8	Winter Break
Mar. 11–15	Spring Vacation
Mar. 20	Last Day to Drop a Class/Receive a "W"
Mar. 27	Preregistration for Fall Semester Begins
April 29–May 1	Second Semester Examinations
May 3–5	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.
DISCIPLESHIP	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
- 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

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
- 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 meet the following admission standards:

- A minimum high school grade point average (GPA) of 2.50 on a 4-point scale.
- A minimum ACT composite score of 18 with minimum English and math scores of 17, or a combined SAT score of 1290 with minimum critical reading and math scores of 430. The ACT test may be taken on campus. For arrangements, contact the Career Center at career@ucollege.edu or 402.486.2540.
- General Education Development (GED) average score of 500 with no score below 450.
- Students whose native language is not English must either

demonstrate current English proficiency by scores on a standardized test taken within the past two years, or enter the English as a Second Language (EAP) program if its minimum requirements are not met. The college accepts the following examinations and for regular admission requires minimum scores of:

- TOEFL: Internet-based (IBT), 80;
- International paper-based, 550;
- Institution paper-based, 550 plus a minimum score of 52 on each section;
- IELTS 6.0

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

- A completed application for admission.
- Proof of graduation from high school or completion of a comparable home school curriculum, or satisfactory scores on the GED.
- Recommendation forms.
- 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 required to submit either high school transcripts or ACT/ SAT test scores though the latter may be necessary for placement in math and English courses.
- Recommendation forms.
- Official transcripts are required from any 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.

CONDITIONAL ADMISSION

Applicants who do not meet the published admission standards will be reviewed by the Admissions Committee, which may request further statements and other evidence of the student's ability to succeed. If accepted by committee action, the applicant will be required to enroll in

an academic support program offered through the Teaching Learning Center.

Freshman Development is designed to help new freshmen transition into 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 their class loads to a maximum of 13-15 hours.
- Complete the course TLCM 100 Bridge: Building Connections, fall semester.
- Receive a cumulative GPA of 2.00 by the end of the spring semester.

Academic Success and Advising Program (ASAP) is to help students on academic probation.

Students in this program will sign an ASAP agreement and complete the following requirements:

- Participate in PACC;
- Limit their class loads to a maximum of 12-15 hours;
- Receive a cumulative GPA of 2.00 or semester GPA of at least 1.67.

Integrated College Experience (ICE) is created to support and assist students who need ENGL 100 and MATH 017 or 100. This program will help initiate the students' start 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 all courses with a minimum cumulative GPA of 2.00 by spring semester.
- Participate in the ICE learning community.

INTERNATIONAL STUDENT ADMISSION

Beyond the regular admission standards, international applicants should ensure that transcripts not in English are accompanied by a certified translation. Foreign college or university transcripts must be evaluated by a recognized evaluation service, such as WES.

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.

FEDERAL FINANCIAL AID FOR CERTAIN EAP STUDENTS

Certain students whose native language is not English may be eligible for U.S. Federal financial aid while enrolled in the EAP program, particularly permanent residents, individuals from American Samoa, or those with refugee or asylum visa status. Students eligible for such aid and whose written TOEFL score lies between 475 and 550 may request admission as a regular student rather than an EAP student. This request must be submitted in writing prior to the last day of registration.

If approved, the student must enroll in at least three semester hours

of EAP courses and six semester hours or more of regular courses. Registration for upper division courses requires approval of the division chair. Tuition will be charged at the regular rate.

After two semesters, the student who fails to achieve the admission standard for English will be reinstated as an EAP-only student, and will not qualify for any federal or state financial aid.

NON-DEGREE STUDENTS

Students from other institutions and individuals not seeking a degree from Union College may take six hours or less of classes 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 pursuing an additional major between two years and six years after graduation. Some restrictions apply:

- Free tuition is limited to courses in the major only.
- 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 full 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 under-graduate classes or 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, EAP courses, or the professional phases of the Health Sciences 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
- EAP—enrolled in the English for Academic Purposes
- Other—special students, guest students and others not seeking a degree enrolled for six hours or less.

COURSE NUMBERS

Courses 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 drop-add 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 preregistration 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 (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 students seeking to use CLEP credit for a major or minor should obtain program approval before taking the test.

PROFICIENCY 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;
- 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.

GRADE GRADE POINTS

A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	.67
F	.00

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.

DEAN'S LISTS

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

Recognition	GPA Range
Dean's Distinguished List	3.90 – 4.00
Dean's List	3.75 – 3.89
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).

DEAD DAY POLICY

Designated "dead days" at the end of each semester provide an opportunity for students to review material and prepare for finals. Though new material may be presented during classes these days, no tests or major assignments are to be due then, without prior approval from Academic Administration.

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 in writing and signed by the student. Signed faxed or scanned requests are accepted; however, electronic requests and signatures are not. 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 forming part of the major;
- 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:

	GPA
Summa Cum Laude	3.90
Magna Cum Laude	3.75
Cum Laude	3.50

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 complete 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 for the major. Minors may be elected from the minors outlined in this bulletin. At least three semester hours of the required courses numbered at the 300 level or above must be taken in residence. A minimum grade of C (2.00) is required for all minor courses.

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 (60 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 29 (35 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

COMMUNICATION—5-6 hours

ENGL 111 College Writing I 3

COMM 105 Public Speaking 2-3

or ENGL 112 College Writing II

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 scholars

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
edallen@ucollege.edu

Lynn Davis, Program Assistant
lydavis@ucollege.edu

Dick Building, Room 304
402.486.2560
www.ucollege.edu/union-scholars

PROGRAM REQUIREMENTS —48–54 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

union scholars

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—20–26 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 2613

COMMUNICATION—3 hours

ENGL 111 College Writing I 3

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—8 Projects

A Union Scholar will participate in an ongoing project with at least eight service experiences per year. The yearlong project will be planned by the Scholars' student leaders and approved by the Director of Union Scholars. Individual projects may be performed with prior approval of the Director of Union Scholars.

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.

CONTACT INFORMATION

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www.ucollege.edu/pa

FACULTY

Michelle Buller, Jodi Chewakin,
Cliff Korf, Dwain Leonhardt

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 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 (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.

**PHYSICIAN ASSISTANT STUDIES MPAS
MASTER OF PHYSICIAN ASSISTANT STUDIES****Required courses—109 hours**

PHAS 505	Medical Literature Review	2
PHAS 510	Clinical Nutrition	2
PHAS 511	Human Anatomy	5
PHAS 514	Medical History and Physical Examination Skills	4
PHAS 515	Clinical Diagnostic Procedures	3
PHAS 518	Psychiatry and Behavioral Medicine	3
PHAS 519	Differential Diagnosis and Case Development	2
PHAS 525	Physician Assistant Professional Issues	3
PHAS 531	Clinical Medicine I	6
PHAS 532	Clinical Medicine II	7
PHAS 533	Reventive Health	1
PHAS 539	Christian Health Care and Bioethics	3
PHAS 542	Applied Medical Ethics	1
PHAS 546	Clinical Skills I	4
PHAS 547	Clinical Skills II	2
PHAS 553	Cultural Competencies in Medicine	1
PHAS 557	Electrocardiography	2
PHAS 559	Clinical Pathophysiology	4
PHAS 564	Clinical Therapeutics	4
PHAS 584	Pharmacology	5
PHAS 585	Master's Research Seminar	1
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 and 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 Rotations	4

Required Prerequisites—50 hours

BIOL 151, 152	General Biology	8
BIOL 205	Microbiology	4
BIOL 416	Mammalian Physiology	4
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 445	Biochemistry I	4
HHPT 215	Emergency Health Care or evidence of CPR certification	1
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 415	Abnormal Psychology	3

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.

academic resources

ELLA JOHNSON CRANDALL MEMORIAL LIBRARY

www.ucollege.edu/library

**Sabrina Riley, Library Director,
Gillian Connors, Jeannette Wetmore**

The library leads the Union College campus in the utilization of information resources, preservation of institutional heritage, and serves students, faculty, staff and community members in their intellectual and spiritual growth.

Within the library's 38,000-square-foot facility, librarians provide reference assistance, library instruction, and maintain a general academic collection of more than 160,000 items in a variety of formats including DVDs and audio books. Current periodical subscriptions total almost 600 with online full text access to more than 28,000 additional titles available through the Periodicals A to Z Web pages. The collection is also supplemented with approximately 40,000 electronic books available through the online public access catalog. The Lora McMahon King Heritage Room houses a large collection of Adventist books, periodicals and microforms, in addition to Union College archival materials.

Other library services include a photocopy machine, microform readers and printer, and a computer room. The library subscribes to approximately 20 article databases accessible via the Web from services such as EBSCOhost and OCLC FirstSearch. Students may log in to these databases from dorm rooms or home in addition to in-library use. Library staff also provide mediated searching through DIALOG,

an information retrieval service with approximately 200 databases.

Resources in other academic libraries in the area are available through reciprocal borrowing and on a wider spectrum through interlibrary loan. The latter service provides access to materials through the more than 50,000 member libraries of OCLC, the Online Computer Library Center network.

COMPUTER SERVICES INFORMATION SYSTEMS

www.ucollege.edu/information-systems

Tom Becker, Director

Computer services are provided to Union students and employees through a campus-wide network maintained by Information Systems. All students are expected to comply with Union's computer policy. Misuse of the system could result in removal of computer privileges.

MICROCOMPUTER LABORATORY

[www.ucollege.edu/campus-services/
computer-labs](http://www.ucollege.edu/campus-services/computer-labs)

Gary Dickerson, Director

The Division of Business and Computer Science maintains the largest general-use computer lab on campus. The micro lab contains the latest in programming languages, operating systems, software development tools, word processing, spreadsheets, databases and presentation software available for use by all students on campus.

GRAPHIC ARTS COMPUTER LABORATORY

www.ucollege.edu/campus-services/computer-labs

Bruce Forbes, Director

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, English for Academic Purposes, 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 ncrc-crm.symplicity.com

JOB PLACEMENT FOR SENIORS AND ALUMNI

- Computerized job placement service: Nebraska Interview Consortium JobZone database available at:
ncrc-csm.symplicity.com
- Job search skills: assistance with resume writing, interviewing, salary negotiation and business etiquette
- Career fairs: 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-Sabbath test dates.

TEACHING LEARNING CENTER

www.ucollege.edu/tlc

**Deborah Forshee-Sweeney, Director,
Elizabeth Anderson, Brittany Blankenship**

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 with Disabilities Act of 1990. Both

prohibit discrimination on the basis of disabilities.

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 documentation 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 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.

adventist colleges abroad

www.ucollege.edu/aca

Michelle Velazquez Mesnard, Coordinator
Tamara Seiler, Assistant

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 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

France

Campus Adventiste du Salève

Germany

Theologische Hochschule Friedensau

Italy

Istituto Avventista Villa Aurora

Spain

Escuela Superior de Español
(See Modern Foreign Languages 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 an emphasis 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 international study centers listed above in Austria, France, Greece, Italy, and Spain, and periodically in the following:

Brazil

Centro Universitário Adventista de Sao Paulo

Greece (Greek and Hebrew)

Athens Study Center

Japan

Saniku Gakuin College

Mexico

Universidad de Montemorelos

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 and services

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 remodeled 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 four 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 Gymnasts, 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, 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 worship services led by students or faculty, residence hall worship services, 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. 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 inter-collegiate 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 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 inter-collegiate 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, but will not play in games or travel with the team. 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

program director or division chair, head residence hall dean, or staff member's supervisor.

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.

financial information

STUDENT FINANCIAL SERVICES

All financial plans are completed in the office of 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.

Typically used services include tuition for classes, housing in dormitories, meals in the cafeteria, 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. \$1,000 of that deposit 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. \$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.

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 Student Financial Services.

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

Students completing or terminating their studies with the college are responsible for requesting a refund on any credit balance within one hundred and eighty (180) days

financial information

after studies are completed or discontinued. The college reserves the right to transfer any unclaimed credit towards a worthy student fund.

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 *
	(fee waived for graduates)
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.union.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 UC 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 you to help finance the education you want. 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 your high school counselor, public library, Chamber of Commerce, pastor and bookstores for more information.

Students are welcome to visit the Student Financial Services office to look at the many scholarship brochures available from external companies. Many Union College students have been awarded scholarships through www.fastweb.com. The EducationQuest Foundation offers free planning tools to help plan for college, to apply for financial assistance and obtain loan information. Visit www.educationquest.org. For other resources like scholarships, ACT practice testing and financial planning visit www.netnet.com.

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). Awards will be reduced or cancelled if a student's load drops below this amount. Details are available from Student Financial Services.

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.

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

Title IV Federal Student Financial Aid programs include Federal Pell Grants, Federal Work-Study Employment, Federal Perkins Loans, Federal Supplemental Educational Opportunity Grants, Federal Stafford Student Loans, Federal Graduate PLUS Loans and Federal Parent PLUS Loans.

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 STAFFORD 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.

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. This progress is measured at the end of each semester both qualitatively (GPA) and quantitatively (semester hours completed).

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 year. 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, ESL 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 year.

Evaluation of a students' eligibility to continue to receive federal aid will be made each year. Freshmen will also be evaluated each semester during their first year 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 Director of Student Financial Services to seek an additional semester to meet the required standards. Contact the office of Student Financial Services for more information.

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.

division of business and computer science

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

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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, Roger Schmidt, G. Mark Smith

DEGREES AND PROGRAMS

Bachelor of Science

- Business Administration
 - Emphases: Accounting, Finance, Financial Aid, Management, Marketing, Science, Small Business Management
- Business, Marketing and Information Technology Secondary Subject Endorsement
- Computing
 - Emphases: Business, Computer Information Systems, Computer Science, Web Design
- Information Technology Education Supplemental Endorsement

Associate of Science

- Accounting
- Business Administration
- Computing

Minors

- Accounting
- Business Administration
- Computer Information Systems
- Computer Science
- Marketing
- Small Business Management

division of emergency management and exercise science

MISSION

The programs offered by the Division of Emergency Management and Exercise Science promote 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 promote mental, physical, social and spiritual development of students for competent Christ-like service in their professions.

CONTACT INFORMATION

Emergency Management & International Rescue and Relief

Rick Young, Director
Tiffany Simmons, Office Manager
Rees Hall North Wing
402.486.2980 phone
402.486.2983 fax
r2young@ucollege.edu or tisimmon@ucollege.edu
www.ucollege.edu/internationalrescueandrelief

Exercise Science & Health and Human Performance

Nancy Petta, Director
Larson Lifestyle Center lower level
402.486.2889 phone
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www.ucollege.edu/hhp

FACULTY

Brian Hauff, Krystal Hauff, Aaron 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: Expeditionary Leadership, 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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www.ucollege.edu/fineart

FACULTY

Bruce Forbes, Daniel Lynn, James D. McClelland, Cynthia Stokes

ADJUNCT FACULTY

Lynn Davis, Marina Fabrikant, Debra Johnson, Rob Moore

DEGREES AND PROGRAMS

Bachelor of Arts

Music
Studio Art

Bachelor of Music

Music Education, K-12 Field Endorsement
Emphases: Instrumental, Keyboard, or Vocal
Music Performance
Emphases: Instrumental, Keyboard or Vocal

Bachelor of Science

Art Education Field Endorsement K-12
General Art Subject Endorsement K-6
Graphic Design
Emphases: Business or Communication
Music Education Instrumental Subject Endorsement K-8; 7-12
Music Education Vocal Subject Endorsement K-8; 7-12

Associate of Science

Art
Graphic Design
Music Pedagogy

Minors

Art
Graphic Design
Music

division of human development

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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psychology
www.ucollege.edu/socialwork

FACULTY

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

ADJUNCT FACULTY

Steven Bassett, Reggie Bollinger, Rich Carlson, Lynn Davis,
Debbie Forshee-Sweeney, Sarah Gilbert, Buffy Halvorsen, Stan Hardt,
Jeannie McCarter, Jan Nash, Michele Petracca, Nancy Petta, Larry Ray,
Linda Robison, Wayne Schaber, Ralph Schnell, Ric Spaulding, E'Lise Stump

DEGREES AND PROGRAMS

Bachelor of Science

- Elementary Education K-8
- Psychology
- Secondary Education Endorsements (see major division section)

Bachelor of Social Work

- Social Work

Minor

- Psychology

division of humanities

GOALS

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

CONTACT INFORMATION

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www.ucollege.edu/humanities

FACULTY

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Jenienne Kreigelstein, Michael Mennard, Michelle Velázquez Mesnard,
Mark Robison, Benjamin Tyner, Peggy Wahlen

ADJUNCT FACULTY

LuAnn Davis, Amanda Funk-Hilton, Jack Kinworthy, Jill Morstad,
Malcolm Russell, David Subiabre, Ryan Teller

DEGREES AND PROGRAMS

Bachelor of Arts

Communication
Emphases: Journalism or Public Relations
English
Emphases: Literature or Writing and Speaking
History
International Studies
Modern Foreign Language
Emphases: French, German, or Spanish
Second Language Studies
Emphases: French, German, or Spanish
Social Science

Bachelor of Science

English as a Second Language Education, Secondary Supplemental Endorsement
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

Associate of Arts

English Language Studies

Minors

Communication
Drama
English
French
German
History
Italian
Pre-Law
Social Science
Spanish

English for Academic Purposes Program

division of nursing

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

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Nursing Admission & Progression Coordinator
Sherri Gregory
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nursing@ucollege.edu

FACULTY

Amy Bollinger, Kelly Boyd, Debbie Eno, Kristine Follett, 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

division of religion

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 the ability to interpret and apply biblical and ethical principles
 - Prepare to pursue graduate studies

CONTACT INFORMATION

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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

Minors

Biblical Languages

Missions

Religion

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.

