

Union College Bulletin
2005-2006

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Union College
3800 South 48th Street
Lincoln, Nebraska 68506

Web site www.ucollege.edu

Union College reserves the right to change any provision or requirement contained in this publication.

Amendment voted April 18, 2005

English as a Second Language (ESL) Dual Enrollment, p. 133, and Course Descriptions, p. 209-210.

Amendment:

The minimum TOEFL score for dual enrollment has been changed to 475.

Course description: The prerequisite minimum TOEFL score of 450 has been changed to 475.

Amendment voted June 2005

Division of Human Development, Bachelor of Social Work, p.118 and Course Descriptions, p. 258.

Amendment:

SOWK 475 Field Practicum 1-10 hours and SOWK 476 Field Seminar .5-2 hours have been combined in SOWK 475 Field Practicum 1-12 hours.

Course description: Capstone professional experience in a social service agency, under the mentorship of an MSW professional. A total of 480 hours and attendance at a field seminar are required.

Prerequisite: SOWK 228

Amendment voted August 31, 2005 in Academic Council

Academic Council voted on August 31, 2005 to add Academic Recognition to the 'Directory Information' on p.21 in the 2005-06 academic bulletin, effective immediately."

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 in 2005-2006 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!

This bulletin marks the inauguration of a new international rescue and relief major. The only known program of its kind in the United States, this high-energy major prepares students for lives of service, disaster response and mission work around the world. This bulletin also includes the new description of the physician assistant program, now a master's-level degree. These developments are not the last. Winds of change are blowing across this campus, promising new academic strengths and a focus on leadership development.

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



DAVID SMITH
President

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CONTACT INFORMATION

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	Fax 402.486.2566
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Student Financial Services	
Academic Dean	402.486.2501
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Career Planning and Testing	402.486.2540
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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
Teaching Learning Center	402.486.2506
Transcript Request Information	402.486.2509
	Fax 402.486.2584

ACADEMIC YEAR CALENDAR 2005-2006

For more complete listings, refer to the academic year calendar in the **Schedule of Classes**.

2005

May 16	Summer Classes Begin
Aug 31	Last Day to Complete Summer Graduation Requirements
Aug 14, 15	New Student Orientation
Aug 16, 17	Registration for Fall Semester
Aug 18	First Semester Classes Begin
Aug 19-26	Late Registration Period (\$50 Fee)
Sept 1	Last Day to Delete/Add/Audit Classes
Sept 5	Labor Day Holiday
Oct 13-16	Midterm Break
Oct 26	Last Day to Drop a Class/Receive a "W"
Nov 1	Preregistration for Second Semester Begins
Nov 4	Senior Commitment
Nov 4-6	Parents Weekend
Nov 23-27	Thanksgiving Vacation
Dec 12-14	First Semester Examinations
Dec 16	Last Day to Complete December Graduation Requirements

2006

Jan 9	Registration for Spring Semester
Jan 10	Classes Begin with Monday Classes on Tuesday
Jan 11-18	Late Registration Period (\$50 Fee)
Jan 16	Martin Luther King Day Holiday
Jan 24	Last Day to Delete/Add/Audit Classes
Feb 9-12	Winter Break
Mar 9	Last Day to Drop a Class/Receive a "W"
Mar 10-19	Spring Vacation
Mar 21	Preregistration for Fall Semester Begins
May 8-10	Second Semester Examinations
May 12-14	Commencement Weekend
May 15	Summer Classes Begin

Mission and Goals

MISSION

Union College, a Seventh-day Adventist liberal arts college, prepares students from diverse backgrounds for excellence in selected professions, develops an eternal perspective with assurance in Christ, and promotes joyful service to the world.

VISION

Union College will be recognized for its creative, progressive, affordable, and openly caring environment where students are enabled to identify and develop their talents, communicate effectively, strengthen constructive thinking, and flourish spiritually.

GOALS

The environment created by the college's mission will enable students to

- make informed choices regarding a personal relationship with God and acceptance of Christ's teaching as understood and practiced by the Seventh-day Adventist Church.
- base decisions on a coherent set of Christian values.
- possess competence in a balanced core of knowledge drawn from various disciplines which enables lifelong learning, critical thinking, effective communication and the pursuit of a chosen vocation.
- create a foundation for advanced study.
- practice and promote a balanced, healthful lifestyle.
- recognize and appreciate human diversity.
- understand the history, culture and contributions of various peoples.
- provide altruistic service to a global society.

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 uphold the values of the Seventh-day Adventist Church, 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
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504 312.263.0456.

Accrediting Association of Seventh-day Adventist Schools, Colleges, and
Universities, Incorporated
Accreditation Review Commission on Education for the Physician Assistant,
Inc.
Commission on Collegiate Nursing Education
Council on Social Work Education
National Council for the Accreditation of Teacher Education

Union College Is a Member of

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

Union College Is Approved by

Nebraska Department of Education
Nebraska State Board of Nursing

Admission to the College

Union College invites students who desire to study in a Christian environment, and who demonstrate good moral character and social adjustment to apply. Previous academic experience is a large, but not the only, factor in admission decisions. Most successful applicants earn average or better grades, rank in the upper half of their class, and demonstrate average or better test scores. Signing a college application commits applicants to living in harmony with college regulations. All students are expected to respect the moral, ethical and doctrinal teachings of the Bible as understood by the Seventh-day Adventist Church.

DOCUMENTS REQUIRED FOR ADMISSION

- **A Completed Application for Admission**
Available from the Office of Admissions and on the Union College Web site www.ucollege.edu, the application may be submitted as early as the first semester of the senior year of high school or its equivalent (a shortened application may be submitted by former UC students who have not attended for one or more semesters).
- **Transcripts of All High Schools and Colleges or Universities Attended**
Official transcripts should be mailed directly from the Registrar of the institution attended to the Union College Admissions Office. Official final high school transcripts and all college transcripts are required for all students.
- **ACT/SAT**
ACT/SAT scores are required of all applicants except for students who have completed first year composition and mathematics courses, and those entering the ESL Program.
- **TOEFL**
For students whose first language is not English, the Test of English as a Foreign Language (TOEFL) is not required for acceptance into the English as a Second Language program (ESL), but is required for non-ESL admission.
- **FAFSA Forms**
Though not required for their admission, prospective students seeking federal financial assistance should complete the Free Application for Federal Student Aid (FAFSA). Applications are available through your high school guidance counselor, the Union College Office of Admissions or on the Web at www.fafsa.ed.gov/.

ADMISSION

Regular admission requires

- graduation from high school or a comparable home school curriculum;
 - English - 3 years, excluding speech and drama (4 years highly recommended);
 - Mathematics - 2 years of algebra, or 1 year each of algebra and geometry (4 years including precalculus/advanced math required to enter some math and science courses);
 - Science - 2 years including 1 year of biology, chemistry or physics;
 - Social Sciences - 2 years of history, or 1 year of history and a social science;
 - Computer - a computer applications course which includes wordprocessing, spreadsheets, presentations and file management;
- a minimum grade point average (GPA) of 2.50 on a 4-point scale;
- an ACT composite score of 18 with minimum English and math scores of 17, or combined SAT score of 870 with minimum verbal and math scores of 430;
- General Educational Development (GED) minimum standard test scores of 45 on each of the five tests or an average score of 50 for all tests is required for students who have not graduated from high school;
- TOEFL minimum score of 550 on the written or its computer equivalent (213) is required for non-ESL admission for students whose first language is not English (some departments may allow 525 plus essay- see ESL);
- 24 semester hours or equivalent from an accredited institution with a minimum GPA of 2.00 for transfer as a sophomore or above;
- official transcripts from any schools attended by home school students, a list of courses in the home school curriculum, and an official GED examination certificate (may provide additional opportunities for scholarship awards);
- other documents prior to preregistration including a health form (available on the Union College Web site) and an official record of immunizations.

Conditional Admission

- Entering freshmen whose high school GPA or ACT or SAT scores are below the published minimum must enroll in the fee-based Freshman Development program and are limited to 12 semester hours.
- Students who lack specific high school courses required for regular admission must satisfy these requirements within their first three semesters in attendance at Union College (a three-hour course will satisfy a full year high school course deficiency).
- Transfer students with a college cumulative GPA below 2.00 must enroll in the fee-based Academic Success and Advising Program (ASAP) and are limited to 12 semester hours.

- For those lacking ACT or SAT scores, the ACT test may be taken at Union College arranged by the Career Center before registering for classes.
- Official transcripts that are not available from high school showing date of graduation or from previous institutions with transfer credit require semester-by-semester arrangements for continued enrollment.

NON-DEGREE STUDENTS

Permission may be given to special students to take classes with an academic load of six hours per semester or less.

GUARANTEED EDUCATION PROGRAM

Union College assures its graduates that their four-year degrees are of high quality and will serve them satisfactorily. The Guaranteed Education Program grants a graduate the privilege of returning to take courses towards one additional degree with no charge for tuition.

Eligibility

Applicants must have graduated with a four-year degree under a 1981-1983 or later bulletin. Those graduating from Union College prior to spring 1998 may apply to be a part of the Guaranteed Education Program no sooner than two years after their graduation, while those graduating from Union College the spring of 1998 or later may apply to be a part of the program no sooner than two years after their graduation and no later than six years after graduation. Graduates with general studies or personalized majors are not eligible. All applicants must have earned a minimum of 64 hours of credit taken at Union College. Previous accounts at Union must be paid in full.

Guidelines

The guarantee of no tuition is limited to major and contextual requirements for one additional undergraduate major. It does not apply to elective courses or to additional majors beyond the first, even if the student does not meet the major's admission requirements or does not complete the first major. Most majors are covered under the Guaranteed Education Program. However, the Guaranteed Education Program does not apply to the professional phases of the Health Sciences, Nursing program or International Rescue and Relief courses. Guaranteed Education Program students need to be aware that first-time undergraduate students paying full tuition will receive priority for registration in limited-enrollment class and lab sections.

The Guaranteed Education Program covers only the tuition for the major. Expenses not covered include summer school courses, laboratory fees, clinical course work, off-campus courses (including those in affiliated programs), general fees, cafeteria charges, room rent, etc. The college reserves the right to substitute courses that are discontinued during the life of the contract.

BACCALAUREATE BONUS PROGRAM

Union College offers four-year graduates of Union College and other accredited U.S. colleges or universities, or by special permission, holders of equivalent international degrees, the opportunity to take additional undergraduate classes, or to complete another undergraduate degree at half the current tuition rate, through its Baccalaureate Bonus program. Students electing to enter the program may carry either full- or part-time class loads.

The Baccalaureate Bonus Program half-tuition rate applies only to fall and spring semester courses. Discounts do not apply to laboratory fees, the professional phases of the Health Sciences program, the Nursing program or the International Rescue and Relief program, clinical course work, off-campus courses (including those in affiliated programs), ESL program and/or courses, general fees, cafeteria charges, room rent and other miscellaneous charges.

Baccalaureate Bonus students may enroll in any course subject to the conditions outlined in this policy but must recognize that first-time undergraduate students paying full tuition will receive priority for enrollment in limited-enrollment classes and lab sections.

Applicants to the program must have paid in full any previous accounts held with Union College. In addition, students pursuing degrees assume full financial responsibility for classes that must be taken at other colleges or universities.

FINANCIAL CONSIDERATIONS

Guaranteed Education and Baccalaureate Bonus

On-campus employment is usually not available to students in either the Guaranteed Education Program or the Baccalaureate Bonus Program. However, campus employment needs and possible employment will be given consideration through the Student Finance Committee. Guaranteed Education and Baccalaureate Bonus students are not generally eligible for federal financial aid, grants, discounts or scholarships. All students are required to sign a payment agreement. This agreement, which outlines the student's plan for meeting educational expenses, is explained under Financial Assistance in the Financial Information section.

ADMISSION OF INTERNATIONAL STUDENTS

An international student packet has been especially prepared to answer questions unique to foreign students who may wish to study at Union College. The packet, which includes an application, covers subjects such as passports and visas, employment, English language proficiency, finances, scholarships, housing and insurance. Students may obtain this information by writing to: Director of Admissions, Union College, 3800 South 48th Street, Lincoln, Nebraska 68506 USA, or accessing the Web site at www.ucollege.edu/international.

ENGLISH PROFICIENCY FOR INTERNATIONAL STUDENTS

To enter the non-ESL academic programs, students whose primary language is not English, regardless of citizenship, must show a current (within the last six months) International TOEFL score of 550, or the equivalent computer-based score of 213, with no single score lower than 52 or the equivalent computer-based scores for the three respective sections, and a passing Test of Written English (at least 4). English as a Second Language classes will be required for students who do not achieve these minimum scores. (See ESL in Division of Humanities section.) If the student does not have a TOEFL, other valid tests as determined by the college prior to acceptance may be presented.

NONDISCRIMINATION POLICY

Union College was established by the Seventh-day Adventist Church as an integral part of its teaching ministry. It is committed to equal education and employment opportunities for men and women of all races and does not discriminate on the basis of physical disability, age, sex, race, color, or national origin in its educational and admissions policies, financial affairs, employment programs, student life and services or any College-administered programs.

To this end, the College is in compliance with Titles VI and VII of the Civil Rights Act of 1964 as amended and in substantial compliance with Title IX of the Education Amendments of 1972 (34 CFR 106 et seq.), and does not discriminate against any employees or applicants for employment because they are disabled veterans or veterans of the Vietnam era.

The College reserves constitutional and statutory rights as a religious institution and employer to give preference to Seventh-day Adventists in admissions and employment, including but not limited to 42 USC Secs. 2000e-1, 2000e-2; Sec. 6-15 of Federal Executive Order 11246; 41 DFR Sec. 60-1.5(5); 20 USC Sec. 1681(a)(3); 106.21, 106.31, 106.39, 106.40, 106.51, and 106.57; and the First Amendment to the United States Constitution.

The College believes that Title IX regulations are subject to constitutional guarantees against unreasonable entanglement without infringements on the religious teachings and practices of the Seventh-day Adventist Church. The College expects students and employees to uphold biblical principles of morality and deportment as interpreted by the Seventh-day Adventist church. Union College claims exemptions from the provision of Title IX set forth in 34 CFR Secs. 106.21, 106.31, 106.39, 106.40, 106.51 and 106.57.

Academic Information

To fulfill its primary mission of undergraduate education, Union College offers programs leading to associate and bachelor's degrees in a number of fields. In addition, during the 2004-2005 academic year the college inaugurated its first graduate program, in physician assistant studies. Specialized academic information for that degree is found in the physician assistant section of the Division of Health Sciences.

Academic policies are written to assist our students in completing their academic programs as efficiently as possible and to support them in managing their course work from semester to semester. Students may petition for exceptions to these policies. Forms for this purpose are available in 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 following 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 as related to individual courses. If a student and professor are unable to resolve an issue involving standards of integrity, the incident should be reported to the division chair and if necessary the Academic Dean.

ACADEMIC ADVISING

Beyond completing the courses appropriate for a major, graduation involves meeting a variety of requirements and deadlines. To assist in meeting these challenges, each Union College student is appointed a faculty advisor. However, ultimate responsibility for planning the academic program and fulfilling graduation requirements lies with the student. Besides guiding course selection and general

academic planning, advisors assist a student's orientation to campus life and discuss broader personal concerns.

ACADEMIC COURSE LOAD

Union College follows the semester system. Courses are expressed in semester hours, each hour consisting of one fifty-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 sixteen hours per semester over four years achieves 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 twelve hours, and the initial freshman load is sixteen hours. Registration for eighteen or more semester hours requires permission of the academic advisor and the division chair.

COURSE NUMBERS

Courses numbered at the 100-level are typically structured for first-year students; the numbering system continues upward to the 500-level for masters courses. Completion of ENGL 112 College Writing II and sophomore class standing are required before enrolling in 300- or 400-level courses. 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).

CLASSIFICATION OF STUDENTS

- Freshman—entrance requirements satisfied
- Sophomore—at least 24 semester hours
- Junior—at least 56 semester hours
- Senior—at least 92 semester hours
- Graduate—enrolled in master's degree courses
- Postgraduate—have a baccalaureate degree but enrolled in undergraduate courses
- Advanced Enrollment—enrolled in college level courses during their junior or senior years in academy or high school
- ESL—enrolled in English as a Second Language program
- Other—special students, guest students and others not seeking a degree enrolled for 6 hours or less

ATTENDANCE

Students are expected to attend all classes for which they are officially registered. Individual instructors are responsible for the manner in which this regulation is enforced and the degree to which work can be made up. The particular attendance policy for any course will be announced by the instructor in the course syllabus. This may include a failing grade for absence from 20% or more class periods.

NEW STUDENT ORIENTATION

Orientation for new students occurs before registration the first semester and as announced second semester. This program is designed to introduce students to the services and resources available at Union College. Information regarding academic planning, financial planning and spiritual and social programs is available to assist in making the transition to college easier. Upperclass peer advisors are involved in the program and will help with registration and in the transition to college life.

ACT TESTING

The ACT test required for entrance will be given in conjunction with registration. This residual ACT testing is available for those who do not have test scores on file at Union College or for those who wish to retake the test.

REGISTRATION

Preregistration

Returning students and incoming students are encouraged to reserve courses during the preregistration periods designated in the college calendar. However, registration must be completed during the registration period. After the end of the second day of classes, course reservations are canceled for students who have not initiated registration or made other arrangements.

Registration

Students are expected to register during the scheduled registration periods designated in the college calendar. Students are officially registered when all procedures have been completed and forms returned to the Records Office.

Late Registration

Tuition charges begin on the first day of classes. A late fee will be applied to those beginning registration after the first day of classes. Late registrants may need to register for a reduced course load and will be required to make up work. Registration is allowed only during the first seven days of a semester or two days of a summer course.

CHANGES IN REGISTRATION

Delete-Add

Students may add courses already in progress or delete courses from their schedule during the first ten days of classes only. After this period the students' permanent academic records are established. Changes in registration during summer school can be made through the end of the second day of classes without affecting the students' permanent records. Students considering changing courses should attend the new course as soon as possible.

Drop/Withdraw

Courses may be dropped up to five class days following the distribution of midterm grades and will show a designation of W for withdrawal. After that date, courses

may not be dropped and letter grades will be assigned. Withdrawal deadlines vary for courses that do not meet for a full semester, and are set by the Records Office.

Auditing Courses

Students may register to audit a course on a space-available basis by permission of the instructor and the division chair. Certain 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 first ten days of classes each semester or the first two days of summer sessions.

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 cases of insufficient enrollment.

TRANSFER CREDITS

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

- an official transcript must be received directly from the other institution;
- credits must have a grade of "C-" (1.67) or above;
- remedial, developmental, basic skills or technical courses are not transferable;
- transfer credits from two-year institutions are limited. (See Residency in Graduation Requirements.)

When transfer courses are not clearly comparable to Union College requirements, substitution of transfer credits for general education, major, contextual, or minor courses must receive the approval of the appropriate division chair. The student is expected to provide evidence such as course description or syllabus.

Course Transfers from Unaccredited Institutions

While courses from unaccredited institutions do not generally transfer, on occasion credits may be transferred if validated by an official transcript received directly from the institution and by the division chairs of both the discipline and the student's major. It is the student's responsibility to file academic petition forms in the Records Office documenting this validation. Credit is not granted for non-college sponsored instruction or experiential learning.

CREDIT BY EXAMINATION

Three types of examinations are available for credit at Union College: the College-Level Examination Program (CLEP), Advanced Placement (AP) credit, and Union College proficiency examinations. Credit will be based on the student's performance level and may not exceed credit granted for similar classes offered at Union College. Credit will not be given if a student has taken the course or a more advanced course, with or without credit.

College Level Examination Program (CLEP)

Union College awards credit for College Level Examination Program subject exams as recommended by the Commission on Educational Credit of the American Council on Education. Requests for CLEP test dates and applications for the exams should be directed to the Career Center. Credits for successful CLEP examinations may not be given if a student has previously enrolled in the course or a more advanced one. *Credit by CLEP examination is not available for College Writing I and II.*

Advanced Placement (AP)

Advanced Placement (AP) credit may be granted to students who have completed college level courses in secondary school and have passed the College Board AP Examinations with a grade of "3" or better. Credit granted may not exceed credit for similar courses offered at Union College.

Proficiency Examinations

Proficiency examinations may be taken only once and the credit is given only for courses offered at Union College. Applications are available in the Records Office and the divisions will establish the passing score. A course already taken cannot be replaced by a proficiency examination.

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 either the student mission or task force programs provided prior arrangements are made with the College Chaplain. Elective 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.) UCSM 205 Introduction to Overseas Service is required of all students expecting to participate in the student mission program. Tuition is charged and completion of UCSM 205 earns two hours of elective credit.

GRADES

Grade reports are issued at midterm and at the end of each semester. The midterm grade is a progress grade; only the final grade at the end of the semester is recorded on the official transcript.

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

Other Designations

AU	Audit
CR	Passing (C- or better) in a credit/no credit course or student option
NC	Failing in a credit/no credit course or student option
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
RP	Repeat

Calculating Grade Point Averages

The grade point average is computed by totaling the grade points of all courses and dividing by the total semester hours for which grades are received. AU, CR, NC, W, I, IP, NR, and RP are disregarded in computing the grade point average. 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

Courses may be repeated provided advanced work has not been taken in the same field. When a student repeats a course at Union College or another accredited institution, both the original and repeat grades become part of the student's permanent record. Only the highest grade and credits earned are computed in the cumulative grade point average and included 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 submitted before the final class period and approved by the instructor and division chair. The request must also include the grade the student would receive if no further work were completed in the course. The deadline for course completion which must be no later than the end of the following 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) may be given for courses whose requirements are recognized as likely to 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. The final letter grade is filed with the Records Office when the instructor submits a Grade Correction Form. 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.

Credit/No Credit

Juniors and seniors with a minimum cumulative GPA of 2.00, may take one course per semester on a credit/no credit basis. This option is not available for requirements in major, minor, contextual, or general education courses, or professional courses in education required for certification. This option must be requested no later than five days after distribution of mid-term grades. Courses taken earlier for a grade cannot be repeated under this option. Forms are available in the Records Office.

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 available for assignments turned in beyond the end of the semester. If a student and an instructor differ in their understanding of a grade, the student should follow the grievance procedures outlined in the Student Life and Services section.

GRADUATION RATE

In accordance with the Student Right to Know Act, Union College makes available on an annual basis to students and potential students the graduation rates of all first-time, full-time students who matriculate at Union College. The graduation rate for the 1997 cohort is 53 percent.

TRANSCRIPTS

Requests for transcripts must be made in writing and signed by the student. Signed fax requests are accepted; however, electronic signatures are not. The Financial Information section lists the current transcript fees.

Transcripts are released only when the student's account has been paid in full. Transcripts may be withheld if any payments on loans through the college are delinquent.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act of 1974 (*Buckley Amendment*) provides for specific rights to students regarding the privacy of their educational records. The Privacy Act gives the right to the college to disclose directory information without student consent. However, students have 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;
- e-mail 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;
- 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. Students should submit to the Director of Records, Vice President for Academic Administration, Vice President for Student Services, advisor, or other appropriate officials, written requests that identify the record(s) they wish to inspect. 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.

Parental Access to Academic Records

Semester grade reports are mailed directly to students. Every student may also sign a form giving name and address of either parent(s) or guardian(s) who should receive copies of the grades.

Parents of Union College students who have provided proof that the student is a dependent and is claimed as a tax exemption may also receive their son or daughter's grade report by written request to the Director of Records.

DEAN'S LISTS

Students who complete a minimum of 12 hours during the semester are recognized for academic performance in the following 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. Students with *IP* designations may be included if they have completed an additional 12 or more hours in the semester.

ACADEMIC PROBATION

Students are placed on academic probation whose

- cumulative GPA is below 2.00, or
- most recent semester GPA fell below 1.67, or
- semester GPA fell below 2.00 and who completed less than 75 percent of graded credits.

To assist students in improving scholastic performance, students on academic probation are required to

- limit their class load to a maximum of 12 hours;
- sign an Academic Success Advising Program (ASAP) agreement that will be monitored by the Teaching Learning Center;
- pay an additional fee for ASAP;
- renegotiate financial agreements in case of loss of financial aid.

Students on academic probation may be given up to two consecutive semesters to clear their probationary status at which time they will be cleared from probation or placed on academic suspension.

ACADEMIC SUSPENSION

A student may be suspended from the college, with possibility of appeal, after the GPA falls below 2.00 for two consecutive semesters, or if the cumulative GPA falls below the level indicated:

Academic Year	When GPA is Below
Freshman	1.50
Sophomore	1.65
Junior	1.80
Senior	1.98

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

Students who have been suspended for academic reasons may request re-admittance to regular academic programs upon presentation of one of the following:

- 6 semester hours of college-level study with a “B” (3.00) average or above taken at another regionally accredited institution or in summer sessions at Union College;
- other convincing evidence of preparation to do acceptable academic work.

SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL ASSISTANCE

Students whose grades drop below the minimum will be in danger of losing all financial aid. Criteria for satisfactory academic progress for financial aid recipients are listed in the Financial Information section of this bulletin.

EXAMINATION SCHEDULE POLICY

Students are expected to take final examinations at the time printed on the semester examination schedule. Any exceptions to the schedule must be approved by the instructor and the division chair, and each variation will be subject to the examination rescheduling fee. (See Financial Information section.)

STUDY ELSEWHERE DURING UNION COLLEGE RESIDENCY

Students should counsel with the division chair of their intended major in regard to any courses they plan to take from another institution, either in residence or by distance learning. This counsel will insure that courses chosen will best satisfy requirements of the curriculum they intend to follow.

Several colleges and universities in and near Lincoln allow Union College students to enroll on a part-time basis for courses not available at Union. (See Multi-Campus Enrollment in Financial Section.)

When study by correspondence is desirable, Union College recommends Home Study International, 12501 Old Columbia Pike, Silver Spring, MD 20904-6600, or www.hsi.edu or phone 1.800.782.4769.

Home Study International is accredited by the Distance Education and Training Council (DETC) which is recognized by the U.S. Department of Education and the Commission on Recognition of Postsecondary Accreditation (CORPA). It is a member of University Continuing Education Association, and is also accredited by the Accrediting Association of Seventh-day Adventist Schools, Colleges, and Universities.

ASSESSMENT

Union College is committed to providing a quality educational and learning environment for its students. This is reflected in the college’s ongoing efforts to assess student learning and evaluate institutional effectiveness. Students are therefore required to participate in a variety of measures designed to help achieve these goals. At various points in their academic programs, students are asked to complete questionnaires, write nationally-normed examinations and participate in

other evaluative activities. Results of all assessment activities are distributed to appropriate personnel and study groups, including students, for recommendations about improvements in programs and services.

CHANGES TO CURRENT BULLETIN

At any time, the Academic Council in consultation with the faculty may modify, delete or add to the provisions of the current bulletin. Changes are to become effective prior to the publication of a new volume 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 for meeting requirements for graduation rests primarily upon the student. Students should acquaint themselves with the various requirements in this bulletin and, beginning with the freshman year, should plan their college courses to fulfill requirements.

GENERAL GRADUATION REQUIREMENTS

Bachelor's Degree Requirements

Bachelor's degrees are conferred upon students under this *Bulletin* who have

- successfully completed at least 128 semester hours, with at least 40 hours at the upper division level;
- fulfilled the specific requirements of a major, including contextual and specific general education requirements, described in the division sections of this bulletin, or a general studies or personalized program;
- a minimum of *C* (2.00) for all major and contextual courses;
- 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 as a part of preregistration or registration for the senior year giving the proposed schedule for the year;
- provided transcripts and completed courses designated I or IP a month before graduation.

Associate Degree Requirements

Associate degrees are conferred upon student under this *Bulletin* who have

- successfully completed at least 64 semester hours;
- fulfilled the specific requirements of an emphasis, including related required courses described in the division sections of this bulletin, or an associate of arts degree;
- a minimum of *C* (2.00) for all emphasis and related required courses;
- 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 as a part of preregistration or registration for the graduating year giving the proposed schedule for the year;
- provided transcripts and completed courses designated I or IP a month before graduation.

Master's Degree Requirements

The Master of Physician Assistant Studies program began in the fall semester of the 2004-2005 school year. Requirements for the MPAS are listed under Physician Assistant Studies. (See Division of Health Sciences)

COMMENCEMENT

Commencement exercises are held annually in May, although diplomas are issued bearing August and December dates. Students who complete a program at the end of the spring semester will be expected to participate in the graduation exercises. Exemption from participation in the annual exercises is granted only by the President and may require a fee. Graduates from the previous August or December are invited to make arrangements with the Records Office to participate.