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FACULTY

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ADJUNCT FACULTY

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

DEGREES AND PROGRAMS

Bachelor of Arts

- Biology
- Chemistry
- Mathematics
- Physics

Bachelor of Science

- Biology
- Biology Education, Secondary Subject Endorsement
- Biomedical Science
- Chemistry
 - Emphases: Biochemistry or General Chemistry
- Chemistry Education, Secondary Subject Endorsement
- Mathematics
- Mathematics Education, Secondary Subject Endorsement
- Medical Laboratory Science (Medical Technology)
- Natural Science Education, Secondary Subject Endorsement
- Physics
- Physics Education, Secondary Subject Endorsement

Associate of Science

- Engineering
- Pre-Allied Health

Minors

- Biology
- Chemistry
- Mathematics
- Physics

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.

art

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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FACULTY

Bruce Forbes, James D. McClelland

ADJUNCT FACULTY

Lynn Davis, Debra Johnson

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
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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

<i>Other required courses - Select 9 hours from</i>	9
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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
<i>Additional art courses</i>		
ART 125	Oil Painting	2
ART 135	Pottery	2
ART 145	Watercolor	2
ART 215	School Art	2
ART 245	Sculpture	2
ART 347	Illustration Techniques I	2
ART 445	Illustration Techniques II	2
GRPH 150	Introduction to Graphic Arts	3
GRPH 252	Computer Design	3
GRPH 254	Publication Design	3
GRPH 358	Typography	3
<i>Select six hours from</i>		6
GRPH 301	Web Design I(3)	
GRPH 460	Prepress Production (3)	
GRPH 464	Advertising Design (3)	
GRPH/ART 476	Internship (3)	
<i>Other required course</i>		
COJR 151	Photography	3
<i>Professional Education</i>		
EDUC 410	Methods: Art Education	3
	Additional Professional Education	51
(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

ART 105	Drawing I	2
ART 115	Design I	2
ART 125	Oil Painting	2
ART 135	Pottery	2
ART 145	Watercolor	2
ART 215	School Art	2
ART 235	Drawing II	2
ART 245	Sculpture	2
ART 321	European Art History	3
ART 322	American Art History	3
GRPH 150	Introduction to Graphic Arts	3
Professional Education (Requires another teaching major)		

ART—AS**Required courses—24-25 hours**

ART 105	Drawing I	2
ART 115	Design I	2
ART 125	Oil Painting	2
ART 135	Pottery	2
ART 145	Watercolor	2
ART 235	Drawing I	2
GRPH 150	Introduction to Graphic Arts	3
ART/GRPH	Electives	9-10

MINOR IN ART**Required courses—20-21 hours**

ART 105	Drawing I	2
ART 115	Design I	2
ART 125	Oil Painting	2
ART 135	Pottery	2
GRPH 150	Introduction to Graphic Arts	3
ART/GRPH	Electives	9-10
(3 hours must be 300 or 400 level)		

biology

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.

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FACULTY

Salvador Moguel, Frankie Rose, Amy Utt-Rickard

ACADEMIC PROGRAMS

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

BIOLOGY CORE—57 HOURS

BIOL 151, 152	General Biology	4, 4
BIOL 296	Research Methods I or MATH 221 Elementary Statistics & Probability (3) or MATH 331 Statistics & Probability (3)	1
BIOL 310	Seminar in Biology	1
BIOL 321	Genetics	4
BIOL 386	Research Methods II	1
BIOL 404	Cell Biology	4
BIOL 416	Mammalian Physiology	4
BIOL 436	Developmental Biology	4
BIOL 477	Issues in Origins and Speciation	3
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CPTR 220	Microcomputer Applications	3
PHYS 151, 152	General Physics or PHYS 251, 252 College Physics (4.5, 4.5)	4, 4

BIOLOGY – BA

Required courses—70-74 hours

BIOLOGY CORE		57
BIOL 365	Plant Biology or BIOL 375 Ecology (4)	3
BIOL	Biology electives	6-8
<i>Other required courses</i>		
MATH 121	Precalculus or MATH 184 Calculus I (4)	5

BIOLOGY – BS

Required courses—76-78 hours

BIOLOGY CORE		57
BIOL 365	Plant Biology	3
BIOL 375	Ecology	4
BIOL 396	Research Methods III	1
BIOL 496	Research Methods IV	1
BIOL	Biology electives	6-8
<i>Other required courses</i>		
MATH 184	Calculus I	4

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

BIOL 151, 152	General Biology	4, 4
BIOL 205	Microbiology or BIOL 345 Biology of Bacteria (4)	4
BIOL 321	Genetics	4
BIOL 375	Ecology	4
BIOL 404	Cell Biology	4
BIOL 416	Mammalian Physiology or BIOL 111, 112 Human Anatomy & Physiology (4, 4)	4
BIOL 477	Issues in Origins and Speciation	3
<i>Other required courses</i>		
ASTR 111	Astronomy	4
CHEM 151, 152	General Chemistry	4, 4
MATH 111	College Algebra	3
PHYS 111	Principles of Physics or PHYS 151 General Physics (4)	4

Professional Education

EDUC 418	Methods: Science Education	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).

MINOR IN BIOLOGY

Required courses—32 hours

BIOL 151, 152	General Biology	4, 4
BIOL 321	Genetics	4
BIOL 375	Ecology	4
BIOL	Biology electives	8

Other required courses

CHEM 151, 152	General Chemistry	4, 4
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biomedical science

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

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FACULTY

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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**Required courses—52 hours**

BIOL 151	General Biology	4
BIOL 152	General Biology	4
BIOL 296	Research Methods I (or MATH 221)	1
BIOL 386	Research Methods II	1
BIOL 416	Mammalian Physiology	4
BIOM 301	Professional Shadowing	1
CHEM 151	General Chemistry	4
CHEM 152	General Chemistry	4
CHEM 211	Organic Chemistry	4
CHEM 212	Organic Chemistry	4
CHEM 445	Biochemistry	4
HHPT 256	Medical Terminology	1
MATH 121	Precalculus (OR MATH 184)	5
PHYS 151	General Physics	4
PHYS 152	General Physics	4
PSYC	An approved psychology course	3

PRE-PHYSICIAN ASSISTANT**Required Courses—49 hours**

BIOL 151	General Biology	4
BIOL 152	General Biology	4
BIOL 205	Microbiology	4
BIOL 386	Research Methods II	1
BIOL 411	Human Anatomy	4
BIOL 416	Mammalian Physiology	4
BIOM 301	Professional Shadowing	1
CHEM 151	General Chemistry	4
CHEM 152	General Chemistry	4
CHEM 211	Organic Chemistry	4
CHEM 212	Organic Chemistry	4
CHEM 445	Biochemistry	4
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
PSYC	An approved psychology course	3

PRE-PHYSICAL THERAPY**Required Courses—44 hours**

BIOL 151	General Biology	4
BIOL 152	General Biology	4
BIOL 386	Research Methods II	1
BIOL 411	Human Anatomy	4
BIOL 416	Mammalian Physiology	4
BIOM 301	Professional Shadowing	1
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 courses of psychology are required	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 416	Mammalian Physiology	4
BIOL 477	Issues in Origins and Speciation	3
BIOL 205	Microbiology	4
CHEM 445	Biochemistry	4
CHEM 446	Biochemistry II	3
HHPT 356	Physiology of Exercise	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.

business administration

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.

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FACULTY

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ADJUNCT FACULTY

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

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 376	Human Resources Management	3
BUAD 405	Business Ethics	1
BUAD 425	Business Communications	3
BUAD 428	Business Policies	3
BUAD 445	Business Law	4
CPTR 220	Microcomputer Applications	3
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
FNCE 325	Business Finance	3
MATH 165	Calculus for Managers	3
MATH 221	Elementary Statistics and Probability	3
MRKT 327	Marketing	3
RELT 305	Christian Ethics	3
— 475	Internship in ACCT, BUAD, FNCE, or MRKT	1

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

BUSINESS CORE		45
ACCT 313, 314	Intermediate Accounting	4, 4
ACCT 315	Federal Income Tax—Individual	3

ACCT 316	Federal Tax—Corporate, Partnership and Fiduciary	3
ACCT 325	Cost and Managerial Accounting	3
ACCT 443	Governmental and Not-for-Profit Accounting	3
ACCT 449	Advanced Accounting	3
ACCT 455	Auditing	4

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
<i>Additional course recommended</i>		
BUAD 420	Advanced Excel	1

BUSINESS ADMINISTRATION—BS

Finance Emphasis

Required courses—68 hours

BUSINESS CORE		45
ACCT 313, 314	Intermediate Accounting	4, 4
FNCE 330	Financial Institutions and Markets	3
FNCE 332	Investments	3
FNCE 370	International Finance	3
Select additional courses from ACCT, BUAD, FNCE, or MRKT 333		6

BUSINESS ADMINISTRATION—BS

Financial Aid Emphasis

Required courses—71 hours

BUSINESS CORE		45
ACCT 313	Intermediate Accounting	4
ACCT 315	Federal Income Tax – Individual	3
BUAD 310	Quality Management	3
BUAD 420	Advanced Excel	1
BUAD 430	Conflict Management	3
COMM 465	Interpersonal Communication	3
FNCE 215	Personal Finance	3
FNCE 340	Financial Aid Operations	3
PSYC 105	Introduction to Psychology	3

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

BUSINESS CORE		45
BUAD 310	Quality Management	3
BUAD 316	Operations and Resource Management	3
BUAD 430	Conflict Management	3
BUAD 455, 456	Advanced Human Resource Management	2, 2
CPTR	Additional CPTR course(s) 190 level or above	2
<i>Select additional courses from (at least one must be ACCT 313 or 325)</i>		9
ACCT 313	Intermediate Accounting (4)	
ACCT 325	Cost and Managerial Accounting (3)	
FNCE 332	Investments (3)	
Any ACCT, BUAD, FNCE or MRKT course(s) (3-6)		

BUSINESS ADMINISTRATION—BS

Marketing Emphasis

Required courses—66 hours

BUSINESS CORE		45
COPR 241	Public Relations Principles	3
MRKT 333	Professional Selling	3
MRKT 443	Consumer Behavior	3
MRKT 456	Marketing Research	3
PSYC 105	Introduction to Psychology	3
<i>Select additional courses from</i>		6
COMM 365	Institutional Development (3)	
COPR 316	Advertising Practices (3) Recommended	
COPR 332	Rhetoric (3)	
COPR 445	Public Relations Campaigns (3)	
GRPH 150	Introduction to Graphic Arts (3) Recommended	

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

Business courses		
ACCT 211, 212	Principles of Accounting	3, 3
BUAD 376	Human Resources Management	3
BUAD 425	Business Communications	3
BUAD 428	Business Policies	3
CPTR 220	Microcomputer Applications	3

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
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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
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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;

business administration

- 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—106 hours

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 376	Human Resources Management	3
BUAD 425	Business Communications	3
BUAD 445	Business Law	4
BUAD 475	Internship in Management	3
COPR 241	Public Relations Principles	3
CPTR 190	PC Technology Fundamentals	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 240	System Administration	3
ECON 235	Principles of Microeconomics	3
	or ECON 236 Principles of Macroeconomics (3)	
MATH 111	College Algebra	3
MRKT 327	Marketing	3
<i>Select three hours from</i>		3
BUAD 138	Dynamics of Business (3)	
BUAD 310	Quality Management (3)	
FNCE 215	Personal Finance (3)	
FNCE 332	Investments (3)	
<i>Select three hours from</i>		3
CPTR 227	Computer Science II (4)	
CPTR 320	Networking (3)	
CPTR 335	Web Technologies (3)	
<i>Select three hours from</i>		3
COPR 316	Advertising Practices (3)	
MRKT	300-400 level (3)	
<i>Professional Education</i>		
EDUC 411	Methods: Business Teacher Education	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).

ACCOUNTING—AS

Required courses—32 hours

ACCT 211, 212	Principles of Accounting	3, 3
ACCT 313	Intermediate Accounting	4
ACCT 314	Intermediate Accounting	4
	or ACCT 455 Auditing (4)	
ACCT 315	Federal Income Tax Individual	3
ACCT 335	Accounting Information Systems	3
FNCE 325	Business Finance	3

MATH 221	Elementary Statistics and Probability	3
Select two additional courses from ACCT, BUAD, ECON		6

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

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 138	Dynamics of Business	3
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)	

Select additional courses from 9

ACCT	Any ACCT course above 212 (3-4)
BUAD 376	Human Resources Management (3)
BUAD 445	Business Law (4)
CPTR 220	Microcomputer Applications (3)
FNCE	Any FNCE 300-400 level course (3)
MATH	1Any MATH course above 111 (3)

MINOR IN ACCOUNTING

Required courses—19 hours

ACCT 211, 212	Principles of Accounting	3, 3
ACCT 313	Intermediate Accounting	4
ACCT 315	Federal Income Tax Individual	3
Select 6 hours from any ACCT courses		6

MINOR IN BUSINESS ADMINISTRATION

Required courses—18 hours

ACCT 211	Principles of Accounting	3
BUAD 138	Dynamics of Business	3
ECON 235	Principles of Microeconomics	3
	or ECON 236 Principles of Macroeconomics (3)	
Select at least nine hours from		9
ACCT 212	Principles of Accounting (3)	
BUAD 445	Business Law (4)	
BUAD 376	Human Resources Management (3)	
FNCE 325	Business Finance (3)	
MRKT 327	Marketing (3)	

MINOR IN MARKETING

Required courses—19 hours

COPR 241	Public Relations Principles	3
MRKT 327	Marketing	3
MRKT 333	Professional Selling	3
MRKT 443	Consumer Behavior	3
MRKT 456	Marketing Research	3

business administration

MRKT 475	Internship in Marketing	1
PSYC 105	Introduction to Psychology	3

MINOR IN SMALL BUSINESS MANAGEMENT**Required courses—21 hours**

ACCT 211	Principles of Accounting	3
ACCT 335	Accounting Information Systems	3
BUAD 219	Small Business Management	3
BUAD 475	Internship in Management	3
ECON 235	Microeconomics	3

Select two courses from 6

ACCT 212	Principles of Accounting (3)
BUAD 138	Dynamics of Business (3)
BUAD 445	Business Law (4)
CPTR 220	Microcomputer Applications (3)
FNCE 325	Business Finance (3)
FNCE 332	Investments (3)
MRKT 327	Marketing (3)

chemistry

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.

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FACULTY

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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

chemistry

CHEMISTRY CORE—47–49 HOURS

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 296	Research Methods I	1
	or MATH 221 Elem Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
CHEM 311	Analytical Chemistry	4
CHEM 312	Instrumental Analysis	4
CHEM 386	Research Methods II	1
CHEM 412	Physical Chemistry II (Thermodynamics)	4
MATH 184, 285	Calculus I, II	4, 4
PHYS 251, 252	College Physics	4.5, 4.5

CHEMISTRY - BA**Required courses—65–70 hours**

CHEMISTRY CORE		47–49
CHEM 411	Physical Chemistry I	
	(Quantum Mechanics-Kinetics)	4
CHEM	Chemistry Electives (300 or 400-level)	4–6
CPTR	An approved computer language	3–4
Divisional or approved electives		7
(at least 3 hours must be non-chemistry)		

CHEMISTRY - BS

General Chemistry Emphasis

Required courses—71–74 hours

CHEMISTRY CORE		47–49
CHEM 396	Research Methods III	1
CHEM 411	Physical Chemistry I	
	(Quantum Mechanics-Kinetics)	4
CHEM 496	Research Methods IV	1
CHEM	Chemistry Electives (300 or 400-level)	8
CPTR	An approved computer language	3–4
MATH 286	Calculus III	4
	or MATH 352 Linear Algebra (3)	
	or MATH 385 Differential Equations (3)	
	or MATH 486 Numerical Analysis (3)	
Divisional or approved (non-chemistry) electives		3

CHEMISTRY - BS

Biochemistry Emphasis

Required courses—72–76

CHEMISTRY CORE		47–49
BIOL 151, 152	General Biology	4, 4
BIOL 321	Genetics	4
BIOL 404	Cell Biology	4
CHEM 445, 446	Biochemistry I, II	4, 3
CHEM	Chemistry elective (300 or 400-level)	2–4
Select one of the following courses:		3–4
BIOL 306	Histology (3)	

BIOL 314	Immunology (3)
BIOL 411	Human Anatomy (4)
BIOL 416	Mammalian Physiology (4)
BIOL 436	Developmental Biology (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

ASTR 111	Astronomy	4
BIOL 151, 152	General Biology	4, 4
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 296	Research Methods I or MATH 221 Elem Statistics & Probability (3) or MATH 331 Statistics & Probability (3)	1
CHEM 311	Analytical Chemistry	4
CHEM 312	Instrumental Analysis	4
CHEM 386	Research Methods II	1
CHEM 396	Research Methods III	1
CHEM 445	Biochemistry I	4
MATH 184	Calculus I	4
PHYS 151, 152	General Physics or PHYS 251, 252 College Physics (4.5, 4.5)	4, 4
SCNC 301	Science and Society	1
<i>Professional education</i>		
EDUC 418	Methods: Science Education	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).

MINOR IN CHEMISTRY
Required courses—20 hours

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 311	Analytical Chemistry or CHEM 412 Physical Chemistry II (4)	4

communication

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.

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Mark Robison

ADJUNCT FACULTY

LuAnn Davis, Ryan Teller

ACADEMIC PROGRAMS

Communication, BA
Emphases in Journalism
Public Relations
Institutional Development, BS
Minors in Communication
Drama

COMMUNICATION CORE—29 HOURS

COJR 151	Photography	3
COJR 221	Reporting	3
COJR 245	Editing	3
COJR 457	Magazine Writing	3
COMM 125	Media and Meaning	3
COMM 290	Sophomore Seminar	1
COMM 320	Communication Theory and Research	3
COMM 465	Interpersonal Communication	3
COMM 490	Senior Seminar	1
GRPH 150	Introduction to Graphic Arts	3
<i>Required specific LEAD/general education course</i>		
MATH 221	Elementary Statistics and Probability	3

COMMUNICATION—BA
Journalism Emphasis
Required courses—48 hours

COMMUNICATION CORE 29

COJR 360	Communication through Digital and Emerging Media	3
COJR 458	In-Depth Reporting	3
COJR 474	Journalism Practicum	4
<i>Select nine hours from</i>		9

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)

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

COMMUNICATION—BA
Public Relations Emphasis
Required courses—56 hours

COMMUNICATION CORE 29

COMM 365	Institutional Development	3
COPR 241	Public Relations Principles	3
COPR 377	Crisis Public Relations	2
COPR 445	Public Relations Campaigns	3
COPR 475	Public Relations Practicum	4
<i>Select twelve hours from</i>		12
COJR 360	Communication through Digital and Emerging Media (3)	

communication

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**

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

Select 9 hours from 9

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 9 hours from 9

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)
GRPH 358	Typography (3)
GRPH 460	Prepress Production (2)

Select 9 additional hours from either group above or a combination 9

MINOR IN COMMUNICATION**Required courses—19 hours**

COJR 221	Reporting	3
COMM 125	Media and Meaning	3
COMM 290	Sophomore Seminar	1
GRPH 150	Introduction to Graphic Arts	3

Select nine from the following:

9

(3 hours must be 300 or 400 level)

COJR 151	Photography (3)
COJR 245	Editing (3)
COJR 360	Communication through Digital and Emerging Media (3)
COJR 457	Magazine Writing (3)
COJR 458	In-Depth Reporting (3)
COMM 335	Video Production (3)
COMM 425	Intercultural Communication (3)
COMM 465	Interpersonal Communication (3)
COPR 241	Public Relations Principles (3)
COPR 316	Advertising Practices (3)
GRPH 254	Publication Design (3)

MINOR IN DRAMA

Required courses—20 hours

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

Theatre	Introduction to Theatre	3
Theatre	Approved Acting Course	3
Theatre	Technical Theatre	3
CODR 210	Religious Drama	2
CODR 229	Play Production I	3
CODR 329	Play Production II	3
CODR 471	Play Direction	3

computing

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.