Academic Recognition at Graduation

Students graduating from Union College will be awarded their degrees with the following designations appropriate to the minimum cumulative grade-point average attained:

Bachelor's Degrees	GPA
<i>Summa Cum Laude</i>	3.90
<i>Magna Cum Laude</i>	3.75
<i>Cum Laude</i>	3.50

Graduates receiving associate degrees are recognized with *commendation* for a cumulative GPA of 3.50

Participation by Prospective Summer Graduates

Students who plan to complete requirements during the summer may apply to participate in the graduation ceremonies 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. To encourage timely completion, 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 and recorded in the Records Office 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 and at least half of the 300-level or above hours in the major must be in residence. A minimum of 56 semester hours must be completed in four-year colleges or universities. 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.

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

Second Degrees

Graduates of accredited institutions may earn baccalaureate degrees from Union College by fulfilling all major and contextual requirements for the second degree, and specific general education as required by the major, 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 if they are offered for the same degree. When different degrees are involved, both degrees will be awarded

Academic Minor

Completion of an academic minor is not required unless a specific major requires an accompanying minor. One or more 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.

GENERAL STUDIES

The bachelor's degree in general studies allows students to develop academic skills in several areas of study not formally listed as a major. The general studies program focuses on a specific theme within general academic areas. All the graduation requirements for a baccalaureate degree outlined above must be met except that the required major is replaced by the emphasis stipulated below. Because a bachelor's degree in general studies does not include a recognized major, Union College does not extend the guaranteed education option to students who graduate under this program.

Emphasis

Replacing the disciplinary major in the general studies program is a broader focus. This emphasis required 48 semester hours of credit with a minimum of 15 semester hours numbered at the 300 or 400 levels.

A minimum of 24 semester hours must be in one academic division and 12 semester hours each from two other academic divisions. Courses meeting the general education requirements cannot also fulfill requirements in the emphasis.

BEST OF BOTH WORLDS**Personalized Degree Program**

The personalized program offers students the opportunity to design and fulfill a unique program of study that achieves individual educational goals. It is intended for a student who, in consultation with an advisor, wishes to design a personalized

major. 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. Union College does not extend the guaranteed education option to students who graduate under this program.

The student should present a proposed curriculum no later than 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 the same as for a regular degree with the exception of some possible variation of the general education requirements. In some cases the program may require courses offered on other campuses for which the student is financially responsible. The residency requirement is that half the required hours for the degree (64 hours) and all of the general education classes must be taken at Union College.

Residence at Union College while Studying Elsewhere

Best of Both Worlds also provides opportunities 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.

POST-BACCALAUREATE PROFESSIONAL PROGRAM

On occasion, Union College students may be accepted 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 have

- applied for a Union College degree within two years after successfully completing the first-year of a post-baccalaureate professional program;
- completed the general education requirements as outlined in this bulletin;
- a minimum of 92 semester hours of college-level courses, including ten or more hours of 300-400 level;
- a minimum cumulative grade point average of 2.00;
- met the residency requirement at Union College prior to entering the post-baccalaureate program of the professional school;
- certification from the professional school that the applicant has successfully completed the first year of the professional program and is eligible to continue.

UNION COLLEGE—CANADIAN UNIVERSITY COLLEGE JOINT TEACHER EDUCATION PROGRAM

For several decades, Union College offered a teacher education program on the campus of Canadian University College, Lacombe, Alberta, Canada, intended primarily to train Canadian students desiring to teach in church schools. However, after the Province of Alberta granted Canadian University College the authority to issue education degrees of its own, the program became unnecessary. The last

students who entered the program did so according to the 2003-2005 Bulletin. Details of the requirements are available in that *Bulletin* or a previous one.

General Education

“LIFETIME EDUCATION AND ACTIVE DISCIPLESHIP” LEAD@Union

Statement of Purpose

Through its LEAD@Union program, Union College offers men and women opportunities to develop the broad thinking, knowledge, values, and skills essential to professionals in the twenty-first century.

True to its liberal arts origins, the college prepares graduates who possess the ethical values, interests, abilities, and analytical thinking needed for service as citizens and leaders. True to its Adventist heritage that emphasizes learning as preparation for eternal life, the college develops student abilities to reflect critically on faith, values, and questions of ultimate significance. Most of all, the college encourages a lasting understanding and appreciation of God, His creation and His grace.

LEAD@Union provides the fundamental knowledge and patterns of thought necessary to accomplish these goals. Given the global interactions of contemporary society, knowledge and understanding must encompass the cultural, intellectual, and scientific traditions of Western society, the values and viewpoints of other cultures, and the Christian claim that the Cross and the resurrection are the central acts of history. Study and service in another culture are optional aspects of the program, valued for both their opportunities for formal learning and as means to experience and understand the broader human condition.

The philosophy underlying the college educates the whole person, rather than merely the mind in isolation. It conceives personhood as complete only when an individual forms part of society. LEAD@Union thus stresses community building and leadership, and the long-standing symbolism of “The College of the Golden Cords” is reflected in Union’s unique student-led service programs and its emphasis on developing students for leadership.

LEAD@Union is structured to guide students initially through foundational courses that build broad competencies and analytical abilities. After disciplinary and interdisciplinary study and activities, it culminates in two capstone experiences. The first, coinciding with the major, is an internship or an active-learning experience. The optional second experience is the analysis of selected world issues from a Christian perspective.

Themes

Achieving the Statement of Purpose involves six themes which combine, sometimes uniquely, in each course included in LEAD@Union.

- Values-centered education;

- Acquisition and connection of knowledge;
- Critical thinking and intellectual skills;
- Global perspective;
- Creative thinking and intellectual curiosity;
- Leadership, service and teamwork.

GENERAL EDUCATION REQUIREMENTS 4-year

Baccalaureate degrees require a minimum of 53 (59 for Bachelor of Arts) hours of general education courses in the total of 128 hours. Major, minor or contextual courses may also be used as general education requirements. In such cases the hours will be counted only once toward the minimum of 128 hours needed for graduation.

Before enrolling in any 300-400 level courses students must have completed *ENGL 112* and have obtained *sophomore* standing. A minimum of 40 hours of 300-400 level courses are required.

RELIGION 12 hours

Graduates will acquire a basic knowledge of Holy Scripture, the doctrines common to the Christian faith, and distinctive Seventh-day Adventist beliefs. Moreover, students will develop a Christian frame of reference in considering the values and attributes of a liberally educated person.

RELT 141	Christian Beliefs	3
RELB	(Biblical Studies)	3
REL		6

Religion Transfer

One regular religion course (i.e., 3 semester hours) is required per year of attendance at an SDA college or university, up to a maximum of 12 credits. RELT 141 is required for seniors; RELT 141 and an RELB or RELT 305 for juniors.

COMMUNICATION 8 hours

Graduates will communicate clearly, confidently, and persuasively in writing and in speech, capably using relevant technological tools.

ENGL 111	College Writing I	3
ENGL 112	College Writing II	3
COMM 105	Public Speaking	2

Three Writing-Intensive (WR) Courses

Satisfactory completion of at least three writing-designated (WR) courses after satisfactory completion of ENGL 112. At least one of these courses must be selected from the division of the student's major and at least one from another division.

FINE ARTS AND HUMANITIES **7 hours**

Graduates will acquire an understanding of the human experience and philosophical issues by studying significant writings, the arts and culture.

Literature course 3

200-level literature course recommended;

300-400 with permission of instructor

Two hours each from two of the following three areas: 4

Philosophy course

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

HISTORY AND SOCIAL SCIENCE **9 hours**

Graduates will understand the development of Western society, the functioning of selected institutions, and will recognize challenges and opportunities in a world characterized by cultural diversity and a complex array of culture and subcultures.

History course: 3

Students with two or more years of history in high school

may choose a course from either American or world history.

Students with only one year of history in high school must study the history which was not studied in high school.

Three hours each from two of the following areas: 6

ECON, GEOG, HIST, PLSC, PSYC, SOCI or leadership

SCIENCE **7 hours**

Graduates will reason and solve problems using scientific methodology as well as numeric or symbolic systems. Student will also understand one field of science at the introductory level.

Life sciences:

BIOL 102, 111, 151, 205, 207, or 377 recommended 3-4

Physical sciences:

ASTR 111, CHEM 101, 151, PHYS 111, 151, 251, or SCNC 377 recommended 3-4

One course (life science or physical science) above must be a laboratory course.

MATHEMATICS **3 hours**

MATH course above MATH 100:

MATH 105, 111, 121, 165, 184, or 221 recommended

COMPUTER AND APPLIED SCIENCES 3 hours

CPTR course: CPTR 125 or 220 recommended

Students who have not demonstrated computer competency by completion of a computer applications course in high school must choose a CPTR course; others may choose:

Other courses with extensive computer applications as approved by the General Education Committee *or*

FNCE 215 Personal Finance

HEALTH AND HUMAN PERFORMANCE 4 hours

Graduates will gain a thorough understanding of the issues relating to individual health, including emotional wellness and the importance of developing and maintaining physical activity during the entire life span to promote lifelong wellness.

HPHA 155 Concepts of Wellness 2

HPHA (Two different one-hour activity courses) 2

FOREIGN LANGUAGE (Required for B.A. degree only) 6 hours

Beginning modern foreign language 3, 3

Students who have completed two years of a foreign language in high school have also completed this requirement.

LEADERSHIP

Graduates will prepare for leadership, teamwork and collaboration through relating individual characteristics to the development of their personal leadership.

Transfer of General Education

Transfer students who have met all the general education requirements of another Seventh-day Adventist college in the North American Division have met Union College requirements.

Transfer students who have completed their general education requirements at one of the institutions participating in the Nebraska Initiative have met Union College requirements for the 34 hours in the signed agreement. Union College requires 19 hours in addition in the following areas: Computer, 3 hrs.; College Writing II, 3 hrs; Health and Human Performance, 4 hrs; and Religion, 9 hrs. 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 28 (34 for Associate of Arts) hours of general education courses in the total of 64 hours.

RELIGION 6 hours

RELT 141 Christian Beliefs 3

RELB course <i>or</i> RELT 305 Christian Ethics	3
COMMUNICATION	5-6 hours
ENGL 111 College Writing I	3
COMM 105 Public Speaking <i>or</i>	2-3
ENGL 112 College Writing II	
FINE ARTS AND HUMANITIES	2-3 hours
<i>One of the following four areas:</i>	2-3
Philosophy course	
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	
Literature course, 200 level recommended	
(ENGL 112 is a prerequisite to literature courses.)	
HISTORY AND SOCIAL SCIENCE	3 hours
History course:	3
Students with two or more years of history in high school	
may choose a course from either American or world history.	
Students with only one year of history in high school must study	
the history which was <u>not</u> studied in high school.	
SCIENCE	4 hours
Science laboratory course	4
MATHEMATICS	3 hours
MATH course above MATH 100:	
MATH 105, 111, 121, 165, 184, or 221 recommended	
COMPUTER AND APPLIED SCIENCES	3 hours
CPTR course; CPTR 125 or 220 recommended	
<i>Students who have <u>not</u> demonstrated computer competency by</i>	
<i>completion of a computer applications course in high school</i>	
<i>must choose a CPTR course; others may choose:</i>	
Other courses with extensive computer applications as approved	
by the General Education Committee <i>or</i>	
FNCE 215 Personal Finance	
HEALTH AND HUMAN PERFORMANCE	2 hours
HHPA 155 Concepts of Wellness	2
FOREIGN LANGUAGE (Required for the A.A. degree only)	6 hours
Beginning modern language	3, 3
Students who have completed two years of a foreign language	

in high school have also completed this requirement.

ASSOCIATE IN SCIENCE - EMPHASIS REQUIREMENTS

Completion of the emphasis and contextual requirements listed in this bulletin by division.

ASSOCIATE OF ARTS - EMPHASIS REQUIREMENTS

Completion of a minimum of 15 semester hours in an area of emphasis as specified by the academic division.

Union Scholars

UNION COLLEGE HONORS PROGRAM

Mission

Within the community of learning and holistic growth at Union College, Union Scholars is available for students who have demonstrated superior scholastic ability. By working together, faculty and students create an atmosphere within which students may discover, organize and disseminate knowledge and apply value judgments to human thought and activity within the framework of Christian faith and service. The college commits itself to the belief that service and work are the active expressions of knowledge.

Goals

- To appreciate the Adventist heritage and to affirm the importance of the Christian way of life as revealed in Scripture.
- To be aware of the needs of the community and to be involved in its life and to think deeply about the human condition, the nature of God, and people's relationships with God and with each other.
- To understand the implications of the science of the age and to have a working knowledge of the physical and psychological principles affecting human health and behavior.
- To think logically, to make articulate judgments, discriminate among judgments, and be willing to act upon judgments.
- To understand their own culture and other cultures, past and present, and their patterns of thought, linguistic structures, and aesthetic principles.
- To develop skills and advanced knowledge which prepare the student to pursue further study in graduate or professional schools.

HONORS OFFICE

Office Location Don Love Building Atrium
Telephone 402.286.2600 Ext, 2560
E-mail shreinke@ucollege.edu or paanders@ucollege.edu
Web site www.ucollege.edu/scholars

Patricia Anderson, Ph.D., Director, Associate Professor of Mathematics
Tom Shepherd, Ph.D., Associate Director, Professor of Religion
Sharlett Reinke, Program Assistant

Program Requirements

59 hours

Baccalaureate degrees require a minimum of 53 (59 for Bachelor of Arts) hours of general education courses (Honors Concentration and General Concentration) in the total of 128 hours.

UNION SCHOLARS HONORS CONCENTRATION—26 hours

- USC 125 Western Culture I 4
- USC 126 Western Culture II 4
- One USC course in the field of religion 3
- Four USC courses (not all in the same discipline) 12
- USC 498 USC Honors Independent Study 3

UNION SCHOLARS GENERAL CONCENTRATION—28-35 hours**RELIGION 6 hours**

- RELT 141 Christian Beliefs 3
- RELB *or* RELT course 3

COMMUNICATION 8 hours

- COMM 105 Public Speaking 2
- ENGL 111 College Writing I 3
- ENGL 112 College Writing II 3

FINE ARTS AND HUMANITIES 1-2 hours

- PHIL - Philosophy course or 2
- Applied fine arts from MUPF or ART (1)

HISTORY AND SOCIAL SCIENCE 3 hours

- Select a course 200 level or above from 3
ECON, GEOG, PLSC, PSYC, SOCI

SCIENCE 4 hours

- Science laboratory course from BIOL 151, CHEM 151, PHYS 151 4

MATHEMATICS 3 hours

- MATH111 or above 3

HEALTH AND HUMAN PERFORMANCE 3 hours

- HHPA 155 Concepts of Wellness 2
- HHPA ____ Activity course 1

FOREIGN LANGUAGE (Required for B.A. degree only) 6 hours

- Beginning modern language 3, 3
- Students who have completed two years of a foreign language in high school have also completed this requirement.

INDEPENDENT STUDY

- Each Union Scholar, in consultation with the director, will choose a study advisor for his or her field. A proposal for the independent study must be submitted to and approved by the director. A committee consisting of the director and the student's advisory committee members will do evaluation of the independent study project.

UNION SCHOLARS SERVICE COMPONENT—75 hours

- 25 hours in spiritual activities on campus;
- 15 hours related to the student's major field of study;
- 35 hours within the local community.

Application Requirements

- Completion of Union Scholars Application
- A minimum high school cumulative GPA of 3.50 for entering freshmen or a minimum college cumulative GPA of 3.33.

Requirements for Honors Transfer Students

- Complete a minimum of ten hours in the Union Scholars concentration.
- Complete the general concentration and fulfill the volunteer hours.

Maintaining Membership

To continue as a Union Scholar a student must fulfill the following:

- Complete a minimum of twelve credits each semester or a total of thirty-one credits per calendar year.
- Show consistent progress in Honors concentration and receive a minimum of a B (3.00) grade or higher in these courses.
- Maintain a minimum cumulative GPA of 3.33.

A student may reapply to Union Scholars after regaining a cumulative GPA of 3.33 or better. See the online Policy Manual for more details.

Learning Resources

Union College has several important facilities to assist students in the learning process. These facilities and the service that are provided are listed below.

THE ELLA JOHNSON CRANDALL MEMORIAL LIBRARY

Sabrina Riley, M.I.L.S., *Assistant Professor and Library Director*

Karla Britain, M.L.S., *Associate Professor*

DeForest Nesmith, M.A., *Associate Professor*

The Union College Library enhances Christian values and academic achievement by preparing students to think critically, pursue knowledge, and continue learning beyond their undergraduate experiences.

Within the library's 38,000 square foot facility, librarians provide reference assistance, library instruction, and maintain a general academic collection of more than 150,000 items in a variety of formats. Current periodical subscriptions total almost 600 with online fulltext access to several thousand additional titles available through the Periodicals A to Z Web pages. The collection is also supplemented with over 16,000 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. 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.

The library is open from 1:00 p.m. to 10:30 p.m. on Sunday; 8:30 a.m. to 10:30 p.m. Monday through Thursday; 8:30 a.m. to 1:00 p.m. Friday. Vacation and special hours will be posted and are available on the Web site.

COMPUTER SERVICES

Tom Becker, B.S., *Director of Information Systems*

Arlie Fandrich, M.A.T, Chair: Division of Business and Computer Science

Computer services are provided to students and faculty through a campus-wide network maintained by Information Systems. Upon registration all students are provided a campus *user*, an *e-mail address* and a copy of a document outlining proper computer conduct and consequences of misuse of the system. Students are responsible for checking their email on a regular basis as important announcements, assignments, etc. are communicated to them by this means. Residence hall students wishing to bring their own computers may arrange with Information Systems to be connected to the college's network.

The Division of Business and Computer Science maintains a local area network of personal computers located in lab areas, in the classrooms and in its teachers offices. The latest in programming languages, operating systems, software development tools, word processing, spreadsheets, databases and presentation software are available for use of all students on campus. In addition, smaller labs with more specialized software are maintained in the divisions of Science and Math, Fine Arts, Health Sciences and the library.

Union College computer facilities are provided to enhance academics and users desiring to use them for tasks not directly associated with the college must seek prior individual permission to do so.

CAREER CENTER

Deborah Bogdon, M.S., *Director*

Union College focuses on the unique individual and wants to see the life mission of each student achieved. To facilitate this, the Career Center offers the following services that assist students in making satisfying career and life choices:

Resource Center

The Career Center is located on the lower level of the Don Love building. Assistance is provided on exploring career options and graduate schools, writing resumes and cover letters, conducting a job search, perfecting interview techniques and getting business etiquette and salary negotiation information. Visit the Union College Web site at www.ucollege.edu for more information on the Career Center. The offices of the Union Scholars Honors Program and the Counseling Services are also located in the Career Center.

Career/Internship Fair

Over 70 organizations participate in three annual Career Fairs. With the demanding economy, organizations are taking advantage of college career fairs and are excited to talk with students. This provides an excellent opportunity for students to network and learn about various careers and internship opportunities.

Testing Center

A variety of tests including ACT, OAT, SAT, LSAT, MCAT, and DAT are administered at the Career Center on dates that are alternate to the Sabbath scheduled dates. The Union College test center number must be provided on the registration form and a clergyman's letter (available at the Career Center) must be sent with the registration form. A computerized CLEP test is available on request. Other tests such as Home Study International can also be proctored as needed.

Career and Personality Inventories

Several inventories are available to assess career interests and aptitudes. These may be very helpful in making career decisions and are administered for a nominal fee.

Career Shadowing and Internships

A shadowing experience may answer big questions in a student's occupational search. The Career Center will arrange a shadowing experience for any Union College student. Those interested in an internship must complete an application for an internship and work with the internship coordinator. Internship positions can be found on the Union College Career Center Web site.

Individual Appointments

A student's unique needs in the career decision making process may be discussed with the Career Center's professional staff. Call 486.2540 to set up an appointment.

On-Campus Student Employment

The Career Center is where student employment on campus and off campus is coordinated. Applications for on-campus employment can be completed through the Union College Web site at www.ucollege.edu/careercenter/jobs.

Job Listings

Each week new job openings are posted on the Web site. These may be part-time jobs, paid internship or full-time employment for graduates. The Work for You job section of the Lincoln Journal is available each week.

Senior Placement

Union College wants to enable graduating seniors to enter graduate schools or jobs upon graduation. The Career Center will assist seniors in their job search by inviting them to career fairs on campus and off campus. Resume writing, interviewing assistance and job search strategies are part of our mission. Our computerized job placement on www.monstertrak.com provides an interviewtrak, and resume referral system through the year for seniors. Check the Career Center Web site for SDA employers who are advertising job openings and come to career fairs to network.

THE UNION COLLEGE VOLUNTEER SERVICE CENTER

Directed by Union College Students

At Union College the focus is on serving others. The Union College Volunteer Service Center, formerly known as the Joe Mertz Center for Volunteer Services, was originally funded by a grant from the Joseph E. Mertz Memorial Education Foundation, Inc., to help foster and promote Union's already well-established philosophy of giving. The Center is set up to connect students and staff with volunteer needs around the Lincoln area. A wide variety of volunteer services are available for every interest.

Volunteering is a great way to make a difference in the community and to share the caring spirit of Union College. Through the Union College Volunteer Service Center students and staff have collectively donated over 50,000 hours to the community of Lincoln.

Project Impact, our community service day, begins the school year with the vast majority of our school family working in human service agencies. Other volunteer activities throughout the year include child care, transportation for the elderly, disaster relief, house cleaning, yard work, collecting and delivering Thanksgiving baskets, and a big brother/big sister program.

Volunteering not only helps others but also benefits the volunteer. The Union College Volunteer Service Center provides great work experience for a student's field of study as well as a great feeling of fulfillment. Future employers are able to see that the student has not only succeeded academically but has also taken an active part in caring for the community. The Union College Volunteer Service Center provides the resources needed for the students to find the right volunteer service to show their care and concern for their community.

ADVENTIST COLLEGES ABROAD

George Gibson, Ph.D., *ACA Program Coordinator*

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. The purpose is to provide overseas centers for pursual of modern languages.

Union College is a member of Adventist Colleges Abroad (ACA), a consortium of North American Seventh-day Adventist colleges and universities operated by the Education Department and the Higher Education Cabinet of the North American Division of the Seventh-day Adventist Church, which provides opportunities to qualified students for international study while completing the requirements of their programs at their home colleges and universities.

The program 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.

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

Argentina:	Universidad Adventista del Plata (Spanish language and Latin American culture)
Austria:	Seminar Schloss Bogenhofen (German language and culture)
France:	Campus Adventiste du Saleve (French language and culture)
Germany:	Friedensau Adventist University (German language and culture)
Italy:	Istituto Avventista Villa Aurora (Italian language and culture)
Spain:	Seminario Adventista Español (Spanish language and culture)

In addition to academic-year programs ACA offers six- or ten-week summer terms at the following international study centers:

Austria:	Seminar Schloss Bogenhofen (German)
Brazil:	Brazil Adventist University (Portuguese)
France:	Campus Adventiste du Saleve (French)
Greece:	Athens Study Tour (Hebrew and New Testament Greek)
Hong Kong:	Hong Kong Adventist College (Chinese, Mandarin, Asian culture)
Italy:	Istituto Avventista Villa Aurora (Italian)
Mexico:	Universidad de Montemorelos (Spanish)
Spain:	Seminario Adventista Español (Spanish)
Ukraine:	Ukrainian College of Arts and Sciences (Russian)

Applicants for international study need not be language majors or minors. Prerequisites for admission to ACA study abroad programs are

- admission as a regular student to Union College for the summer or academic year abroad;
- competence in the host country language (minimum: one year of college or two years of secondary study with a language GPA of 3.00—not required of students studying in summer programs);
- an overall college GPA of 2.50;
- a good citizenship record that gives evidence of maturity, adjustability and congeniality; approval by the ACA committee;
- submission of the ACA application with all required information and signatures (academic and financial arrangements) to the ACA Coordinator;
- meeting the financial requirements. Costs, including transportation, are comparable to those at Adventist colleges in the U.S.

Although on an international campus, students are registered and considered in residence at Union College, and are eligible for all external grants, loans,

scholarships and financial aid offered to students in attendance at Union College. Credit earned abroad is recorded each term in the Union College Records Office.

Bachelor of Arts degree majors and minors in French, German or Spanish may be earned through this program. Union College is represented on the board that administers the ACA program and is instrumental in effecting a standardization of course offerings among the cooperating overseas colleges.

TEACHING LEARNING CENTER

Debbie Forshee-Sweeney, B.S.W., Director, Teaching Learning Center

Elizabeth Anderson, M.A., *Academic Coach/Assistant*

Elliot Smith, B.S.W., *Academic Coach/Assistant*

SUPPORT 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.

ACADEMIC SUCCESS AND ADVISING PROGRAM

The Teaching Learning Center also assists students with the Academic Success and Advising Program (ASAP), Freshman Development, and Personal and Academic Coaching (PAAC). These programs assist and support students in addressing academic concerns through regular weekly tutorial sessions, academic coaching on time management, organizational assistance, test taking and study strategies. There is a fee each semester for this service.

ENGLISH AS A SECOND LANGUAGE

Peggy Wahlen, M.A., Director

The English as a Second Language program offers three levels of instruction, from beginning to advanced. Students are tested when they arrive to determine the level at which they should begin studies. (See Division of Humanities.)

Student Life and Services

STUDENT LIFE

Union College provides a unique variety of educational, cultural, social, religious and recreational activities both on and off campus. It is one of the friendliest undergraduate environments and provides opportunities for leadership, socializing and learning. The newly remodeled Student Center is a hub of campus life. The proximity of rivers, lakes and parks offers opportunities for group and individual activities. Clubs and organizations promote a variety of available pursuits.

The college organizes many intramural sports including flag football, floor hockey, tennis, volleyball, soccer, basketball, softball, and bowling. Tennis courts, an Olympic-sized swimming pool, sand volleyball court, gymnasium and four-acre playing field are available on campus. In addition the college participates in the following intercollegiate varsity sports: men's and women's basketball, women's volleyball and men's golf.

Students can become involved in student government, participate in religious activities as part of Union for Christ, serve as a student representative of a college committee, or serve the community through the volunteer activities coordinated by Campus Ministries.

There are daily worship experiences and weekly chapel and vespers services. Films, concerts, convocations, and guest lectures are scheduled throughout the school year.

Housed in the Atrium are the Student Center, Woods Auditorium, a convenience store, Campus Store, Career Center, TLC offices, and Ella Johnson Crandall Library. The Student Center provides a study area, games and television room. A community student lounge is in Room 208 of the Dick Administration Building.

STUDENT CONDUCT

Union College believes that the Scriptures establish a framework of values which should guide the development of Christian character, behavior and thought. The basis of this value system is obedience to the moral law of God as exemplified in Christ's life and ministry.

As a Christian college, Union seeks to integrate Christian teachings with academic pursuits, extracurricular activities, social development and lifestyle choices. The administration, faculty and students of Union are expected to adopt and uphold these principles.

Union College students are encouraged to deepen their commitment to Christian values, to moral character development, to cultivate intellectual and creative powers

through constructive participation in worship and fellowship in a Christian academic setting.

The Union College experience is the sum of the life, character and Christian witness of each Union College community member, student and faculty.

RELIGIOUS ACTIVITIES

Love for God is shown through worship individually and collectively. The college believes that individual worship in a private setting is essential to Christian growth. The college also requires religious services attendance in a collective setting to ensure exposure to Biblical truths, Christian values and to enhance a sense of Christian community.

SABBATH OBSERVANCE

To show love for God, His Sabbath, the seventh day, is observed. The uniqueness of the Sabbath day is demonstrated in giving special attention to worship, rest, Christian fellowship, service and seeking God through nature.

HOUSING POLICY

Union College is primarily a residential college requiring residence hall housing of its students. Exceptions are

- students who are 22 years of age at the beginning of a semester;
- students taking 5 semester credit hours or less (other than first year freshmen);
- students living with parents;
- students living with close relatives who are 25 or older, having established homes;
- students who are married, divorced, separated or widowed;
- with Deans' Council approval, students who are 21, have senior standing, three semesters of worship credits and good citizenship.

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

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. 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 make arrangements to live in a residence hall. Those arrangements must be made through the Residence Hall Deans.

Separate residence halls for men and women are maintained on campus. Union has three residence halls (Rees Hall for women, Prescott and Culver Halls for men.) Student rooms in all residence halls are equipped for two students and are furnished

with a phone line, a bookcase, closets, two single beds, dressers, desks and chairs. If single occupancy is specifically requested and the space is available, an additional charge will be assessed per semester. Room reservations are made by writing or calling the dean of women (402.486.2535) or dean of men (402.486.2533) as appropriate. Under certain conditions, students taking classes at a local college or university may apply for on-campus housing to the Vice President for Student Services.

Union Market provides a lacto-ovo vegetarian menu which is served cafeteria style. A food service minimum is charged per semester.

HEALTH SERVICE

Student Health operates a clinic on campus directed by a registered nurse. Physicians are available to students through Health Service for an additional fee. Access to physician assistants is available through the school nurse. Clinical, infirmary care and health education are among the services available through the Student Health Service.

Each student must have a completed health form (health self-assessment questionnaire) and an official record of immunizations. These 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.) Students born before January 1, 1957, do not need to submit proof of immunity to measles.

For students from outside the United States, a TB skin test within the past twelve months is required and, if it is positive, a chest x-ray is required.

PHARMACEUTICAL OR CHEMICAL EVALUATION

Union College strongly recommends that students not participate in any commercial pharmaceutical or chemical evaluations. Weekend leaves cannot be approved for such purposes. Any student who does participate 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.

PARENTAL NOTIFICATION POLICY

In an effort to foster the well being of the student and in compliance with the Family Educational Rights and Privacy Act (FERPA), Union College reserves the right to notify a parent/guardian when a student who is under 21 and 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.

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 less than full-time students, it is highly recommended.

Both full-time and part-time students who are enrolled in Nursing, Physician Assistant and International Rescue and Relief courses, and all international students are required to carry personal health insurance and are encouraged to carry personal liability insurance. Students enrolled in non-traditional programs, such as apprenticeships and cooperative enrollment programs, are responsible for obtaining their own personal health insurance.

INTRAMURAL SPORTS

Union College encourages students to become involved in the variety of athletic programs which are offered on our campus. These programs include a full range of intramural sports and teams that represent Union College on an intercollegiate level.

All students attending Union College or living on campus while attending another school are encouraged to participate in the intramural program, provided that they follow the concepts of sportsmanship which should be displayed on a Christian campus.

VARSITY SPORTS

The following standards are in place for students who wish to participate on one of the intercollegiate teams sponsored by Union College. These standards are provided to assist students in maintaining strong academics and ensuring that Union College is represented in a positive way. The standards have been designed and continue to be administered by the Athletic Committee which includes the Vice President for Student Services, athletic director, coaches, faculty, staff, and student representatives. Students with any questions concerning their eligibility are encouraged to contact one of the coaches or other members of the committee for clarification.

PHILOSOPHY OF ATHLETICS

Academic Eligibility

Students must have attained a 2.50 GPA for the past semester or on a cumulative basis, whichever is higher, to be fully eligible to participate on an intercollegiate team. 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. First-semester freshmen academic

eligibility is based on the cumulative or final years GPA of their secondary education. No student on Freshman Development may try out for a team.

Residence Eligibility

Since students with a variety of academic goals from a variety of backgrounds attend Union College, the following guidelines will be used to determine whether academically eligible students can participate on one or more of the intercollegiate teams.

There are three major categories of students:

- Students who are taking a minimum of 12 hours on the Union College campus.
- Students who are taking a minimum of 12 hours through Union College or through a pre-approved program in conjunction with another educational institution, with the plan in place to graduate from Union College.
- Students who are living on the Union College campus, but are taking fewer than 12 hours on Union's campus. Included in this group are students who are taking classes elsewhere and have no plan in place to graduate from Union College.

Category one and two students are eligible to participate in intercollegiate sports, while category three students are not. The distinction is made in order to maintain the integrity and quality of Union College athletic programs while meeting generally accepted standards for eligibility used at other colleges.

MOTOR VEHICLES

Although there is no registration fee, all students are expected to register their vehicles. Regulations governing the use of motor vehicles are outlined in the Student Handbook.

STUDENT GRIEVANCE PROCESS

Union College follows the Biblical principle of Matthew 18:15, 16 in matters of grievance. A student who feels that he or she has been treated unfairly or unjustly by a faculty/staff member or residence hall dean of the college has the right to appeal according to approved procedures.

Informal Complaint Procedure

- A student discusses the issue with the course instructor, residence hall dean or staff member for explanation and review. Most cases are solved at this level.
- If not satisfied by discussion at the direct level, the student should appeal to the instructor's program director, division chair, head residence hall dean, or staff member's supervisor.
- If still not satisfied, the student should contact the appropriate vice president, providing a written summary of the complaint and a proposed resolution.

- If not satisfied with the decision of the appropriate vice president, the student should file a formal complaint with the President of Union College within seven working days requesting a grievance hearing.

Formal Complaint Procedure

- After proceeding through the informal complaint process, a student has the right to request a formal hearing before a Grievance Committee. Filing a formal grievance is a serious matter and should be done thoughtfully.
- Request a hearing by a Grievance Committee by sending a written letter to the President.
- The Grievance Committee will make its recommendation to the president who will make a decision based upon the Grievance Committee's recommendation and will then notify the student of the decision relative to the grievance.
- The President's decision will constitute final action by the college.

Grievance Committee

- The members of the Grievance Committee shall be selected from the faculty or staff and students. Either party may suggest one person to the president for a member of the committee. Members of the committee shall include three faculty or staff members and two students. The President will select committee members.
- 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 or to present a written statement of the case. At the student's request, one person; parent, spouse, a student, or a faculty or staff member may accompany the student to the meeting.
- 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.
- The student and the student's faculty/staff advocate have access to and may attend the committee presentation of all evidence or any related matter considered by the Grievance Committee, its chair or members, but will not be in attendance for final committee deliberation and vote. The student and faculty/staff advocate have the right to present rebuttal to all evidence.
- The president will notify the student of the decision relative to the grievance.

Withdrawal of Grievance

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

Matters Not Grievable

College policies, regulations or procedures 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.

Financial Information

Complete financial information about Union College (including tuition charges) is available in the schedule of *Scholarships, Tuition and Fees* which is published annually. To obtain brochures and information regarding financial assistance, students should contact Enrollment and Student Financial Services.

FINANCIAL ASSISTANCE

Union College has a comprehensive package of financial assistance. This financial portfolio is an outgrowth of Union's deeply rooted philosophy that quality Christian instruction should be available to everyone at a reasonable price. Union assists students in developing a financial plan that will access funding from the college, federal, state and private agencies, as well as family and student resources to help create the opportunity to attend Union.

Students develop a payment agreement with the help of Enrollment and Student Financial Services personnel. Students should contact Student Financial Services to begin their financial planning.

INSTITUTIONAL SCHOLARSHIPS

The college provides funding for a wide variety of scholarship and financial assistance programs that help students meet their tuition expenses. Examples of institutional assistance include scholarship awards for demonstrated financial need, academic achievement and leadership.

Also a variety of discount, rebate, international student assistance, guaranteed tuition rates and other financial incentive programs can help students meet their educational expenses. Nearly all students can qualify for some form of financial assistance.

The college reserves the right to substitute institutionally funded assistance with externally funded scholarships. Total scholarships, subsidies and other assistance (excluding loans) cannot exceed tuition. Eligibility for institutionally funded scholarships and financial assistance is based upon full-time enrollment (12 or more hours per semester). Awards may be reduced or canceled if a student's load drops below this amount. Details regarding all financial programs are available from Student Financial Services.

INSTITUTIONAL GRANTS AND LOANS

A number of institution provided grants and loans are available to students with demonstrated need. Information and applications are available from Student Financial Services.

NATIONAL MERIT SCHOLARSHIPS

Finalist—*full* tuition for up to four years of college attendance

Semi-finalist—25% of tuition for up to four years of college attendance

Commendation—20% of tuition for up to four years of college attendance

National Merit scholarships may be applied only to Union College tuition and are renewable at 100% of the initial award for up to three additional years. Students are required to maintain a 3.50 GPA to renew annually. Recipients of full-tuition awards are ineligible for other UC sponsored scholarships or awards.

Union College reserves the right to fund National Merit scholarships with other awards, scholarships, grants and subsidies. In some special cases, students may apply this award toward residence hall rent.

CHURCH GRANT MATCHING

This grant is sponsored jointly by the student's local church and Union College. Union College will match 50 cents on each dollar provided by the church. Members of a student's immediate family may not contribute to the fund for matching purposes. Students should contact Student Financial Services for additional information and matching policies.

SUMMER CAMP SCHOLARSHIPS

Generous scholarships are available for students employed in an SDA conference summer camp program. The scholarships are sponsored jointly by the local and union SDA conferences and Union College. Students should contact their local conference office for information and an application.

LITERATURE EVANGELIST SCHOLARSHIPS

Students who enter the literature evangelist work for the purpose of applying their earnings toward school expenses may qualify for a 100% scholarship match on summer earnings, up to a maximum of \$2,000. Past due student accounts must be settled before this scholarship is awarded.

TASK FORCE SCHOLARSHIPS

Students who participate in qualified Task Force assignments through local SDA conferences may qualify for scholarship assistance. Higher scholarship awards are granted for assignments within the Mid-America Union Conference territory. College scholarship awards range from \$1,500 to \$3,000 for a full school year assignment. Contact Student Financial Services for details.

STUDENT MISSIONARY SCHOLARSHIPS

Students who participate in qualified student missionary assignments may qualify for scholarship assistance. Awards up to \$1,500 are provided.

NEBRASKA FOUNDATION SCHOLARSHIPS

Several scholarships are available yearly from Nebraska philanthropic organizations. Preference is given to upper division students who are residents of designated Nebraska counties. An application is required and may be obtained from Student Financial Services.

DONOR SCHOLARSHIPS

The college administers and awards numerous scholarships from endowments and annual scholarships that are funded by alumni, business and philanthropic organizations and friends of the college. Students must apply annually for these scholarships. Contact Student Financial Services for more information and instructions on how to apply for these awards.

OTHER POTENTIAL SCHOLARSHIP SOURCES

As a part of financial planning, the college encourages students to find out whether they may qualify for scholarships from national and community organizations. For example, many businesses, philanthropic organizations, service clubs, churches and similar organizations may have scholarship programs. Often these scholarships go unclaimed. Contact your high school counselor, public library, Chamber of Commerce and bookstores for more information.

Parents and students may visit the EducationQuest Foundation (EdQuest) located at 1300 "O" Street, Lincoln, Nebraska, at www.educationquest.org, or 800.303.3745. EdQuest offers free planning tools to help plan for college, apply for financial assistance and obtain loan information.

Additional resources for scholarships, ACT practice testing and financial planning are available through www.collegeplanning.nelnet.net or 866.866.7372.

STUDENT EMPLOYMENT OPPORTUNITIES

Full-time students attending Union College are encouraged to participate in a work program. Work earnings often are an important component of a student's financial resources. The Student Employment Office will assist students in finding suitable employment. During the search, students must take the initiative in interviewing prospective employers. Full-time students may be given preference in filling campus work program positions.

Nearly all campus departments offer employment to students including such areas as campus store, food services, Kiddie Kollege, library, lifestyle center, plant service, security and AdventSource. Jobs are available to qualified students as custodians, readers, tutors, and assistants in offices, laboratories and residence halls. Though a variety of student labor employment opportunities are available, the college cannot guarantee work on campus for all students.

Students who work on campus must complete appropriate documents prior to beginning an employment assignment. International students must present valid visa and Immigration and Naturalization documents before campus employment can be authorized.

The Student Employment Office posts on-campus and off-campus employment opportunities via the campus computer bulletin board. Current openings for off-campus employment are also kept on file in the Student Employment Office.

Students who work at on-campus jobs are expected to present a professional appearance and dress appropriately for the area in which they are employed.

Employers, both on and off campus, must serve their customers daily. This requires a consistent work force; students are responsible for meeting all work appointments, including those during examination weeks. Should students find it necessary to be absent from work, they are expected to make arrangements with their work superintendent.

When students accept employment, they should expect to retain it for the entire semester. Should a student receive opportunities for more favorable employment during the school term, transfer is made with the approval and cooperation of both the present employer and the future employer.

If students' financial plans require them to work, they may not drop or reduce their work schedules without making proper arrangements with Student Financial Services.

The student pay rate is not less than the minimum rate allowed by the government wage and hour regulations. It may be higher if a student possesses special skills or training.

Most students find that working 12 to 20 hours per week is about the maximum work load they can carry. International students, according to U.S. Citizenship and Immigration Services (USCIS) are authorized to work only on campus (some exceptions apply) and are limited to a maximum of 20 hours per week during periods of enrollment. Students who work over 20 hours per week must obtain approval from the Student Finance Committee.

SUMMER EMPLOYMENT SCHOLARSHIP BONUSES

Generous summer employment scholarships are available for students who work on campus during the summer months and apply their earnings to their student accounts. Students can qualify for scholarships if they meet employment hour requirements. Applications must be submitted in order to be eligible for summer employment scholarships. Contact the Student Employment Office for details.

GOVERNMENT SPONSORED GRANTS AND EMPLOYMENT

Grants are awarded to students whose families demonstrate exceptional financial need. At a minimum, students must file annually by completing the Free Application for Federal Student Aid (FAFSA). Students are encouraged to file the FAFSA online at www.FAFSA.ed.gov. Help is available on that site, through Nelnet at 866.866.7372, or by calling our office at 800.228.4600.

FEDERAL PELL GRANTS are funded through a federal assistance program. All undergraduate students who are U.S. citizens or permanent residents may apply unless they have already earned the equivalent of a bachelor's degree. The dollar amount of this grant is based on student and family resources.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (FSEOG) are funded through a federal aid program with matching funds from Union College. FSEOG funds are available only to students who are eligible for the PELL grant. These grants are renewable for up to four years if the recipient is making progress toward a degree and continues to show exceptional financial need.

STATE OF NEBRASKA GRANTS are a combination of federal funds with Nebraska fund matching and allocated Nebraska funds. These funds are made available to students with qualifying Nebraska residency via the state's colleges and universities. Actual awards are made to students with low PELL grant indexes.

FEDERAL WORK-STUDY EMPLOYMENT (FWS) provides on-campus employment to students qualifying 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.

FEDERAL LOANS

The FEDERAL PERKINS LOAN program provides long-term, low-interest loans to degree-seeking students who

- are U.S. citizens or permanent residents,
- have established a financial need for the amount of the loan and
- have been accepted or may presently be enrolled at Union College.

Interest on this loan is paid by the federal government (subsidized) during enrollment and deferment periods. Because of the large demand for this loan, Union College has implemented a maximum award for its qualifying applicants.

FEDERAL NURSING STUDENT LOANS are available for nursing majors who are at sophomore level or above. The Perkins loan is available to qualified prenursing students.

The FEDERAL STAFFORD LOAN program enables students to borrow from eligible lenders at a low interest rate and repay the loan over a number of years after leaving school. Undergraduate students may borrow up to \$2,625 for their first year in college, \$3,500 for their second year, and \$5,500 each for their third and fourth years. If the loan is *subsidized*, the federal government pays the interest while the student is in school and during deferment periods. If the Loan is *unsubsidized*, the student is responsible for the interest during school enrollment and deferment periods.

Banks, credit unions and other lenders voluntarily participate in the program with their own funds. Lenders may choose to whom they will lend within eligibility guidelines. In most states loans are guaranteed by state and non-profit agencies. In states without these agencies, loans are insured by the federal government. Contact Student Financial Services with specific questions on repayment terms, interest, processing and insurance costs.

STUDENTS' RESPONSIBILITIES WHEN AID IS ACCEPTED

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 may be reduced or canceled. Students who plan to register for less than 12 hours in a semester should notify Student Financial Services in advance.

Before receiving any financial assistance, students will sign an Affidavit of Educational Purpose stating (1) that any funds awarded under the Title IV Federal Aid will be used only for the expenses related to attendance at Union College and (2) that they are responsible for a prorated repayment of any portion that cannot be attributed to meeting educational expenses. Title IV Federal Student Financial Aid Programs include Federal Pell Grants, Federal Work-Study Employment, Federal Perkins Loans, Federal Supplemental Educational Opportunity Grants, State Scholarships Award Programs, Scholarship Assistance Programs, Federal Stafford Student Loans and Federal PLUS Loans.

SATISFACTORY PROGRESS FOR FINANCIAL AID

Students receiving federal financial assistance under Title IV must show evidence of making satisfactory academic progress toward their degrees measured at the end of each semester both qualitatively (GPA) and quantitatively (semester hours completed).

Completion of courses with a grade of A through D or IP(In Progress) is considered as **qualitative** successful completion of the course. Satisfactory progress toward graduation **quantitatively** requires that the full-time student, 12 or more semester-hour class load, successfully complete the number of credit hours as indicated in the table below achieving a cumulative GPA of 2.00 or higher.

<i>By end of</i>	<i>Completed</i>	<i>By end of</i>	<i>Completed</i>
1 sem	6 hours	7 sem	65 hours
2 sem	15 hours	8 sem	77 hours
3 sem	23 hours	9 sem	90 hours
4 sem	32 hours	10 sem	102 hours
5 sem	43 hours	11 sem	115 hours
6 sem	54 hours	12 sem	128 hours

- Students in a master's program are granted 30 months in which to complete the program and clinical assignments.
- Students in a baccalaureate program (minimum of 128 hours) are granted 12 semesters in which to complete their programs.
- Students in an associate program (minimum of 64 hours) are granted 6 semesters in which to complete their programs.
- Students not classified as full time must satisfactorily complete a pro-rated number of credits.
- Students on academic probation will be given up to two consecutive semesters to clear their probationary status before financial aid is suspended.
- Students may appeal denial of financial aid to the Student Finance Committee. The appeal should include
 - " a statement of reasons for not making satisfactory progress;
 - " a statement indicating how satisfactory progress will be achieved.

STUDENT 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,
- transportation costs for commuting students living off-campus.

Information is available at Student Financial Services. Title IV financial aid refunds are made according to the refund policy stated in this financial information section. The Student Services Office has additional information on special facilities and services available to students with physical disabilities.

HOUSING FOR STUDENTS—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.

PERSONAL EFFECTS NONLIABILITY

When determining what to bring onto the campus, please remember that the college is not responsible for the personal effects of any student, even though such effects may be required by the college for student use or required by the college to be stored in a designated location. College-carried insurance does not insure the personal effects of any individual. The college recommends that students consider carrying insurance to cover such losses.

WORKER'S COMPENSATION INSURANCE

As provided by the laws of Nebraska, the college carries worker's compensation insurance to protect all employees in case of work-related accidents.

TUITION AND FEES

A current schedule of *Scholarships, Tuition and Fees* is published annually and may be obtained from Enrollment and 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/Delete Classes." After that date the following refund policy applies to tuition and required fees. Calendar days are referenced according to the number of days following the "Last Day to Add/Delete Classes."

<u>Calendar Days</u>	<u>Refund</u>
Up to and including "Last Day to Add/Delete Classes."	100 %
Between 1 and 7	80 %
Between 8 and 21	60 %
Between 22 and 35	40 %
Between 36 and 42	20 %
Exceeding 42	None

Refunds for sessions or classes with durations other than the regular 15-week semester will be prorated using the above as a guideline. Contact Student Financial Services with questions about this policy.

MISCELLANEOUS CHARGES

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

ACT residual testing	25.00
Art and photography lab fees	
A charge will be made to cover the costs of supplies consumed, special laboratory services and use of equipment.	
Breakage charge	
In laboratory courses charges will be made for any damage to, or loss of, equipment, special nonreturnable supplies and special laboratory services not ordinarily required.	
College Level Examination Program (CLEP), each test	50.00
CLEP proctor fee	15.00
Cancellation of CLEP test	5.00
Recording fee, per credit hour	15.00
Diploma replacement	25.00
Drop/add fee	10.00
Examination rescheduling fee	50.00
Graduation in absentia	25.00
International Rescue and Relief program fee	
(See schedule of <i>Scholarships, Tuition and Fees</i>)	
Late registration, after first day of classes	50.00
Nursing program fee (See schedule of <i>Scholarships, Tuition and Fees</i>)	
Physician Assistant program fee (See schedule of <i>Scholarships, Tuition and Fees</i>)	
PPST Testing (for education majors)	110.00
Proficiency Examinations, per course (division made)	25.00
Recording fee, per credit hour	15.00
Registration cancellation fee	50.00
Transcript fee (waived for Union College graduates)	4.00
(Account must be paid and the request in writing signed by the student)	
FAX copy and mailed official transcript (See above)	10.00

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.

ADVANCE DEPOSITS**International Student Deposit**

International students, except Canadian and Mexican citizens, are required to pay a \$1,000 deposit to the college to be held in reserve until students complete or terminate their education at Union College. At that time, the deposit will be returned if the account is paid in full. Prior to the issuance of an I-20, international applicants must have written financial arrangements and a mutually acceptable plan for keeping their accounts current.

This international student deposit may be forfeited if the college has issued an I-20 and the student departs their home country but does not attend Union College for a minimum of one semester.

Dormitory Room and Key Deposit

A dormitory room deposit of \$100 and a \$5 key deposit will be charged to a student's account at the beginning of the school term. These deposits are fully refundable subject to any charges that may result from room damages, cleaning fees or lost keys.

PAYMENT PLANS

Student charges at Union College are calculated on the semester basis. The student and/or family payment plan options outlined are based on the estimated amounts remaining after deducting other financial resources such as scholarships, grants and loans. Payment Plan III also deducts estimated income from campus employment.

PLAN I--YEAR IN ADVANCE

Those who pay a complete year's estimated expenses in advance receive a 3.5% discount. This net family resources payment must be paid on or before registration.

PLAN II--SEMESTER IN ADVANCE

Those who pay a semester's estimated expenses in advance receive a 1.5% discount. This net family resources payment must be paid on or before registration.

PLAN III--MONTHLY PAYMENTS

An initial payment of \$1,600 is due on or before registration. The remaining balance is payable in eight (8) installments due the 10th of each month (September-April).

PLAN IV--INTERNATIONAL STUDENT PAYMENT PLAN

International students are eligible for Payment Plans I and II as outlined above and are urged to select one of these plans. A \$1,000 advance deposit and an "Affidavit of Support" is required of all international students, except Canadian and Mexican citizens, prior to the issue of an I-20 form.

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

- \$1,000 advance deposit;
- \$3,500 initial payment due upon arrival;
- eight (8) remaining monthly payments due the 10th of each month (September - April).

KEEPING STUDENT ACCOUNTS CURRENT

It is necessary for student accounts to be kept current. Students may register for classes only when arrangements have been made to cover any past 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 canceled.

INTEREST

For any non-current student, an interest charge of one percent per month (approximately 12% per year) is added to any account balance which is 90 days or more past due.

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, or if the payment agreement is not current. 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 including telephone accounts. To expedite the release of these transcripts and diplomas, the student should send a money order or certified check, or make a credit card payment to cover the balance of the account when requesting the documents. Payments should be sent to Student Financial Services.

GRADUATION FINANCIAL REQUIREMENTS

Diplomas are released at graduation only when a student's payment agreement is current. Seniors who have in previous years paid off their accounts during the following summer should contact Student Financial Services early in the school year to ensure that plans are in place for having the payment agreement current before graduation.

CASH WITHDRAWALS

Students whose accounts show credit balances greater than called for by the payment agreement, are allowed to make cash withdrawals. When campus work is a part of the payment agreement, students may have 10% for tithes deducted directly from their earnings or draw that amount themselves at the Cashier's window each month. If the payment agreement is current, an additional 10% of earnings may be drawn. Students are not permitted to draw on earnings in advance.

STUDENT ACCOUNT COLLECTION POLICY

Students completing or terminating their studies with the college are responsible for making arrangements for the payment of any unpaid accounts. If satisfactory arrangements are not made within ninety (90) days after studies are completed or discontinued, the college reserves the right to seek collection assistance from a third-party agency. Non-current accounts more than ninety (90) days in arrears may also be assigned for collections to a third party.

MULTI-CAMPUS ENROLLMENT

Students who are required by their program to take classes at another institution while attending Union College must obtain approval from the Academic Dean's Office and must also make financial arrangements with the Student Accounts Office prior to enrolling for classes.

AFFILIATED OFF-CAMPUS PROGRAMS

Courses taken through an affiliated off-campus program must be paid for at the non-discounted tuition rate of UC or the affiliated institution rate. Summer or special session rates do not apply. This policy applies to all students including those participating in cooperative, Guaranteed Education and Baccalaureate Bonus programs.

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 Services and Student Financial Services.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

Financial records are defined as being part of students' educational record and therefore are subject to FERPA regulations. (See Academic Information Section.)

Student Financial Services considers all students as "dependent" for the purpose of releasing student financial account information to parents and guardians. If a student wishes to have all financial account information excluded from parents or guardians, the student must notify Student Financial Services in writing.

VETERANS' INFORMATION

Most Union College 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). Contact the local VA Regional Office to inquire about specific eligibility requirements.

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. Students who are placed on academic suspension will be reported. The Academic Council will arbitrate any questions concerning satisfactory progress toward program completion. VA will not pay for any course for which the grade assigned does not count toward graduation requirements.

The total number of hours successfully completed in pursuit of an educational objective must not be in excess of the number of hours required to reach the degree objective. The time required to complete the educational objective must not be later than the completion date stated at the time of certification.

Courses taken in service schools under the auspices of the United States Armed Forces may be petitioned for credit.

Union College holds no power-of-attorney agreements authorizing the school to negotiate VA educational assistance checks, and neither Union College nor any of its representatives have direct or indirect access to the proceeds of any such checks other than direct payment by the student holding the check.

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 balances practice and theory.

Goals

Students graduating from the Division of Business and Computer Science will

- integrate faith with learning as led by instructors in the classroom;
- apply a Christian philosophy to business ethics;
- demonstrate Christian involvement through volunteering in both church and community activities;
- gain exposure to both theoretical and practical situations through real-life classroom projects and internships combined with quality academics;
- learn from instructors who have experience in both academics and the business world;
- experience dynamic student/teacher involvement through personalized advising, career planning and involvement in social, professional, and divisional activities;
- practice professionalism in effective communication and business decorum;
- be involved in leadership roles, career opportunities, and networking;
- exhibit competency in the content area of each discipline;
- 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' job placement, graduate school acceptance, and nationally recognized tests.

Assessment results are available in the Division of Business and Computer Science and in the Office for Institutional Research.

DIVISION OFFICE

<i>Location</i>	Dick Building, Room 301 and Room 404
<i>Telephone</i>	402.486.2521
<i>E-Mail</i>	arfandri@ucollege.edu
<i>Web site</i>	www.ucollege.edu/businesscomputer

FACULTY

Arlie Fandrich, M.A.T., Chair, Associate Professor of Computer Information Systems

Barry Forbes, M.B.A., Associate Professor of Business

Lisa Forbes, M.B.A., C.P.A., Assistant Professor of Accounting/Finance

Malcolm Gaskin, M.A., C.P.A., Assistant Professor of Accounting

George Gibson, Ph.D., Professor of Economics

Kelly Hagele, M.B.A., Associate Professor of Business

JoAnn Leung, M.S., Associate Professor of Computer Science

Kent Stahly, M.A., Associate Professor of Finance

Debra Unterseher, M.A., Associate Professor of Computer Information Systems

DEGREES AND PROGRAMS

Bachelor of Science

Business Administration

Emphases: Accounting

Finance

Management

Marketing

Science

Small Business Management

Business Education, Secondary Subject Endorsement

Computer Information Systems

Computer Science

Information Technology Education, Supplemental Endorsement

Bachelor of Technology

Small Business Management

Associate in Science

Accounting

Business Administration

Computer Information Systems

Minor

Accounting

Business Administration

Computer Information Systems

Computer Science

Marketing

Small Business Management

Business Administration Assessment Statement

To help graduates in business administration evaluate their academic progress and to aid the department in evaluating teaching effectiveness, students who major in business related fields will be required to

- participate in the college-wide testing program in general education;
- take the area test in business prepared by the Educational Testing Service (ETS);
- complete a capstone course;
- complete a business internship.

Business graduates from the division will be able to

- integrate technology into the workplace through appropriate use of word processing, spreadsheets and presentation software;
- understand analysis of business problems through a process that is inclusive of all the functional areas;
- apply classroom ideas to current events in business;
- work together in effective teams;
- develop and give effective business presentations;
- present themselves professionally to prospective employers, both in person and on paper.

BUSINESS CORE—44 hours		
ACCT 211, 212	Principles of Accounting	3, 3
BUAD 376	Human Resources Management	3
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 and prerequisites may require additional classes such as

BUAD 316 Operations and Resource Management (3)

BUSINESS ADMINISTRATION

Accounting Emphasis

Bachelor of Science

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

Students with an accounting emphasis will

- interpret tax guidelines appropriately;
- practice audit techniques;
- learn financial statement theory and applications.

MAJOR AND CONTEXTUAL REQUIREMENTS—72 hours

Business Core	44
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 335 Accounting Information Systems	3
ACCT 449 Advanced Accounting	4
ACCT 455 Auditing	4

Many students choose to obtain certification as Certified Public Accounts (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:

BUAD 316 Operations and Resource Management	3
ACCT 477 CPA Review	1-4

BUSINESS ADMINISTRATION

Finance Emphasis

Bachelor of Science

Students with a finance emphasis will

- know the fundamentals of sound investment decisions;
- appreciate the effects of the global economy on the U.S. business environment;
- apply analytical techniques to financial information;
- appreciate the interactions of financial systems.