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ADJUNCT FACULTY

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ACADEMIC PROGRAMS

Computing, BS
Emphases in Business
Computer Information Systems
Computer Science
Web Design

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

COMPUTING CORE—21 HOURS

CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CPTR 240	System Administration	3
CPTR 327	Systems Analysis and Design	3
CPTR 424	Database Systems	3
CPTR 475	Internship in Computing	3

COMPUTING - BS

Business Emphasis

Required courses—70 hours

COMPUTING CORE	21
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Additional computing courses

CPTR 220	Microcomputer Applications	3
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<i>Select nine hours from</i>		9
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CPTR 320	Networking (3)	
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CPTR 325	Programming Languages (3)	
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CPTR 335	Web Technologies (3)	
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CPTR 405	Software Engineering (3)	
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CPTR 420	Advanced System Administration (3)	
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Other courses required for major:

ACCT 211, 212	Principles of Accounting	3, 3
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BUAD 376	Human Resource Management	3
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BUAD 405	Business Ethics	1
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BUAD 425	Business Communications	3
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BUAD 428	Business Policies	3
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ECON 235	Principles of Microeconomics	3
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	or ECON 236 Principles of Macroeconomics (3)	
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FNCE 325	Business Finance	3
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MATH 165	Calculus for Managers	3
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	or MATH 221 Elementary Statistics & Probability (3)	
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MRKT 327	Marketing	3
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RELT 305	Christian Ethics	3
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Select six hours from 300-400 level ACCT, BUAD, FNCE		6
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COMPUTING—BS

Computer Information Systems Emphasis

Required courses—68 hours

COMPUTING CORE	21
<i>Additional computing courses</i>	
CPTR 190	PC Technology Fundamentals 1
CPTR 220	Microcomputer Applications 3
CPTR 320	Networking 3
CPTR 325	Programming Languages 3
CPTR 335	Web Technologies 3
CPTR 420	Advanced System Administration 3
<i>Select three hours from</i>	
CPTR 310	Data Structures and Algorithms (3) 3
CPTR 405	Software Engineering (3)
CPTR 451	Operating Systems Principles (3)
<i>Other courses required for major</i>	
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)
RELT 305	Christian Ethics 3
<i>Select three hours from</i>	
MATH 165	Calculus for Managers (3) 3
MATH 184	Calculus I (4)
MATH 221	Elementary Statistics and Probability (3)
MATH 331	Statistics and Probability (3)
<i>Select six hours from 300-400 level ACCT, BUAD, FNCE</i>	
<i>Recommended</i>	
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—74 hours

COMPUTING CORE	21
<i>Additional computing courses</i>	
CPTR 230	Computer Organization 3
CPTR 310	Data Structures and Algorithms 3
CPTR 320	Networking 3
CPTR 325	Programming Languages 3
CPTR 405	Software Engineering 3
CPTR 451	Operating Systems Principles 3
<i>Select either</i>	
CPTR 335	Web Technologies (3) or
CPTR 420	Advanced System Administration (3)

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
RELT 305	Christian Ethics	3
<i>Select three hours from</i>		3
MATH 352	Linear Algebra (3)	
MATH 351	Abstract Algebra (3)	
MATH 486	Numerical Analysis (3)	

COMPUTING—BS

Web Design Emphasis

Required courses—70 hours

COMPUTING CORE	21
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Additional computing courses

CPTR 220	Microcomputer Applications	3
CPTR 320	Networking	3
CPTR 335	Web Technologies	3
CPTR 420	Advanced System Administration	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 or MATH 165 Calculus for Managers (3)	3
MRKT 327	Marketing	3
RELT 305	Christian Ethics	3

INFORMATION TECHNOLOGY EDUCATION

Supplemental Secondary Endorsement (Requires another endorsement)

Required courses—22 hours

CPTR 190	PC Technology Fundamentals	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CPTR 240	System Administration	3
Select six hours from 300–400 level computer courses		6

Professional Education (Requires another teaching major.)

Must accompany another teaching major to qualify for a Nebraska teaching certificate (See Education–Secondary Education Endorsements).

COMPUTING—AS**Required courses—34 hours**

Computing courses

CPTR 190	PC Technology Fundamentals	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CPTR 240	System Administration	3
CPTR 335	Web Technologies	3
Select six hours from 300–400 level computer courses		6
<i>Other courses required for major</i>		
ACCT 211	Principles of Accounting	3
BUAD 138	Dynamics of Business	3
<i>Select three hours from</i>		3
MATH 165	Calculus for Managers (3)	
MATH 184	Calculus I (4)	
MATH 221	Elementary Statistics & Probability (3)	

MINOR IN COMPUTER INFORMATION SYSTEMS**Required courses—22 hours**

CPTR 190	PC Technology Fundamentals	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CPTR 240	System Administration	3
CPTR 335	Web Technologies	3
Select three hours from 300–400 level computer courses		3

MINOR IN COMPUTER SCIENCE**Required courses—25 hours**

CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CPTR 230	Computer Organization	3
CPTR 240	System Administration	3
CPTR 335	Web Technologies	3
MATH 184	Calculus I	4
Select three hours from 300–400 level computer courses		3

education

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.

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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)**

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

Other required courses

ART 215	School Art	2
MATH 320	Mathematical Concepts for Elementary School Teachers	3
MUED 347	Music in the Elementary School	2
PSYC 215	Developmental Psychology	3
RELH 310	History of the Seventh-day Adventist Church	3
RELT 141	Christian Beliefs	3
RELT 455	Prophetic Guidance in the Advent Movement	3
RELB	Religion elective	3

Specific program requirement—35 hours

BIOL 102	Environment and Life Science	3
CHEM 101	Introduction to Inorganic Chemistry	4
CPTR 220	Microcomputer Applications	3
GEOG 137	Introductory Geography or GEOG 227 World Regional Geography (3)	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. or HIST 455 Recent American History (3)	3
LITR 231	Ancient Western Literature or LITR 232 Modern Western Literature (3)	3
MATH 111	College Algebra	3
PHYS 111	Principles of Physics or ASTR 111 Astronomy (4)	4
PLSC 205	American Government	3

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

EDUC 125	Introduction to Teaching	3
EDUC 218	Philosophy of Education	3

EDUC 225	Seminar in Education Diversity: Multicultural/HRT	1
EDUC 345	Learning Theories and Measurement	3
EDUC 346	Special Education in the Classroom	3
EDUC 356	General Secondary Methods	3
EDUC 410-418	Special Methods-In area of Major	3
EDUC 475	Student Teaching	16
EDUC 476	Content Reading and Writing	3
EDUC 485	Issues in Education	1
PSYC 215	Developmental Psychology	3
RELB	Religion elective	3
RELH 310	History of the Seventh-day Adventist Church	3
RELT 141	Christian Beliefs	3
RELT 455	Prophetic Guidance in the Advent Movement	3

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

Supplemental Endorsements

English as a Second Language (ESL) K-12
Information Technology K-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)

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 will receive 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. However, the accreditation 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 or listed 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.

engineering

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

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FACULTY

Keith Riese

ACADEMIC PROGRAMS

Engineering, AS

ENGINEERING—AS

Required courses—50 hours

CHEM 151, 152	General Chemistry	4, 4
CPTR	An approved computer language	4
ENGR 111, 112	Introduction to Engineering	2, 2
ENGR 211	Statics	3
ENGR 212	Dynamics	3
ENGR 228	Electric Circuit Analysis	4
MATH 184	Calculus I	4
MATH 285, 286	Calculus II, III	4, 4
MATH 352	Linear Algebra	3
PHYS 251, 252	College Physics	4.5, 4.5

english

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

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FACULTY

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

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
<i>Select five courses (300-400 level) from</i>		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)	
<i>Required specific general education courses</i>		
LITR 231	Ancient Western Literature or LITR 232 Modern Western Literature (3)	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
<i>Select two courses (299-400 level) from</i>		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)	
<i>Required specific general education courses</i>		
LITR 231	Ancient Western Literature or LITR 232 Modern Western Literature (3)	3
RELB 366	Biblical Literature	3
Select one American history course		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—89 hours

COJR 457	Magazine Writing	3
COPR 332	Rhetoric	3
EDUC 357	Literature for Children and Adolescents	2
ENGL 112	College Writing II	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
LITR 231	Ancient Western Literature	3
LITR 232	Modern Western Literature	3
LITR	One British Literature (300 level or above)	3
LITR	One American Literature (300 level or above)	3
<i>Required specific LEAD/general education course</i>		
RELB 366	Biblical Literature	3
<i>Recommended</i>		
	Beginning College Modern Language (6)	
<i>Professional education</i>		
EDUC 412	Methods: Language Arts Education	3
	Additional Professional Education	48

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—122 hours

CODR 229	Play Production I	3
COJR 221	Reporting	3
COJR 245	Editing	3
COJR 457	Magazine Writing	3
COMM 105	Public Speaking	2
COMM 125	Media and Meaning	3
COMM 355	Advanced Speech and Oral Interpretation	3
COMM 465	Interpersonal Communication	3
COPR 332	Rhetoric	3
EDUC 357	Literature for Children and Adolescents	2
EDUC 476	Content Reading and Writing	3
ENGL 112	College Writing II	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
LITR 231	Ancient Western Literature	3
	or LITR 232 Modern Western Literature (3)	
LITR 299	Seminar in Non-Western Literature	3
LITR 352	Women and Minority Writers	3

LITR	British literature 300 level or above	3
LITR	American literature 300 level or above	3
<i>Select two courses from</i>		6
CODR 329	Play Production II (3)	
COJR 151	Photography (3)	
COJR 458	In-Depth Reporting (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)	
GRPH 150	Introduction to Graphic Arts (3)	
GRPH 358	Typography (3)	
<i>Required specific LEAD/general education course</i>		
RELB 366	Biblical Literature	3
<i>Professional education</i>		
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)	
<i>Select twelve hours from</i>		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)	

english for academic purposes

MISSION

The EAP program welcomes students from diverse backgrounds and cultures and equips them with language skills sufficient for academic work in American higher education. The program encourages in students an appreciation for spiritual, cultural and social values.

GOALS

- Students exiting the EAP program will be prepared to
- Succeed in undergraduate or graduate pursuits;
- Be ambassadors of a positive example of American culture and Christian values;
- Serve globally through intellectual, social and spiritual means.

CONTACT INFORMATION

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FACULTY

Jenienne Kriegelstein, Peggy Wahlen

ACADEMIC PROGRAMS

English Language Studies, AA
English as a Second Language Education—Supplemental Secondary
Endorsement

Levels of Instruction

The English for Academic Purposes curriculum consists of two levels of instruction, intermediate and advanced. Beginning level workshops are available by distance learning technology.

Placement

Students whose native language is not English and who have not provided scores indicating language proficiency are tested when they arrive to determine the level at which they should begin studies. Students with a current minimum institutional TOEFL score of 550 with minimum section scores of 52, plus a satisfactory test of written English will be exempt from EAP requirements (See Admissions for other tests that are also accepted).

Advancement

The Institutional TOEFL and a test of written English are administered at the end of each semester to determine students' advancement. Advancement to the next level in a specific skill is determined by the TOEFL score of a particular skill (grammar, reading, writing, listening) and by a minimum grade of C (2.00) in the current course of the particular skill.

Enrollment in regular college classes

Enrollment in regular college classes is limited to 100- and 200-level courses concurrently with EAP courses. Eligibility depends on students' language skills (475 TOEFL minimum). Continuing enrollment depends on a minimum grade of C (2.00) in each EAP course taken during the most recent semester. If students fall below this standard, they must return to full-time EAP work. Students must check with course instructors prior to enrolling in specific courses since some departments and courses require a minimum TOEFL score of 550 for admission.

EAP Suspension/Probation Policy

EAP students whose overall GPA in EAP classes for the current semester is lower than C (2.00) and/or whose TOEFL scores have not increased may be placed on probation or suspended from the college. Performance is evaluated at the end of each semester.

Exiting EAP

An EAP student in good standing (a minimum grade of C [2.00] in each ESL course taken during the current semester) may exit the EAP program and receive a favorable recommendation for admission as a regular student on meeting the English standard for admission, for example by achieving an Institutional TOEFL score of 550 with minimum scores of 52 plus a satisfactory test of written English. Some majors set a higher TOEFL score requirement for entrance into their programs.

Financial Information

Financial information regarding tuition, fees, medical insurance, books and supplies as well as other information can be obtained on the Web site www.ucollege.edu/esl or by addressing

Student Financial Services, Union College, 3800 South 48th Street, Lincoln NE 68506 or by e-mailing sfs@ucollege.edu.

ENGLISH LANGUAGE STUDIES—AA

The prerequisite for these courses is a minimum TOEFL score of 475. A TOEFL score of 550 is required for graduation from this program. As in other associate degrees, a minimum grade of C (2.00) is required for all courses listed below with an overall grade-point average (GPA) of 2.00, a minimum of 64 semester hours, and completion of the general education requirements for an associate degree (see Graduation Requirements). This Associate of Arts degree is available only to students whose native language is not English.

Required courses—33 hours

COMM 105	Public Speaking	2
ENGL 112	College Writing II	3
ENGL 272	Grammatical Systems	3
EAPP 134	Advanced Reading	3
EAPP 136	Advanced Writing	3
EAPP 138	Advanced Speaking/Listening	3
EAPP 187	TOEFL Preparation	4
LITR 235	Approaches to Literature: British and American	3
	or LITR 231 Ancient Western Literature (3) or LITR 232 Modern Western Literature (3)	3
<i>Select three courses from</i>		9
COMM 125	Media and Meaning (3)	
EDUC 302	ESL Teaching Methodology and Materials (3)	
HIST 255	Issues in American History (3)	
LITR ____	Literature elective (3)	
PLSC 205	American Government (3)	
SOCI 105	Introduction to Sociology (3)	

ENGLISH AS A SECOND LANGUAGE EDUCATION

Supplemental Secondary Endorsement (Requires another endorsement)

Required courses—16–18 hours

EDUC 225	Seminar in Education Diversity: Multicultural/HRT	1
EDUC 302	ESL Teaching Methodology and Materials	3
EDUC 450	Methods in Reading and Language Arts (K-8) or EDUC 476 Content Reading and Writing (3)	5
ENGL 202	Language and Culture	1
ENGL 302	TESL Grammar and Linguistics	3
ENGL 303	Second Language Acquisition	3
ENGL 304	Second Language Assessment	2
Professional Education (Requires another teaching major.)		
Must accompany another teaching major to qualify for a Nebraska teaching certificate		
(See Education—Secondary Education Endorsements).		

graphic design

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

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FACULTY

Bruce Forbes, James D. McClelland,

ADJUNCT FACULTY

Lynn Davis, Debra Johnson, Konstantin Lisovski, Ed Mejia, Rob Moore,
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.

graphic design

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—61–62 hours**

ART CORE		17
ART 175, 275, 375, 475	Graphic Design Seminar (0.5 each)	2
ART 347	Illustration Techniques I	2
CPTR 225	Web Development Basics	1
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 (*Recommended)		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)	

GRAPHIC DESIGN—BS**Communication Emphasis**

Select 12 hours from (*Recommended)		12
COJR 221	Reporting (3)	
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)*

GRAPHIC DESIGN—AS

Required courses—31–32 hours

ART 105	Drawing I	2
ART 115	Design I	2
ART 175, 275	Graphic Design Seminar (0.5 each)	1
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 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

health and human performance

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

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FACULTY

Krystal Hauff, 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

BIOL 111, 112	Human Anatomy & Physiology	4, 4
CPTR 220	Microcomputer Applications	3
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 345	Sports Nutrition	2
HHPT 350	Practicum	1
HHPT 356	Physiology of Exercise	3
HHPT 357	Motor Learning	3
HHPT 360	Biomechanics	3
HHPT 370	Personal Training	3
HHPT 437	Measurement and Evaluation in HHP	2
HHPT 475	Internship	4
HHPT 485	Seminar in Health and Human Performance	1
HHPT 486	Senior Capstone	1
PSYC 215	Developmental Psychology	3

BUSINESS/SPORT MANAGEMENT—BS

The degree in Business/Sport Management 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		44
Business courses		
ACCT 211, 212	Principles of Accounting	3, 3
BUAD 219	Small Business Management	3
	or BUAD 138 Dynamics of Business (3)	
BUAD 376	Human Resources Management	3
BUAD 425	Business Communications	3
MRKT 327	Marketing	3
<i>Select two health and human performance activity courses from</i>		2
HHPA 112	Water Aerobics (1)	
HHPA 137	Gymnastics for Everyone (1)	
HHPA 145	Beginning Badminton (1)	
HHPA 151	Beginning Volleyball (1)	
HHPA 153	Beginning Basketball (1)	
<i>Additional health and human performance required courses</i>		
HHPA 147	Beginning Tennis	1
HHPA 149	Beginning Golf	1
HHPA 215	Intermediate/Advanced Swimming	1
	or HHPA 316 Lifeguard Training (1)	
	or HHPA 317 Water Safety Instruction (1)	

health and human performance

HHPT 235, 236	Principles of Sports Officiating	1.5, 1.5
HHPT 335	Administration of Intramural Sports	3
HHPT 340	Introduction to Coaching Theory	2
HHPT 351	Practicum	1
HHPT 366	Adapted Physical Education	2

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
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Additional health and human performance courses

HHPT 474	Internship	2
HHPT 256	Medical Terminology	1

Science courses

CHEM 151, 152	General Chemistry	4, 4
CHEM 211	Organic Chemistry	4
PHYS 151	General Physics	4

Other Courses

MATH 221	Elementary Statistics and Probability	3
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FITNESS AND WELLNESS—BS

The degree 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
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Business courses

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

Additional health and human performance courses

HHPA 316	Lifeguard Training or HHPA 317 Water Safety Instructor (1)	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
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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—109 hours

EDUC 245	Physical Education in Elementary School	2
<i>Health and human performance courses</i>		
HHPA 147	Beginning Tennis	1
HHPA 149	Beginning Golf	1
HHPA 215	Intermediate/Advanced Swimming or HHPA 316 Lifeguard Training (1) or HHPA 317 Water Safety Instruction (1)	1
HHPA 151	Beginning Volleyball or HHPA 137 Gymnastics for Everyone (1) or HHPA 145 Beginning Badminton (1) or HHPA 153 Beginning Basketball (1)	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 316	Leisure and Recreational Activities	2
HHPT 326	Team Activities	2
HHPT 335	Administration of Intramural Sports	3
HHPT 337	Gymnastics for Teachers	1
HHPT 340	Introduction to Coaching Theory	2
HHPT 350	Practicum	1
HHPT 356	Physiology of Exercise	3
HHPT 357	Motor Learning	3
HHPT 360	Biomechanics	3
HHPT 366	Adapted Physical Education	2

health and human performance

HHPT 370	Personal Training	3
HHPT 437	Measurement and Evaluation in HHP	2
HHPT 485	Seminar in Health and Human Performance	1
HHPT 486	Senior Capstone	1
<i>Other required courses</i>		
BIOL 111, 112	Human Anatomy and Physiology	4, 4
CPTR 220	Microcomputer Applications	3
<i>Professional Education</i>		
EDUC 416	Methods: Physical Education	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).