MAJOR AND CONTEXTUAL REQUIREMENTS—67 hours

Business Core	44
ACCT 313, 314 Intermediate Accounting	4, 4

FNCE 330	Financial Institutions and Markets	3
FNCE 332	Investments	3
FNCE 370	International Finance	3
<i>Select additional courses from</i>		
	ACCT, BUAD, FNCE, or MRKT 333	6

BUSINESS ADMINISTRATION

Management Emphasis

Bachelor of Science

Students with a management emphasis will

- understand how to work effectively in teams;
- know conflict resolution skills;
- apply human resource practices to actual work environments/situations;
- know employment laws;
- apply quantitative and model building techniques in business decision making.

MAJOR AND CONTEXTUAL REQUIREMENTS–69 hours

Business Core		44
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 200	PC Architecture Fundamentals	3
	or CPTR 327 Systems Analysis and Design (3)	
<i>Select additional courses from</i> (at least one must be ACCT 313 or 325)		9
ACCT 313	Intermediate Accounting (4)	
ACCT 325	Cost and Managerial Accounting (3)	
FNCE 332	Investments (3)	
	Any ACCT, BUAD, FNCE or MRKT course (3)	

BUSINESS ADMINISTRATION

Marketing Emphasis

Bachelor of Science

Students with a marketing emphasis will

- appreciate how the consumer makes purchase decisions;
- deliver effective sales presentations;
- know how to research problems in order to fill a need;
- understand the four parts of the marketing mix and how they work together.

MAJOR AND CONTEXTUAL REQUIREMENTS–65 hours

Business Core		44
COPR 445	Applied Public Relations	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 125	Media and Meaning (3) or COPR 316 Advertising Practices (3)	
COMM 365	Institutional Development (3) or COPR 376 Promotional Copywriting (3)	
GRPH 150	Intro to Graphic Arts (3)	

BUSINESS ADMINISTRATION

Science Emphasis

Bachelor of Science

The degree in business with a science emphasis 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 planning on attending graduate schools 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.

Students with a science emphasis will

- appreciate the balance between the business and scientific fields;
- learn how to incorporate effective business principles into the scientific environment.

MAJOR AND CONTEXTUAL REQUIREMENTS—84 hours

Business Courses

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 219	Small Business 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
<i>Select four courses from</i>		12
BUAD 376	Human Resources 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, 4)	
<i>Select four science courses numbered 200 or above of which two must be 300 or 400 level</i>		
	BIOL, CHEM, PHYS	15

BUSINESS ADMINISTRATION

Small Business Management Emphasis

Bachelor of Science

Students with a small business emphasis will

- apply business principles to starting, owning or working in a small business;
- understand the differences between small business ownership and entrepreneurship;
- know basic accounting principles applicable to a small business.

MAJOR AND CONTEXTUAL REQUIREMENTS–62 hours

Business Core		44
ACCT 315	Federal Income Tax - Individual or ACCT 313 Intermediate Accounting (4)	3
ACCT 335	Accounting Information Systems	3
BUAD 219	Small Business Management	3
BUAD 310	Quality Management	3
FNCE 215	Personal Finance	3
FNCE 332	Investments or BUAD 316 Operations Management (3)	3

BUSINESS EDUCATION

Secondary Subject Endorsement

Bachelor of Science

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

- an appreciation for and understanding of the American private enterprise business system;
- a broad perspective of the principles, rules, laws and regulations which govern the business world;
- the ability to describe the relationships of individuals, business, government, labor and professional groups in the business world;
- knowledge of the opportunities for influencing or affecting the American private enterprise system;
- the ability to describe the theories and applications of accounting and bookkeeping principles;

- the ability to describe the art and techniques involved in recording, analyzing, classifying and interpreting financial data;
- proficiency in keyboarding and applications software on a personal computer.

TEACHING MAJOR REQUIREMENTS–33 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
CPTR 220	Microcomputer Applications	3
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
MRKT 327	Marketing	3
*OFFT 116	Keyboarding 3 (1.67) or demonstrate competency in keyboarding and take 2 hours electives in BUAD, CPTR, FNCE, or MRKT	2
	<i>Select additional courses from</i>	3
BUAD 138	Dynamics of Business (3)	
BUAD 310	Quality Management (3)	
FNCE 215	Personal Finance (3)	
FNCE 332	Investments (3)	

CONTEXTUAL REQUIREMENTS–3 hours

MATH 111	College Algebra	3
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PROFESSIONAL EDUCATION–51 hours

EDUC 411	Methods: Business Teacher Education	3
	Additional Professional Education	36
	Special General Education Requirements	12

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

Computer Science

Assessment Statement

To help the graduates in computer information systems/computer science to evaluate their academic progress and to aid the department in evaluating teaching effectiveness, students who major in computer related fields will be required to

- participate in the college-wide testing program in general education;

*Available at Southeast Community College

- complete a capstone experience consisting of a three-hour internship or senior project involving application of knowledge received through computer course work.

The computer majors prepare students for careers in programming, network administration, and systems analysis and design.

To be successful, students will

- be able to apply traditional and newer problem solving techniques to an ever-changing field of computer science;
- keep current with new technology;
- understand how the various areas of computer science relate to each other;
- be able to work with and communicate effectively with a diverse group of people;
- understand how technology impacts society and how Christians need to model and encourage the appropriate use of technology.

COMPUTER INFORMATION SYSTEMS

Bachelor of Science

MAJOR REQUIREMENTS–34 hours

CPTR 200	PC Architecture Fundamentals	3
CPTR 211	Unix Operating System	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 320	Networking	3
CPTR 327	Systems Analysis and Design	3
CPTR 424	Database Systems	3
<i>Select six hours from</i>		6
CPTR	300-400 level computer courses	
<i>Select three hours from</i>		3
CPTR 475	Internship in Computer Science (3)	
CPTR 476	Applied Systems Development Project (3)	
CPTR 477	Applied Systems Management Project (3)	

CONTEXTUAL REQUIREMENTS–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 184 Calculus I (4)	
MATH 221	Elementary Statistics & Probability	3
	or MATH 331 Statistics & Probability (3)	
RELT 305	Christian Ethics	3

Select three hours from 300-400 level ACCT, BUAD, or FNCE 3

Recommended

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

COMPUTER SCIENCE

Bachelor of Science

MAJOR REQUIREMENTS—38 hours

CPTR 200	PC Architecture Fundamentals	3
CPTR 211	Unix Operating System	1
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CPTR 320	Networking	3
CPTR 327	Systems Analysis & Design	3
CPTR 424	Database Systems	3

Select three hours from 3

CPTR 475	Internship in Computer Science (3)
CPTR 476	Applied Systems Development Project (3)
CPTR 477	Applied Systems Management Project (3)

Computer science courses at the University of Nebraska-Lincoln:

CSCE 230	Computer Organization	3
CSCE 230L	Computer Organization Lab	1
CSCE 310	Data Structures & Algorithms	3

With prior approval from the Union College computer science advisor and division chair, select six hours from

CSCE	300-400 level computer science courses at UN-L	6
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Recommended

CSCE 322	Programming Language Concepts
CSCE 420	Language Structures
CSCE 430	Computer Architecture
CSCE 451	Operating Systems Principles
CSCE 455	Operating Systems Practice

CONTEXTUAL REQUIREMENTS—27 hours

MATH 184	Calculus I	4
MATH 285	Calculus II	4
MATH 286	Calculus III	4
MATH 331	Statistics and Probability	3
MATH 340	Discrete Mathematics	3
MATH 352	Linear Algebra	3
MATH 486	Numerical Analysis	3
RELT 305	Christian Ethics	3

INFORMATION TECHNOLOGY EDUCATION**Supplemental Secondary Endorsement** (Requires another endorsement.)**Bachelor of Science****TEACHING MAJOR REQUIREMENTS—22 hours**

CPTR 200	PC Architecture Fundamentals	3
CPTR 211	Unix Operating System	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
<i>Select six hours from</i>		6
CPTR	300-400 level computer courses	

PROFESSIONAL EDUCATION—51 hours

EDUC 411	Methods: Business Teacher Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

Must accompany another teaching major to qualify for a Nebraska teaching certificate. (See Human Development Division--Secondary Education Endorsements).

ACCOUNTING**Associate in Science****MAJOR AND CONTEXTUAL REQUIREMENTS—32 hours**

ACCT 211, 212	Principles of Accounting	3, 3
ACCT 313	Intermediate Accounting	4
ACCT 314	Intermediate Accounting or ACCT 455 Auditing (4)	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
<i>Select two additional courses from ACCT, BUAD, ECON</i>		6

BUSINESS ADMINISTRATION**Associate in Science**

The Business Administration Associate in Science 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.

MAJOR AND CONTEXTUAL REQUIREMENTS—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 or ECON 236 Principles of Macroeconomics (3)	3

MATH 165	Calculus for Managers	3
	or MATH 221 Elementary Statistics & Probability (3)	
	<i>Select additional courses from</i>	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	Any MATH course above 111 (3)	

COMPUTER INFORMATION SYSTEMS

Associate in Science

MAJOR REQUIREMENTS—22 hours

CPTR 200	PC Architecture Fundamentals	3
CPTR 211	Unix Operating System	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
	<i>Select six hours from</i>	6
CPTR	300-400 level computer courses	

CONTEXTUAL REQUIREMENTS—15 hours

ACCT 211	Principles of Accounting	3
BUAD 138	Dynamics of Business	3
MATH 165	Calculus for Managers	3
	or MATH 184 Calculus I (4)	
MATH 221	Elementary Statistics and Probability	3
	or MATH 331 Statistics & Probability (3)	
RELT 305	Christian Ethics	3

ACCOUNTING

MINOR REQUIREMENTS—19 hours

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

BUSINESS ADMINISTRATION

MINOR REQUIREMENTS—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 nine hours from		9
	<i>(at least two courses from)</i>	
BUAD 445	Business Law (4)	
BUAD 376	Human Resources Management (3)	
FNCE 325	Business Finance (3)	
MRKT 327	Marketing (3)	
	<i>(additional courses if more hours needed from)</i>	
ACCT 212	Principles of Accounting (3)	
CPTR 220	Microcomputer Applications (3)	

COMPUTER INFORMATION SYSTEMS

MINOR REQUIREMENTS—22 hours

CPTR 200	PC Architecture Fundamentals	3
CPTR 211	Unix Operating System	1
CPTR 220	Microcomputer Applications	3
CPTR 225	Web Development Basics	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
	<i>Select six hours from 300-400 level computer courses</i>	6

COMPUTER SCIENCE

MINOR REQUIREMENTS—26 hours

CPTR 211	Unix Operating System	1
CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
CSCE 230	Computer Organization at UN-L	3
CSCE 230L	Computer Organization Lab at UN-L	1
MATH 184	Calculus I	4
MATH 340	Discrete Mathematics	3
	<i>With prior approval from the Union College computer science advisor and division chair, select six hours from UC or UN-L</i>	
CPTR/CSCE	300-400 level computer science courses	6

MARKETING

MINOR REQUIREMENTS—19 hours

COPR 445	Applied Public Relations	3
MRKT 327	Marketing	3
MRKT 333	Professional Selling	3
MRKT 443	Consumer Behavior	3
MRKT 456	Marketing Research	3
MRKT 475	Internship in Marketing	1
PSYC 105	Introduction to Psychology	3

SMALL BUSINESS MANAGEMENT**MINOR REQUIREMENTS—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
<i>Select two courses from</i>		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)	

BACHELOR OF TECHNOLOGY

A technical associate degree (A.A.S.) from a regionally accredited institution is required with a maximum of 64 hours of credit applied toward the 128 hours required for the Bachelor of Technology degree.

For the Bachelor of Technology degree at least 20 hours must be courses numbered at the 300 level or above. Other requirements are the same as those listed for all baccalaureate degrees. (See Graduation Requirements.)

A minimum of 30 semester hours of general education is required beyond the associate degree. Minimum requirements in each area are listed below with no more than one additional course from each category applying toward the 30 hours.

General Education—30 hours

RELIGION	6 hours
• RELT 141 Christian Beliefs	3
• RELB (Biblical Studies) or RELT 305	3
• RELB, RELH, RELL, RELP, or RELT elective	0-3
COMMUNICATION	5-8* hours
• ENGL 111 College Writing I (*if not in associate degree)	3
• ENGL 112 College Writing II	3
• COMM 105 Public Speaking	2
• COMM, ENGL, or COJR elective	0-3
FINE ARTS AND HUMANITIES	2-3 hours
• Select one area:	2-3
HMNT course (2)	

Philosophy course (2)	
Applied fine arts courses from MUPF (music performance) and/or any ART course (2)	
Literature (3)	
• ART, ENGL, HMNT, MUHL, MUPF, or PHIL elective	0-3
HISTORY AND SOCIAL SCIENCE	3 hours
• HIST 157 West and the World	3
• ECON, GEOG, HIST, PLSC, PSYC, or SOCI elective	0-3
MATHEMATICS, SCIENCE, COMPUTER	3-4 hours
• Select a discipline not studied in the associate degree:	3-4
MATH (3)	
BIOL, CHEM, or PHYS lab course (4)	
CPTR (3)	
• BIOL, CHEM, CPTR, MATH, or PHYS elective	0-4
HEALTH AND HUMAN PERFORMANCE	2 hours
• HHPA 155 Concepts of Wellness	2
or two different one-hour HHPA activity courses (2)	
• HHPA or HHPT elective	0-2
 SMALL BUSINESS MANAGEMENT	
Bachelor of Technology	
MAJOR AND CONTEXTUAL REQUIREMENTS–30 hours	
ACCT 211 Principles of Accounting	3
BUAD 219 Small Business Management	3
BUAD 323 Entrepreneurship	3
BUAD 310 Quality Management	3
or BUAD 376 Human Resource Management (3)	
BUAD 445 Business Law	4
BUAD 475 Internship in Business	2
FNCE 215 Personal Finance	3
or FNCE 332 Investments (3)	
MRKT 327 Marketing	3
<i>Select six hours from</i>	6
ACCT 212 Principles of Accounting (3)	
BUAD 425 Business Communications (3)	
CPTR 220 Microcomputer Applications (3)	
FNCE 332 Investments (if not chosen above) (3)	

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.

The Division of Fine Arts offers a variety of art and music courses, lessons, and group experiences designed to meet both the needs of specific majors and also the non-major general student. Specific degree programs provide the foundation for a variety of careers. Graduates have achieved success in graduate programs, teaching positions, and in a variety of professional employments.

Goals

Students obtaining degrees from the Division of Fine Arts will be prepared to

- competently pursue careers and professions in art and music;
- teach art and music as certified educators from an NCATE approved degree program;
- successfully pursue graduate degrees in a variety of art or music fields;
- enter professional schools such as medicine, dentistry, and law using fine arts as a foundational degree;
- become artistic leaders and contributors to the community and church;
- serve God and humanity through the gifts of art and music.

The divisional assessment plan includes student input solicited for the purposes of improving the music and art programs to better serve the needs and expectations of future students.

Assessment results are available in the Division of Fine Arts and in the Office for Institutional Research.

DIVISION OFFICE

<i>Location</i>	Engel Hall		
<i>Telephone</i>	402.486.2553	<i>Fax</i>	402.486.2528
<i>E-Mail</i>	dalynn@ucollege.edu		
<i>Web site</i>	www.ucollege.edu/fineart		

FACULTY

Daniel Lynn, D.M.A., Chair, Professor of Music

Rudyard Dennis, D.M.A., *Associate Professor of Music*

Bruce Forbes, M.F.A., *Associate Professor of Art and Graphic Design*

Kenneth J. Hoppmann, D.M.A., *Associate Professor of Music*

James D. McClelland, M.A., *Professor of Art*

Ryan Wells, D.M.A., *Professor of Music*

DEGREES AND PROGRAMS

Bachelor of Arts

Music
Piano Pedagogy
Studio Art

Bachelor of Music

Music Education, Secondary Field Endorsement

*Emphases: Instrumental
Keyboard
Vocal*

Music Performance

*Emphases: Conducting
Instrumental
Keyboard
Vocal*

Bachelor of Science

Art Education Field Endorsement K-12

General Art Subject Endorsement K-6

Graphic Design

Music Education Subject Endorsement K-6

*Emphases: Instrumental
Keyboard
Vocal*

Music Education Subject Endorsement K-12

*Emphases: Instrumental
Keyboard
Vocal*

Associate in Science

Art
Graphic Design
Music Pedagogy

Minor

Art
Graphic Design
Music

ART

It is the goal of this discipline to provide opportunities for all students, faculty members and citizens of the community to experience the visual arts, either in the creative process or participants as viewers of those processes. It seeks to promote understanding and appreciation of the visual arts, both in creating and exhibiting, through the teaching goals of its faculty.

ART CORE-21 hours

ART 105	Drawing I	2
ART 115	Design I	2
ART 145	Watercolor	2
ART 175, 275	Art Seminar	.5, .5
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 375, 475	Art Seminar	.5, .5
ART 485	Senior Exhibit	1

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

Students in Graphic Design will develop

- skills for promoting creative ideas to clients;
- skills in designing in a broad spectrum of ways;
- a historical perspective in the visual arts;
- potential for creative expression;
- capacities for sharing and communicating their knowledge and skills (exhibiting, participation and appreciation);
- professionalism and a thorough knowledge of the field, including trends, new technologies, the process of reproduction and marketing;
- knowledge of fundamental business and marketing practices;
- the necessary social and personal attribute, Christian and business or professional ideals to successfully compete and excel in the field.

GRAPHIC DESIGN**Bachelor of Science****MAJOR REQUIREMENTS—51 hours**

ART CORE		21
ART 305	Marker Rendering Techniques	2
ART 335	Airbrush Techniques	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
GRPH 460	Prepress Production	3
GRPH 464	Advertising Design	3
GRPH 476	Internship	4

CONTEXTUAL REQUIREMENTS–12-13 hours

<i>Select one course from</i>		3
BUAD 138	Dynamics of Business (3)	
BUAD 219	Small Business Management (3)	
BUAD 376	Human Resources Management (3)	
BUAD 425	Business Communications (3)	
<i>Select one course from</i>		3
COMM 125	Media and Meaning (3)	
COMM 465	Interpersonal Communication (3)	
<i>Select one course from</i>		3-4
COJR 151	Photography (4)	
COJR 245	Editing (3)	
COPR 276	Promotional Copywriting (3)	
COPR 316	Advertising Practices (3)	
<i>Select one course from</i>		3
MRKT 327	Marketing (3)	
MRKT 333	Professional Selling (3)	
MRKT 443	Consumer Behavior (3)	

STUDIO ART**Bachelor of Arts**

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.

MAJOR REQUIREMENTS–39 hours

ART CORE		21
ART 125	Oil Painting	2
ART 135	Pottery	2
ART 245	Sculpture	2
ART	Area of Emphasis	12

CONTEXTUAL REQUIREMENTS—9 hours

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

ART**Associate in Science****EMPHASIS REQUIREMENTS—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 II	2
ART 305	Marker Rendering Techniques	2
GRPH 150	Introduction to Graphic Arts	3
ART/GRPH	Electives	7-8

GRAPHIC DESIGN**Associate in Science****EMPHASIS REQUIREMENTS—31-32 hours**

ART 105	Drawing I	2
ART 115	Design I	2
ART 225	Color Theory	2
GRPH 150	Introduction to Graphic Arts	3
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	7-8

ART**MINOR REQUIREMENTS—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 (3 hours must be 300 or 400 level)	9-10

GRAPHIC DESIGN

MINOR REQUIREMENTS—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

ART EDUCATION

K-12 Field Endorsement

Bachelor of Science

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

- a theoretical knowledge of the field of art, including principles and current methods in the visual arts;
- special competence in at least one art medium;
- extensive experience in both two- and three-dimensional art media;
- exposure to the use of pencil, ballpoint and felt tip pen, charcoal, conte crayon, scratchboard, ink, wash, oil, watercolor, acrylic and silk screen, and airbrush;
- experience in working with thrown and hand-built forms of pottery, the additive and subtractive approaches to sculpture and design sculpture;
- experience in designing by computer;
- the ability to utilize adequately the pertinent professional journals and other printed resources;
- personally developed planned units of instruction in art concepts and skills.

Students in Art Education will develop

- teaching skills;
- a historical and appreciative perspective;
- their potential for creative expression;
- their capacity for sharing and communicating their knowledge and skills (teaching, exhibiting, participation and appreciation);
- competencies in arts administration which shall include creation and innovation of programs, promotion, media, and fiscal responsibility;
- the necessary 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.

TEACHING MAJOR REQUIREMENTS—51 hours

ART CORE		21
ART 125	Oil Painting	2
ART 135	Pottery	2
ART 215	School Art	2
ART 245	Sculpture	2
ART 305	Marker Rendering Techniques	2
ART 335	Airbrush	2
ART 347	Illustration Techniques I	2
ART 445	Illustration Techniques II	2
ART 487	Topics: Lettering, Poster Design	2
GRPH 150	Introduction to Graphic Arts	3
GRPH 252	Computer Design	3
GRPH 254	Publication Design	3
GRPH 358	Typography	3

CONTEXTUAL REQUIREMENTS—4 hours

COJR 151	Photography	4
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PROFESSIONAL EDUCATION—51 hours

EDUC 410	Methods: Art Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

(See Human Development Division--Secondary Education Endorsements)

GENERAL ART EDUCATION

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

Bachelor of Science

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.

TEACHING MAJOR REQUIREMENTS—25 hours

ART 105	Drawing I	2
ART 115	Design I	2
ART 125	Oil Painting	2
ART 135	Pottery	2
ART 215	School Art	2
ART 235	Drawing II	2
ART 245	Sculpture	2

ART 305	Marker Rendering Techniques or ART 145 Watercolor (2)	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)

MUSIC

It is the goal of this discipline to provide opportunities for all students, faculty members and citizens of the community to experience excellence in performance, in understanding, in creating and in teaching. These goals are realized within a context of interaction and service to campus, church and community. Approaches to the realization of these goals will vary, depending upon the specific program of study chosen by the student.

Graduates with a degree in music will

- attain a high level of performance ability that shows significant growth in the areas of technical proficiency and artistic musicianship;
- attain the ability to analyze musical materials and structures;
- demonstrate the ability to organize musical thoughts through the art of composition and arranging;
- develop a historical and theoretical perspective with an understanding of stylistic trends and their evolution;
- develop the ability to clearly communicate musical ideas and knowledge through effective teaching techniques (writing, lecturing, demonstration, performance);
- demonstrate proficiencies in the use of current music technologies as they relate to music pedagogy, composition/arranging, and music notation.

Auxiliary Requirements For All Baccalaureate Degrees in Music

(except K-6 subject endorsements)

- Presentation of senior recital.
- Participation during each semester of residence in a large or small ensemble which features the student's principal 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 9 hours of performance studies in at least one performance area. Some majors require up to 18 hours in a major performance area and 6 hours in a minor area. Students are expected to take private lessons in a principal 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 362	Introduction to Counterpoint	2
MUTH 365	Orchestration	2

MUSIC**Bachelor of Arts****MAJOR REQUIREMENTS—42 hours**

MUSIC CORE		30
MUPF	Performance Studies	12
MUPF 451	Senior Recital (1)	
MUPF	Concentration of 8 hours in one area (8) (4 hours advanced level)	
MUPF	Performance electives (3)	
MUPF	Participate in a large ensemble each semester; elect additional experiences in chamber ensembles.	

PIANO PEDAGOGY**Bachelor of Arts****MAJOR REQUIREMENTS—52 hours**

MUSIC CORE		30
MUPF	Performance Studies	12
MUPF 451	Senior Recital (1)	
MUPF	Concentration of 8 hours in one area (8) (4 hours advanced level)	
MUPF	Performance electives (3)	
MUPF	Participate in a large ensemble each semester; elect additional experiences in chamber ensembles.	
MUPP 101	Introduction to Piano Pedagogy	2
MUPP 201	Teaching the Very Young Music Student	2
MUPP 202	Teaching Intermediate Piano Literature	2
MUPP 301	Issues in Studio Management	2
MUPP 302	Seminar in Piano Pedagogy	2

MUSIC PERFORMANCE**Bachelor of Music****MAJOR REQUIREMENTS—62-65 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
Major Performance Area		19-22
MUPF 351	Junior Recital (1)	
MUPF 451	Senior Recital (1)	
<i>Select one emphasis:</i>		
Conducting emphasis		
MUPF	12 hours in major performing area (12) (6 hours must be 300-400 level)	
MUPF	8 hours in secondary performing area (8) (4 hours must be 300-400 level)	
Vocal Emphasis		
MUPF 266	English/Italian Diction (1)	
MUPF 267	German/French Diction (1)	
MUPF 201, 401	Voice (15) (6 hours must be 300-400 level)	
Instrumental or Keyboard Emphasis		
MUPF	Performance Studies (17) (6 hours must be 300-400 level)	
Minor Performance Area		
<i>Select four hours from</i>		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**MINOR REQUIREMENTS—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 field of concentration - 2 at 300 level) Performance electives (2) Partial recital	8
MUPF	Electives: ensembles (recommended)	3

MUSIC EDUCATION

K-12 Field Endorsement

Bachelor of Music

The major in music education (Field Endorsement, K-12) is designed to prepare candidates for teaching in both elementary and secondary schools by providing

- a conceptual understanding of the elements of music and opportunities for an understanding of their interrelationship as they form a basis for listening, composing, performing, conducting and teaching;
- repeated opportunities for enacting in a variety of ways the roles of listener, composer, performer, conductor, scholar and teacher;
- a repertory for study that embraces different cultures and historical periods;
- an understanding of music within its historical framework, including a knowledge of the major periods of music.

TEACHING MAJOR REQUIREMENTS—55-56 hours

MUSIC CORE 30

MUED 307	Keyboard Pedagogy	2
	or MUED 317 Instrumental Pedagogy (2)	
	or MUED 327 Vocal Pedagogy (2)	
MUED 347	Music in the Elementary School	2
MUPF 341	Choral Conducting	1
MUPF 342	Instrumental Conducting	1

Major Performance Area

MUPF 451	Senior Recital	1
	<i>Select one emphasis:</i>	12-13

Instrumental Emphasis

MUPF	12 hours in one instrument (12)
	(6 hours must be 300-400 level)

Vocal Emphasis

MUPF 201, 401	Voice (12)
	(6 hours must be 300-400 level)
MUPF 266	English/Italian Diction (1)
	or MUPF 267 German/French Diction (1)

Keyboard Emphasis

MUPF	12 hours on a keyboard instrument (12)
	(6 hours must be 300-400 level)

Minor Performance Area

MUAP 207	Brass Techniques and Materials	1
MUAP 217	Guitar Techniques and Materials	1
MUAP 227	Percussion Techniques and Materials	1
MUAP 237	String Techniques and Materials	1
MUAP 247	Vocal Techniques and Materials	1
MUAP 257	Woodwind Techniques and Materials	1

Candidates are strongly encouraged to take up to 6 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—51 hours

EDUC 414	Methods: Music Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

(See Human Development Division--Secondary Education Endorsements)

MUSIC EDUCATION

K-12 Subject Endorsement

Bachelor of Science

The major in Music Education K-12 Subject Endorsement, Instrumental, Vocal, or Keyboard emphasis, is designed to prepare candidates for teaching in both elementary and secondary schools by providing them with

- a conceptual understanding of the elements of music and opportunities for an understanding of their interrelationship as they form a basis for listening, composing, performing, conducting and teaching;
- repeated opportunities for enacting in a variety of ways the roles of listener, composer, performer, conductor, scholar and teacher;
- a repertory for study that embraces different cultures and historical periods;
- an understanding of music within its historical framework, including a knowledge of the major periods of music.

TEACHING MAJOR REQUIREMENTS-46-47 hours

MUSIC CORE		30
MUED 347	Music in the Elementary School	2
MUPF 451	Senior Recital	1
MUPF	Participate in a large ensemble each semester; elect additional experiences in chamber ensembles.	

Choose one emphasis: 13-14

Instrumental Emphasis

MUED 317	Instrumental Pedagogy—2 hours	
MUPF 342	Instrumental Conducting—1 hour	
<i>Select three from MUAP 207-257— 3 hours</i>		
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)	

Major Performance Area—8 hours

MUPF Concentration in one instrument
(4 hours must be 300-400 level.)

Vocal or Keyboard Emphasis

MUED 307 Keyboard Pedagogy—2 hours
(or MUED 327 Vocal Pedagogy -2)

MUPF 341 Choral Conducting —1 hour

Major Performance Area —10 hours

MUPF Concentration in voice or keyboard instrument (8)
(4 hours must be 300-400 level)

MUPF 266 English-Italian Diction (1)

MUPF 267 German-French Diction (1)

PROFESSIONAL EDUCATION—51 hours

EDUC 414	Methods: Music Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

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

MUSIC EDUCATION**K-6 Subject Endorsement*****Bachelor of Science**

The major in Music Education K-6 Subject Endorsement, Instrumental, Vocal, or Keyboard Emphasis, is designed to prepare candidates for teaching in elementary school by providing them with

- a conceptual understanding of the elements of music and opportunities for an understanding of their interrelationship as they form a basis for listening, composing, performing, conducting and teaching;
- repeated opportunities for enacting in a variety of ways the roles of listener, composer, performer, conductor, scholar and teacher;
- a repertory for study that embraces different cultures and historical periods;
- an understanding of music within its historical framework, including a knowledge of the major periods of music.

TEACHING MAJOR REQUIREMENTS –29 hours

(*Available as a second major only)

MUED 347	Music in the Elementary School	2
MUHL 261	Traditional and World History	3
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
MUPF	<i>Major performance area</i>	4

	(Voice for vocal emphasis - Keyboard for keyboard emphasis)	
MUPF	<i>Minor performance area</i>	2
	(Voice for keyboard emphasis - Keyboard for vocal emphasis)	
MUPF	Ensembles	4
	<i>Choose one emphasis:</i>	4

Instrumental Emphasis

MUAP 207	Brass 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)

Vocal or Keyboard Emphasis

MUAP 217	Guitar Techniques and Materials (1)
	<i>Three hours from the following: (3)</i>
MUED 307	Keyboard Pedagogy (2)
MUED 327	Vocal Pedagogy (2)
MUPF 266	English-Italian Diction (1)
MUPF 341	Choral Conducting (1)

PROFESSIONAL EDUCATION (Requires another education major)**Auxiliary Requirements For K-6 Subject Endorsement**

- Presentation of a senior recital at the teacher's option.
- Regular attendance at all division-sponsored recitals and concerts.
- Functional piano proficiency. All students will reach the required minimum proficiency level. An outline of these requirements containing illustrative models is available from piano instructors.

MUSIC PEDAGOGY**Associate in Science****EMPHASIS REQUIREMENTS—32 hours**

MUED 307	Keyboard Pedagogy	2
	or MUED 317 Instrumental Pedagogy (2)	
	or MUED 327 Vocal Pedagogy (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
	Major Performance Area	8
MUPF	Concentration in instrument, voice or keyboard instrument (2 hours must be 300-400 level)	
MUPF	Ensembles	6

CONTEXTUAL REQUIREMENTS—10 hours

BUAD 138	Dynamics of Business	3
MUED 287	Practicum	4
PSYC 215	Developmental Psychology	3

Division of Health Sciences

Mission

The Division of Health Sciences administers Union College's baccalaureate programs in Health and Human Performance, International Rescue and Relief, and Nursing. Also residing in the Division is the Physician Assistant Program, offering a Master of Physician Assistant Studies (MPAS), Union's first graduate degree. These programs 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 Health Sciences promotes mental, physical, social and spiritual development of students for competent Christ-like service in their chosen profession.

Goals

The programs offered by the division prepare the student to

- practice and promote a balanced, healthy lifestyle;
- perform professional roles with a high degree of competence and compassion;
- demonstrate mastery in the content area of study.

Assessment results are available in the Division of Health Sciences Office and in the Office for Institutional Research.

DIVISION OFFICE

<i>Location</i>	Larson Lifestyle Center
<i>Telephone</i>	402.486.2889 Health and Human Performance Program 402.486.2524 International Rescue and Relief Program 402.486.2524 Nursing Program 402.486.2527 Physician Assistant Studies Program
<i>E-Mail</i>	jejoiner@ucollege.edu
<i>Web sites</i>	www.ucollege.edu/healthscience www.ucollege.edu/hhp www.ucollege.edu/rescueandrelief www.ucollege.edu/nursing www.ucollege.edu/pa

FACULTY

Jeff Joiner, M.S.N., Chair, Associate Professor of Nursing; Program Director
Michael Duehrssen, M.D., *Professor of International Rescue and Relief, Program Director*

Eugena Foster, M.S.N., APRN, FNP-BC, *Assistant Professor of Nursing*
Michael Huckabee, MPAS, PA-C, *Associate Professor of Physician Assistant Studies; Program Director*
Laura Karges, M.S., *Associate Professor of Nursing*

Cliff Korf, MPAS, PA-C, *Associate Professor of Physician Assistant Studies, Outreach Director*
Valeree Krueger, M.S.N., *Associate Professor of Nursing*
Dwain Leonhardt, M.D., *Professor of Physician Assistant Studies; Medical Director*
Frank J. Martinez, M.A.T., *Associate Professor of Health and Human Performance*
Ruth Mendenhall, M.S.N., *Associate Professor of Nursing*
Earl Pate, M.S.H.A., *Associate Professor of Physician Assistant Studies; Associate Program Director*
Nancy Petta, Ed.D., *Professor of Health and Human Performance; Program Director*
Charlotte Schober, M.S.N., *Associate Professor of Nursing*
Ric Spaulding, M.Ed., *Assistant Professor of Health and Human Performance; Director of Larsen Lifestyle Center*
Rebecca Stafford, PA-C, *Instructor of Physician Assistant Studies, Clinical Director*

DEGREES AND PROGRAMS

Master of Physician Assistant Studies

Physician Assistant Studies

Bachelor of Science

Exercise Science

Health and Human Performance

Emphases: Business/Sport Management

Physical Education Secondary Subject Endorsement

Health Sciences

International Rescue and Relief

Emphases: Human Services and Counseling

Missions

Paramedical

Pre-Professional (Medicine, Dentistry, Physician Assistant)

Bachelor of Science in Nursing

Nursing

Minor

Health and Human Performance

HEALTH AND HUMAN PERFORMANCE

The mission of the Health and Human Performance program is to promote the holistic development of students and to prepare them for roles in the health and human performance professions including teaching, business/sport management, exercise science, fitness/recreational leadership, coaching, and other career applications of health and human performance.

The major in Health and Human Performance is designed to prepare candidates for various opportunities in career choices. The core classes in the Health and Human Performance major give a foundation for other specialized areas of further training. Business/Sport Management or Teaching Emphasis, when combined with the core, offer a combination of skills and abilities to train an individual in working with people using activities for a healthy lifestyle.

Graduates from the Health and Human Performance program will

- achieve mastery of the content in each area of study;
- perform their professional obligations with a high degree of competence;
- pursue advanced study.

Assessment results are available in the Health and Human Performance Office and in the Office for Institutional Research.

EXERCISE SCIENCE

Bachelor of Science

The major in exercise science is designed for the students who are planning for graduate studies in exercise physiology/athletic training/wellness or sports medicine.

MAJOR REQUIREMENTS—69-70 hours

HEALTH AND BUSINESS COURSES

BUAD 376	Human Resources Management	3
HHPA 155	Concepts of Wellness	2
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	2
HHPT 255	Clinical Observation	1
HHPT 256	Medical Terminology	1
HHPT 355	Kinesiology	3
HHPT 356	Physiology of Exercise	3
HHPT 375	Human Assessment	3
HHPT 437	Measurement and Evaluation	3
HHPT 475	Internship	6
HHPT 485	Seminar in Health and Human Performance	2
NUTR 227	Nutrition	3

SCIENCE COURSES

BIOL 111	Human Anatomy & Physiology	4
BIOL 112	Human Anatomy & Physiology	4
CHEM 151	General Chemistry	4
CHEM 152	General Chemistry	4
CHEM 211	Organic Chemistry	4
CHEM 212	Organic Chemistry	4
CHEM 445	Biochemistry I	4
PHYS 151	General Physics	4
	Science Electives (300-400 level)	3-4

CONTEXTUAL REQUIREMENTS–9 hours

CPTR 220	Microcomputer Applications	3
MATH 111	College Algebra	3
PSYC 215	Developmental Psychology	3

HEALTH AND HUMAN PERFORMANCE*Business/Sport Management Emphasis***Bachelor of Science**

The Business/Sport Management Emphasis is designed to prepare the student to work in fitness/racket clubs, retail sporting goods stores, YMCA/YWCA's or other recreational businesses. Students can tailor-make part of the emphasis and internship to meet their own specific goals.

MAJOR REQUIREMENTS–59 hours

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 138	Dynamics of Business	3
BUAD 376	Human Resources Management	3
BUAD 425	Business Communications	3
HHPA 147	Beginning Tennis	1
HHPA 149	Beginning Golf	1
HHPA 215	Intermediate/Advanced Swimming or HHPA 317 Water Safety Instruction (1)	1
HHPA 235	Weight Training and Physical Conditioning	1
HHPT 140	Introduction to Coaching Theory	2
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	2
HHPT 235, 236	Principles of Sports Officiating	1, 1
HHPT 335, 336	Administration of Intramural Sports	1, 1
HHPT 355	Kinesiology	3
HHPT 356	Physiology of Exercise	3
HHPT 357	Motor Learning	3
HHPT 366	Adapted Physical Education	2
HHPT 475	Internship	6
HHPT 485	Seminar in Health and Human Performance	2
MATH 221	Elementary Statistics and Probability	3
MRKT 327	Marketing	3
SOCI 210	Group Dynamics or PSYC 215 Developmental Psychology (3)	3
<i>Two HHPA electives selected from</i>		2
HHPA 145	Beginning Badminton (1)	
HHPA 218	Boardsailing (1)	
HHPA 245	Cycling (1)	
HHPA 255	Aerobic Fitness (1)	
HHPA 270	Racquetball (1)	

CONTEXTUAL REQUIREMENTS–17 hours

BIOL 111, 112	Human Anatomy and Physiology	4, 4
CPTR 220	Microcomputer Applications	3
MATH 111	College Algebra	3
NUTR 227	Nutrition	3

HEALTH AND HUMAN PERFORMANCE*Physical Education Secondary Subject Endorsement***Bachelor of Science**

The teaching major in physical education is designed to prepare candidates for 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.

TEACHING MAJOR REQUIREMENTS–40 hours

EDUC 245	Physical Education in Elementary School	2
HHPA 145	Beginning Badminton	1
HHPA 147	Beginning Tennis	1
HHPA 149	Beginning Golf	1
HHPA 215	Intermediate/Advanced Swimming or HHPA 317 Water Safety Instruction (1)	1
HHPA 218	Boardsailing or HHPA 245 Cycling (1) or HHPV 125 Acrosports (1)	1
HHPA 235	Weight Training and Physical Conditioning	1
HHPT 135	Leisure and Recreational Activities	2
HHPT 136	Team Activities	3
HHPT 137	Gymnastics for Teachers	1
HHPT 140	Introduction to Coaching Theory	2
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	2
HHPT 235, 236	Principles of Sports Officiating	1, 1
HHPT 335, 336	Administration of Intramural Sports	1, 1

HHPT 355	Kinesiology	3
HHPT 356	Physiology of Exercise	3
HHPT 357	Motor Learning	3
HHPT 366	Adapted Physical Education	2
HHPT 437	Measurement and Evaluation in HPER	3
HHPT 485	Seminar in Health and Human Performance	2

CONTEXTUAL REQUIREMENTS–17 hours

BIOL 111, 112	Human Anatomy and Physiology	4, 4
CPTR 220	Microcomputer Applications	3
MATH 111	College Algebra	3
NUTR 227	Nutrition	3

PROFESSIONAL EDUCATION–51 hours

EDUC 416	Methods: Physical Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

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

HEALTH AND HUMAN PERFORMANCE**MINOR REQUIREMENTS–26 hours**

HHPA 145	Beginning Badminton	1
HHPA 235	Weight Training and Physical Conditioning	1
	<i>Two HHPA electives selected from</i>	2
HHPA 147	Beginning Tennis (1)	
HHPA 149	Beginning Golf (1)	
HHPA 245	Cycling (1)	
HHPV 125	Acrosports (1)	
HHPA 317	Water Safety Instruction (recommended) (or HHPA 215 Intermediate/Advanced Swimming -1)	1
HHPT 135	Leisure and Recreational Activities	2
HHPT 136	Team Activities	3
HHPT 140	Introduction to Coaching Theory	2
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	2
HHPT 235, 236	Principles of Sports Officiating	1, 1
HHPT 335, 336	Administration of Intramural Sports	1, 1
	<i>Two courses selected from</i>	6
HHPT 355	Kinesiology (3)	
HHPT 356	Physiology of Exercise (3)	
HHPT 357	Motor Learning (3)	
HHPT 437	Measurement/Evaluation in HPER (3)	

CONTEXTUAL REQUIREMENTS–8 hours

BIOL 111, 112 Human Anatomy and Physiology

4, 4

INTERNATIONAL RESCUE AND RELIEF

International Rescue and Relief is a unique Bachelor of Science degree designed for the adventurous student who wants to serve mankind in disaster and humanitarian relief. There are core courses and four emphases to choose from. Students will gain valuable experiential knowledge during the one semester they spend overseas in an underdeveloped country their junior or senior year. Upon completion, students will be prepared in aspects of rescue, survival and humanitarian relief. Union College is proud to offer this degree in the face of increasing global uncertainty, conflict and natural disasters.

Program Objectives

- Create awareness of our God-given responsibility to care for our world home;
- Focus on God's character of love for His children around the world;
- Build appreciation and concern for all people worldwide;
- Enhance students' ability to relate to and cope with their environment;
- Develop students' skills to assist knowledgeably in disaster and emergency situations;
- Provide experience in rescue and survival skills;
- Develop skills and knowledge for public health advancement in underdeveloped areas;
- Include studies leading to employment in mission service, graduate or professional school, worldwide emergency disaster relief organizations and civil organizations.

Motto "A Career of Adventure, A Lifetime of Service"

Mission

To create a Christian learning environment along with hands-on experience essential to provide the confidence and skills needed to relieve suffering worldwide. To provide quality training and instruction in the fields of rescue and survival, wilderness preparation, emergency care, natural disaster management and missions so that graduates may knowledgeably and supportively provide worldwide assistance in times of peace or disaster.

INTERNATIONAL RESCUE AND RELIEF CORE-47 hrs		
INRR 100	EMT Basic with IV Certification	10
INRR 110	Bioterrorism/Basic Trauma Life Support	1
INRR 112	Swift Water Technician I/Advanced	1
INRR114	Rope Rescue Technician	1
INRR 116	Basic Survival	1
INRR 118	Confined Space Technician	1
INRR 200	Critical Incident Stress Management	2
INRR 310	Emergency Care I	3
INRR 311	Emergency Care II	3
INRR 320	Public Health	3
INRR 330	Travel/Tropical Medicine	3
INRR 340	Jungle, Coastal, Ocean Survival	3
INRR 350	Dive Rescue	1
INRR 400	Firefighter I	6
INRR 420	Capstone Leadership	3
INRR 450	Hazardous Materials Awareness and Operations	2
INRR 491	Disaster Management	3

Prerequisites

All students must be in good physical condition. Final acceptance into the program is made after the first year. Student must have a cumulative GPA of 2.50 after the freshman year prior to the summer survival and rescue program to continue. Students also must have current CPR certification prior to entering into the EMT training. CPR classes are available at Union College. Academic high school recommendations for acceptance include: biology; chemistry; two years of algebra; and one or two years of foreign language.

PROGRAM SPECIFIC FEES

Additional fees are charged for Skin and Scuba Diving, overseas semester, and the summer survival courses. A program fee will be assessed for each semester for all students formally admitted to the international rescue and relief program. Contact the program director for current fees not included in the schedule of *Scholarships, Tuition and Fees*.

INTERNATIONAL RESCUE AND RELIEF*Human Service and Counseling Emphasis***Bachelor of Science****MAJOR REQUIREMENTS-47 hrs**

INTERNATIONAL RESCUE AND RELIEF CORE	47
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CONTEXTUAL REQUIREMENTS-50 hrs

BIOL 111	Anatomy and Physiology	4
BIOL 205	Microbiology	4

PSYC 206	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 311	Christian Counseling	3
PSYC 335	Psychological Statistics	3
PSYC 336	Research Design	3
RELP 439	Christian Health Care and Bioethics	3
SOCI 105	Introduction to Sociology	3
SOCI 210	Group Dynamics	3
SOCI 221	Issues of Diversity	3
SOWK 389	Leadership of an NPO/NGO	3
SPAN 101, 102	Beginning Spanish	3, 3
	or FREN 101, 102 Beginning French (3, 3)	
	Cultural Anthropology	3
	Regional Studies Seminar	3

INTERNATIONAL RESCUE AND RELIEF

Missions Emphasis

Bachelor of Science

MAJOR REQUIREMENTS-52 hrs

INTERNATIONAL RESCUE AND RELIEF CORE		47
INRR 420	Capstone Leadership	3
INRR 450	Hazardous Materials Awareness and Operations	2

CONTEXTUAL REQUIREMENTS-32 hrs

BIOL 111	Anatomy and Physiology	4
BIOL 205	Microbiology	4
BUAD 219	Small Business Management	3
PSYC 311	Christian Counseling	3
RELP 439	Christian Health Care and Bioethics	3
RELP 465	Personal Witnessing	3
SPAN 101, 102	Beginning Spanish	3, 3
	or FREN 101, 102 Beginning French (3, 3)	
	Approaches to World Missions	3
	Cultural Administration	3

INTERNATIONAL RESCUE AND RELIEF

Paramedic Emphasis

Bachelor of Science

Paramedic course to be taken in the United States from a certified college or university. Students must pass the Paramedic National Registry in order to receive the Bachelor of Science degree in International Rescue and Relief.

MAJOR REQUIREMENTS-49 hrs

INTERNATIONAL RESCUE AND RELIEF CORE		47
INRR 450	Hazardous Materials Awareness and Operations	2

CONTEXTUAL REQUIREMENTS-21 hrs

BIOL 111, 112	Anatomy and Physiology	4, 4
BIOL 205	Microbiology	4
RELP 439	Christian Health Care and Bioethics	3
SPAN 101, 102	Beginning Spanish	3, 3
	or FREN 101, 102 Beginning French (3, 3)	

INTERNATIONAL RESCUE AND RELIEF*Preprofessional Emphasis***Bachelor of Science****MAJOR REQUIREMENTS-50 hrs**

INTERNATIONAL RESCUE AND RELIEF CORE		47
INRR 420	Capstone Leadership	3

CONTEXTUAL REQUIREMENTS-45 hrs

BIOL 151, 152	General Biology	4, 4
BIOL 205	Microbiology	4
	or BIOL 345 Biology of Bacteriology (4)	
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
PHYS 151, 152	General Physics	4, 4
RELP 439	Christian Health Care and Bioethics	3
SPAN 101, 102	Beginning Spanish	3, 3
	or FREN 101, 102 Beginning French (3, 3)	

For the pre-physician assistant curriculum, General Physics is replaced by Mammalian Physiology. Additional courses needed are Developmental Psychology, Abnormal Psychology, Biochemistry and Elementary Statistics. Capstone Leadership is not required.

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 National Council Licensing Examinations (NCLEX) for professional licensure.

At the completion of the Union College Nursing Program, the student has had the opportunity to

- use Christian values as a foundation to provide caring service as modeled by Christ;
- synthesize knowledge acquired from humanities, natural and social sciences and nursing courses, for critical thinking and decision making;
- utilize the nursing process in the care of clients experiencing commonly occurring or multiple and complex stressors at all levels of acuity in diverse environments;

- develop and maintain competence in selection and use of technical, communication and assessment skills in all environments;
- promote client wholeness and high level of wellness in diverse populations within all cultures across the life span;
- function as a provider of care, a designer/manager/coordinator of care and a member of a profession to enhance client care and support the nursing profession;
- advocate for professional standards of practice within diverse environments and within the interdisciplinary health care team;
- evaluate and apply research findings to clinical nursing practice and be prepared for evidence-based practice;
- possess a foundation for advanced study and continued professional development.
-

Assessment results are available in the Nursing Program Office and in the Office for Institutional Research.

ADMISSION, PROGRESSION AND GRADUATION REQUIREMENTS

Admission to Union College and completion of the nursing prerequisites must precede acceptance to the nursing program. Students must apply for admission to the nursing program by April 1 to be considered for the fall semester and by November 1 for the spring semester. Students who have “stopped out” must confirm eligibility to resume nursing courses by August 1 for admission to fall semester or December 1 for the spring semester.

Minimum criteria for admission in the Nursing Program are

- acceptance into Union College;
- complete required prerequisite courses (*indicates courses that may be taken as corequisites with first level nursing courses);

	Semester Hours
Anatomy and Physiology	8
Chemistry (inorganic and organic/biochemistry)	6
Microbiology*	4
Psychology (survey)	3
Nutrition*	3
English (College Writing I and II)	6
Medical Terminology	1

- complete application process:
 - nurse entrance test,
 - all college transcripts,
 - three references,
 - health policy requirements;
- cumulative GPA of 2.75 or above on a 4.00 scale in general education and contextual courses;
- physical, mental and emotional capacity for functioning as a student of professional nursing;

- for students whose native language is other than English, an international TOEFL score of 213 or above, or a score of 550 or above on the Union College administered TOEFL (not including essay portion). A personal interview with the Program Director or a member of the Nursing Admissions and Academic Evaluation Committee may be required.

Criteria for Progression in the Nursing Program are

- a grade of C (2.00) or above in all nursing and required contextual courses;
- a cumulative GPA and nursing course GPA of 2.50;
- passing grades in both theory and clinical portions of courses;
- no nursing course may be attempted more than twice;
- no more than two nursing courses may be repeated;
- regular and prompt attendance at all classes and clinical laboratory appointments (students are responsible for personal transportation to clinical assignments);
- compliance with health policy requirements as follows:
 - on admission into the program, a complete physical examination including TB Test or chest x-ray, up-to-date immunizations and vision and hearing assessment,
 - Hepatitis B vaccination required prior to first clinical course,
 - TB test annually;
- all students who have been admitted to the nursing program are required to carry personal health insurance and are encouraged to carry personal liability insurance;
- CPR certification (American Heart Association health care provider is preferred).

Criteria used for Graduation and Eligibility for State Board Licensure Examination are

- a cumulative GPA of 2.50 and nursing courses GPA of 2.50 with no grade lower than C (2.00).

Upon selection of nursing as a major, students will be assigned an academic advisor from among the Nursing Program faculty to give guidance in planning their academic program.

All generic nursing students are required to take the Watson-Glaser Critical Thinking Appraisal exam upon acceptance into the program and within their final semester prior to graduation. The Academic Profile is also to be taken prior to graduation.

PROGRAM SPECIFIC FEE

In addition to regular college fees, a fee is assessed each semester for all students admitted in the nursing program. Part-time students will be assessed this fee for six semesters, the usual length of time required to complete the nursing program. These fees are published annually in the college's schedule of *Scholarships, Tuition and Fees*.

BACHELOR OF SCIENCE FOR LICENSED PERSONNEL (Second-Step)

Licensed Practical Nurses (LPN's) and Diploma and Associate degree RN's may progress in the baccalaureate nursing program on a part-time or full-time basis. Each applicant is individually evaluated for placement in the program as space is available. Tuition scholarships are given to eligible individuals licensed in Nebraska reducing the cost by half the usual rate. Students are not generally eligible for other institutionally funded aid, scholarships or discounts.

The following non-nursing requirements or their equivalents must be completed before acceptance into the nursing program and may be taken at Union College:

	Semester Hours
Anatomy and Physiology	8
Chemistry (inorganic and organic/biochemistry)	6
Microbiology	4
Psychology (general and developmental)	6
Sociology	3
Nutrition	3
English (College Writing I and II)	6
Medical Terminology (LPN's only)	1

If necessary, Microbiology may be taken as a co-requisite with Pathophysiology.

To allow more flexibility, Second Step Program students are required to take six hours of Religion (Nursing Contextual requirement - RELT 305 or RELP 339; and general education requirement - RELT 141), and two hours of physical activity instead of the general education requirements for generic students of twelve hours of religion and four hours physical education activities. The eight hour difference must be made up by taking electives to complete the 128 hours required for graduation.

The LPN and RN student can complete the program on a full-time or part-time basis provided it is within the six-year allotted time frame. A schedule will be designed to meet the needs of each candidate on an individual basis. Thirty of the last thirty-six hours must be taken at Union in order to graduate from Union College.

Licensed Practical Nurses

Each candidate is evaluated individually for placement in the program based on previous nursing education. LPN graduates from Southeast Community College with a "B" average may petition to receive without challenge 5 semester hours credit for NRSG 213 Fundamentals, 10 semester hours credit for Medical-Surgical Nursing, and 2 semester hour credit for Nutrition based on the comparable courses at SCC to those at Union College and grades received. Other nursing courses such as Pathophysiology, Physical Assessment, Childbearing, and Mental Health Nursing, etc. must be taken at Union College, unless evidence is provided to support a petition for the course to be challenged.

Registered Nurses

Associate degree or Diploma RN's who have graduated from an accredited nursing program are eligible to receive 31 hours of credit for Fundamentals, Medical-Surgical, OB, Junior Seminar, Pediatrics, and Mental Health from their previous nursing education after successfully completing 9 semester hours of NRSNG courses at Union College.

Non-US educated RN's not licensed in the US must pass mobility exams for Medical-Surgical, OB, Pediatrics, Mental Health, and successfully validate their clinical performance in other nursing courses to receive challenge credit for their previous nursing education.

NURSING**Bachelor of Science****MAJOR REQUIREMENTS—57 hours**

NRSNG 213	Fundamentals	5
NRSNG 263	Medical-Surgical I	5
NRSNG 335	Physical Assessment	3
NRSNG 359	Pathophysiology	3
NRSNG 363	Medical-Surgical II	5
NRSNG 383	Junior Seminar	1
NRSNG 385	Childbearing Family	5
NRSNG 387	Nursing Research	3
NRSNG 423	Childrearing Family	5
NRSNG 435	Mental Health	5
NRSNG 437	Management and Leadership in Health Care	3
NRSNG 439	Complex Care	5
NRSNG 447	Community Health Nursing	5
NRSNG 483	Senior Seminar	1
NRSNG 499	Preceptorship	3

CONTEXTUAL REQUIREMENTS—37 hours

BIOL 111, 112	Human Anatomy and Physiology	4, 4
BIOL 205	Microbiology	4
CHEM 101	Introductory Inorganic Chemistry	3
CHEM 102	Introduction to Organic and Biochemistry	3
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
NUTR 227	Nutrition	3
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
RELT 305	Christian Ethics	3
	or RELP 339 Christian View of the Healing Arts (3)	
SOCI 105	Introduction to Sociology	3

Recommended

NRSG 208	Pharmacology	1
NRSG 391	Frontier Nursing	2
NRSG 392	Frontier Nursing—Field Experience	2-3

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.

PART-TIME TRACK FOR LEVEL IV YEAR

The following sequence has been approved for students who elect to take the Level IV year part-time over two academic years:

Fall (year 1) Level IV	
NRSG 435	Mental Health
Spring (year 1) Level IV	
NRSG 439	Complex Care
Fall (year 2) Level IV	
NRSG 423	Childrearing Family
NRSG 437	Management and Leadership in Health Care
Spring (year 2) Level IV	
NRSG 447	Community Health Nursing
NRSG 483	Senior Seminar
NRSG 499	Preceptorship

PHYSICIAN ASSISTANT PROGRAM**Master of Physician Assistant Studies**

Union College offers a 30-month graduate curriculum leading to a Master of Physician Assistant Studies (MPAS) degree. In addition, a pre-PA curriculum is available to prepare undergraduate students for application to a number of professional PA programs across the country, and is particularly suited to the goals of the Union College PA Program. The MPAS professional program is nationally accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. Graduates may sit for the Physician Assistant National Certifying Examination. Students are accepted into the pre-PA curriculum following the general requirements for acceptance into Union College.

The Union College 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, and spiritual ideals.

The graduate program builds on an extensive base of biological, chemical, behavioral and medical science courses for the master's degree. 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.

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.

Assessment results are available in the Physician Assistant Program Office and in the Office for Institutional Research.

Admission into the physician assistant professional graduate program requires a separate application, reference letters, work experience, and a personal interview along with other requirements. Enrollment at Union College and completion of the pre-PA prerequisites does not guarantee acceptance into the professional graduate program.

ADMISSION REQUIREMENTS

Master of Physician Assistant Studies

Admission into the graduate curriculum of the Physician Assistant Program is limited and competitive. All potential applicants should make direct inquiry to the program for detailed information. Guidelines for admission include the following:

- acceptance into Union College as a full-time student;
- successful completion of a baccalaureate degree and the prerequisite requirements listed below, or with prior approval by the PA Program, successful completion of the general education requirements of Union College and BS of Health Sciences pre-PA courses;
- cumulative GPA and science GPA (all biology and chemistry courses) of at least 2.75 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 www.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;
- for international applicants, a score of 213 or higher on the computer-based Test of English as a Foreign Language (TOEFL) of 550 or higher on the written TOEFL, and show appropriate evidence of temporary or permanent US residency, in addition to meeting specific general education requirements described below;

- transfer credits from other institutions must meet detailed scrutiny for equivalency and non-US courses must meet educational standards of the US Department of Education;
- at least 3 months (480 hrs) of work experience related to direct patient care is required, including exposure to the PA role;
- personal health insurance is required and personal liability insurance is encouraged;
- submission of complete application materials and personal interview with PA Program Admissions Committee.

All applicants to the PA program who are not Union College students should possess a baccalaureate degree prior to admission to the graduate PA program curriculum. The major focus of this baccalaureate degree may vary, but studies must include the prerequisite courses of the PA program. These courses or their equivalent must be successfully completed prior to beginning studies in the graduate MPAS program.