MINOR IN BUSINESS/SPORT MANAGEMENT

Participation in annual fitness test is required.

Required courses—26 hours

<i>Health and human performance courses</i>		
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 or BUAD 138 Dynamics of Business (3)	3
GRPH 150	Introduction to Graphic Arts	3
MRKT 333	Professional Selling or MRKT 327 Marketing (3)	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

<i>Health and human performance courses</i>		
HHPA 220	Healthy Eating and Fitness	1
HHPT 129	Introduction to Fitness and Wellness Management	3
HHPT 215	Emergency Health Care	2

HHPT 476	Wellness Methods, Materials and Management	3
HHPT 370	Personal Training	3
<i>Other required courses</i>		
BIOL 111, 112	Human Anatomy and Physiology	4, 4
GRPH 150	Introduction to Graphic Arts or MRKT 333 Professional Selling (3)	3

MINOR IN PERSONAL TRAINING

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	1
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	3
HHPT 345	Sports Nutrition	2
HHPT 356	Physiology of Exercise	3
HHPT 370	Personal Training	3

MINOR IN PHYSICAL EDUCATION

Participation in annual fitness test is required.

Required courses—23 hours

BIOL 111, 112	Human Anatomy and Physiology	4, 4
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	3
HHPT 235, 236	Principles of Sports Officiating	1.5, 1.5
HHPT 326	Team Activities	2
HHPT 335	Administration of Intramural Sports	3
HHPT 340	Introduction to Coaching Theory	2

health sciences

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

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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

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 100 semester hours (only 28 hours of PHAS courses apply toward the BS degree);
- All progression and graduation requirements associated with the MPAS degree.

HEALTH SCIENCES—BS**Required courses—78 hours**

BIOL 151, 152	General Biology	4, 4
BIOL 205	Microbiology	4
BIOL 416	Mammalian Physiology	4
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 445	Biochemistry	4
PSYC 415	Abnormal Psychology	3
PHAS 510	Clinical Nutrition	2
PHAS 511	Human Anatomy	5
PHAS 514	Medical History and Physical Examination Skills	4
PHAS 525	Physician Assistant Professional Issues	3
PHAS 533	Preventive Health	1
PHAS 539	Christian Health Care and Bioethics	3
PHAS 542	Applied Medical Ethics	1
PHAS 559	Clinical Pathophysiology	4
PHAS 584	Pharmacology	5

Prerequisite courses

HHPT 215	Emergency Health Care or evidence of CPR certification	1
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3

history

GOALS

- Student graduating from the history program will
- Develop a knowledge of American and European history appropriate for admission to graduate school;
 - Become prepared for law or professional schools;
 - Undertake independent study and research;
 - Be able to discuss schools of historical thought and understand the contributions of significant historians.

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FACULTY

George Gibson, Benjamin Tyner

ACADEMIC PROGRAMS

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

HISTORY—BA

Required courses—48 hours

BIOL 377	Origins	3
	or SCNC 377 Origins (3)	
GEOG 137	Introductory Geography	3
	or GEOG 227 World Regional Geography (3)	
HIST 160	The West and the World, Part 1	3
	or HIST 161 The West in the World, Part 2 (3)	
HIST 255	Issues in Early American History	3
HIST 485	Seminar in History	3
PLSC 205	American Government	3
PLSC 327	Comparative Governments	3
<i>Select 21 hours from</i>		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)	
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 or HIST 161 The West and the World, Part 2 (3)	3
HIST 255	Issues in Early American History	3
HIST 485	Seminar in History	3
<i>Select 21 hours from</i>		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)	

history

HIST 458	Classical Civilizations (3)	
<i>Other required courses</i>		
GEOG 137	Introductory Geography	3
	or GEOG 227 World Regional Geography (3)	
PLSC 205	American Government	3
PLSC 327	Comparative Government	3
<i>Professional Education</i>		
EDUC 415	Methods: Social Science and Religious Education	3
<i>Additional Professional Education</i>		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

international rescue and relief

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; 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 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 three emphases either prepares students in pre-professional graduate studies to become a doctor, dentist, physician assistant, or physical therapist; public safety as a paramedic, emergency medical services, emergency manager, firefighter, forest or park ranger, search and rescue, and law enforcement; or expeditionary leadership, which prepares students to become leaders for jobs as a disaster/search and rescue team professional, mission's director, logistical/program coordinator, outdoor guide, wilderness or environmental educator, or recreation coordinator. 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

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FACULTY

Brian Hauff, Aaron Kent, Rick Young

ACADEMIC PROGRAMS

International Rescue and Relief, BS

Emphases in Expeditionary Leadership

Pre-Professional (Pre-medical, pre-dental, pre-physician assistant, pre-physical therapy)

Public Safety (firefighter, law enforcement, paramedic)

Minors in Disaster Management

Expeditionary Leadership

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 French or Spanish with a final grade of B.

ADMISSION AND PROGRESSION REQUIREMENTS

Application to the program requires Union College enrollment and coursework during the fall semester of the freshman year for admission into the International Rescue and Relief Program at the beginning of the spring semester. Students wishing to enter the program should apply by November 1 using the application available on the web. A personal interview may be requested.

Criteria for Admission to the IRR Program

- Acceptance into Union College
- The physical, mental, and emotional capacity to function as a professional emergency responder
- The ability to hike, swim, run, adapt and function well in a broad range of climates and austere settings
- A minimum cumulative GPA of 2.5
- Completion of the prerequisite certification: American Heart Association Basic Life Support for the Health Care Provider
- Evidence of successful criminal background check through the IRR program
- Evidence of compliance with health policy requirements, specifically up-to-date immunizations against childhood diseases

Progression in the program requires the student to

- Maintain physical, mental, and emotional capacity to function as a professional emergency responder;
- Compliance with health policy requirements, including completion of the Hepatitis B series, an annual TB test, and annual influenza vaccine
- 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 year of approved community service (must be approved by advisor).

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—52 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 321	Global Health	3
INRR 328	Relief Infrastructure Practicum	2
INRR 330	Travel and Tropical Medicine	3
INRR 340	Jungle, Coastal and Ocean Survival	3
INRR 351	Stress and Rescue Diving*	1
INRR 362	Medical/Conversational Spanish for Latin America	3
INRR 491	Disaster Management and Terrorism	3
REL 347	World Religions	3

*Certificate course

INTERNATIONAL RESCUE AND RELIEF—BS

*BIOL 205 is a required general education course for the degree emphasis

Required courses—74 hours

INTERNATIONAL RESCUE AND RELIEF CORE		52
INRR 420	IRR Preceptorship	1
<i>Select a minor from below that enhances your career choice goals*</i>		21
Accounting—19	Expeditionary Leadership—19	
Biology—32	Fitness and Wellness—23	
Business Administration—18	Graphic Design—21	
Business Sports Management—26	History—18	
Chemistry—20	Marketing—19	
Communications—19	Mathematics—23	
Computer Information Systems—22	Missions—20	
Computer Science—25	Physical Education—23	
English—18	Physics—21	

international rescue and relief

Pre-law—18	Small Business Management—21
Psychology—18	Social Science—18
Religion—18	Youth Ministry—18

*Minor and electives must total 21 hours and be approved by the advisor.

INTERNATIONAL RESCUE AND RELIEF—BS

Expeditionary Leadership Emphasis

*BIOL 106 and BIOL 205 are required general education courses for the degree emphasis

Required courses—71 hours

INTERNATIONAL RESCUE AND RELIEF CORE** 42

** Modified core does not require INRR 210, 220

INRR 420	IRR Preceptorship	1
INRR 430	Expeditionary Leadership	3
INRR 432	Expeditionary Logistics	3
INRR 434	Expeditionary Education Methods	3
INRR 436	Adventure-based Counseling	3
INRR 438	Expeditionary Technology	1
LITR 360	Expeditionary Literature	3
LEAD 225	Creative Leadership	3
SOCI 210	Group Dynamics	3
<i>Select one course from</i>		3
RELP 235	Intro to Youth Leadership (3)	
RELP 335	Youth Leadership in the SDA Church (3)	
<i>Select one course from</i>		3
BUAD 138	Dynamics of Business (3)	
ACCT 211	Principles of Accounting (3)	

INTERNATIONAL RESCUE AND RELIEF—BS

Pre-Professional Emphasis (Pre-dental, pre-medical, pre-physical therapy, pre-physician assistant)

*BIOL 151, CHEM 151, and MATH 121 are required general education courses for the degree emphasis

Required courses—78 hours

INTERNATIONAL RESCUE AND RELIEF CORE 52

Other Courses

BIOL 152	General Biology	4
CHEM 152	General Chemistry	4
CHEM 211, 212	Organic Chemistry	4, 4
<i>Select ten hours from</i>		10
BIOL 205	Microbiology (4)	
BIOL 321	Genetics (4)	
BIOL 345	Biology of Bacteria (4)	
BIOL 411	Human Anatomy (4)	
BIOL 416	Mammalian Physiology (4)	
CHEM 445	Biochemistry I (4)	
HHPT 256	Medical Terminology (1)	
MATH 221	Elementary Statistics and Probability (3)	

PHYS 151, 152	General Physics (4, 4)
PSYC 215	Developmental Psychology (3)
PSYC 415	Abnormal Psychology (3)

INTERNATIONAL RESCUE AND RELIEF—BS**Public Safety Emphasis**

* BIOL 106 and BIOL 205 are required general education courses for the degree emphasis

Required courses – 75 hours

INTERNATIONAL RESCUE AND RELIEF CORE	52
INRR 420 IRR Preceptorship	1
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 Nebraska certification as a Firefighter I, Firefighter II, and Hazardous Materials Operations, as well as an official transcript from their regionally –accredited institution for Fire Protection Technology. Thirty hours are granted for the Fire Protection program and will satisfy the Union College upper division requirement.

*BIOL 106 and BIOL 205 are required general education courses for the degree emphasis

Required courses – 83 hours

INTERNATIONAL RESCUE AND RELIEF CORE	52
Completion of an Accredited Firefighter Program	30
Other required courses	
HHPT 256 Medical Terminology	1

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 transcript from their regionally-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 hours are granted 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.

*BIOL 111 and BIOL 112 are required general education courses for the emphasis

Required courses—87 hours

INTERNATIONAL RESCUE AND RELIEF CORE	52
Completion of an Accredited Paramedic Program	30
BIOL 205 Microbiology	4
HHPT 256 Medical Terminology	1

MINOR IN DISASTER MANAGEMENT

Required courses—18 hours

INRR 210 Principles of Emergency Management	3
INRR 220 Social Dimensions of Disaster	3
INRR 491 Disaster Management and Terrorism	3
INRR 302 HIV and Emerging Diseases	1
<i>Select eight hours from</i>	8
COMM 365 Institutional Development (3)	
COMM 425 Intercultural Communication (3)	
COPR 377 Crisis Public Relations (2)	
NURS 391 Frontier Nursing (2)	
SOCI 388 International Social Services (3)	
SOCI 389 Leadership of an NPO/NGO (3)	
SOCI 415 Crisis and Resilience (3)	

MINOR IN EXPEDITIONARY LEADERSHIP

Required courses—19 hours

INRR 430 Expeditionary Leadership	3
INRR 432 Expeditionary Logistics	3
INRR 434 Expeditionary Education Methods	3
INRR 436 Adventure-based Counseling	3
INRR 438 Expeditionary Technology	1
LITR 360 Expeditionary Literature	3
<i>Select three hours from</i>	3
BUAD 219 Small Business Management (3)	
BUAD 430 Conflict Management (3)	
COMM 365 Institutional Development (3)	
COMM 425 Intercultural Communications (3)	
COPR 377 Crisis Public Relations (2)	
LEAD 225 Creative Leadership (3)	
RELP 235 Introduction to Youth Leadership (3)	
RELP 335 Youth Leadership in the SDA Church (3)	
RELT 305 Christian Ethics (3)	
SOCI 210 Group Dynamics (3)	
SOCI 389 Leadership of an NPO/NGO (3)	

MINOR IN SURVIVAL AND RESCUE**Required courses–19 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 118	Wilderness Upgrade for Medical Professionals*	1
INRR 202	Emergency Medical Technician II*	4
INRR 351	Stress and Rescue Diving*	1

*Certificate course

international studies

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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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

BUAD 445	Business Law	4
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
GEOG 227	World Regional Geography	3
HIST 378	Modern Europe	3
PLSC 327	Comparative Governments	3

Other required courses

Select 12 hours from	12
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ACCT 211	Principles of Accounting (3)
ANTH	Introductory Anthropology (3)
CPTR 220	Microcomputer Applications (3)
ECON	International Economics Course (3)
GEOG 137	Introductory Geography (3)
HIST 315	U.S. Economic History (3)
MRKT	International Marketing (3)
SOCI 321	Issues of Diversity (3)

Required specific LEAD/general education courses

RELT 305	Christian Ethics	3
RELT 347	World Religions	3
SOCI 105	Introduction to Sociology	3
<i>Select an area of concentration (see above).</i>		20

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

leadership minor

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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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
RELT 305	Christian Ethics	3
<i>Students will select six hours from</i>		6
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)	
LEAD 475*	Leadership Internship (3)	
NURS 453	Management and Leadership (3)	
SOCI 321	Issues in Diversity (3)	

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

mathematics

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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FACULTY

Larry Ray, Keith Riese

ACADEMIC PROGRAMS

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

MATHEMATICS CORE—49 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
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
<i>Additional required mathematics courses</i>		
MATH 385	Differential Equations—recommended if supporting area is in science or engineering or MATH 486 Numerical Analysis—recommended if supporting area is in computer science (3)	3
MATH	Mathematics electives (numbered 300 or above)	3

MATHEMATICS—BS

Required courses—61 hours

MATHEMATICS CORE		49
<i>Additional required mathematics courses</i>		
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;

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
<i>Other required course</i>		
CPTR 226	Computer Science I	4
<i>Professional Education</i>		
EDUC 413	Methods: Mathematics Education	3
<i>Additional Professional Education</i>		51
(See Education-Secondary Education Endorsements)		

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

medical laboratory science

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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ADJUNCT FACULTY

Arlie Fandrich, 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, cls@andrews.edu, www.andrews.edu/ALHE

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

medical laboratory science

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.
 - o 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
 - o register as a student at Union College for clinical year (no credit until completion);
 - o 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);
 - o send pictures or make arrangements with the yearbook editor.

MEDICAL LABORATORY SCIENCE—BS

Required courses—83–85 hours

BIOL 151, 152	General Biology	4, 4
BIOL	Biology electives	6–8
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
MATH	College level math (MATH 221 recommended)	3
Clinical courses at Andrews University		50

Additional courses recommended (Choose from)

BIOL 205	Microbiology (4)
BIOL 306	Histology (3)
BIOL 314	Immunology (3)
BIOL 321	Genetics (4)
BIOL 345	Biology of Bacteria (4)
BIOL 416	Mammalian Physiology (4)
CHEM 311	Analytical Chemistry (4)
CHEM 312	Instrumental Analysis (4)
PHYS 111	Principles of Physics (4)
	or PHYS 151, 152 General Physics (4, 4)

modern foreign languages

Majors in Modern Foreign Language and Second Language Studies with emphases in French, German, 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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ACADEMIC PROGRAMS

Modern Foreign Language, BA
Emphases: French, German, or Spanish
Second Language Studies, BA
Emphases: French, German, or Spanish
Minors in French
German
Italian
Spanish

MODERN FOREIGN LANGUAGE—BA

Emphases available in French, German, 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, 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)
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modern foreign languages

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 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 QC
LANG*	History and/or civilization (3 SH; 4-5 QC)		
LANG	Language or grammar (3 SH; 4-5 QC)		
LANG	Literature (3 SH; 4-5 QC)		
LANG	Modern language electives	14 SH	21 QC
*LANG is replaced by the language studied.			

SH=semester hours
QC=quarter credits

music

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.

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FACULTY

Daniel Lynn, Cynthia Stokes

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

MUHL 351	Music History I	2
MUHL 352	Music History II	2
MUHL 353	Music History III	2
MUHL 354	Music History IV	2
MUPF 257	Introduction to Conducting	2
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
MUTH 253	Theory III	3
MUTH 254	Theory IV	3
MUTH 263	Form and Analysis	2
MUTH 462	Introduction to Counterpoint	2
MUTH 465	Orchestration	2

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 or MUED 317 Instrumental Pedagogy (2) or MUED 327 Vocal Pedagogy (2)	2
MUPF 341	Choral Conducting	1

MUPF 342	Instrumental Conducting	1
<u>Primary Performance Area</u>		19
MUPF 351	Junior Recital (1)	
MUPF 451	Senior Recital (1)	
Select one emphasis:		
<i>Instrumental or Keyboard Emphasis</i>		
MUPF	Concentration in one instrument (17) (11 hours must be 200-400 level and 6 hours must be 400 level)	
<i>Vocal Emphasis</i>		
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)	
<u>Secondary Performance Area</u>		
Select four hours from		4
MUAP	Techniques and Materials (1-4) (and/or MUPF Performance Studies (1-4)	
MUPF	Music electives	5
MUPF	Participate in a large ensemble each semester; elect additional experiences in chamber ensembles	
MUSIC EDUCATION—BMUSIC		
K-12 Field Endorsement		
Required courses—109–110 hours		
MUSIC CORE		30
MUED 307	Keyboard Pedagogy or MUED 317 Instrumental Pedagogy (2) or MUED 327 Vocal Pedagogy (2)	2
MUED 347	Music in the Elementary School	2
MUPF 341	Choral Conducting	1
MUPF 342	Instrumental Conducting	1
<u>Primary Performance Area</u>		
MUPF 451	Senior Recital	1
Select one emphasis:		12-13
<i>Instrumental or Keyboard Emphasis</i>		
MUPF	Concentration in one instrument (12) (6 hours must be 200-400 level and 6 hours must be 400 level)	
<i>Vocal Emphasis</i>		
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)	
<u>Secondary Performance Area</u>		
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
<i>Select three courses from MUAP 207-257</i>		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)	
<i>Primary Performance Area</i>		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
<i>Additional Professional Education</i>		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
<i>Select one course from</i>		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)	
<i>Primary Performance Area</i>		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.	
<i>Professional Education</i>		
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 or MUED 317 Instrumental Pedagogy (2) or MUED 327 Vocal Pedagogy (2)	2
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
MUTH 253	Theory III	3
MUTH 254	Theory IV	3
MUTH 263	Form and Analysis	2
<i>Primary Performance Area</i>		
MUPF	Concentration in instrument, voice or keyboard (2 hours must be 300-400 level)	8
MUPF	Electives: ensembles (recommended)	6
Participate in an ensemble each semester; select other electives in diction, conducting, techniques and materials, or music history.		
Other required courses		
BUAD 138	Dynamics of Business	3
MUED 275	Music Practicum	4
PSYC 215	Developmental Psychology	3

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 (6 hours in a concentration - 2 at 300 level) (6)	8

	Performance electives (2)	
	Partial recital	
MUPF	Electives: ensembles (recommended)	3
	(One hour must be 300-400 level)	

natural science education

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.

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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.

natural science education**Required courses—86 hours**

ASTR 111	Astronomy	4	
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)		
	(PHYS 251, 252 required for physics emphasis)		
BIOL 477	Issues in Origins and Speciation		3
	Science Elective		1
<i>Professional Education</i>			
EDUC 418	Methods: Science Education		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).

NATURAL SCIENCE EDUCATION—BS**Biology Emphasis—21 hours**

BIOL 321	Genetics		4
BIOL 375	Ecology		4
BIOL 111, 112	Anatomy and Physiology		4, 4
	or BIOL 416 Mammalian Physiology (4)		
	and Biology Elective (4)		
MATH 121	Precalculus		5

NATURAL SCIENCE EDUCATION—BS**Chemistry Emphasis—21 hours**

CHEM 211, 212	Organic Chemistry		4, 4
CHEM 311	Analytical Chemistry		3
CHEM 312	Instrumental Analysis		3
CHEM	Chemistry Electives		2
MATH 121	Precalculus		5

NATURAL SCIENCE EDUCATION—BS**Physics Emphasis—20 hours**

MATH 184	Calculus I		4
PHYS 228	Electric Circuit Analysis		4
PHYS 350	Modern Physics		4
PHYS 351	Quantum Mechanics		4
PHYS	Physics Elective		3
	Additional hour from PHYS 251, 252		1
	(listed in natural science above)		

nursing

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.

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SIMULATION CENTER COORDINATOR

Tracy Hagele

ADMISSION, PROGRESSION AND GRADUATION REQUIREMENTS

The Division of Nursing Admission 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 Committee 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 only on 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 for the lead faculty member of that course to evaluate for content equivalence. The student may also be required to take the corresponding Assessment Technology Institute (ATI) assessment exam (#) to demonstrate sufficient content mastery according to the Nursing Program admission policy. 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. Regardless of prior education or experience, NURS 305 Physical Assessment, NURS 311 Pathophysiology I and NURS 312 Pathophysiology II must be completed at Union College. All transfer students must provide an additional letter of reference from their previous nursing program director upon application.

The Division of Nursing begins reviewing applicants 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 admission to 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 admission in the nursing program

- Acceptance into Union College;
- Completion of required prerequisite courses with a grade of C or above (*indicates courses that may be taken as corequisites after entry into the program with approval);

<u>Required Prerequisites</u>	<u>Semester Hours</u>
Anatomy and Physiology	8
Chemistry (general, organic & biochemistry)	4
Microbiology	4
Developmental Psychology	3
Elementary Statistics	3
English (College Writing II)	3

- Completion of application process including:
 - Personal data form
 - Test of Essential Academic Skills (TEAS) test # (excluding U.S. licensed Registered Nurses)
 - All college transcripts
 - Three references
 - Health policy requirements
 - CPR certification (American Heart Association for health care providers).
 - Satisfactory background checks
 - 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 upon successful completion of first semester
- 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;
- 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 83, or a score of 560 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:

- 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 conditional until findings from the criminal background screening are available. Acceptance into the nursing program is also conditional on payment of a confirmation fee to acknowledge intention to begin the nursing program #

indicates an additional fee for student

Progression in the nursing program

Nursing courses are arranged in a progressive curriculum from concrete and simple to abstract and complex. Learning begins with conceptualization, then moves to application and, finally to the abstract and complex. 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, and a pass in clinical portions of courses;

- No nursing course may be attempted more than twice;
- A withdrawal from a nursing course after the Drop/Add date is considered a course attempt;
- Failure of 2 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 A complete physical examination including TB skin test or chest x-ray, up-to-date immunizations, and vision and hearing assessment on admission to the nursing program;
 - o Hepatitis B vaccination required prior to first clinical course,
 - o TB skin test 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 311 Pathophysiology I

NURS 321 Medical-Surgical I

NURS 310 Pharmacology

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

Nurses entering in the 2012-2013 school year will be subject to the curriculum of the 2011-2012 bulletin due to the transition of the nursing curriculum. Students should note however that they will be subject to the school policies laid out in the 2012-2013 bulletin, as well as the Division of Nursing program policies.

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. #

Registered Nurse Student Curriculum

Nurses entering in the 2012-2013 school year will be subject to the curriculum of the 2011-2012 bulletin due to the transition of the nursing curriculum. Students should note however that they will be subject to the school policies laid out in the 2012-2013 bulletin, as well as the Division of Nursing program policies.

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 NRSN/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. 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. Each applicant is evaluated for placement in the program and is based on 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.

Transfer courses taken more than 10 years prior to entry into the nursing program will be evaluated individually prior to entry in the nursing program by the

Admission and Academic Evaluation Committee. The following prerequisites or their equivalents must be completed before acceptance into the nursing program and may be taken at Union College:

<u>Prerequisites</u>	<u>Semester Hours</u>
Anatomy and Physiology	8
Chemistry (including a lab)	4
Microbiology	4
Elementary Statistics	3
Developmental Psychology	3
English (College Writing II)	3

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.

The LPN and RN student can complete the program on a full-time or part-time basis. 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 course instructors, 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 hours 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 311 Pathophysiology I, NURS 312 Pathophysiology II, and 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. Regardless of prior education or experience, NURS 305 Physical Assessment, NURS 311 & 312 Pathophysiology I and II, and NURS 347 Nursing Program Integration must be completed 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 465	Disaster Nursing	2
NURS 474	Community Health	4
NURS 495	Transition to Professional Practice	2
NURS 499	Preceptorship	4
Prerequisite 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

physics

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

PHYSICS CORE—58 HOURS

CHEM 151, 152	General Chemistry	4, 4
CPTR	An approved computer language	3
MATH 184, 285, 286	Calculus I, II, III	4, 4, 4
MATH 385	Differential Equations	3
PHYS 209	Electromagnetic Theory (at Nebraska Wesleyan Univ)	3
PHYS 228	Electric Circuit Analysis	4
PHYS 241, 242	Classical Mechanics (at Nebraska Wesleyan Univ)	3, 3
PHYS 251, 252	College Physics	4.5, 4.5
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

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

PHYSICS CORE		58
<i>Other physics course</i>		
PHYS	Electives (at Nebraska Wesleyan University)	3

PHYSICS—BS

Required courses—75

PHYSICS CORE		58
MATH	Elective (above 310)	3
PHYS 210	Optics (at Nebraska Wesleyan University)	3
PHYS 261	Thermal Physics (at Nebraska Wesleyan University)	3
PHYS 396	Research Methods III	1
PHYS 496	Research Methods IV	1
PHYS	Electives (at Nebraska Wesleyan University)	6

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

ASTR 111	Astronomy	4
BIOL 151, 152	General Biology	4, 4

physics

CHEM 151, 152	General Chemistry	4, 4
CPTR	An approved computer language	3
MATH 184	Calculus I	4
MATH 285, 286	Calculus II, III	4, 4
MATH 385	Differential Equations	3
PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics	4.5, 4.5
PHYS 261	Thermal Physics (at Nebraska Wesleyan University)	3
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	9
<i>Professional Education</i>		
EDUC 418	Methods: Science Education	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).		

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

Richard Clark, Salvador Moguel, Kenneth Osborn, Larry Ray, Keith Riese, Frankie Rose, Amy Utt-Rickard, Richard Webb, Carrie Wolfe

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 your program of studies.

Preprofessional programs are available in

- Dental Hygiene
- Nutrition and Dietetics, Dietetic Technology
- Occupational Therapy and Occupational Therapy Assistant
- Pharmacy
- Physical Therapy and Physical Therapy Assistant
- Radiation Therapy
- Respiratory Therapy

PRE-ALLIED HEALTH—AS

Required courses—20 hours

HHPT 256 Medical Terminology

Select eight hours from

1

8

pre-allied health and preprofessional

BIOL 111, 112	Anatomy and Physiology (4, 4)	
BIOL 151, 152	General Biology (4, 4)	
BIOL 205	Microbiology (4)	
Select four hours from		4
CHEM 101	Introductory Inorganic Chemistry (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	Anatomy and Physiology (4, 4)	
BIOL 151, 152	General Biology (4, 4)	
BIOL 205	Microbiology (4)	
CHEM 101	Introduction to Inorganic Chemistry (4)	
CHEM 102	Introductory 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, 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 application are later. Students should consult their advisor or Loma Linda University for exact application information.

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)

BIOL 151, 152	General Biology	4, 4
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
PHYS 151, 152	General Physics	4, 4
	or PHYS 251 and 252 College Physics	(4.5, 4.5)
ENGL 111, 112	College Writing I and II	3, 3

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.

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 AADSAS 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)

BIOL 151, 152	General Biology	4, 4
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
BIOL/CHEM 445	Biochemistry	4
PHYS 151, 152	General Physics	4, 4
	or PHYS 251 and 252 College Physics	(4.5, 4.5)
ENGL 111, 112	College Writing I and II	3, 3

20 hours of observation

CLEP and pass/fail performances are not acceptable for the required courses.

Strongly recommended electives include CHEM 446 Biochemistry II and anatomy. Other recommended electives include calculus, genetics, histology, management, and physiology.

psychology

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

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FACULTY

Melanie Gabbert, Trudy Ann Holmes-Caines

ADJUNCT FACULTY

Richard Carlson, Jeannie McCarter, Michele Petracca

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
<i>Select five courses from the following two groups:</i>		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 210	Group Dynamics (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
<i>Select 9 hours of approved PSYC electives (3 hours must be 300-400 level)</i>		9

religion

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.

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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

Minors: Missions

Religion

Youth Ministry

RELIGION CORE—45 HOURS

RELB 175	How to Study the Bible	3
RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Jesus and the Gospels	3

religion

RELB 335	New Testament Epistles	3
	or RELB 260 Interpretation of Romans (3)	
RELB 348	Daniel	3
RELB 349	Revelation	3
RELH 310	History of the SDA Church	3
RELP 149	Dynamics of Christian Living	3
RELP 465	Personal Witnessing	3
RELT 141	Christian Beliefs	3
RELT 305	Christian Ethics	3
RELT 347	World Religions	3
	or RELB 246 Sanctuary and Salvation (3)	
RELT 455	Prophetic Guidance	3
<i>Other required courses</i>		
HIST 308	Early Antiquity	3
LEAD 225	Creative Leadership	3
	or RELP 361 Church Leadership (3)	

Requires a Business, Mission Service, or Pastoral Care emphasis, or a minor from another discipline.

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	Microeconomics	3
ECON 236	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—71 hours

RELIGION CORE (RELT 347 is required for this emphasis)		45
COMM 425	Intercultural Communication	3
RELB 175	How to Study the Bible	3
RELB 255	Jesus and the Gospels	3
RELP 361	Church Leadership	3
	or LEAD 225 Creative Leadership (3)	
RELP 465	Personal Witnessing	3
RELT 347	World Religions	3
UCSM 205	Introduction to Overseas Service	2
UCSM 490, 491	Student Mission Service I and II (6 and 3 non-credit)*	0

UCSM 495	Student Mission Service III (3 elective hours only)*	0
Additional required courses		
____ 101, 102	Beginning Foreign Language or two years of the same language in high school	6

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

RELIGION CORE		45
COMM 465	Interpersonal Communication	3
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 225	Psychology of Religion	3
PSYC 311	Introduction to Counseling Theory and Techniques	3
PSYC 415	Abnormal Psychology	3
SOCI 105	Introduction to Sociology	3
SOCI 315	Marriage and Family	3

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

RELB 175	How to Study the Bible	3
RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Jesus and the Gospels	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel	3
RELB 349	Revelation	3
RELH 310	History of the Seventh-day Adventist Church	3
RELH 410	History of the Christian Church	4
RELP 235	Introduction to Youth Leadership or RELP 465 Personal Witnessing (3)	3
RELP 321	Biblical Preaching	3
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).		

MINOR IN MISSIONS**Required courses—20 hours**

COMM 425	Intercultural Communication	3
RELB 175	How to Study the Bible	3
RELB 255	Jesus and the Gospels	3
RELP 361	Church Leadership	3
	or LEAD 225 Creative Leadership (3)	
RELP 465	Personal Witnessing	3
RELT 347	World Religions	3
UCSM 205	Introduction to Overseas Service	2
UCSM 490, 491	Student Mission Service I and II (6 and 3 non-credit)*	0
UCSM 495	Student Mission Service III (3 elective hours only)*	0

MINOR IN RELIGION**Required courses—18 hours**

RELT 141	Christian Beliefs	3
	or RELT 205 Developing the Christian Mind (3)	
RELT 455	Prophetic Guidance in the Advent Movement	3
RELB 348	Daniel	3
	or RELB 349 Revelation (3)	
<i>Select one New Testament course from</i>		3
RELB 255	Jesus and the Gospels (3)	
RELB 260	Interpretation of Romans (3)	
RELB 335	New Testament Epistles (3)	
<i>Select one Old Testament course from</i>		3
RELB 226	Old Testament Survey (3)	
RELB 246	Sanctuary and Salvation (3)	
RELB 325	Prophets (3)	
Select one additional course from RELB, RELH, RELP, RELT		3

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

PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 311	Introduction to Counseling Theory and Techniques	3
RELP 235	Introduction to Youth Leadership	3
RELP 335	Youth Leadership in the SDA Church	3
RELP 336	Youth Leadership Practicum*	3

*Students who take the Youth Ministry minor must establish a portfolio with Campus Ministries in their first year at Union College.

social science

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.

CONTACT INFORMATION

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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

ECON 235	Principles of Microeconomics	3
GEOG 137	Introductory Geography	3
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 455	Recent American History	3
HIST 485	Seminar in History	3
HIST	History electives	6
PLSC 205	American Government	3

social science

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 seven components: anthropology, economics, geography, history, political science, psychology, sociology.

The hours shall be distributed as follows:

- A minimum of 24 hours in history;
- A minimum of 12 hours in one other area;
- A minimum of 24 hours distributed over the remaining areas with at least three hours in each.