Union College students without a baccalaureate degree may request to be considered for admission to the PA program. This gateway allows selected students without a degree to obtain a baccalaureate degree at Union College (B.S. in Health Sciences) while completing the graduate PA curriculum. These students must also fulfill all general education requirements of Union College.

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 2.80 or higher on a 4.00 scale;
- all assigned coursework and clinical rotations must be completed;
- no PHAS course may be attempted more than twice;
- no more than two PHAS courses may be repeated.

PROGRAM SPECIFIC FEE

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

Master of Physician Assistant Studies

MAJOR REQUIREMENTS—107 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	Preventive 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 557	Electrocardiography	2
PHAS 559	Clinical Pathophysiology	4
PHAS 564	Clinical Therapeutics	3
PHAS 575	Clinical Rotations	16
PHAS 576	Clinical Rotations	16
PHAS 577	Clinical Rotations	12
PHAS 584	Pharmacology	5
PHAS 585	Master's Research Seminar	1

PREREQUISITE REQUIREMENTS—51 hours

BIOL 151, 152	General Biology	8
BIOL 345	Biology of Bacteria or BIOL 205 Microbiology (4)	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	2
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.

HEALTH SCIENCES**Bachelor of Science**

The major in Health Sciences combines courses at the undergraduate and masters levels to enable 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.

ADMISSION REQUIREMENTS

By the fall semester of the junior year, Union College students must have completed

- application for MPAS program (See Physician Assistant Studies above);

- 240 hours of health care experience;
- CHEM 151, 152 General Chemistry;
- CHEM 211 Organic Chemistry;
- BIOL 151, 152 General Biology.

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 B.S. degree);
- a cumulative grade point average of 2.75 or higher for progression and graduation.

MAJOR REQUIREMENTS-67 hours

BIOL 151, 152	General Biology	4, 4
BIOL 345	Biology of Bacteria or BIOL 205 Microbiology (4)	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 542	Applied Medical Ethics	1
PHAS 539	Christian Health Care and Bioethics	3
PHAS 559	Clinical Pathophysiology	4
PHAS 584	Pharmacology	5

PREREQUISITE REQUIREMENTS-12 hours

HHPT 215	Emergency Health Care or evidence of CPR certification	2
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3

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 assists others in achieving their God-given potential.

Goals

Specific division objectives include enabling the student to

- exhibit competency in the content area of each discipline;
- pursue advanced study;
- perform professional roles with a high degree of competency.

The Division of Human Development offers courses and experiences to prepare students for entry-level career positions, and/or for graduate study. It also offers support courses for other programs of the college.

Assessment results are available in the Division of Human Development Office and in the Office for Institutional Research.

DIVISION OFFICE

<i>Location</i>	Dick Building, Room 403
<i>Telephone</i>	402.486.2522
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<i>Web sites</i>	www.ucollege.edu/humandev www.ucollege.edu/education www.ucollege.edu/socialwork

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Trudy Ann Holmes-Caines, Ph.D., *Professor of Psychology*

Y. J. Moses, Ph.D., *Professor of Education*

Bruce Schlieder, M.S.W., *Associate Professor of Social Work*

Jacquelyn Simpson, M.A., *Instructor; George Stone Elementary School*

Susan Zimmermann, M.A., *Instructor; George Stone Elementary School*

DEGREES AND PROGRAMS

Bachelor of Science

Elementary Education (Field Endorsement) K-8
 Psychology
 Secondary Education Endorsements (See *major division* section)
 Art Education (Field) K-12 *Fine Arts*
 Biology Education (Subject) 7-12 *Science and Mathematics*
 Business Education (Subject) 7-12 *Business and Computer Science*
 Chemistry Education (Subject) 7-12 *Science and Mathematics*
 English Education (Subject) 7-12 *Humanities*
 English as a Second Language (ESL) K-12 (Supplemental) *Humanities*
 General Art (Subject) K-6 *Fine Arts*
 History Education (Subject) 7-12 *Humanities*
 Information Technology Education K-12 (Supplemental *Bus and Cptr*)
 Language Arts Education (Field) 7-12 *Humanities*
 Mathematics Education (Field) 7-12 *Science and Mathematics*
 Music Education (Field) K-12; (Subject) K-6 & K-12 *Fine Arts*
 Physical Education (Subject) 7-12 *Health Sciences*
 Physics Education (Subject) 7-12 *Science and Mathematics*
 Religious Education (Subject) 7-12 *Religion*
 Social Science Education (Field) 7-12 *Humanities*

Bachelor of Social Work

Social Work

Minors

Psychology
 Sociology

Bachelor of Education - Canadian University College Campus only

(See Joint Teacher Education Program in Graduation Requirements section and the Canadian University College Academic Calendar)

PSYCHOLOGY

Bachelor of Science

The psychology program provides students the opportunity to study basic psychological concepts from a Seventh-day Adventist Christian perspective. The psychology major is not a vocational degree. Graduates planning to become professional psychologists or counselors will need to continue on to graduate study.

The psychology program includes counseling simulations and a major research investigation. Students must also complete a minor from one of the programs in the Division of Business, Fine Arts, Humanities, Religion, or Science and Mathematics.

Program objectives include preparing the student to exhibit competence in the content area, and to pursue advanced study.

MAJOR REQUIREMENTS—34 hours

PSYC 110	Freshman Seminar in Psychology	1
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 311	Christian Counseling	3
PSYC 315	Social Psychology	3
PSYC 335	Psychological Statistics	3
PSYC 336	Research Design	3
PSYC 337	History and Systems of Psychology	3
PSYC 338	Cognitive Psychology	3
PSYC 415	Abnormal Psychology	3
PSYC 435	Current Issues in Psychology	2
PSYC 436	Senior Research	4

CONTEXTUAL REQUIREMENTS—13 hours

BIOL 111	Anatomy and Physiology	4
SOCI 105	Introduction to Sociology	3
SOCI 210	Group Dynamics	3
SOCI 315	Marriage and Family	3

Select an approved minor or supporting program (See above.)

PSYCHOLOGY**MINOR REQUIREMENTS—18 hours**

PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 337	History and Systems of Psychology	3

Select 9 hours of approved PSYC electives 9

(3 hours must be 300-400 level)

SOCIOLOGY**MINOR REQUIREMENTS—18 hours**

SOCI 105	Introduction to Sociology	3
SOCI 321	Issues of Diversity	3
SOCI 315	Marriage and Family	3

Select 9 hours of approved SOCI electives 9

(3 hours must be 300-400 level)

SOCIAL WORK**Bachelor of 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.

Goals

The social work program will

- provide a foundation of generalist *knowledge* which the student can utilize in building competent practice;
- assist students in assimilating the *values* necessary for successful social work practice;
- provide the opportunity for students to develop professional generalist practice *skills*;
- prepare graduates to enter an accredited M.S.W. program with advanced standing.

Admission to the Social Work Program

Students interested in attaining a bachelor's degree in social work will apply and be approved for candidacy status at the end of the sophomore year.

Union College social work program does not allow for the creation of credits for life experience or work experience.

Continued participation in the program is based upon

- maintenance of an overall minimum 2.00 GPA;
- minimum of 2.50 GPA in the social work (SOWK) courses;
- demonstration of oral and written communication skills, professional social work ethics and values, and capacity to function in social work settings.

Auxiliary Requirements

Social work majors are required to

- take the ACAT standardized comprehensive examination in the senior year;
- participate in program assessment survey and evaluation conference;
- take the BEAP test in the freshman and senior years;
- file a felony/misdemeanor statement regularly (previous convictions may influence program admission, field placement, and licensing decisions).

Students are encouraged to belong to

- National Association of Social Work (annual membership fee);
- Social Work Club (membership fee).

The social work program is growing and developing. For the most current information, check with the department.

MAJOR REQUIREMENTS—47 hours (A minimum grade of C is required)

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	10
SOWK 476	Field Seminar	2
	(½ hour as corequisite to each SOWK 475 registration)	
	Select 15 hours from	15
SOWK 320	Child Welfare (3)	
SOWK 322	Case Management (3)	
SOWK 345	Medical Social Services (3)	
SOWK 388	International Social Services (3)	
SOWK 389	Leadership of an NPO/NGO (3)	
SOWK 426	Field of Corrections (3)	
SOWK 428	Gerontology (3)	

SPECIFIC GENERAL EDUCATION REQUIREMENTS—21 hours

PSYC 105	Introduction to Psychology	3
PSYC 335	Psychological Statistics	3
PSYC 336	Research Design	3
SOCI 105	Introduction to Sociology	3
SOCI 210	Group Dynamics	3
SOCI 321	Issues of Diversity	3
	Select three hours from	3
PSYC 311	Christian Counseling (3)	
PSYC 415	Abnormal Psychology (3)	
SOCI 315	Marriage and Family (3)	

TEACHER EDUCATION PROGRAM**Mission**

The Union College teacher education program prepares caring, competent teachers who respond to diversity; function effectively in multiple educational settings; and help all students develop to their fullest potential.

Philosophy

To be a teacher is to share in one of the most delicate and special assignments ever given to human beings because in the teaching/learning process characters are molded for time and eternity. It is our belief that God desires humans to develop to their full potential and to do so is possible only when the mental, physical, social, and spiritual capabilities are harmoniously developed. Additionally, we feel that pedagogical knowledge, skills, and disposition are necessary components for our candidates. Therefore, we believe that an effective teacher education program must provide for its candidates opportunities which foster the development of these components.

Purpose and Goals

The program prepares developers of human potential who demonstrate academic excellence, healthful living, professional practice, spiritual and social caring in their own lives, and who are committed to fostering such growth in the lives of their students in multiple educational settings.

Teacher Education Program Conceptual Framework

- **Mental:** Because teachers must initiate others into the world of knowledge, they themselves must possess knowledge.
- **Physical:** Because teachers must instruct others in the benefits of living a healthy lifestyle, they themselves must practice healthful living.
- **Social:** Because teachers must instill in others the ideas inherent in a political democracy and the ideals from which they are derived, they themselves must possess a social conscience.
- **Spiritual:** Because teachers must help persons develop an understanding of truth, beauty and justice against which to judge behaviors, they themselves must possess a desire to know truth.
- **Planning:** Because teachers must provide for the learning success of diverse student populations, they must possess the skills to plan wisely.
- **Instruction:** Because teachers must increase the academic achievement and learning skills of their students, they must be able to implement specific instructional procedures which will lead to student engagement and increased academic achievement.
- **Management:** Because teachers must provide positive learning environment, they must be able to establish and maintain work systems for organizing and directing purposeful action in classrooms.
- **Assessment:** Because teachers must ensure that learning takes place in the classroom, they must possess skills to effectively measure achievement levels of outcomes.

ELEMENTARY EDUCATION

Bachelor of Science

MAJOR REQUIREMENTS—60 hours (*A minimum grade of C is 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 445 Reading Methods K-8	4
EDUC 446 Reading Assessment	2
EDUC 457 Methods in Language Arts K-8	4
EDUC 458 Methods in Religion, Science and Social Studies K-8	4
EDUC 465 Math Methods and Materials K-8	3
EDUC 475 Student Teaching	14
EDUC 476 Content Reading and Writing	2
ART 215 School Art	2
MUED 347 Music in the Elementary School	2

PSYC 215 Developmental Psychology	3
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SPECIFIC GENERAL EDUCATION REQUIREMENTS–41 hours

BIOL 102 Environment and Life Science	3
CHEM 101 Introductory Inorganic Chemistry	4
CPTR 220 Microcomputer Applications	3
ENGL 236 Approaches to Literature: World	3
GEOG 137 Introductory Geography	3
or GEOG 227 World Regional Geography (3)	
HIST 157 The West and the World	3
HIST 255 Issues in Early American History	3
HIST 315 Economic History of the U.S.	3
or HIST 455 Recent American History (3)	
MATH 111 College Algebra	3
PHYS 111 Principles of Physics	4
PLSC 205 American Government	3
RELB 455 Prophetic Guidance in the Advent Movement	3
RELT 141 Christian Beliefs	3

SECONDARY EDUCATION ENDORSEMENTS**PROFESSIONAL EDUCATION–39 hours (A minimum grade of C is required)**

EDUC 125 Introduction to Teaching	3
EDUC 218 Philosophy of Education	3
EDUC 225 Seminar in Educ 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	14
EDUC 476 Content Reading and Writing	2
EDUC 485 Issues in Education	1
PSYC 215 Developmental Psychology	3

SPECIFIC GENERAL EDUCATION REQUIREMENTS–15 hours

CPTR 220 Microcomputer Applications	3
ENGL 236 Approaches to Literature: World	3
HIST 255 Issues in Early American History	3
or HIST 315 Economic History of the U.S. (3)	
or HIST 455 Recent American History (3)	
RELB 455 Prophetic Guidance in the Advent Movement	3
RELT 141 Christian Beliefs	3

MAJOR REQUIREMENTS

Number of hours dependent upon the content area(s)--See list of field and subject endorsements below.

Field Endorsements**Subject Endorsements**

Art Education K-12	Biology Education 7-12
Language Arts Education 7-12	Business Education 7-12
Mathematics Education 7-12	Chemistry Education 7-12
Music Education K-12	English Education 7-12
Social Science Education 7-12	General Art Education K-6
	History Education 7-12
	Music Education *K-6 and K-12
	Physical Education 7-12
	Physics Education 7-12
	Religious Education 7-12

Supplemental Endorsements

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

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

POLICIES AND PROCEDURES

Admission to the teacher education program

Admission to the teacher education program is not automatic. The checkpoints of provisional admission, Candidacy Committee meeting, student teaching admission and full admission are carefully monitored by advisors and the Teacher Preparation Committee (TPC).

PROVISIONAL ADMISSION

Permission to enter teacher preparation

- Students who wish to enroll in the teacher preparation program are required to apply for provisional admission to the Teacher Preparation Committee (TPC) during EDUC 125 Introduction to Teaching, generally taken during the freshman year. Transfer students should apply at the division office at the time of their first registration at the college.
- Students must
 - apply for provisional admittance during the EDUC 125 Introduction to Teaching course;
 - provide evidence of a GPA of 2.50 and no grade lower than C (2.00) in professional education or major field;
 - sign a denial of felony/misdemeanor statement;
 - have no incomplete grades;
 - complete the requirements of EDUC 125 Introduction to Teaching which include
 - three recommendations giving evidence of moral, ethical, and professional character; one from a current or former residence hall dean or a pastor, one from a teacher and one from a work supervisor;
 - completion of 20 clock hours of field experience;

- completion of an autobiographical sketch which includes a statement of career goals and rationale for requesting admission into the program.

The above elements will be examined by the Unit Faculty who will then recommend to the TPC for provisional acceptance or denial of admission into the program.

Candidates must move from provisional admission to full admission status within three academic years, or must again apply for provisional admission by repeating the previous steps.

If at any time the ending semester cumulative GPA falls below 2.50 or a grade below a *C* (2.00) in any EDUC or content course required for the endorsement major, the teacher candidate may not enroll for further professional education classes until the GPA is raised to 2.50 or above, the class is retaken, or permission is granted by the TPC.

FULL ADMISSION

Permission to enter upper division professional education classes

Students who have been provisionally admitted within the past three years and who wish to continue in teacher preparation must appear before the Candidacy Committee, usually during the spring semester of the sophomore year. The Candidacy Committee will be made up of the student's advisor(s), a member of the education faculty and, if the student desires, a peer.

A student eligible for Candidacy must

- complete an application for full admission and submit it to the Candidacy Committee by February 15;
- maintain a GPA of 2.50 or above with no grade lower than *C* (2.00) in professional education and major courses;
- have no incomplete grades;
- pass the Pre-Professional Skills Test (PPST) with minimal scores of Reading 170, Mathematics 171, and Writing 172 as required by the State of Nebraska;
- write a detailed plan showing how all remaining classes are scheduled to guarantee successful completion of the program;
- complete a portfolio with a rating of 2.0 or above on each outcome.
- provide a recommendation from content area division(s) (*Secondary Education only*);
- sign a denial of felony/misdemeanor statement.

The Candidacy Committee will review all records and schedules, discuss goals and character expectations, and recommend to the TPC for acceptance or denial of the candidate to full admission status.

Each Spring the Teacher Preparation Committee will

- review the recommendation of the Candidacy Committees;

- review candidate's progress and vote to confer or deny full admission;
- report decision to the candidate and, if denial is voted, a written explanation of cause will be given to the candidate;
- review the candidate's GPA.

If at any time the ending semester cumulative GPA falls below 2.50 or a grade below a *C* (2.00) in any EDUC or content course required for the endorsement major, the teacher candidate may not enroll for further professional education classes until the GPA is raised to 2.50 or above, the class is retaken, or permission is granted by the TPC.

Failure to gain Full Admission to the program by the end of the spring term of year two may significantly delay a student's progress through the program.

ADMISSION TO STUDENT TEACHING

By April 30, prior to the student teaching semester/year, the candidate must review the following criteria with his/her advisor to ensure that these requirements have been met.

The student must

- complete a Student Teaching Application;
- maintain a GPA of 2.50 or above with no grade lower than *C* (2.00) in professional or major courses,
- have no incomplete grades;
- sign a denial of felony/misdemeanor statement;
- provide two recommendations that show evidence of maintenance of moral and ethical standards;
- provide evidence of a physical examination, including a TB test result, during the past six months;
- complete a minimum of 100 clock hours of field experience;
- complete at least 80% of course work in major area(s) *Secondary Education candidates only*;
- complete 100% of course work other than senior professional education courses *Elementary Education Candidates Only*;
- complete a portfolio with rating of 2.0 or above on each outcome.

The Executive Committee will examine all evidence, review progress, and recommend to the TPC approval or denial of the application to student teach.

The TPC will vote and report its decision to the student teacher candidate. If denial is voted, a written explanation of cause will be given to the candidate.

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. This is not to be construed to abridge students' right to graduate under any bulletin in force during the

time they are in continuous residence as defined in the current bulletin. Please note that while the student teaching requirement for a field endorsement or for one subject endorsement is 14 semester hours, two or more field endorsements require 10 semester hours per endorsement.

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 (field or subject areas) in harmony with the pertinent "approved program" on file.

The teacher education program may selectively accept lower division 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, 20 for secondary and 24 for elementary shall be in Education. Exceptions to this policy may be made by action of the Teacher Preparation Committee.

Division of Humanities

Mission

The Division of Humanities prepares students for a lifetime of meaningful interaction with their world. Our disciplines focus on refining students' ability to: use language for utilitarian and aesthetic purposes; understand and create patterns of meaning through archetype, symbol, and metaphor in poetry and; keep abreast of developments in the world through journalism; enhance their enterprises through public relations; and understand the present in light of the past.

Language records humanity's past endeavors, renders human enterprise possible through verbal and written communications, and joins far-flung peoples through the study of the modern languages. Human imagination also transcends language, expressing itself also in patterns of gesture, motion, and nuance of expression in the dramatic arts.

Goals

Students obtaining degrees from the Division of Humanities will be prepared to

- pursue competently professions in history, social science, English, communication, institutional development and international studies;
- pursue successfully graduate study in humanities-related fields;
- serve humanity intellectually, socially and spiritually;
- live rich, full, imaginative lives, glorifying the Creator who endowed us with a reflection of His own attributes.

Assessment results are available in the Division of Humanities Office and in the Office for Institutional Research.

DIVISION OFFICE

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Bruce Forbes, M.F.A., *Associate Professor of Art and Graphic Design*

Laurel McClelland, M.A., *Assistant Professor of ESL*

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Michelle Velázquez Mesnard, M.S., *Associate Professor of Communication*
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Mark Robison, M.A., *Associate Professor of English*
Elizabeth Rodacker-Borgens, M.A., *Associate Professor of ESL*
Malcolm Russell, Ph.D., *Professor of Economics and History*
Karl-Heinz Schroeder, M.A., *Professor of History*
Peggy Wahlen, M.L.S., M.A., *Associate Professor of English and ESL Director*

DEGREES AND PROGRAMS

Bachelor of Arts

Communication

*Emphases: Journalism
Public Relations*

English

*Emphases: Literature
Writing and Speaking*

French

German

History

International Studies

Social Science

Spanish

Bachelor of Science

English Education, Secondary Subject Endorsement

History Education, Secondary Subject Endorsement

Institutional Development

International Studies

Language Arts Education, Secondary Field Endorsement

Social Science Education, Secondary Field Endorsement

Associate in Science

English as a Second Language

Minor

Communication

Drama

English

French

German

History

Pre-Law

Social Science

Spanish

English as a Second Language Program

COMMUNICATION

The communication program is designed for the student who desires a broad background in communication with specialization in journalism, public relations.

Communication graduates are able to

- communicate ideas clearly, accurately and effectively in written and spoken language, while addressing a variety of audiences for different purposes;
- thoroughly understand the various forms of the mass media and work effectively with the media in a variety of settings and capacities including journalism/editorial and public relations;
- demonstrate a clear understanding and practice of Christian ethics in the field of communication.

Portfolio Requirement

All communication 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. More information is available from communication advisors.

COMMUNICATION CORE —16 hours		
COJR 151	Photography	4
COJR 221	Reporting	3
COMM 125	Media and Meaning	3
GRPH 150	Introduction to Graphic Arts	3
GRPH 254	Publication Design	3

COMMUNICATION

Journalism Emphasis

Bachelor of Arts

MAJOR REQUIREMENTS—42 hours

COMMUNICATION CORE	16
COJR 245	Editing 3
COJR 348	Press History, Ethics and Law 4
COJR 457	Magazine Writing 3
COJR 458	In-Depth Reporting 3
COJR 474	Journalism Practicum 4
COMM 490	Communicators' Forum 1
<i>Select eight or more hours from</i>	8
COMM 335	Video Production I (3)
COMM 435	Video Production II (3)
COMM 465	Interpersonal Communication (3)
COMM 486	Senior Communication Project (2)
COPR 316	Advertising Practices (3)
COPR 376	Promotional Copywriting (3)

CONTEXTUAL REQUIREMENTS—12 hours

HIST 255	Issues in Early American History	3
<i>Select nine hours from</i>		9
BUAD 138	Dynamics of Business (3)	
BUAD 425	Business Communications (3)	
ECON 236	Principles of Macroeconomics (3)	
GEOG 137	Introductory Geography (3)	
PLSC 205	American Government (3)	
SOCI 105	Introduction to Sociology (3)	

Recommended

COPR 332	Rhetoric and Persuasion	3
ENGL 378	Career Writing	3
GRPH 460	Prepress Production	3

COMMUNICATION*Public Relations Emphasis***Bachelor of Arts****MAJOR REQUIREMENTS—44 hours**

COMMUNICATION CORE		16
COMM 365	Institutional Development	3
COMM 465	Interpersonal Communication	3
COMM 490	Communicators' Forum	1
COPR 241	Public Relations Principles	3
COPR 376	Promotional Copywriting	3
COPR 445	Applied Public Relations	3
COPR 475	Public Relations Practicum	4
<i>Select eight or more hours from</i>		8
COJR 245	Editing (3)	
COMM 335	Video Production I (3)	
COMM 435	Video Production II (3)	
COMM 486	Senior Communication Project (2)	
COPR 316	Advertising Practices (3)	
COPR 332	Rhetoric and Persuasion (3)	

CONTEXTUAL REQUIREMENTS—9 hours

<i>Select nine hours from</i>		9
BUAD 138	Dynamics of Business (3)	
BUAD 425	Business Communications (3)	
ECON 235	Principles of Microeconomics (3)	
GRPH 358	Typography (3)	
GRPH 460	Prepress Production (3)	
GRPH 464	Advertising Design (3)	
MRKT 327	Marketing (3)	
PSYC 105	Introduction to Psychology (3)	
SOCI 105	Introduction to Sociology (3)	

Recommended

COJR 457	Magazine Writing	3
ENGL 378	Career Writing	3

COMMUNICATION**MINOR REQUIREMENTS—18-19 hours**

COJR 221	Reporting	3
COMM 125	Media and Meaning	3
GRPH 150	Introduction to Graphic Arts	3
<i>Select nine or more hours from the following:</i>		9

(3 hours must be 300 or 400 level)

COJR 151	Photography (4)	
COJR 245	Editing (3)	
COJR 457	Magazine Writing (3)	
COJR 458	In-Depth Reporting (3)	
COMM 335	Video Production I (3)	
COMM 486	Senior Communication Project (2)	
COPR 241	Public Relations Principles (3)	
COPR 316	Advertising Practices (3)	
COPR 376	Promotional Copywriting (3)	
GRPH 254	Publication Design (3)	

DRAMA**MINOR REQUIREMENTS—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

ENGLISH

Students with a major in English will

- clearly demonstrate proficiency in composition;
- clearly demonstrate an understanding of and competence in composition pedagogy;
- clearly relate authors' major contributions to relevant portions of the global village experience and to the Seventh-day Adventist Christian experience;
- clearly relate the authors and works to pertinent areas of literary criticism social, psychological, historical, biographical and archetypal.

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 senior assessment exam. More information is available from English advisors.

Auxiliary Requirement

English majors must work as tutors in the Writing Center or ESL lab at least one semester.

ENGLISH CORE—16 hours

COMM 355	Advanced Speech and Oral Interpretation	3
ENGL 235	Approaches to Literature: British and American	3
ENGL 277	Grammar and Linguistics	4
ENGL 378	Career Writing	3
ENGL 379	Creative Writing	3

ENGLISH*Literature Emphasis***Bachelor of Arts**

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

Specific general education requirements:

ENGL 236	Approaches to Literature: World	3
RELB 366	Biblical Literature	3
	<i>Select one American history course</i>	3

MAJOR REQUIREMENTS—31 hours

ENGLISH CORE	16
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<i>Select five courses from</i>	15
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ENGL 345	Studies in Early American Literature (3)
ENGL 348	Studies in British Literature (3)
ENGL 352	Women and Minority Writers (3)
ENGL 436	Studies in American Literature (3)
ENGL 445	Early British Literature (3)
ENGL 475	Twentieth-Century Writers (3)
ENGL 485	Advanced Studies Seminar (3)

ENGLISH*Writing and Speaking Emphasis***Bachelor of Arts**

Designed for students interested in law, medicine or free-lance writing.

Specific general education requirements

RELB 366	Biblical Literature	3
	<i>Select one American history course</i>	3

MAJOR REQUIREMENTS–31 hours		
ENGLISH CORE		16
COJR 457	Magazine Writing	3
COMM 125	Media and Meaning	3
COPR 332	Rhetoric and Persuasion	3
<i>Select two courses from</i>		6
ENGL 345	Studies in Early American Literature (3)	
ENGL 348	Studies in British Literature (3)	
ENGL 352	Women and Minority Writers (3)	
ENGL 436	Studies in American Literature (3)	
ENGL 445	Early British Literature (3)	
ENGL 475	Twentieth-Century Writers (3)	
ENGL 485	Advanced Studies Seminar (3)	
ENGL 499	Seminar in Non-Western Literature (3)	

ENGLISH

MINOR REQUIREMENTS–19 hours		
ENGL 277	Grammar and Linguistics	4
ENGL 345	Studies in Early American Literature or ENGL 436 Studies in American Literature (3)	3
<i>Select twelve hours from</i>		12
ENGL 235	Approaches to Literature: British and American (3)	
ENGL 236	Approaches to Literature: World (3)	
ENGL 348	Studies in British Literature (3)	
ENGL 352	Women and Minority Writers (3)	
ENGL 366	Biblical Literature (3)	
ENGL 445	Early British Literature (3)	
ENGL 475	Twentieth-Century Writers (3)	
ENGL 499	Seminar in Non-Western Literature (3)	

ENGLISH EDUCATION

Secondary Subject Endorsement

Bachelor of Science

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;
- experience in the integration of faith and learning, particularly in the teaching of imaginative literature.

Auxiliary Requirements

English education majors are required to

- tutor in the Writing Center or ESL lab a minimum of one semester;
- serve on *The Clock Tower* staff for a minimum of one semester;
- direct, produce, and/or coordinate curricular and extra-curricular school speech and theater activities.

Specific general education requirement:

RELB 366	Biblical Literature	3
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TEACHING MAJOR REQUIREMENTS—33 hours

Language

COPR 332	Rhetoric and Persuasion	3
ENGL 277	Grammar and Linguistics	4

Composition

COJR 457	Magazine Writing	3
ENGL 112	College Writing II	3
ENGL 378	Career Writing	3
ENGL 379	Creative Writing	3

Literature

EDUC 357	Literature for Children and Adolescents	2
ENGL 235	Approaches to Literature: British and American	3
ENGL 236	Approaches to Literature: World	3
ENGL	One British Literature (300 level or above)	3
ENGL	One American Literature (300 level or above)	3

Recommended	Beginning College Modern Language	6
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PROFESSIONAL EDUCATION—51 hours

EDUC 412	Methods: Language Arts Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

It is strongly recommended that every student finish requirements for at least *two subject* endorsements (see Human Development Division--Secondary Education Endorsements).