Required courses—114 hours**Anthropology—3 hours**

*ANTH	Introductory Anthropology	3
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Economics—6 hours

ECON 235	Principles of Microeconomics	3
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ECON 236	Principles of Macroeconomics	3
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Geography—3 hours

GEOG 137	Introductory Geography	3
	or GEOG 227 World Regional Geography (3)	

History—24 hours

HIST 160 or 161	The West and the World	3
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HIST 255	Issues in Early American History	3
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HIST 485	Seminar in History	3
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HIST	World-European history electives	6-9
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HIST	American history electives	6-9
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Political Science—6 hours

PLSC 205	American Government	3
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PLSC 327	Comparative Governments	3
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Psychology—3 hours

PSYC 215	Developmental Psychology	3
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Sociology—3 hours		
SOCI 105	Introduction to Sociology	3
Approved Electives—12 hours		
Approved electives		12
Select with the advisor's approval sufficient ANTH, ECON, GEOG, PLSC, PSYC, or SOCI electives to reach a total of 12 hours in one area, and a grand total of 60 hours for the program.		
Professional education		
EDUC 415	Methods: Social Science Education	3
Additional Professional Education		51
(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)	
<i>Select 0-6 hours from HIST and PLSC not chosen above</i>		
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:		9
economics, geography, political science, and sociology.		

social work

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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FACULTY

Shawna Kolbeck, Lana Martin

ACADEMIC PROGRAM

Social Work, BSW

SOCIAL WORK—BSW**Required courses—65 hours**

SOWK 115	Introduction to Social Work	4
SOWK 227	Human Behavior in the Social Environment I	3
SOWK 228	Human Behavior in the Social Environment II	3
SOWK 316	Social Welfare Policy	3
SOWK 336	Social Work Practice I	3
SOWK 337	Social Work Practice II	3
SOWK 390	Research Seminar	1
SOWK 475	Field Practicum	12
<i>Select 12 hours from</i>		12

SOWK 320	Child Welfare (3)
SOWK 345	Social Work in Healthcare (3)
SOWK 388	International Social Services (3)
SOWK 415	Crisis and Resilience (3)
SOWK 438	Gerontology (3)

Other required courses

PSYC 105	Introduction to Psychology	3
PSYC 340	Research Methods I	3
PSYC 341	Research Methods II	3
SOCI 105	Introduction to Sociology	3
SOCI 210	Group Dynamics	3
SOCI 321	Issues of Diversity	3
<i>Select three hours from</i>		3

PSYC 311	Introduction to Counseling Theory and Techniques (3)
PSYC 415	Abnormal Psychology (3)
PSYC 425	Human Sexuality (3)
SOCI 315	Marriage and Family (3)

theology

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

CONTACT INFORMATION

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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 Halverson, 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—81 hours

RELB 175	How to Study the Bible	3
RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Jesus and the Gospels	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel	3
RELB 349	Revelation	3
RELH 310	History of the SDA Church	3
RELH 410	History of the Christian Church	4
RELP 125	Introduction to Ministry	2
RELP 321, 322	Biblical Preaching	3, 3

theology

RELP 361, 362	Church Leadership	3, 3
RELP 465	Personal Witnessing or RELP 466 Public Evangelism (3)	3
RELT 305	Christian Ethics	3
RELT 337, 338	Christian Theology I and II	3, 3
RELT 455	Prophetic Guidance in the Advent Movement	3
RELP 490	Senior Seminar	1
<i>Additional required courses</i>		
Biblical Languages Minor (see below)		20
PSYC 105	Introduction to Psychology	3
PSYC 311	Introduction to Counseling Theory and Techniques or COMM 465 Interpersonal Communications (3)	3
<i>Additional courses recommended</i>		
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

course descriptions

The descriptions of the various courses offered are listed under the following headings which begin on the page numbers listed:

Discipline	Prefix	Page	Discipline	Prefix	Page
Accounting	ACCT	188	Leadership	LEAD	237
Art	ART	190	Literature	LITR	238
Astronomy	ASTR	192	Marketing	MRKT	244
Biblical Languages	RELL	264	Mathematics	MATH	240
Biblical Studies	RELB	263	Music		
Biology	BIOL	192	Applications	MUAP	244
Biomedical Science	BIOM	198	Education	MUED	245
Business Administration	BUAD	198	History and Literature	MUHL	246
Chemistry	CHEM	200	Performance	MUPF	247
Communication	COMM	205	Theory	MUTH	250
Computing	CPTR	207	Nursing	NRSRG	250
Core	CORE	207	Physician Assistant Studies		
Drama	CODR	203		PHAS	254
Economics	ECON	210	Philosophy	PHIL	257
Education	EDUC	210	Physics	PHYS	257
Engineering	ENGR	218	Political Science	PLSC	260
English	ENGL	216	Psychology	PSYC	261
English for Academic Purposes			Public Relations	COPR	206
	EAPP	219	Religion		
Finance	FNCE	220	Biblical Languages	RELL	264
Geography	GEOG	221	Biblical Studies	RELB	263
Graphic Design	GRPH	221	Religious History	RELH	264
Health and Human Performance			Professional Training	RELP	265
Activity	HHPA	223	Theological Studies	RELT	266
Theory	HHPT	226	Science	SCNC	267
Varsity	HHPV	229	Social Work	SOWK	269
History	HIST	230	Sociology	SOCI	268
Honors Scholars	HONS	231	Spanish	SPAN	271
Humanities	HMNT	231	Student Mission Service	UCSM	272
International Rescue and Relief			Task Force Service	UCTF	273
	INRR	233	Teaching Learning	TLCM	272
Journalism	COJR	204			

Courses marked (WR) meet general education writing requirements.

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 booklet 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**4**

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**4**

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**3**

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**3**

ACCT 315 preferred

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**3**

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**3**

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**3**

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.*

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 157

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

course descriptions

while emphasis is on individual painters and their specific works. *Fall semester, alternate years.*

ART 347 Illustration Techniques I **2**

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 **2**

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 **3**

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.*

ART/GRPH 476 Internship **1-4**

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 **1**

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 **4**

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 **3**

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 106 Human Biology**3**

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**1**

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**4**

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**4**

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**4**

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**4**

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**4**

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

course descriptions

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

3

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

3

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

4

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

1

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 307 Field Biology (WR)

3

Prerequisite: BIOL 152 with a minimum grade of C

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. A major paper or project is required. Locale of study may vary from year to year. *Summer, 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**4**

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**3**

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**3**

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)**4**

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)**3**

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**1**

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**1**

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 micro-organisms. 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****3**

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.

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**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. Functions covered include managing and evaluating employees, designing a compensation plan, creating employee policies, and structuring orientation/training programs. *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**

4

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**4**

Prerequisites: An ACT Math Score of 18 (SAT 430) and two units of high school algebra or MATH 111 or higher as a corequisite or prerequisite (a good math background is essential), and high school chemistry or physics, or permission of instructor

Fundamental laws, theories and principles are studied and applied to descriptive chemistry. Covers specifically fundamental concepts, chemical and physical changes, reaction chemistry, the mole concept and mole problems, gas laws, periodic properties, thermochemistry, atomic theory, including its history, atomic structure, molecular bonding structural theories, and basic organic nomenclature. The laboratory emphasizes quantitative techniques and reaction chemistry. Three lectures and one laboratory per week. *Fall semester.*

CHEM 152 General Chemistry**4**

Prerequisite: CHEM 151 with a minimum grade of C

A continuation of CHEM 151: molecular orbitals, Kinetic Molecular Theory, states of matter, crystal structure, properties of solutions, kinetics, equilibria, thermodynamics and electrochemistry are studied. The laboratory includes a section on qualitative analysis. Three lectures and one laboratory per week. *Spring semester.*

CHEM 211 Organic Chemistry**4**

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**4**

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

The principles and techniques of volumetric and gravimetric analysis are studied. A range of analytical methods are discussed and the ideas used by the class members to reason out the analysis of "real unknowns." Basic theory underlying analytical methods, such as equilibria and redox, are considered in detail. Also introduced are electrochemical and spectrophotometric methods of analysis. Principles are introduced in the two class meetings and the techniques are used in the analysis of "unknown" standards and real samples during the four-hour laboratory each week. *Fall semester.*

CHEM 312 Instrumental Analysis (WR)

3

Prerequisite: CHEM 311

Instrumental methods of analysis based primarily on electro-chemical reactions and interaction of matter with magnetic fields and electromagnetic radiation. Covered specifically in class and experienced in the laboratory are a range of chromatographic techniques, infrared and ultraviolet-visible spectro-photometry, Atomic Absorption spectrophotometry, NMR and Mass spectrometry and electrochemistry. A theoretical understanding is developed in the two lectures, while the four-hour laboratory gives hands-on experience with each of the instruments. Writing is developed through the laboratory reports. *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. Three 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 210 Religious Drama

2

Surveys religious drama from ancient times to modern day. In addition to exploring the history of religious drama and reading significant texts from various time periods, students focus on creating, interpreting, and performing scripts. *Fall semester, alternate years.*

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 a show for public performances. 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—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 320 Communication Theory and Research

3

Prerequisite: MATH 221

Students learn both the conceptual foundation for studying the human communication process and the application of these theories to communication research. Students develop skills in planning and implementing communication research. Topics include communication theories and models, research methods, survey techniques, research instruments design, content analysis, tabulation procedures and reporting findings. *Spring 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. *Fall semester.*

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/spring semesters.*

COMPUTING**CPTR 190 PC Technology Fundamentals****1**

Explores hardware components of the PC in terms of troubleshooting, maintaining, upgrading, installing peripheral devices and understanding the PC architecture. *Spring semester.*

CPTR 220 Microcomputer Applications**3**

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 225 Web Development Basics**1**

An introduction to Web publishing. Major emphasis is placed on designing and creating Web sites using XHTML. *Fall semester.*

CPTR 226 Computer Science I**4**

Prerequisites: MATH 111 or ACT math score 20 (SAT of 480)

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**4**

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.*

CPTR 230 Computer Organization**3**

Prerequisite: CPTR 226 with a minimum grade of C

An introduction to hardware design concepts including: Boolean Logic, Digital Arithmetic, Processor Organization, Machine Language Programming, Input/Output, Memory Organization, System Support Software, and Communication. *Spring semester, alternate years.*

CPTR 240 System Administration**3**

An introductory course to systems administration. Topics include user management, computing systems management, service management, security, file management, backup management and scripting. Also covers how to communicate with customers/users. *Spring semester.*

CPTR 310 Data Structures and Algorithms**3**

Prerequisites: CPTR 227 with a minimum grade of C

An extension to the abstraction and algorithm design and analysis introduced in CPTR 227. Topics may include analysis of algorithms, asymptotic complexity bounds, fundamental algorithmic strategies, dynamic programming, introduction to complexity theory, data structures (tree structures, hash tables, queues, graphs). *Fall semester, alternate years.*

CPTR 320 Networking**3**

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. Hands-on experience designing a network, configuring CISCO routers, setting up LAN and configuring network software. *Fall 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. *Spring semester.*

CPTR 335 Web Technologies**3**

Prerequisites: CPTR 225 with a minimum grade of C, CPTR 226 with a minimum grade of C

Topics may include ISPs, PHP, JavaScript, Ajax, database connectivity, application security and an introduction to Web publishing. Major emphasis is placed on designing and creating Web sites using XHTML. *Fall semester.*

CPTR 405 Software Engineering**3**

Prerequisites: CPTR 227 with a minimum grade of C, 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, Mail Server. Emphasizing upfront design considerations, redundancy, scalability and total cost of ownership. *Spring semester.*

CPTR 424 Database Systems**3**

Prerequisites: CPTR 227 with a minimum grade of C, CPTR 240 with a minimum grade of C, CPTR 327 with a minimum grade of C

Covers both a theoretical and practical understanding of database management systems. Emphasizes the relational database model. Implementation of a database application that uses a relational database and SQL is required. *Fall semester.*

CPTR 451 Operating Systems Principles**3**

Prerequisites: CPTR 230 with a minimum grade of C, CPTR 227 with a minimum grade of C

Organization and structure of operating systems. Control, communication, and synchronization of concurrent processes. Process management including asynchronous concurrent processes and deadlock. Memory organization and management including paging, segmentation and virtual memory. Job and process scheduling. File system concepts and structure. Performance, protection and security. *Spring semester, alternate years.*

CPTR 475 Internship in Computing (WR)**1-3**

Prerequisites: Junior or senior standing (must have completed a substantial amount of the degree requirements) and permission of the division chair

A capstone course that integrates knowledge and abilities gained through the computer curriculum with "real-life" work experiences in a computer related field.

CPTR 476 Applied Systems Development Project (WR)**1-3**

Prerequisites: Junior or senior standing (must have completed a substantial amount of the degree requirements) and permission of the division chair . Only available if extenuating circumstances do not allow CPTR 475 to be taken.

A capstone systems course integrating the knowledge and abilities gained through the programming, systems analysis and design, and database courses. A comprehensive systems development project is required.

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, 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 1

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 3

Prerequisites: Successful completion of the Pre-Professional Skills Test (PPST), and full admission to the teacher preparation program or permission of division chair, EDUC 218, PSYC 215

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 hours of field experience required. *Fall semester.*

EDUC 346 Special Education in the Classroom 3

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**2**

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**3**

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 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.*

EDUC 366 Music 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 367 Elementary 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 368 Religion 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 369 Science Methods

1

Prerequisite: Practicing Teaching; prerequisite or co requisite: EDUC 355 or 360

Directed specific assignments in subject area as applications of EDUC 355 or 360. *Summer.*

EDUC 370 Social Science Methods

1

Prerequisite: Practicing Teaching; prerequisite or co requisite: EDUC 355 or 360

Directed specific assignments in subject area as applications of EDUC 355 or 360. *Summer.*

EDUC 410 Methods: Art Education**3**

Prerequisite: EDUC 218

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.*

EDUC 411 Methods: Business Education**3**

Prerequisite or co requisite: EDUC 218

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.*

EDUC 412 Methods: Language Arts Education**3**

Prerequisite or co requisite: EDUC 218

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.*

EDUC 413 Methods: Mathematics Education**3**

Prerequisite: EDUC 218 or permission of instructor

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.*

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.*

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**2**

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**1**

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**1**

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**ENGL 100 Basic Skills in English****2**

Focuses on the skills necessary to successfully complete ENGL 111 College Writing I 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 semester.*

ENGL 111 College Writing I**3**

Prerequisites: Minimum ACT English raw score of 17 or an SAT Verbal score of 430, or ENGL 100 with a minimum grade of C, or for English as a Second Language students, a minimum TOEFL score of 550 or 525 plus a passing essay, and ACT Reading raw score of 17 or EAPP 134

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**3**

Prerequisite: ENGL 111

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 202 Language and Culture**1**

Analyzes the dynamics of culture and its influence on language development. Emphasizes the examination of various aspects of American culture that have characterized the English language and the implications that this culture has for English language learners. *Summer semester.*

ENGL 271 History of the English Language**3**

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**3**

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 302 TESL Grammar and Linguistics**3**

Examines the basic structures of the English language and the unique usage problems that non-native English language learners face. These challenges include subject-verb agreement, modals, passive voice and conditional sentences. Particular problems in pronunciation are also examined. *Summer.*

ENGL 303 Second Language Acquisition**3**

A course for prospective teachers of English to speakers of other languages or foreign language teachers. Topics include comparison/contrast of first and second language acquisition (SLA), cognitive strategies in SLA and interlanguage communication. *Summer.*

ENGL 304 Second Language Assessment**2**

A course to provide an overview of assessment techniques and instruments used to identify and remediate specific learning difficulties associated with normal second language development in the areas of listening, speaking, reading and writing. Includes a review of research concerning assessment as it relates to error analysis in the second language context. Students have the opportunity to implement diagnostic skills and remediation strategies in student case studies. *Summer.*

ENGL 378 Technical Writing and Grant Proposals (WR)**3**

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)**3**

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.*

ENGLISH FOR ACADEMIC PURPOSES

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). Only ten hours of courses numbered 100 and above count toward the 128 hours required for graduation.

EAPP 026 Intermediate Writing

3

Prerequisite: Level 2 Test of Written English (TWE)

Emphasizes paragraph writing and sentence level skills. Three class sessions and one 50-minute lab per week. The goal is to reach Level 3 TWE. *Fall/spring semesters.*

EAPP 028 Intermediate Speaking/Listening

3

Prerequisite: TOEFL listening score of 40 or higher

Concentrates on speaking, listening, note-taking, and discussion skills for academic study. Three class sessions and one 50-minute lab per week. The goal is to reach a TOEFL listening score of 48. *Fall/spring semesters.*

EAPP 043 EAP Lab

1-2

An independent course which provides extra help in specific areas. Arranged with the EAP advisors. *Fall/spring semesters.*

EAPP 122 Intermediate Grammar

4

Prerequisite: TOEFL grammar score of 40 or higher

An intermediate course which reviews irregular verbs, the main tenses, and the structural forms of statements and questions. Passive voice, modals, gerunds and infinitives are also presented. A weekly essay focuses on grammatical structures. Four class sessions and one 50-minute lab per week. The goal is to reach the TOEFL grammar score of 48. *Fall/spring semesters.*

EAPP 124 Intermediate Reading

3

Prerequisite: TOEFL reading score of 40 or higher or an ACT Reading score below 15

Emphasizes comprehension and vocabulary development for academic study. Three class sessions and one 50-minute lab per week. The goal is to reach a TOEFL reading score of 48. *Fall/spring semesters.*

EAPP 134 Advanced Reading

3

Prerequisite: TOEFL reading score of 48 or higher or an ACT Reading score of 15 or higher

Emphasizes vocabulary development and comprehension skills for academic reading, including increasing reading rate. Three class sessions and one 50-minute lab per week. The goal is to reach a TOEFL reading score of 55. *Fall/spring semesters.*

EAPP 136 Advanced Writing

3

Prerequisite: Level 3 (TWE)

Transitions from writing single paragraphs to writing 5-paragraph essays and emphasizes the process of planning, writing, revising, and editing. Three class sessions and one 50-minute lab per week. The goal is to reach Level 4 TWE. *Fall/spring semesters.*

EAPP 138 Advanced Speaking/Listening**3**

Prerequisite: TOEFL listening score of 48 or higher

Combines speaking, listening, interpersonal communication, and oral presentations. Idiomatic expressions are discussed. Three class sessions and one 50-minute lab per week. The goal is to reach a TOEFL listening score of 55. *Fall/spring semesters.*

EAPP 187 TOEFL Preparation**4**

Prerequisite: TOEFL grammar score of 48 or higher

Emphasizes the basic sentence structures in English, including phrases and clauses. Provides practice on the skills needed to pass TOEFL. Four class sessions and one 50-minute lab per week. The goal is to reach a TOEFL grammar score of 55. *Fall/spring semesters.*

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**3**

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**3**

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**3**

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**3**

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**3**

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**.5**

See GRPH 175 for description. *Spring semester.*

GRPH 301 Web Design**3**

Prerequisite: CPTR 225 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**3**

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*

GRPH 358 Typography**3**

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**.5**

See GRPH 175 for description. *Spring semester.*

GRPH 401 Interactive Web Design**3**

Prerequisite: CPTR 225 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**3**

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**3**

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**.5**

See GRPH 175 for description. *Spring semester.*

GRPH/ART 476 Internship**1–4**

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

HPHA 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**1**

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 to develop skills to the level equivalent to 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

course descriptions

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 does involve 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 1

Instruction and practice in the skills essential to playing golf. Expenses in addition to tuition is necessary for greens fees. Students provide their own equipment. *Fall semester.*

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 to the level equivalent to Red Cross Intermediate and Advanced Swimmer Certificates. *Fall semester.*

HHPA 217 Skin and Scuba Diving 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 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 the foods you enjoy, you will learn a simple, fun, whole-diet approach that shows you how to make gradual changes to improve your health. *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.*

HHPA 316 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 317 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.*

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 and 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**1**

This self-study module enables students to pace their learning of medical terms. *Fall/spring semesters.*

HHPT 316 Leisure and Recreational Activities**2**

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**2**

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**3**

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**1**

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**2**

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**2**

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.

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).

course descriptions

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 unique contributions of Europe, Asia, America, and Africa to present-day world civilization up to 1600. Students are also introduced to the problems facing the historian who studies the past of various peoples and cultures. *Fall/spring semesters.*

HIST 161 The West and the World, Part 2

3

Deals topically with the unique contributions of Europe, Asia, America, and Africa to present-day world civilization from 1500 to the present. Students are also introduced to the problems facing the historian who studies the past of various peoples and cultures. *Fall/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

Survey of the early modern period. The Reformation, the Counter Reformation, religious wars, expansion of Europe, the Ottoman Empire and absolutism in France. *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 rise of Greek civilization and the Roman Empire. Attention also given to Greek culture, the Persian Empire and the rise 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 157 or permission of instructor

A survey of the fine arts with an emphasis on recognizing and understanding the great styles from ancient to 19th Century. *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 its equivalent with a grade of at least 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: Union Scholars. A Western Culture course is required the first year in 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: Union Scholars. A Western Culture course is required the first year in 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.

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.

HONS 261 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 course. *Spring semester.*

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.

HONS 287 Topics

3

Prerequisite: Acceptance into Union Scholars or permission of the instructor

Various interdisciplinary topics have been taught including the following: The Epistle of Paul to the Romans, The US Presidency, A Literary Walk in Tuscany, 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.

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.

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 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 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 night mock Search and Rescue (SAR) problem, and other subjects. *Summer semester.*

INRR 114 Technical Rope Rescue**1**

Prerequisite: accepted into International Rescue & Relief program

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 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 117 Wilderness Upgrade for Medical Professionals**1**

Prerequisite: INRR 100

This 40 hour course is designed for urban medical professionals to expand their wilderness skill-set through scenario-based training, by dealing with challenging environmental conditions, equipment improvisation, and remote medical decision making. The course will upgrade your EMT certification to Wilderness EMT.

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

Prepares students in the advanced techniques of airways, IV administration along with 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**3**

An overview of the major principles vital to emergency managers including mitigation, emergency preparedness, response and recovery. Also includes the role of major stakeholders and building 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 3

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.*

INRR 302 HIV and Emerging Diseases 1

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 3

Prerequisites: BIOL 106, 111, or 205 (except for Pre-professional), INRR 100, 110, 112, 114, 116, 118, 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 3

Prerequisite: INRR 310, INRR 362, BIOL 205 or permission

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 321 Global Health 3

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 328 Relief Infrastructure Practicum 2

Students are given the opportunity to participate in and lead various relief infrastructure projects during the IRR program's semester abroad. These projects include basic construction of new and/or renovation of existing structures in a developing country. Skills acquisition may include the use of power tools, chainsaw operations, plumbing, masonry, framing, and electrical wiring. *Overseas—Spring semester.*

INRR 330 Travel and Tropical Medicine**3**

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 340 Jungle, Coastal and Ocean Survival**3**

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 351 Stress and Rescue Diving**1**

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 362 Medical and Conversational Spanish for Latin America**3**

A conversational language course designed to develop basic language skills in medical Spanish and cultural competency with Latin American populations. Conversational Spanish, as spoken in Latin America, is emphasized and basic grammar is included. Aspects of Latin American culture, especially those most pertinent to health care, are included. *Fall semester.*

INRR 420 IRR Preceptorship**1**

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**3**

Prerequisite: Admission to the Expedition Cohort

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. *Fall semester.*

INRR 432 Expeditionary Logistics**3**

Prerequisite: Admission to the Expedition Cohort

Focuses on the problems and solutions of group management in an outdoor setting. Topics covered include the organization of food, lodging, equipment, and the maintenance of group morale for large groups in extended trips. *Fall semester.*

INRR 434 Expeditionary Education Methods**3**

Prerequisite: Admission to the Expedition Cohort

Explores teaching methods in the uniqueness of an austere outdoor environment. Includes classroom management techniques and curriculum development for topics relating to outdoor recreation and conservation. An emphasis is placed on sustainability, ecology, coexistence, learning styles and experiential education. *Fall semester.*

INRR 436 Adventure-based Counseling**3**

Prerequisite: Admission to the Expedition Cohort

Focuses on using real life situations to actualize personal growth. The focus is on group facilitation with an emphasis on spiritual development. Students lead activities, discussions, and devotional activities during the trip to become comfortable in facilitating activities during expeditionary trips. *Fall semester.*

INRR 438 Expeditionary Technology**1**

Prerequisite: Admission to the Expedition Cohort

Examines the methods of navigation, technology, and orienteering. Students learn to utilize map and compass, GPS, emergency beacons, radios, and satellite phones. These methods of communication and navigation are utilized in planning and leading trips during the intensive. *Fall semester.*

INRR 491 Disaster Management and Terrorism (WR)**3**

Prerequisite: Junior or senior standing

Explores the concepts and principles of disaster preparedness and management. Covers natural and man-made disasters and acts of terrorism including conventional, biological, chemical, nuclear and radiological mass casualty events. Students explore the roles of the local, state and federal Departments of Health & Human Services, FEMA, CDC and the Department of Homeland Security 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.

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.

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 360 Expeditionary Literature (WR)**3**

Prerequisite: Admission to the Expedition Cohort

Examines the selective works of the writers who recorded historical journeys of exploration, and the context in which their works were born. This is a critical thinking class where students compare and contrast authors, ideas, and outcomes in both writing and discussion. *Fall semester.*

LITR/RELB 366 Biblical Literature (WR)**3**

Prerequisites: ENGL 112 and LITR 231, 232, or 235, or permission of 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 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 3

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 3

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**3**

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**5**

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**3**

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**4**

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 (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 vector 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: 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. *Fall 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, resonance, 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. There is an additional charge for music lessons.

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 Band (Symphonic Concert Band) 1

Prerequisite: Permission of instructor

See MUPF 375. *May be repeated for additional credit. Fall/spring semesters.*

MUPF 176 Chamber Orchestra 1

Prerequisite: Permission of instructor

See MUPF 376. *May be repeated for additional credit. Fall/spring semesters.*

MUPF 177 Chamber Choir 1

See MUPF 377. *May be repeated for additional credit. Fall/spring semesters.*

MUPF 185 Advanced Choir (Unionaires) 1

Prerequisite: Permission of instructor

See MUPF 385. *May be repeated for additional credit. Fall/spring semesters.*

- MUPF 191 Brass Ensemble (Brass Union)** 1
Prerequisite: Permission of instructor
See MUPF 391. *May be repeated for additional credit. Fall/spring semesters.*
- MUPF 192 Guitar Ensemble** 1
Prerequisite: Permission of instructor
See MUPF 392. *May be repeated for additional credit. Offered as needed.*
- MUPF 193 Handbell Ensemble** 1
Prerequisite: Permission of instructor
See MUPF 393. *May be repeated for additional credit. Offered as needed.*
- MUPF 194 Keyboard Ensemble** 1
Prerequisite: Permission of instructor
See MUPF 394. *May be repeated for additional credit. Offered as needed.*
- MUPF 195 String Ensemble (Golden Cords)** 1
Prerequisite: Permission of instructor
See MUPF 395. *May be repeated for additional credit. Fall/spring semesters.*
- MUPF 196 Vocal Ensemble** 1
Prerequisite: Permission of instructor
See MUPF 396. *May be repeated for additional credit. Fall/spring semesters.*
- MUPF 197 Woodwind Ensemble** 1
Prerequisite: Permission of instructor
See MUPF 397. *May be repeated for additional credit. Fall/spring semesters.*
- MUPF 257 Introduction to Conducting** 2
Prerequisite: Permission of instructor
Spring semester.
- 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 375 Band (Symphonic Concert Band)	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 175. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 376 Chamber Orchestra	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 176. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 377 Chamber Choir	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 177. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 385 Advanced Choir (Unionaires)	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 185. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 391 Brass Ensemble (Brass Union)	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 191. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 392 Guitar Ensemble	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 192. <i>May be repeated for additional credit. Offered as needed.</i>	
MUPF 393 Handbell Ensemble	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 193. <i>May be repeated for additional credit. Offered as needed.</i>	
MUPF 394 Keyboard Ensemble	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 194. <i>May be repeated for additional credit. Offered as needed.</i>	
MUPF 395 String Ensemble (Golden Cords)	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 195. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 396 Vocal Ensemble	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 196. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 397 Woodwind Ensemble	1
Prerequisite: Sophomore standing and permission of instructor See MUPF 197. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 451 Senior Recital	1
Prerequisite: MUTH 254 and permission of instructor	

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

Continuation of MUTH 152 with emphasis on 19th-century chromaticism. Score reading, analysis and original composition. *Fall semester.*

MUTH 254 Theory IV

3

Prerequisite: MUTH 253

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

2

Corequisite: MUTH 253

Advanced tonal and structural analysis. *Alternate years as needed.*

MUTH 462 Introduction to Counterpoint

2

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

2

Prerequisite: MUTH 254

Fall semester, alternate years as needed.

NURSING

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, and clinical judgment are introduced. *Spring semester.*

NURS 208 Fundamentals**6**

Prerequisites: Admission to the nursing program, BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215

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. *Spring semester.*

NURS 243 Evidence-Based Practice**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. *Spring semester.*

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. Spring semester.*

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: Admission to the nursing program, BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215, NURS 208, 305

Corequisite: NURS 310, 321 or permission of instructor

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 using appropriate medical terminology. *Withdrawal from NURS 311 requires withdrawal from NURS 321.*

NURS 312 Pathophysiology II**2**

Prerequisite NURS 311

Corequisite NURS 311, 322 or permission of instructor

Examines normal physiology and pathophysiologic responses that accompany more complex acute and chronic illnesses. Discussion includes physiologic

course descriptions

responses that begin at the cellular level and progress to individual and related organ systems using appropriate medical terminology. *Withdrawal from NURS 312 requires withdrawal from NURS 322.*

NURS 321 Medical-Surgical I

6

Prerequisites: BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215, 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: BIOL 111, 112, 205, CHEM 104, ENGL 112, MATH 221, PSYC 215, 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 in the promotion of mental health. Exploration of the therapeutic nurse/patient relationship to promote optimal mental health in individuals experiencing disorders that affect thinking, cognition, behavior, and communication is included.

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**2**

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**3**

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)**4**

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**2**

Prerequisites: Completion of all NURS required courses except NURS 499

Focuses on workplace and new graduate issues including interviewing, resumes, licensure, and professional practice standards. Synthesis of knowledge and skill is demonstrated by successful completion of an NCLEX-RN® readiness assessment.

NURS 499 Preceptorship**4**

Prerequisites: Completion of all NURS required 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)

2

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

2

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

5

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

4

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

3

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

3

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 2

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 3

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 6

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 7

Continuation of PHAS 531. *Spring semester.*

PHAS 533 Preventive Health 1

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. *Spring semester.*

PHAS 539 Christian Health Care and Bioethics (WR) 3

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 542 Applied Medical Ethics 1

Studies the ethical dynamics of health care including principles of autonomy, beneficence, nonmaleficence, justice, fairness and dignity. Ethical principles are then applied to actual clinical and professional situations including inalienable rights issues, reproductive and other new technologies, allocation of health care, death and dying issues, confidentiality, and professional conflict. *Spring semester.*

PHAS 546 Clinical Skills I**4**

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**2**

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**1**

Prepares the student for facilitating multi-lingual clinical interactions with Spanish/Hispanic/Latino patients. The intensive curriculum uses second language learning methods within the health care context and cultural use of the language. Students learn listening, speaking, reading and writing skills with a particular emphasis on developing listening comprehension skills, vocabulary building and the practical use of the language.

PHAS 557 Electrocardiography**2**

Specific instruction is presented in understanding electrophysiology of the heart and deviations from the normal electrocardiography. *Fall semester.*

PHAS 559 Clinical Pathophysiology**4**

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**4**

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**5**

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

1

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.

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 in the context of the Judeo-Christian worldview. *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**4**

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*3**

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*3**

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**4**

Prerequisite: MATH 184

Introduces electric circuit variables and parameters, Kirchoff'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*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 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** **3**

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 Schrodinger 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. Four lectures per week. *Fall semester, alternate years.*

PHYS 386 Research Methods II **1**

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 **1**

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—Thermal Dynamics **4**

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) **1**

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 **3**

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**3**

An analysis of political philosophies and of governments in the modern world. *Spring semester, alternate years.*

PSYCHOLOGY**PSYC 100 Careers in Psychology****.5**

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. Student 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 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.*

RELB 226 Old Testament Survey**3**

A survey of the Old Testament with attention given to the theological significance of creation, the fall, the plan of salvation and the covenant relationship between God and Israel. *Fall 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 260 Interpretation of Romans**3**

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 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 335 New Testament Epistles**3**

An inductive study of the book of Acts and the letters of the New Testament 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/LITR 366 Biblical Literature (WR)**3**

Prerequisites: ENGL 112 and ENGL 232, 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 ENGL general education requirements but not both. *Fall semester, alternate years.*

RELIGION—RELIGIOUS HISTORY**RELH 310 History of the Seventh-day Adventist Church****3**

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)**4**

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****4**

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**4**

Prerequisite: RELL 171

Continuation of RELL 171. Four lectures and one tutorial session per week. *Spring semester.*

RELL 273 New Testament Greek III**3**

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

3

Prerequisite: RELL 273

Continuation of RELL 273. *Spring semester.*

RELL 385 Biblical Hebrew I

3

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

3

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 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**3**

Prerequisite: RELP 361

Continuation of RELP 361. Taken in conjunction with the capstone Leadership in Ministry senior year. *Fall semester.*

RELP 375 Missions Internship**2**

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**3**

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**3**

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**1**

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 resume 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****3**

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**3**

Surveys fundamental biblical doctrines of the Christian Church from a Seventh-day Adventist perspective. *Fall/spring semesters.*

RELT 205 Developing the Christian Mind**3**

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 is 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.*

SOCIOLOGY

SOCI 105 Introduction to Sociology

3

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 210 Group Dynamics

3

Prerequisite: SOCI 105

An introduction to the stage theory of group development, small group dynamics, inter-personal skills, goal setting, conflict management, leadership styles, group member role and functions. Students identify information relevant to selected populations and specify ways to work with them. Students lead and participate in weekly small group encounters. *Spring semester.*

SOCI/INRR 220 Social Dimensions of Disasters

3

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

3

Assists students in their understanding and negotiating of relationships by examining friend-ships, 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)

3

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 388 International Social Services

3

Prerequisite: permission of instructor

Introduces social human need and response to that need in developing countries. The course mainly concentrates on Asia, Latin America and Africa. Assessment of current needs and national and international responses are addressed. *Spring semester, alternate years.*

SOCI/SOWK 389 Leadership of a NPO/NGO**3**

Prerequisite: permission of instructor

Covers fundamental concepts and structural elements of a Not-For-Profit/Non-Governmental Agency to aid students in developing the administrative leadership skills necessary for community organization and planning.

SOCI/SOWK 415 Crisis and Resilience**3**

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****4**

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**3**

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**3**

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**3**

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 320 Child Welfare**3**

Prerequisite: SOWK 228

An overview of child welfare services from a historical, theoretical, and practice perspective. Services are discussed from family, diversity, and provider/consumer perspectives. *Fall semester, alternate years.*

SOWK 322 Case Management in Social Work Practice**3**

Prerequisite: SOWK 228

Examines the process of linking clients to necessary resources and the evolving role of the case manager in a variety of settings. The managed care environment, integrated case management procedures and case management models of psycho-social enhancement are discussed. Covers practical skills of intake, assessment goal setting, intervention and evaluation. Explores current use of computer software and record keeping. Presents social work practice roles of broker, advocate, mediator and educator.

SOWK 336 Social Work Practice I**3**

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**3**

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**3**

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 388 International Social Services**3**

Prerequisite: SOWK 228 or permission of instructor

Introduces social human need and response to that need in developing countries. The course mainly concentrates on Asia, Latin America and Africa. Assessment of current needs and national and international responses are addressed. *Spring semester, alternate years.*

SOWK/SOCI 389 Leadership of a NPO/NGO**3**

Prerequisite: SOWK 228 or permission of instructor

Covers fundamental concepts and structural elements of a Not-For-Profit/Non-Governmental Agency to aid students in developing the administrative leadership skills necessary for community organization and planning.

SOWK 390 Research Seminar**1**

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/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 426 Field of Corrections**3**

Prerequisite: SOWK 228 or permission of instructor

Surveys the field of corrections, providing a historical focus, the current picture, problems and possible outcomes. Covers the basic laws regarding corrections practices, the patient and methods of handling the patient.

SOWK 438 Gerontology**3**

Prerequisite: SOWK 228 or permission of instructor

Introduces services available for elderly care which students examine in the context of social and economic justice, societal values, and their effectiveness in achieving their objectives. Also explores the interrelationship between the aging person, his or her family, and society. *Spring semester, alternate years.*

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.*

SOWK 477 Practice Seminar**1**

Prerequisite: SOWK 228

Offered concurrently with Field Practicum, the field seminar provides for integration of classroom learning with practice experiences. The seminar has a generalist focus, encouraging students in the understanding and accepting of professional and personal responsibilities exemplified by the social work profession and the NASW Code of Ethics; in addition students process practicum experiences focusing on judgment, use of self as a therapeutic tool and self-awareness. *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.*

course descriptions**SPAN 102 Beginning Spanish****3**

Prerequisite: SPAN 101

Continuation of SPAN 101. *Spring semester.***SPAN 201 Intermediate Spanish****3**

Prerequisite: SPAN 102 or equivalent

Intensive review of Spanish grammar with an emphasis on oral communication. Includes dictations, readings and written exercises. *Fall semester.***SPAN 202 Intermediate Spanish****3**

Prerequisite: SPAN 201

Continuation of SPAN 201. *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—2011–2012

Tom Lemon, Chair	NE
Maurice Valentine, Vice Chair	NE
John Wagner, Secretary	NE
Ken Bacon	CO
Ed Barnett	MN
Steve Bascom	IA
Neil Biloff	SD
Mardian Blair	FL
James Boyle	CO
Ron Carlson	KS
Dean Coridan	IA
Gary DeCamp	KS
Tanya Dick	NE
Charles Drake	KS
Mike Dunlap	NE
Garth Fletcher	NE
Derald Goetz	NE
Mildred Greer	MO
Elaine Hagele	NE
Ron Halvorsen	NE
Rob Koch	KS
John Kriegelstein	NE
Jack Krogstad	IA
Rick Krueger	NE
Jerome Lang	NE
James McArthur	NE
Larry Pitcher	NE
Barbara Prowant	WA
Rich Reiner	FL
Susan Reiswig-Haines	OH
Jessica Saxton*	MO
Kent Seltman	MN
Kent Thompson	NE
Gary Thurber	CO
Samuel Turner, Sr	KS

*By Invitation: Director, North American
Division Higher Education Cabinet
Honorary Board Member

ACADEMIC COMMITTEE

Jack Krogstad, Chair
VP for Academic Admin, Ex Officio Secr
Don Abbey
Ed Barnett
Mildred Greer
John Kriegelstein
Tom Lemon
Larry Pitcher
Kent Seltman
Gary Thurber

CAMPUS LIFE COMMITTEE

Steve Bascom, Chair
VP for Student Serv, Ex Officio Secr
VP for Spiritual Life, Ex Officio
Ron Carlson
Charles Drake
Garth Fletcher
Ron Halvorsen
Rob Koch
Lorri Merchant
Susan Reiswig-Haines

EXECUTIVE COMMITTEE

MAUC President, Ex Officio Chair
UC President, Ex Officio Secr
Jim Boyle
Charles Drake
Jerome Lang

**FINANCE AND
DEVELOPMENT COMMITTEE**

MAUC Treasurer, Ex Officio Chair
VP for Financial Admin, Ex Officio Secr
UC President, Ex Officio
KS-NE Conf Treasurer, Ex Officio
VP for Advancement, Ex Officio
Mardian Blair
Malcolm Gaskin
Jerome Lang
Barbara Prowant
Rich Reiner
Kent Thompson

MASTER PLANNING AND FACILITIES

Kent Thompson, Chair
VP for Financial Admin, Ex Officio Secr
Plant Services Director, Ex Officio
Ken Bacon
Neil Biloff
James Boyle
Derald Goetz
Rick Krueger
Jerome Lang
James McArthur
Rich Reiner
Sam Turner
Richard Webb

RECRUITMENT, RETENTION, AND MARKETING

Mike Dunlap, Co-Chair
Tanya Dick, Co-Chair
VP for Enrollment, Ex Officio Secr
Elina Bascom
Dean Coridan
Cary DeCamp
Barry Forbes
John Kriegelstein
Kent Seltman

TRUSTEESHIP COMMITTEE

MAUC President, Ex Officio Chair
UC President, Ex Officio Secr
Mardian Blair
Charles Drake
Sam Turner

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
R. W. Fowler	1964-1970
R. H. Brown	1970-1973
M. O. Manley	1973-1980
Dean L. Hubbard	1980-1984
Benjamin R. Wygal	1985-1985
John Wagner	1986-1991
John Kerbs	1991-1998
David C. Smith	1998-2011
John Wagner	2011-Present

COLLEGE ADMINISTRATION—2011–2012

Dates in parentheses indicate the date of current appointment.

OFFICERS OF THE COLLEGE

John Wagner (2011-) President;

B.A. 1963, M.A. 1968, Ed.D. 1978, University of Florida

Malcolm Russell (2003-) Vice President for Academic Administration; Professor of History and Economics

B.A. 1970, Columbia Union College; M.A. 1972, Ph.D. 1977, The Johns Hopkins 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; Ph.D. 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

B.B.A. 1999, M.B.A. 2001, Andrews University

FACULTY EMERITI—2011–2012

Arlie Fandrich, MAT, Professor Emeritus of Computer Science

Wayne Fleming, EdD, Professor Emeritus of Health and Human Performance

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—2011–2012

Date(s) in parentheses indicate years of faculty service at Union College

Don H. Abbey (1998–2012) Professor of Biology
BS 1969, MA 1971, Walla Walla College; PhD 1993, University of Alberta

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

Amy Bollinger (2009–) Associate Professor of Nursing
BSN 2002, Union College; MSN 2009, Nebraska Wesleyan University

Kathy Bollinger (2002–) Associate Professor of Education
BS 1971, Union College; MEd 1981, University of Nebraska–Lincoln

Kelly L. Boyd (2010–) Lecturer in Nursing
BSN 2002, Union College

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

Tanya R. Cochran (2005–) Associate Professor of English
BA 1995, Southern College of Seventh-day Adventists; MA 2000, University of Tennessee–Chattanooga; PhD 2009, Georgia State University

Gary Dickerson (2007–) Associate Professor of Computer Science
BS 1984, Union College; MBA 1989, University of Nebraska–Lincoln; MS 2002, Andrews University

Debra Eno (2003–) Associate Professor of Nursing
BS 1999, Union College; MSN 2004, University of Phoenix

Robert Fetrick (1996–) Associate Professor of Religion
BA 1972, Pacific Union College; 1978 MDiv, Andrews University

William D. Fitts (1985–) Professor of English
BA 1974, Southwestern Union College; MAT 1976, Andrews University; PhD 1985, Texas A & M University

Kristine Follett (2010–) Assistant Professor of Nursing
BSN 1995, Southwestern Adventist University; MSN 2008, Southern Adventist University

Barry Forbes (1988-) Associate Professor of Business
BS 1987, Southwestern Adventist College; MBA 1988, Texas A & M University

Bruce Forbes (2000-) Professor of Art and Graphic Design
BS 1986, Union College; MFA 1996, Savannah College of Art and Design

Lisa Forbes (2002-) Associate Professor of Accounting and Finance
BS 1992, Union College; MBA 1995, University of Nebraska-Lincoln

Charles Freidline (1983-) Professor of Chemistry
BA 1960, MS 1963, Westmont College; PhD 1966, University of Minnesota

Melanie Gabbert (2008-) Associate Professor of Psychology
BS 1992, Union College; MA 1995, Andrews University

Malcolm Gaskin (2002-) Associate Professor of Accounting
BS 1992, MA 1995, University of Montana

George Gibson (1981-) Professor of History and Economics
BA 1969, Union College; MA 1974, Western State College; PhD 1987, University of Nebraska-Lincoln

Brian Hauff (2010-) Assistant Professor of International Rescue and Relief
BS 2000, Nebraska Wesleyan University; MS 2003, University of North Texas

Krystal Hauff (2010-) Associate Professor of Health and Human Performance
BS 1998, Union College; MEd 2000, University of Nebraska-Lincoln; PhD 2006, Texas Woman's University

Greg Hines (2011-2012) Lecturer in Nursing
BSN 1994, Union College; BSN 2009, Union College

Ben Holdsworth (2009-) Associate Professor of Religion
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

Michael Huckabee (1997-2012) Professor of Physician Assistant Studies
BA 1980, Northwest Nazarene College; BS 1983, MPAS 1997, University of
Nebraska Medical Center; PhD 2008, University of Nebraska-Lincoln

Jeff Joiner (2001-2012) Associate Professor of International Rescue and Relief and
Nursing
BSN 1986, Southwestern Adventist University; MSN 1996, University of Kentucky

Laura Karges (1998-) Associate Professor of Nursing
BSN 1985, Southwest Missouri State University; MS 1992, Andrews University

Aaron Kent (2010-) Instructor in International Rescue and Relief
BS 2008, Union College; MEd 2010, Southern Adventist University

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

James D. McClelland (1974-) Professor of Art
BA 1964, Andrews University; MA 1977, Western Michigan University

Ruth Mendenhall (1986-) Associate Professor of Nursing
BS 1980, Union College; MSN 1986, University of Texas at Arlington

Michael Mennard (2003-) Associate Professor of Communication
BA1991, BS 1991, Pacific Union College; MA 2002, Sonoma State University

Lorri Merchant (2006-2012) Associate Professor of Social Work
BSW 1994, Southern Adventist University; MSW 1996, University of Kansas

Michelle Velázquez Mesnard (2002-) Associate Professor of Communication
BS 1989, Pacific Union College; MS 2001, Golden Gate University

Salvador Moguel (2006-) Associate Professor of Biology
BS 1983, Autonomous University of Guadalajara; MS 1995, State University of
New York; PhD 2004, New Mexico State University

Y. J. Moses (1992-) Professor of Education
BA 1970, Spicer Memorial College; MA 1976, Andrews University; PhD 1981,
Michigan State University

Elysia Ockenga (2011-) Clinical Instructor in Nursing
BSN 2002, Union College

Nicole Orian (2007-) Assistant Professor of Nursing
BSN 2004, Union College; MSN 2009, Nebraska Wesleyan University

Nancy Petta (1981-) Professor of Health and Human Performance
BS 1980, University of Wisconsin; MAT 1980, Andrews University; EdD 1999,
University of Nebraska-Lincoln

Larry Ray (1983-) Professor of Mathematics and Computer Science
BA 1964, MA 1966, Pacific Union College; PhD 1977, University of Southern California

Keith Riese (1981-) Professor of Engineering
BS 1970, Walla Walla College; MSEE 1972, Oregon State University

Mark Robison (1996-) Professor of English
BA 1977, Walla Walla College; MA 1993, St John's College; PhD 2008, University of Nebraska-Lincoln

Ellen Rose (2012-) Clinical Instructor
BSN 2002, Union College

Ferrill Rose, Jr (2010-) Assistant Professor of Biology
BS 2002, Union College; PhD 2009, University of Missouri

Roger Schmidt (2007-2012) Lecturer in Computer Science
BS 2006, MS 2011, Andrews University

Charlotte Schober (1984-) Associate Professor of Nursing
BS 1972, Walla Walla College; MSN 1988, University of Nebraska Medical Center

Kent Stahly (1988-) Associate Professor of Finance
BS 1967, MA 1969, University of Nebraska-Lincoln

Kimberly A. Steiner (2005-) Associate Professor of Business
BA 2001, BS 2001, Union College; MA 2004, University of Redlands

Theresa Stimson (2008-) Associate Professor of Nursing
BSN 1994, Union College; MSN 2008, University of Phoenix

Cynthia Stokes (2009-) Instructor in Music
BM 1978, Union College; MM 2011, University of Nebraska-Lincoln

Thomas Toews (2011-) Assistant Professor of Religion
BA 1993, Pacific Union College; MDiv 1995, PhD 2011, Andrews University

Benjamin Tyner (2010-) Assistant Professor of History
BA 2002, La Sierra University; MA 2008, The Graduate Center, City University of New York

Debra Unterseher (1990-) Associate Professor of Computer Information Systems
BS 1987, Union College; MA 1993, University of Nebraska-Lincoln

Amy Utt-Rickard (2010-) Assistant Professor of Biology
BS 2001, Pacific Union College; PhD 2010, Loma Linda University

Peggy Wahlen (1996-) Associate Professor of English, and English as a Second Language
BA 1970, Union College; MA 1979, Loma Linda University; MLS 1981, San Jose State University

Richard Webb (2003-) Professor of Physics
BS 1988, Loma Linda University; MS 1990, PhD 1995, Washington State University

Denise White (2011-) Associate Professor of Education
BS 1974, Union College; MA 1981, Loma Linda University; EdS 2005, EdD 2009, La Sierra University

Kimberly Widicker (2011-2012) Assistant Professor of Social Work
BS 1998, Union College; MS 2002, University of Nebraska

Carrie Wolfe (1999-) Professor of Chemistry
BA 1990, Union College; PhD 1995, University of Nebraska-Lincoln

Rick Young (2011-) Assistant Professor of International Rescue and Relief
BA 2009, MEd 2011, Regis University

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; MMLS 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

Theresa Weigel-Gillham (2009-) Assistant Professor of Education
BA 1990, Jamestown College; MEd 1997, University of North Dakota

ADJUNCT FACULTY

Marcia A. Kilsby, PhD, MLS (ASCP) SBB, CLS (NCA)
Program Director, Medical Laboratory Sciences
Andrews University, Berrien Springs, Michigan

ADJUNCT LECTURERS

These individual carry continuing teaching responsibilities

Steven Bassett, MS, Human Development
Linda Becker, PhD, Leadership Minor, Business and Computer Science
Denise Bulling, PhD, Emergency Management and Exercise Science
Rich Carlson, PhD, Religion

Sylvester Case, MDiv, Religion
Erin Caudill, MSN, Nursing
Scott Cushman, MA, Humanities
LuAnn Davis, MBA, Humanities
Lynn Davis, MA, Fine Arts
Shayne Daughenbaugh, MDiv, Religion
Arlie Fandrich, MA, Science and Mathematics, Business and Computer Science
Debbie Forshee-Sweeney, MEd, Human Development
Amanda Funk-Hilton, MA, Humanities
Eric Fung, PhD, Physician Assistant
Sarah Gilbert, MM, Human Development
Phyllis Gorton, BS, Health and Human Performance
Ronald Halverson, MDiv, Religion
Buffy Halvorsen, MA, Human Development, Religion
Angie Hardt, MA, Science and Mathematics
Stan Hardt, MA, Religion
Deanne Isaacson, BS, PA, Physician Assistant
Linda Jaquez, MA, Humanities
Debra Johnson, MA, Fine Arts
Konstantin Lisovski, BA, Fine Arts
Jeannie McCarter, PhD, Human Development
Ed Mejia, BS, Fine Arts
Rob Moore, BFA, Fine Arts
Jill Morstad, PhD, Humanities
Michelle Nash, BS, Human Development
Julia Noyes, MA, Fine Arts
Michele Petracca, MA, Human Development
Megan Robinson, BSN, Nursing
Linda Robison, MA, Human Development
Wayne Schaber, MSW, Human Development
Ralph Schnell, MA, Human Development
David Shaw, PhD, Physician Assistant
G. Mark Smith, JD, MBA, Business and Computer Science
Scott Sorensen, BA, Physician Assistant
Ric Spaulding, MEd, Human Development, Emergency Management and Exercise Science
Greg Steiner, MEd, Emergency Management and Exercise Science
E'Lise Stump, MEd, Human Development
David Subiabre, MA, Emergency Management and Exercise Science, Humanities
Ryan Teller, BA, Humanities
Kelly Vogler, BHA, Leadership Minor

INDIVIDUAL MUSIC INSTRUCTION

A. Lisette Deemer, MM
Marina Fabrikant, DMA
Diana Frazier, MM
Sarah Gilber, MM
Kevin Kroon, BS
Darcy Pearcy, MM
Jenny Tyner, MA
Lisa Watkins, MM

ADMINISTRATIVE STAFF—2011–2012

Date(s) in parentheses indicate years of employment at Union College.

ACADEMIC SUPPORT

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 and Assessment
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

Tom Becker (1969-) Director of Information Systems
BS 1969, Union College

Peter Blankenship (2009-) Director of Food Service
BS 2003, Eastern Washington University

Salli Jenks (2011-) Manager of College Housing
AS 1986, Southern College; BS 2008, Capella University

Terri Lair (2004-) Manager of Campus Store
BA 1985, Union College

Don Murray (2002-) Director of Plant Service
BS 1981, Union College

Ric Spaulding (1988-) Director of Lifestyle Center; Athletic Director; Assistant
Professor
BS 1983, Andrews University; MEd 1988, University of Missouri

STUDENT SERVICES

Donene Caster-Braithwaite (2005-) Assistant Dean of Women
BS 2000, Union College

Ron Dodds (1990-) Associate Dean of Men
BS 1990, Union College

Heather Dohrman (2009-) Counselor
BA 1997, University of Nebraska-Lincoln; MA 2005, Doane College

college organization

Carol Gibson (1993-) Student Health Nurse
BSN 1978, Union College

Stan Hardt (1995-) Counselor
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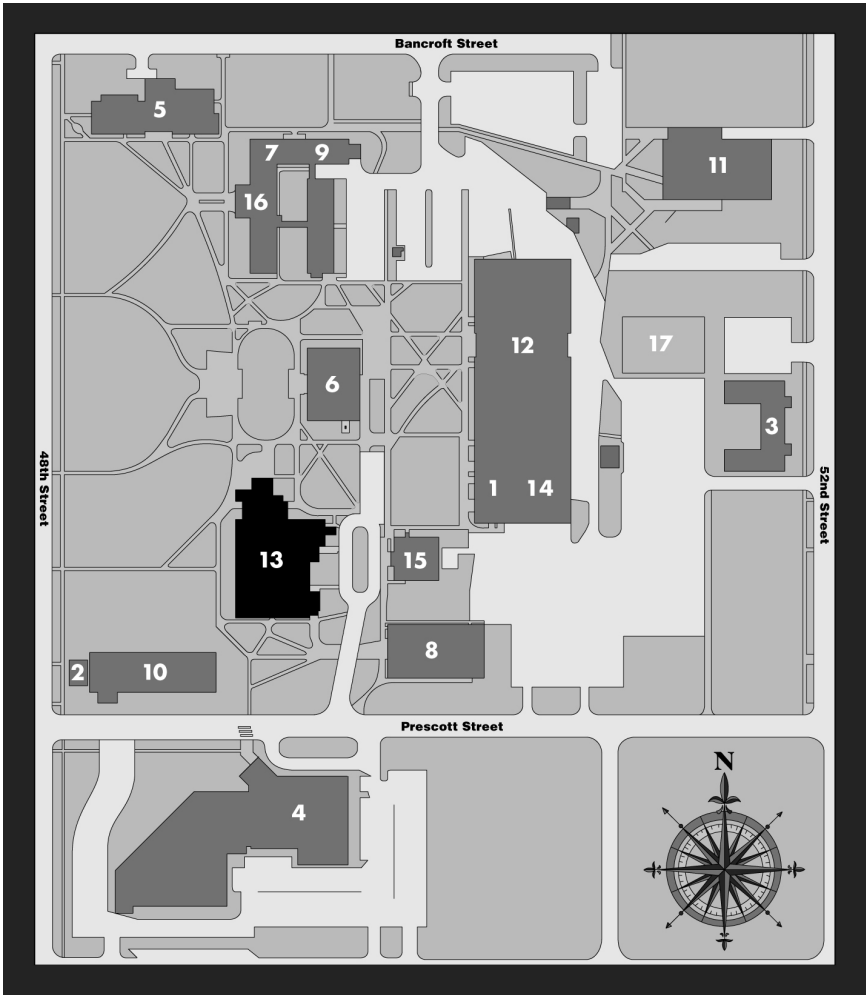
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1. AdventSource
2. Carnegie Building
Marketing Communications
Public Relations
3. Cooper Place
College View Church
5. Engel Hall
Division of Fine Arts
6. Everett Dick Administration Building
Administrative Offices
Division of Business and Computer Science
Division of Human Development
Division of Humanities
Division of Religion
English as a Second Language
Enrollment and Student Financial Services

7. George Stone School
8. Gymnasium
9. International Rescue and Relief
10. Jorgensen Hall
Division of Science and Mathematics
11. Larson Lifestyle Center
Division of Health Sciences
Health and Human Performance
Nursing Program
Physician Assistant Program
12. Don Love Building
Atrium
Campus Store and Mailroom
Career Center
Ella Johnson Crandall Memorial Library
Nursing Annex

- Student Center
Teaching Learning Center
Woods Auditorium
13. Orner Center
Campus Welcome Center
Culver Residence Hall--Men's Residence
Lang Conference and Guest Center
McClelland Art Gallery
Tribute Terrace
Union Market Dining Services
14. Plant Services
15. Prescott Hall -- Men's Residence
16. Rees Hall -- Women's Residence
17. Tennis Courts



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