ENGLISH AS A SECOND LANGUAGE (ESL)

The ESL program welcomes English language learners from around the world. The English as a Second Language program is designed to equip English learners with language skills sufficient for academic work on the college or university level. The program immerses students in the culture and life of America and provides opportunities to build skills in speaking, listening, reading, grammar and writing. These skill areas are then reinforced in computer and listening labs. Students in the ESL program may choose a course of study leading to an Associate in Science degree with an emphasis in English as a Second Language. An enriching cultural, social, spiritual and academic experience can be received as the following policies are observed.

Placement

The English as a Second Language curriculum consists of three levels of instruction, from beginning to advanced. Students whose first language is not English are tested when they arrive to determine the level at which they should begin studies. Students with a current (within the last six months) minimum institutional TOEFL score of 550 with no single score lower than 52, and a passing score (at least 4) on the test of written English will be exempt from ESL requirements. (International TOEFL scores 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.

Dual Enrollment

Dual enrollment (taking 100-level or above courses concurrently with ESL courses) depends on students' language skills (475 TOEFL minimum). Continuing dual enrollment depends on a minimum grade of *C* (2.00) in each ESL course taken during the most recent semester. If students fall below this standard, they must return to full-time ESL 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.

ESL Suspension/Probation Policy

ESL students whose overall GPA in ESL 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 ESL

An ESL student in good standing (a minimum grade of *C* [2.00] in each ESL course taken during the current semester) may exit the ESL program by achieving a

minimum TOEFL score of 550, with no single score lower than 52, including a passing score (at least 4) on a test of written English or by achieving a minimum TOEFL score of 525, with no single score lower than 52, plus a passing score on an essay evaluated by Union College writing teachers. Some departments allow only the minimum of 550 TOEFL option.

Financial information regarding tuition fees, medical insurance, books and supplies as well as other information can be obtained by addressing:

Admissions or ESL
Union College
3800 South 48th Street
Lincoln NE 68506

ENGLISH AS A SECOND LANGUAGE

Associate in Science

Prerequisites for these courses is a minimum TOEFL score of 450. A TOEFL score of 550 or higher is required for graduation from this program. As in other associate degrees, a minimum grade of C (2.00) is required for all emphasis and contextual courses 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 in Science degree. (See Degrees and Requirements)

EMPHASIS REQUIREMENTS-22 hours

COMM 105	Public Speaking	2
ENGL 112	College Writing II	3
ENGL 235	Approaches to Literature: British and American or ENGL 236 Approaches to Literature: World (3)	3
ENGL 277	Grammar and Linguistics	4
ENSL 132	Grammar III or ENSL 187 TOEFL Preparation (3)	3
ENSL 134	Reading III or ENSL 144 Reading IV(3)	3
ENSL 136	Writing III or ENSL 146 Writing IV (2)	2
ENSL 138	Speaking/Listening III	2

CONTEXTUAL REQUIREMENTS-9 hours

<i>Select three courses from</i>		9
COMM 125	Media and Meaning (3)	
EDUC 302	ESL Teaching Methodology and Curriculum (3)	
ENGL ____	Literature elective (3)	
HIST 255	Issues in American History (3)	
PLSC 205	American Government (3)	
SOCI 105	Introduction to Sociology (3)	

ENGLISH AS A SECOND LANGUAGE EDUCATION**Supplemental Secondary Endorsement** (Requires another endorsement)**Bachelor of Science****MAJOR REQUIREMENTS-18 HOURS**

EDUC 302	ESL Teaching Methodology and Curriculum	3
EDUC 476	Content Reading and Writing	2
ENGL 202	Language and Culture	1
ENGL 277	Grammar and Linguistics or ENSL 187 English Linguistics (3)	4
ENGL 303	Second Language Acquisition	3
ENGL 304	Second Language Assessment	2
SOCI 321	Issues of Diversity	3

PROFESSIONAL EDUCATION-48 hours

Professional Education	48
Specific General Education Requirements	12

Must accompany another teaching major to qualify for a Nebraska teaching certificate. (See Human Development Division—Secondary Education Endorsements.)

FRENCH**Bachelor of Arts**

This modern language major is designed for students who want fluent speaking skills in French along with experience and an appreciation of the culture, history and literature associated with the language. The major is obtained through participating in the Adventist Colleges Abroad program by living and studying for a minimum of two semesters on an ACA campus. (See Learning Resources section.) This major is usually taken in conjunction with some other major.

Students are expected to have completed six semester hours, or the beginning and intermediate-level courses, in the language before commencing the ACA portion of the program. The intermediate-level course counts toward the major.

MAJOR REQUIREMENTS—30 hours

Thirty semester hours of courses with FREN prefix beyond 102, twelve hours of which must be at or above the 300-level, including

FREN	History and/or civilization	2-3
FREN	Literature (300 level or above)	3
FREN	Language or grammar (300 level or above)	3
FREN	French electives	21-22

FRENCH**Minor**

The French minor is obtained through participating in the Adventist Colleges Abroad program by living and studying for at least a semester on an ACA campus in Europe. (See Learning Resources section.)

MINOR REQUIREMENTS—20 hours

Twenty semester hours of courses with FREN prefix beyond 102. To include, at or above the 300-level, two of the following: 6

FREN	History and/or civilization (3)	
FREN	Language or grammar (3)	
FREN	Literature (3)	
FREN	French electives	14

GERMAN**Bachelor of Arts**

This modern language major is designed for students who want fluent speaking skills in German along with experience and an appreciation of the culture, history and literature associated with the language. The major is obtained through participating in the Adventist Colleges Abroad program by living and studying for a minimum of two semesters on an ACA campus in Europe. (See Learning Resources section.) This major is usually taken in conjunction with some other major.

Students are expected to have completed six semester hours, or the beginning and intermediate-level courses, in the language before commencing the ACA portion of the program. The intermediate-level course counts toward the major.

MAJOR REQUIREMENTS—30 hours

Thirty semester hours of courses with GRMN prefix beyond 102, twelve hours of which must be at or above the 300-level, including

GRMN	History and/or civilization	2-3
GRMN	Literature (300 level or above)	3
GRMN	Language or grammar (300 level or above)	3
GRMN	German electives	21-22

GERMAN**Minor**

The German minor is obtained through participating in the Adventist Colleges Abroad program by living and studying for at least a semester on an ACA campus in Europe. (See Learning Resources section.)

MINOR REQUIREMENTS—20 hours

Twenty semester hours of courses with GRMN prefix beyond 102. To include, at or above the 300-level, two of the following: 6

GRMN	History and/or civilization (3)	
GRMN	Language or grammar (3)	
GRMN	Literature (3)	
GRMN	German electives	14

HISTORY

Bachelor of Arts

Student graduating with a degree in history will

- have a general knowledge of world history with a detailed knowledge of American and/or European history;
- be adequately prepared for graduate or law school;
- have the basic skills needed to undertake independent study and research and the ability to clearly write the results of that research;
- have the ability to analyze, with a Christian world-view, current events in light of the past.

Assessment will be accomplished through

- the history capstone course (HIST 485) in which students will research and write a historiographical paper;
- taking either the ETS history test or a departmental knowledge test.

MAJOR REQUIREMENTS–30 hours

HIST 157	The West and the World	3
HIST 255	Issues in Early American History	3
HIST 485	Seminar in History	3
<i>Select 21 hours from</i>		21
HIST 307	History of Bible Times (3)	
HIST 315	Economic History of the U.S. (3)	
HIST 335	Civil War and Reconstruction, 1840-1877 (3)	
HIST 349	Medieval Civilization (3)	
HIST 378	Modern Europe (3)	
HIST 428	Renaissance and Reformation (3)	
HIST 445	American Frontier (3)	
HIST 455	Recent American History (3)	
HIST 457	History of Rome (3)	

CONTEXTUAL REQUIREMENTS–18 hours

BIOL/SCNC 377	Origins	3
GEOG 137	Introductory Geography or GEOG 227 World Regional Geography (3)	3
PLSC 205	American Government	3
PLSC 327	Comparative Governments	3
<i>Select six hours from humanities or social science 300-400 level:</i>		6

HISTORY

MINOR REQUIREMENTS–18 hours

HIST 157	The West and the World	3
HIST 255	Issues in Early American History	3
HIST	Choose HIST 300 level and above	12

HISTORY EDUCATION**Secondary Subject Endorsement****Bachelor of Science**

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 modern 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;
- 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 in which the student lives;
- 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.

TEACHING MAJOR REQUIREMENTS—30 hours

HIST 157	The West and the World	3
HIST 255	Issues in Early American History	3
HIST 485	Seminar in History	3
<i>Select 21 hours from</i>		21
HIST 307	History of Bible Times (3)	
HIST 315	Economic History of the U.S. (3)	
HIST 335	Civil War and Reconstruction, 1840-1877 (3)	
HIST 349	Medieval Civilization (3)	
HIST 378	Modern Europe (3)	
HIST 428	Renaissance and Reformation (3)	
HIST 445	American Frontier (3)	
HIST 455	Recent American History (3)	
HIST 457	History of Rome (3)	

CONTEXTUAL REQUIREMENTS—9 hours

GEOG 137	Introductory Geography or GEOG 227 World Regional Geography (3)	3
PLSC 205	American Government	3
PLSC 327	Comparative Government	3

Recommended Modern Language (6)

PROFESSIONAL EDUCATION—51 hours

EDUC 415	Methods: Social Science and Religious Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

It is strongly recommended that every student finish requirements for at least *two subject* endorsements (see Human Development Division--Secondary Education Endorsements).

INSTITUTIONAL DEVELOPMENT**Bachelor of Science**

Designed for those who want a broad, interdisciplinary background for a career in philanthropy and institutional development.

Specific general education requirement

RELT 305	Christian Ethics	3
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MAJOR REQUIREMENTS—32 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 and Persuasion	3
MRKT 327	Marketing	3
PSYC 105	Introduction to Psychology	3
SOCI 105	Introduction to Sociology	3

CONTEXTUAL REQUIREMENTS—27 hours

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)
PSYC 335	Psychological Statistics (3)

Select 9 hours from 9

BUAD 425	Business Communications (3)
COMM 125	Media and Meaning (3)
COMM 465	Interpersonal Communication (3)
COPR 316	Advertising Practices (3)
COPR 376	Promotional Copywriting (3)
ENGL 378	Career Writing (3)
GRPH 254	Publication Design (3)

GRPH 358	Typography (3)	
GRPH 460	Prepress Production (2)	
<i>Select 9 additional hours from either group above or a combination</i>		9

INTERNATIONAL STUDIES

This interdisciplinary program is sponsored jointly by the Division of Business and the Division of Humanities.

Students with a major in international studies will be prepared for careers in

- global service for the church;
- international business corporations, government service;
- consulting in international relations;
- international law, international travel;
- other enterprises requiring background in global issues.

Assessment will be accomplished through

- success of job placement for the graduates;
- focus groups of humanities majors, including international studies majors;
- questionnaires given to alumni who earned majors from the humanities division, including international studies majors.

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 Divisions of Business and Humanities. At least 15 hours of the concentration must be at or above the 300 level.

INTERNATIONAL STUDIES

Bachelor of Arts

Specific general education requirement:

RELT 305	Christian Ethics	3
RELT 147	World Religions	3

MAJOR REQUIREMENTS—48 hours

_____ 201, 202	Intermediate Foreign Language	3, 3
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
SOCI 221	Issues of Diversity	3
<i>Select an area of concentration (see above):</i>		20

CONTEXTUAL REQUIREMENTS–12 hours

<i>Select 12 hours from</i>		12
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)	

INTERNATIONAL STUDIES**Bachelor of Science***Specific general education requirement:*

RELT 305	Christian Ethics	3
RELT 147	World Religions	3

MAJOR REQUIREMENTS–54 hours

_____ 101, 102	Beginning Foreign Language	3, 3
BUAD 445	Business Law	4
COPR 241	Public Relations Principles	3
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
GEOG 227	World Regional Geography	3
HIST 378	Modern Europe	3
MRKT 327	Marketing	3
PLSC 327	Comparative Governments	3
SOCI 221	Issues of Diversity	3
<i>Select an area of concentration (see BA):</i>		20

CONTEXTUAL REQUIREMENTS–12 hours

<i>Select 12 hours from</i>		12
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)	

* Available through Nebraska Wesleyan University or the University of Nebraska-Lincoln.

LANGUAGE ARTS EDUCATION

Secondary Field Endorsement

Bachelor of Science

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;
- experience in the integration of faith and learning, particularly in the teaching of imaginative literature.

Specific general education requirement:

RELB 366	Biblical Literature	3
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TEACHING MAJOR REQUIREMENTS—66 hours

Language

COPR 332	Rhetoric and Persuasion	3
ENGL 277	Grammar and Linguistics	4

Composition

COJR 457	Magazine Writing	3
ENGL 112	College Writing II	3
ENGL 378	Career Writing	3
ENGL 379	Creative Writing	3

Speech

COMM 105	Public Speaking	2
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COMM 465	Interpersonal Communication	3
COMM 495	Directed Study in Speech	2
<i>Literature</i>		
EDUC 357	Literature for Children and Adolescents	2
ENGL 235	Approaches to Literature: British and American	3
ENGL 236	Approaches to Literature: World	3
ENGL 352	Women and Minority Writers	3
ENGL 499	Seminar in Non-Western Literature	3
ENGL	British literature 300 level or above	3
ENGL	American literature 300 level or above	3
<i>Mass Media</i>		
COMM 125	Media and Meaning	3
<i>Dramatic Arts</i>		
CODR 229	Play Production I	3
COMM 355	Advanced Speech and Oral Interpretation	3
<i>Journalism</i>		
COJR 221	Reporting	3
COJR 245	Editing	3
<i>Reading</i>		
EDUC 476	Content Reading and Writing	2
<i>Electives</i>		
	<i>Select three hours chosen from</i>	3
CODR 329	Play Production II (3)	
COJR 151	Photography (4)	
COJR 458	In-Depth Reporting (3)	
ENGL 345	Studies in Early American Literature (3)	
ENGL 348	Studies in British Literature (3)	
ENGL 436	Studies in American Literature (3)	
ENGL 445	Early British Literature (3)	
ENGL 475	Twentieth-Century Writers (3)	
ENGL 485	Advanced Studies Seminar (3)	
GRPH 150	Introduction to Graphic Arts (3)	
GRPH 358	Typography (3)	

Auxiliary Requirements

Language arts majors are required to

- tutor in the Writing Center or ESL lab a minimum of one semester;
- serve on *The Clock Tower* staff for a minimum of one semester;
- direct, produce and/or coordinate curricular and extracurricular school speech and theater activities.

PROFESSIONAL EDUCATION—51 hours

EDUC 412	Methods: Language Arts Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

(See Human Development Division--Secondary Education Endorsements)

PRE-LAW

Minor

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:

MINOR REQUIREMENTS—18 Hours

(12 hours must be 300-400 level)

Writing and Communication		3-9
COPR 332	Rhetoric and Persuasion	3
<i>Select 0-6 hours from</i>		
COMM 355	Advanced Speech and Interpretation (3)	
COMM 465	Interpersonal Communications (3)	
ENGL 378	Career Writing (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 (2)	
SOCI 210	Group Dynamics (3)	
SOCI 321	Issues of Diversity (3)	
Business, Economics and Marketing		4-10
BUAD 445	Business Law	4
<i>Select 0-6 hours from</i>		
BUAD 430	Conflict Management (3)	
BUAD 425	Business Communications (3)	
ECON 236	Principles of Macroeconomics (3)	
MRKT 333	Professional Selling (3)	

SOCIAL SCIENCE

Bachelor of Arts

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.

MAJOR REQUIREMENTS—39 hours

ECON 235	Principles of Microeconomics	3
GEOG 137	Introductory Geography	3
GEOG 227	World Regional Geography	3
HIST 157	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
PLSC 327	Comparative Governments	3
SOCI 105	Introduction to Sociology	3
	<i>Select electives from economics or sociology (300 level or above)</i>	3

SOCIAL SCIENCE

Minor—18 hours

HIST 157	The West and the World	3
HIST 255	Issues in Early American History	3
HIST	History electives (300 level or above)	3
	<i>Select three hours each from three of the following fields:</i>	9
	economics, geography, political science, and sociology.	

SOCIAL SCIENCE EDUCATION

Secondary Field Endorsement

Bachelor of Science

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.

TEACHING MAJOR REQUIREMENTS—60 hours

Anthropology - 3 hours

*ANTH Introductory Anthropology 3

Economics - 6 hours

ECON 235 Principles of Microeconomics 3

ECON 236 Principles of Macroeconomics 3

Geography - 3 hours

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

History - 24 hours

HIST 157 The West and the World 3

HIST 255 Issues in Early American History 3

HIST 485 Seminar in History 3

HIST World-European history electives 6-9

HIST American history electives 6-9

Political Science - 6 hours

PLSC 205 American Government 3

PLSC 327 Comparative Governments 3

Psychology - 3 hours

PSYC 215 Developmental Psychology 3

Sociology - 3 hours

SOCI 105 Introduction to Sociology 3

Approved Electives - 12 hours

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—51 hours

EDUC 415 Methods: Social Science Education 3

*Available through Nebraska Wesleyan University or the University of Nebraska-Lincoln.

Additional Professional Education	36
Specific General Education Requirements	12

(See Human Development Division--Secondary Education Endorsements)

SPANISH

Bachelor of Arts

This modern language major is designed for students who want fluent speaking skills in Spanish, along with experience and an appreciation of the culture, history and literature associated with the language. The major is obtained through participating in the Adventist Colleges Abroad program by living and studying for a minimum of two semesters on an ACA campus in Europe or South America. (See Learning Resources section.) This major is usually taken in conjunction with another major.

Students are expected to have completed six semester hours, or the beginning and intermediate-level courses, in the language before commencing the ACA portion of the program. The intermediate-level course counts toward the major.

MAJOR REQUIREMENTS—30 hours

Thirty semester hours of courses with SPAN prefix beyond 102, twelve hours of which must be at or above the 300-level, including

SPAN	History and/or civilization	2-3
SPAN	Literature (300 level or above)	3
SPAN	Language or grammar (300 level or above)	3
SPAN	Spanish electives	21

SPANISH

Minor

The minor is obtained through participating in the Adventist Colleges Abroad program by living and studying for at least a semester on an ACA campus in Europe or South America. (See Learning Resources section.)

MINOR REQUIREMENTS—20 hours

Twenty semester hours of courses with SPAN prefix beyond 102. To include, at or above the 300-level, two of the following: 6

SPAN	History and/or civilization (3)	
SPAN	Language or grammar (3)	
SPAN	Literature (3)	
SPAN	Spanish electives	14

Division of Religion

Mission

The Division of Religion promotes spirituality in every aspect of campus life and offers the opportunity for training in Christian leadership to as many students as possible. Its focus extends beyond those majoring in theology or religion as academic disciplines and enriches the lives of all who come under its influence..

Specific objectives for the student are to guide students toward

- a personal commitment to Jesus Christ and a growing likeness to Him in character;
- an appreciation of the Bible as the written word of God, and an ability to determine the meaning of the text in its original setting and to derive principles from it for guidance in modern living;
- a personal religious philosophy which will serve as the basis for a durable Christian home and apply to contemporary society;
- an understanding of Seventh-day Adventist beliefs as a system of truth and a clear perception of how it relates to the religious views of other Christians-a perspective designed to strengthen the student's sense of mission while promoting the concept that all people are brothers and sisters to be loved and served.

The Division of Religion prepares its majors for Christian leadership positions with training predicated upon God's plan of salvation for the human race within the context of the beliefs, educational philosophy and practices of the Seventh-day Adventist church.

Goals

The Division of Religion prepares its graduates to

- attain competency in the skills required in a successful pastoral ministry;
- attain mastery of the academic content areas required in the major;
- develop professionalism as defined by diligence at work and professional appearance;
- pursue advanced studies.

Assessment results are available in the Division of Religion Office and in the Office for Institutional Research.

DIVISION OFFICE

<i>Location</i>	Dick Building, Room 412
<i>Telephone</i>	402.486.2526
<i>E-Mail</i>	sycase@ucollege.edu
<i>Web site</i>	www.ucollege.edu/religion

FACULTY

Sylvester Case, M.A., M.Div., Interim Chair, *Associate Professor of Religion*
 Robert Fetrick, M.Div., *Associate Professor of Religion*
 Anthony Minear, M.Div., *Associate Professor of Religion*
 Tom Shepherd, Ph.D., *Professor of Religion*

DEGREES AND PROGRAMS
<p>Bachelor of Arts Pastoral Care Religion</p> <p>Bachelor of Arts in Theology Theology</p> <p>Bachelor of Science Religious Education, Secondary Subject Endorsement</p> <p>Minor Biblical Languages Missions and Evangelism Religion Youth Ministry</p>

PASTORAL CARE

Bachelor of Arts

The pastoral care major prepares students for a supportive role in ministry. It provides skills in evangelism, working with groups and ministering to people in the community. The Pastoral Care major is a blend of courses from the theology and social work majors, along with contextual studies.

The pastoral care major prepares students to

- make a full commitment to Jesus Christ and the message and mission of the Seventh-day Adventist Church;
- exhibit competency in the content areas of the major;
- accept a position into a supportive role in ministry;
- lead support and fellowship groups for spiritual nurture and engage in outreach;
- complete either a social work major or a theology major by taking additional course work.
- pursue graduate studies in counseling.

MAJOR REQUIREMENTS—65 hours

RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Life and Teachings of Jesus	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel	2

RELB 349	Revelation	3
RELB 455	Prophetic Guidance in the Advent Movement	3
RELL 271, 272	Beginning New Testament Greek	4, 4
RELP 321, 322	Homiletics	2, 2
RELP 361,362	Church Leadership	2, 2
RELP 465	Personal Witnessing	3
RELP 466	Public Evangelism	3
RELP 285, 485	Colloquium in Ministry (1/4 hour credit each semester at Union)	2
RELT 141	Christian Beliefs	3
SOCI 210	Group Dynamics	3
SOCI 321	Issues of Diversity	3
SOWK 227	Human Behavior in the Social Environment I	3
SOWK 228	Human Behavior in the Social Environment II	3
SOWK 320	Child Welfare	3
SOWK 336	Social Work Practice I	3
SOWK 337	Social Work Practice II	3

CONTEXTUAL REQUIREMENTS–15 hours

PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 311	Christian Counseling	3
SOCI 105	Introduction to Sociology	3
SOCI 315	Marriage and Family	3

Recommended

EDUC 218	Philosophy of Education (3)
MUHL 315	Music and Christian Worship (2)
RELT 305	Christian Ethics (3)
RELT 337	Christian Theology I (3)

RELIGION**Bachelor of Arts**

Intended as a **supplementary major**, the religion major prepares students in other fields to become effective witnesses in their future life work. The degree is not designed to prepare individuals for the Gospel ministry, but it does offer Biblical and theological studies and some basic training in practical ministry for those not planning to enter full-time ministry.

Objectives

The religion major prepares students to

- make a full commitment to Jesus Christ as Savior and Lord;
- have a clear knowledge of the teachings of the Old and New Testaments
- demonstrate proficient comprehension of the history, mission and fundamental beliefs of the Seventh-day Adventist Church;

- develop the practical ability to share the Seventh-day Adventist faith with others and to serve competently as a lay leader in a local church congregation.

MAJOR REQUIREMENTS–31-32 hours

RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Life and Teachings of Jesus	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel	2
RELB 349	Revelation	3
RELB 455	Prophetic Guidance in the Advent Movement	3
RELB 456	Adventist History Research	1
RELT 141	Christian Beliefs	3
<i>Select one course from</i>		2-3
RELT 149	Dynamics of Christian Living (2)	
RELT 305	Christian Ethics (3)	
RELT 337	Christian Theology I (3)	
RELT 338	Christian Theology II (3)	
<i>Select 8 hours from</i>		8
RELH 410	History of the Christian Church (4)	
RELP 321	Homiletics (2)	
RELP 361	Church Leadership (2)	
RELP 465	Personal Witnessing (3)	
RELP 466	Public Evangelism (3)	

Recommended

RELP 285,485	Colloquium in Ministry 1/4 hour credit each semester at Union (2)
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RELIGION**MINOR REQUIREMENTS–18-22 hours**

RELB 455	Prophetic Guidance in the Advent Movement	3
RELT 141	Christian Beliefs	3
<i>Select two RELB courses</i>		6-8
<i>Select two RELB and/or RELT courses</i>		6-8

RELIGIOUS EDUCATION**Secondary Subject Endorsement****Bachelor of Science**

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

- a belief and an experience demonstrating that the religion of Christ provides practical answers to the needs of humanity;
- the ability to successfully communicate this belief and experience to teenage youth;

- skill in relating Biblical studies to everyday life situations and interpersonal relationships;
- knowledge of Old and New Testament historical background;
- knowledge of the history and philosophy of Christ;
- the ability to interpret Scripture, including Biblical apocalyptic literature;
- an understanding of the basic doctrines of Scripture;
- knowledge of historical backgrounds of the Christian church;
- knowledge of the rise and progress of Seventh-day Adventism.

TEACHING MAJOR REQUIREMENTS—32 hours

RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Life and Teachings of Jesus	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel	2
RELB 349	Revelation	3
RELB 455	Prophetic Guidance in the Advent Movement	3
RELH 410	History of the Christian Church	4
RELP 235	Introduction to Youth Leadership or RELP 465 Personal Witnessing (3)	3
RELP 321	Homiletics	2
RELT 141	Christian Beliefs	3
RELT 337	Christian Theology I	3

PROFESSIONAL EDUCATION—51 hours

EDUC 415	Methods: Social Science and Religious Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

It is strongly recommended that every student finish requirements for at least *two* *subject* endorsements (see Human Development Division--Secondary Education).

THEOLOGY**Bachelor of Arts in Theology****Candidacy for Ministry**

The theology major prepares students for pastoral ministry. Because entering the ministry involves much more than the completion of a course of study, the Division of Religion has established a candidacy program for ministry which emphasizes the development of the individual in the skills and experience essential to pastoral ministry. Students enter the division portfolio program in the freshman year and apply for admission to candidacy for ministry in the second semester of the sophomore year. Upon acceptance into the candidacy program, the students submit a plan for fulfilling the requirements of the final two years of the program. Details of the requirements for the candidacy program are available in the Division of Religion.

Objectives

The theology program prepares students to

- affirm a full commitment to the Lord Jesus Christ and to the gospel ministry;
- demonstrate proficiency in Biblical languages and competency in the teaching of Scriptures;
- demonstrate basic practical skills of pastoral ministry;
- demonstrate proficient comprehension of the the history, mission and fundamental beliefs of the Seventh-day Adventist Church;
- exhibit knowledge of Biblical theology;
- cultivate a sense of professionalism which will motivate them to be competent, diligent and ethical in all further work and study;
- pursue graduate studies in theology.

MAJOR REQUIREMENTS—55 hours

RELB 175	How to Study the Bible	3
RELB 226	Old Testament Survey or RELB 325 Prophets (3)	3
RELB 255	Life and Teachings of Jesus	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel	2
RELB 349	Revelation	3
RELB 455	Prophetic Guidance in the Advent Movement	3
RELB 456	Adventist History Research	1
RELB 410	History of the Christian Church	4
RELP 125, 126	Introduction to Ministry	1, 1
RELP 321, 322	Homiletics	2, 2
RELP 361, 362	Church Leadership	2, 2
RELP 465	Personal Witnessing	3
RELP 466	Public Evangelism	3
RELP 285, 485	Colloquium in Ministry (1/4 hour credit each semester at Union)	2
RELT 141	Christian Beliefs	3
RELT 305	Christian Ethics	3
RELT 337	Christian Theology I	3
RELT 338	Christian Theology II	3

CONTEXTUAL REQUIREMENTS—24 hours

Biblical Languages Minor (see below)	18	
PSYC 105	Introduction to Psychology	3
PSYC 311	Christian Counseling	3

Recommended

EDUC 218	Philosophy of Education (3)
ENGL 366	Biblical Literature (3)
FNCE 215	Personal Finance (3)

HIST 307	History of Bible Times (3)
MUHL 315	Music and Christian Worship (2)
RELB 246	Sanctuary and Salvation (3)
SOCI 315	Marriage and Family (3)

BIBLICAL LANGUAGES

MINOR REQUIREMENTS—18 hours

RELL 271, 272	Beginning New Testament Greek	4, 4
RELL 373, 374	Intermediate New Testament Greek	2, 2
RELL 385	Beginning Biblical Hebrew	3
RELL 386	Intermediate Biblical Hebrew	3

MISSIONS AND EVANGELISM

MINOR REQUIREMENTS—22 hours

RELB 455	Prophetic Guidance in the Advent Movement	3
RELP 361	Church Leadership	2
RELP 465	Personal Witnessing	3
<i>Select RELB or RELP courses</i>		6
<i>Select Missions or Evangelism Track:</i>		8

Missions Track

RELP 295	Directed Study in Mission History (1)
RELP 375	Missions Internship (2)
RELT 147	World Religions (3)
UCSM 205	Introduction to Overseas Service (2)

Evangelism Track

RELP 295	Directed Study in Evangelism (1)
RELP 362	Church Leadership (2) or RELP 321 Homiletics (2)
RELP 376	Evangelism Internship (2)
RELP 466	Public Evangelism (3)

YOUTH MINISTRY

MINOR REQUIREMENTS—21 hours

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.

PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 311	Christian Counseling	3
RELP 235	Introduction to Youth Leadership	3
RELP 335	Youth Leadership in the SDA Church	3
RELP 336	Youth Leadership Practicum	3
SOCI 210	Group Dynamics	3

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

The mission of the Division of Science and Mathematics is to provide rigorous science education that promotes Christian faith.

Goals

The goals of the division are to provide an education which enables students to

- integrate an understanding of the Creator with the study of science;
- exhibit competence in both theoretical and experimental science and mathematics;
- pursue advanced study in science or mathematics;
- critically evaluate scientific theories and positions;
- base decisions on a careful evaluation of the facts;
- understand the historical development of science and mathematics and the interrelationship between these two disciplines;
- recognize the potential and limitations of the scientific process and mathematical computation;
- utilize computers and related technology in executing science and mathematics;
- identify the contribution of science and mathematics to society.

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.

Assessment results are available in the Division of Science and Mathematics Office and in the Office for Institutional Research.

DIVISION OFFICE

<i>Location</i>	Jorgensen Hall, Room 204
<i>Telephone</i>	402.486.2515 or 402.486.2548
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FACULTY

Don H. Abbey, Ph.D., Chair, Professor of Biology

Patricia Anderson, Ph.D., *Associate Professor of Mathematics*

Veneracion Cabana, Ph.D., *Professor of Biology*

Charles E. Freidline, Ph.D., *Professor of Chemistry*

Lowell Hagele, Ed.D., *Professor of Mathematics*

Larry Ray, Ph.D., *Professor of Mathematics and Computer Science*

Keith A. Riese, M.S.E.E., *Professor of Engineering*

Benjamin J. Thornton, M.S., *Assistant Professor of Biology*

Richard L. Webb, Ph.D., *Professor of Physics*

Carrie Wolfe, Ph.D., *Assistant Professor of Chemistry*

Brian Y. Y. Wong, Ph.D., *Professor of Biology*

DEGREES AND PROGRAMS

Bachelor of Arts

Biology

Chemistry

Mathematics

Physics

Bachelor of Science

Biology

Biology Education, Secondary Subject Endorsement

Chemistry

Emphases: Biochemistry

General Chemistry

Chemistry Education, Secondary Subject Endorsement

Clinical Laboratory Science (Medical Technology)

Mathematics

Mathematics Education, Secondary Field Endorsement

Physics

Physics Education, Secondary Subject Endorsement

Associate in 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, Walla Walla College and Florida Hospital. These arrangements are described along with the applicable major.

BIOLOGY

Bachelor of Arts

MAJOR REQUIREMENTS—39-41 hours

BIOL 151, 152	General Biology	4, 4
BIOL 296	Research Methods I	1
BIOL 310	Seminar in Biology	1
BIOL 321	Genetics	4
BIOL 326	Developmental Biology	4
BIOL 365	Plant Biology	3
	or BIOL 375 Ecology (4)	
BIOL 377	Origins	3
BIOL 386	Research Methods II	1
	or MATH 221 Elem Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
BIOL 406	Cell and Molecular Biology	4
BIOL 416	Mammalian Physiology	4
BIOL	Biology Electives	6-8

CONTEXTUAL REQUIREMENTS—28-30 hours

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
MATH 121	Precalculus	5
	or MATH 184 Calculus I (4)	
PHYS 151, 152	General Physics	4, 4
	or PHYS 251, 252 College Physics (4.5, 4.5)	

BIOLOGY

Bachelor of Science

MAJOR REQUIREMENTS—45-47 hours

BIOL 151, 152	General Biology	4, 4
BIOL 296	Research Methods I	1
BIOL 310	Seminar in Biology	1
BIOL 321	Genetics	4
BIOL 326	Developmental Biology	4
BIOL 365	Plant Biology	3
BIOL 375	Ecology	4
BIOL 377	Origins	3
BIOL 386	Research Methods II	1
	or MATH 221 Elementary Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
BIOL 396	Research Methods III	1
BIOL 406	Cell and Molecular Biology	4
BIOL 416	Mammalian Physiology	4

BIOL 496	Research Methods IV	1
BIOL	Biology Electives	6-8

CONTEXTUAL REQUIREMENTS—28-29 hours

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
MATH 184	Calculus I	4
PHYS 151, 152	General Physics	4, 4
	or PHYS 251, 252 College Physics (4.5, 4.5)	

The affiliation with Walla Walla College 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**MINOR REQUIREMENTS—24 hours**

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

CONTEXTUAL REQUIREMENTS—8 hours

CHEM 151, 152	General Chemistry	4, 4
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BIOLOGY EDUCATION**Secondary Subject Endorsement****Bachelor of Science**

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.

TEACHING MAJOR REQUIREMENTS–31 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 377	Origins	3
BIOL 406	Cell and Molecular Biology	4
BIOL 416	Mammalian Physiology or BIOL 111, 112 Human Anatomy & Physiology (4,4)	4

CONTEXTUAL REQUIREMENTS–19 hours

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–51 hours

EDUC 418	Methods: Science Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

It is strongly recommended that every student finish requirements for at least *two subject* endorsements (see Human Development Division--Secondary Education Endorsements).

CHEMISTRY**Bachelor of Arts****MAJOR REQUIREMENTS–40 hours**

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 296	Research Methods I	1
CHEM 311	Analytical Chemistry	3
CHEM 312	Instrumental Analysis	3
CHEM 386	Research Methods II or MATH 221 Elementary Statistics & Probability (3) or MATH 331 Statistics & Probability (3)	1
CHEM 411	Physical Chemistry I (Quantum Mech-Kinetics)	4
CHEM 412	Physical Chemistry II (Thermodynamics)	4
CHEM	Chemistry Electives	8

CONTEXTUAL REQUIREMENTS–26-28 hours

CPTR	An approved computer language	3-4
MATH 184, 285	Calculus I, II	4, 4
PHYS 251, 252	College Physics	4.5, 4.5
<i>Divisional or approved electives</i> (at least 3 hours must be non-chemistry)		7

Recommended German as foreign language general education requirement

CHEMISTRY*General Chemistry Emphasis***Bachelor of Science****MAJOR REQUIREMENTS–46 hours**

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 296	Research Methods I	1
CHEM 311	Analytical Chemistry	3
CHEM 312	Instrumental Analysis	3
CHEM 386	Research Methods II	1
	or MATH 221 Elementary Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
CHEM 396	Research Methods III	1
CHEM 411	Physical Chemistry I (Quantum Mech-Kinetics)	4
CHEM 412	Physical Chemistry II (Thermodynamics)	4
CHEM 496	Research Methods IV	1
CHEM	Chemistry Electives	12

CONTEXTUAL REQUIREMENTS–25-28 hours

CPTR	An approved computer language	3-4
MATH 184, 285	Calculus I and II	4, 4
MATH 286	Calculus III	4
	or MATH 352 Linear Algebra (3)	
	or MATH 385 Differential Equations (3)	
	or MATH 486 Numerical Analysis (3)	
PHYS 251, 252	College Physics	4.5, 4.5
<i>Divisional or approved</i> (non-chemistry) electives		3

CHEMISTRY*Biochemistry Emphasis***Bachelor of Science****MAJOR REQUIREMENTS–37-39 hours**

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 296	Research Methods I	1
CHEM 311	Analytical Chemistry	3
CHEM 312	Instrumental Analysis	3
CHEM 386	Research Methods II	1

	or MATH 221 Elementary Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
CHEM 412	Physical Chemistry II (Thermodynamics)	4
CHEM 445, 446	Biochemistry I, II	4, 3
CHEM	Chemistry elective	2-4

CONTEXTUAL REQUIREMENTS—38-40 hours

BIOL 151, 152	General Biology	4, 4
BIOL 321	Genetics	4
BIOL 406	Cell and Molecular Biology	4
CPTR	An approved computer language	3-4
MATH 184, 285	Calculus I, II	4, 4
PHYS 251, 252	College Physics	4.5, 4.5
	<i>Select one of the following courses:</i>	3-4
BIOL 306	Histology (3)	
BIOL 314	Immunology (3)	
BIOL 326	Developmental Biology (4)	
BIOL 416	Mammalian Physiology (4)	

CHEMISTRY**MINOR REQUIREMENTS—19-20 hours**

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 311	Analytical Chemistry	3
	or CHEM 412 Physical Chemistry II (4)	

CHEMISTRY EDUCATION**Secondary Subject Endorsement****Bachelor of Science**

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.

TEACHING MAJOR REQUIREMENTS—29 hours

CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
CHEM 296	Research Methods I	1
CHEM 311	Analytical Chemistry	3

CHEM 312	Instrumental Analysis	3
CHEM 386	Research Methods II or MATH 221 Elementary Statistics & Probability (3) or MATH 331 Statistics & Probability (3)	1
CHEM 396	Research Methods III	1
CHEM 445	Biochemistry I	4

CONTEXTUAL REQUIREMENTS—25-26 hours

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

PROFESSIONAL EDUCATION—51 hours

EDUC 418	Methods: Science Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

It is strongly recommended that every student finish requirements for at least *two subject* endorsements (see Human Development Division--Secondary Education Endorsements).

CLINICAL LABORATORY SCIENCE**Bachelor of Science**

The Bachelor of Science degree with a major in Clinical Laboratory Science (Medical Technology) 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 clinical laboratory science. Currently, affiliation is maintained with

Andrews University	Florida Hospital
Berrien Springs, MI 49104	601 East Rollins St
medtech@andrews.edu	Orlando, FL 32803
www.andrews.edu/ALHE	Pat.Rogers@FLHOSP.ORG

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, contextual requirements as outlined for the major and a minimum of 10 hours of courses numbered above 300.
- The residence requirement of 30 hours must be satisfied in the junior year at Union College.
- The major is satisfied in the senior year at an affiliated professional school.

- Specific requirements for entrance into the clinical program are found in the bulletin of the affiliated professional school. At the time of application to the clinical program, the student must also meet the current minimum prerequisites for admission to a clinical facility as prescribed by the National Accrediting Agency For Clinical 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 clinical laboratory science.
 - To be eligible for consideration and acceptance to Florida Hospital, a minimum GPA of 2.80 calculated separately in science and overall is required.
 - A GPA of 3.00 or higher will, of course, increase the likelihood of acceptance into a clinical program.
- The degree is granted in December, May or August after all clinical experience has been completed.
- To be eligible for a degree at the completion of the clinical year, students must
 - register as a student at Union College for clinical year (no credit until completion);
 - make application for the degree by September for participation in May as an August graduate (Applications must include the listing of any credits to be completed by correspondence or to be transferred from any other college.);;
 - send pictures or make arrangements with the yearbook editor.

CLINICAL LABORATORY SCIENCE (MEDICAL TECHNOLOGY)

Bachelor of Science

MAJOR REQUIREMENTS

Clinical courses at Andrews University	50
Clinical courses at Florida Hospital	32

CONTEXTUAL REQUIREMENTS–35 hours

BIOL 151, 152	General Biology	4, 4
BIOL 205	Microbiology	4
BIOL	Biology electives (Immunology recommended)	3-4
CHEM 151, 152	General Chemistry	4, 4
CHEM 211, 212	Organic Chemistry	4, 4
MATH	College level math (Math 221 recommended)	3

Recommended Courses (Choose from)

BIOL 306	Histology (3)	
BIOL 321	Genetics (4)	
BIOL 416	Mammalian Physiology (4)	
CHEM 311	Analytical Chemistry (3)	

CHEM 312	Instrumental Analysis (3)	
PHYS 111	Principles of Physics (4)	
	or PHYS 151, 152 General Physics (4, 4)	

ENGINEERING

The objective of the engineering program at Union College is to provide its students with a quality education that will prepare them to finish advanced studies leading to a baccalaureate degree in engineering. Union College is affiliated with the engineering program at Walla Walla College, College Place, Washington. Our program is designed to mesh with theirs, but prepares the student for entry into other engineering schools as well.

ENGINEERING

Associate in Science

EMPHASIS REQUIREMENTS—14 hours

ENGR 111, 112	Introduction to Engineering	2, 2
ENGR 211	Statics	3
ENGR 212	Dynamics	3
ENGR 228	Electric Circuit Analysis	4

CONTEXTUAL REQUIREMENTS—35 hours

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 352	Linear Algebra	3
PHYS 251, 252	College Physics	4.5, 4.5

ELECTIVES Consult engineering advisor for course selections.

GENERAL EDUCATION COURSES Consult engineering advisor.

MATHEMATICS

Bachelor of Arts

MAJOR REQUIREMENTS—35 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
MATH 340	Discrete Mathematics	3
MATH 351	Abstract Algebra	3
MATH 352	Linear Algebra	3
MATH 385	Differential Equations - recommended	
	if supporting area is in <i>science</i> or <i>engineering</i>	3
	or MATH 486 Numerical Analysis - recommended	
	if supporting area is in <i>computer science</i> (3)	

MATH	Mathematics electives (numbered 300 or above)	3
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CONTEXTUAL REQUIREMENTS–20 hours

CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
<i>Supporting Area</i> - (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

Bachelor of Science

MAJOR REQUIREMENTS–41 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
MATH 340	Discrete Mathematics	3
MATH 351	Abstract Algebra	3
MATH 352	Linear Algebra	3
MATH 385	Differential Equations	3
MATH 491	Advanced Calculus	3
MATH 492	Complex Variables	3
MATH	Mathematics electives (numbered 300 or above)	3

CONTEXTUAL REQUIREMENTS–20 hours

CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4
<i>Supporting Area</i> - (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

MINOR REQUIREMENTS–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 or MATH 340 Discrete Mathematics (3)	3
MATH	Mathematics electives (numbered 300 or above)	3

MATHEMATICS EDUCATION

Secondary Field Endorsement

Bachelor of Science

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:
 - interpret data, and
 - discern and apply mathematical relationships and understanding of the nature of proofs;
- a knowledge of the language of mathematics;
- the ability to give clear explanations of the meaning of certain fundamental concepts, statements and notations;
- the ability to read mathematical literature with understanding;
- the foresight to use present methods of teaching mathematics;
- the ability to make and test conjectures;
- acquisition of a degree of facility with selected mathematical techniques.

TEACHING MAJOR REQUIREMENTS—35 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
MATH 340	Discrete Mathematics	3
MATH 351	Abstract Algebra	3
MATH 352	Linear Algebra	3
MATH 360	History of Math	3
MATH 409	Modern College Geometry	3

CONTEXTUAL REQUIREMENTS—4 hours

CPTR 226	Computer Science I	4
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PROFESSIONAL EDUCATION—51 hours

EDUC 413	Methods: Mathematics Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

(See Human Development Division--Secondary Education Endorsements)

PHYSICS**Bachelor of Arts**

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.

MAJOR REQUIREMENTS—35 hours

PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics	4.5, 4.5
PHYS 296	Research Methods I	1
*PHYS 241, 242	Classical Mechanics	3, 3
PHYS 350	Modern Physics	4
PHYS 351	Quantum Mechanics	4
*PHYS 209	Electromagnetic Theory	3
PHYS 386	Research II	1
	or MATH 221 Elementary Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
*PHYS	Electives	3

CONTEXTUAL REQUIREMENTS—26 hours

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

PHYSICS**Bachelor of Science****MAJOR REQUIREMENTS—46 hours**

PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics	4.5, 4.5
PHYS 296	Research Methods I	1
*PHYS 241, 242	Classical Mechanics	3, 3
PHYS 350	Modern Physics	4
PHYS 351	Quantum Mechanics	4
*PHYS 261	Thermal Physics	3
PHYS 386	Research Methods II	1
	or MATH 221 Elementary Statistics & Probability (3)	
	or MATH 331 Statistics & Probability (3)	
PHYS 396	Research Methods III	1
*PHYS 209	Electromagnetic Theory	3
PHYS 496	Research Methods IV	1
*PHYS 210	Optics	3

*Available through cooperative program at Nebraska Wesleyan University, Lincoln, NE.

*PHYS	Electives	6
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CONTEXTUAL REQUIREMENTS–29 hours

CHEM 151, 152	General Chemistry	4, 4
CPTR	<i>An approved computer language</i>	3
MATH 184	Calculus I	4
MATH 285, 286	Calculus II, III	4, 4
MATH 385	Differential Equations	3
MATH	Elective (above 310)	3

PHYSICS**MINOR REQUIREMENTS–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

PHYSICS EDUCATION**Secondary Subject Endorsement****Bachelor of Science**

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.

TEACHING AREA REQUIREMENTS–35-37 hours

PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics	4.5, 4.5
*PHYS 261	Thermal Physics	3
PHYS 296	Research Methods I	1
PHYS 350	Modern Physics	4
PHYS 351	Quantum Mechanics	4
PHYS 386	Research Methods II	1
	or MATH 221 Elem Statistics and Probability (3)	
	or MATH 331 Statistics & Probability (3)	
PHYS	Electives	9

CONTEXTUAL REQUIREMENTS–38 hours

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

PROFESSIONAL EDUCATION–51 hours

EDUC 418	Methods: Science Education	3
	Additional Professional Education	36
	Specific General Education Requirements	12

It is strongly recommended that every student finish requirements for at least *two subject* endorsements (see Human Development Division--Secondary Education Endorsements).

PRE-ALLIED HEALTH

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

- Clinical Laboratory Science (Medical Technology)
- Dental Hygiene
- Nutrition and Dietetics, Dietetic Technology
- Occupational Therapy and Occupational Therapy Assistant
- Pharmacy
- Physical Therapy and Physical Therapy Assistant
- Physician Assistant
- Radiation Therapy
- Respiratory Therapy

PRE-ALLIED HEALTH**Associate in Science****EMPHASIS REQUIREMENTS–20 hours**

HHPT 256	Medical Terminology	1
	<i>Select eight hours from</i>	8
BIOL 111, 112	Anatomy and Physiology (4, 4)	
BIOL 151, 152	General Biology (4, 4)	
BIOL 205	Microbiology (4)	

<i>Select four hours from</i>		4
CHEM 101	Introductory Inorganic Chemistry (4)	
CHEM 151	General Chemistry (4)	
PHYS 111	Principles of Physics (4)	
PHYS 151	General Physics (4)	
<i>Select four additional hours from</i>		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

ELECTIVES Consult pre-allied health advisor for course selections.

GENERAL EDUCATION COURSES Consult pre-allied health advisor.

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 in 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.

Advisor Contact Chair, Division of Science and Mathematics

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 in 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.

Who Is Accepted? 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.

Advisor Contact Chair, Division of Science and Mathematics.

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.

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, and cell/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 in the spring of the year of application and to have the basic requirements completed at the time of application. Both AADSAS and DAT application forms and deadline information are available from the preadental advisor.

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 or PHYS 251 and 252 College Physics (4.5, 4.5)	4, 4
ENGL 111, 112	College Writing I and II	3, 3

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

Strongly recommended electives include biochemistry and histology. Other recommended electives include accounting, anatomy, calculus, management, and physiology.

Advisor and Information Contact Chair, Division of Science and Mathematics.

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	<i>ACCT</i>	174	Journalism	<i>COJR</i>	191
Art	<i>ART</i>	176	Marketing	<i>MRKT</i>	228
Astronomy	<i>ASTR</i>	179	Mathematics	<i>MATH</i>	224
Biblical Languages	<i>RELL</i>	250	Ministerial Practices	<i>RELP</i>	251
Biblical Studies	<i>RELB</i>	249	Music Applications	<i>MUAP</i>	229
Biology	<i>BIOL</i>	179	Music Education	<i>MUED</i>	229
Business Administration	<i>BUAD</i>	185	Music History and Lit	<i>MUHL</i>	230
Chemistry	<i>CHEM</i>	187	Music Performance	<i>MUPF</i>	231
Communication	<i>COMM</i>	192	Music Piano Pedagogy	<i>MUPP</i>	234
Computer Information Systems	<i>CPTR</i>	194	Music Theory	<i>MUTH</i>	234
Drama	<i>CODR</i>	190	Nursing	<i>NRSG</i>	235
Economics	<i>ECON</i>	197	Nutrition	<i>NUTR</i>	239
Education	<i>EDUC</i>	197	Physician Assistant Studies	<i>PHAS</i>	239
Engineering	<i>ENGR</i>	207	Philosophy	<i>PHIL</i>	243
English	<i>ENGL</i>	204	Physics	<i>PHYS</i>	244
English as a Second Language	<i>ENSL</i>	208	Political Science	<i>PLSC</i>	247
Finance	<i>FNCE</i>	210	Psychology	<i>PSYC</i>	247
French	<i>FREN</i>	211	Public Relations	<i>COPR</i>	193
Geography	<i>GEOG</i>	212	Religious History	<i>RELH</i>	250
German	<i>GRMN</i>	212	Science	<i>SCNC</i>	254
Graphic Design	<i>GRPH</i>	213	Social Work	<i>SOWK</i>	255
Health and Human Performance Activity	<i>HHPA</i>	214	Sociology	<i>SOCI</i>	254
Theory	<i>HHPT</i>	216	Spanish	<i>SPAN</i>	258
Varsity	<i>HHPV</i>	219	Student Mission Service	<i>UCSM</i>	259
History	<i>HIST</i>	219	Task Force Service	<i>UCTF</i>	259
Humanities	<i>HMNT</i>	221	Teaching Learning Cntr	<i>TLCM</i>	258
Internat'l Rescue&Relief	<i>INRR</i>	221	Theological Studies	<i>RELT</i>	253
			Union Scholars Core	<i>USC</i>	260

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 and Directed Study courses are generally described as follows: (In actual practice a specific discipline prefix will be used.)

- _____ **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 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 the basic principles of accounting. The student learn basic techniques for organizing and presenting financial data using generally accepted accounting principles. The student gain additional experience in setting up and maintaining accounting records and the preparation of financial statements, with coverage of corporations and partnerships. *Spring semester.*

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- ACCT 313 Intermediate Accounting** 4
Prerequisite: ACCT 212 with a minimum grade of *C*
Coverage of accounting principles concerning the preparation and interpretation of financial statements. Topics include cash, receivables, inventory, property, depreciation, and intangible assets. *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, revenue recognition, deferred income taxes, pensions, leases and the statement of cash flows. *Spring semester.*
- ACCT 315 Federal Income Tax - Individual** 3
Prerequisite: ACCT 212 or permission of instructor
An introductory course in U.S. income taxation of individuals. Includes preparation of income tax returns and elements of tax planning. *Fall semester.*
- ACCT 316 Federal Tax - Corporate, Partnership and Fiduciary** 3
Prerequisite: ACCT 315
A 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, reorganizations, S Corporations, personal holding companies and the accumulated earnings tax. 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 and non-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 212 or permission of instructor
A study of the concepts of accounting information systems, especially those pertaining to managerial decision-making, internal control and information technology. Students are provided with hands-on experience in setting up and operating a commercial accounting software package. *Spring semester.*

- ACCT 449 Advanced Accounting** 4
Prerequisite: ACCT 314 with a minimum grade of C
Accounting principles and financial statement concepts as they relate to business combinations, partnerships, international transactions and fund accounting. *Fall semester.*
- ACCT 455 Auditing** 4
Prerequisite: ACCT 314 with a minimum grade of C
The study of generally accepted auditing standards and rules of professional conduct as they relate to planning the audit, designing audit programs, performing tests of controls and substantive tests, and issuing audit reports. *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.
- ACCT 477 CPA Review** 1-4
Prerequisites: ACCT 314, 325, and 449; also ACCT 316, 455, BUAD 445 or concurrent enrollment; a minimum GPA of 3.00 in accounting courses.
A review of subjects covered on the Uniform Certified Public Accountant examination sections. Emphasizes study of example CPA examination questions, and techniques for preparation and passage of the CPA exam. *Spring semester.*
- 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
The study of two-dimensional design. 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. Spring semester.*
- 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 175 Art Seminar** .5
First in a series of courses designed to guide art 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 ART 275, 375 and 475. *Spring semester.*
- 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. Emphasis is given to the drawing of the human figure. *Fall/spring semesters alternating.*

- ART 245 Sculpture** 2
Prerequisite: ART 115
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 275 Art Seminar** .5
See ART 175 for description. *Spring semester.*
- ART 305 Marker Rendering Techniques** 2
Prerequisite: ART 105
Introduction to the use of markers for mock ups, for schematic drawings and as a drawing medium. Techniques in application, masking and illustration are explored. *Spring semester, alternate years.*
- ART 315 Design II** 2
The study of both two- and three-dimensional design. Students explore the structural elements of design in a variety of media. Emphasis is on creative expression. The concepts of design principles and elements are stressed. *Fall semester, alternate years.*
- ART 321 European Art History (WR)** 3
Prerequisite: HIST 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
Prerequisite: ENGL 112
A history of American art from the art of Native Americans to the present. Attention is given to a conceptual understanding of stylistic movements in America while emphasis is on individual painters and their specific works. *Fall semester, alternate years.*
- ART 335 Airbrush** 2
Prerequisites: ART 105 and 115 or permission of instructor
An introduction to the airbrush as a tool for design, illustration and painting. Basic principles, techniques and applications are explored. *Spring 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 375 Art Seminar .5
See ART 175 for description. *Spring semester.*

ART 445 Illustration Techniques II 2
Prerequisites: ART 105, 125 or 145, ART 347, or permission of instructor
Advanced concepts of illustration focusing on a variety of techniques and the development of a personal style. Historical perspectives in illustration are taught. *Spring semester, alternate years.*

ART 475 Art Seminar .5
See ART 175 for description. *Spring semester.*

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: One year of high school algebra with a C or better together with an ACT math score of 18 or higher or SAT math score of 430 or higher, or MATH102 with a minimum grade of C
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 but in some cases permission may be granted by the instructor.

BIOL 102 Environment and Life Science 3
Designed to play a major role in the broad training of college students who are not science majors. Topics are structured as surveys of basic ecological principles, human biology (including cell biology, genetics and microbiology), and environmental pollution as well as 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 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 one year of high school algebra with a minimum grade of C
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 (WR) 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; animal development; and principles of ecology. Three lectures, one tutorial session and one three-hour laboratory per week. *Spring semester.*

BIOL 205 Microbiology 4

Surveys major groups of bacteria, viruses, yeasts, molds and protozoa with relationships to health and disease. Introduces a variety of laboratory procedures including asepsis, culturing, isolation and identification of microorganisms especially bacteria. Microbial nutrition, ecology, metabolism, genetics, chemotherapy, and immunological principles are also considered. 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. Available only alternating summers.*
- BIOL 296 Research Methods I** 1
Prerequisite: BIOL 151
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 306 Histology** 3
Prerequisite: BIOL 152
A study of the structure, organization and function of vertebrate tissues, with emphasis on identification. Two lectures and one three-hour laboratory per week. *Fall semester.*
- 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. *Available only alternating summers.*
- BIOL 310 Seminar in Biology** 1
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. *Spring semester.*

- 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 326 Developmental Biology** 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 organogenesis 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 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. *Spring semester.*
- BIOL 365 Plant Biology** 3
Prerequisite: BIOL 152
A survey of plants in human life, plant ecology, physiology and anatomy, plant morphology and plant systems. 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
Prerequisite: 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). Spring semester.*

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- BIOL 386 Research Methods II** 1
Prerequisite: BIOL 151
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.*
- BIOL 396 Research Methods III** 1
Prerequisite: BIOL 386 or BIOL 296 and MATH 221 or 331
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 406 Cell and Molecular Biology** 4
Prerequisites: BIOL 321, CHEM 211 or concurrent enrollment in CHEM 211
Building on the basic cell functions and genetics principles learned in BIOL 151-152 and BIOL 321, this course, designed for advanced biology and biochemistry majors, deals primarily with cell structures and functions with emphasis on cell regulation at the molecular level. Students are exposed to methods of cellular research while learning about the appearance and operation of cellular organelles. 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.*
- 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 442 Techniques in Biological Research** 4
Prerequisite: BIOL 152, CHEM 152, BIOL 386 or MATH 221
Applications of laboratory techniques and evaluation of the results in a laboratory setting. One class period and one formal laboratory session per week plus independent laboratory work in consultation with the instructor. Participation in field trips to research institutions is an integral part of the course. *Spring semester.*

BIOL/CHEM 445 Biochemistry 4

Prerequisite: CHEM 212 and BIOL 151

Studies the chemical properties and biological functions of the atoms, molecules, macromolecules, and macromolecular complexes that constitute living systems. The laboratory includes basic techniques and instruments used for biochemical research and biotechnology. Three lectures and one three-hour laboratory per week. *Fall 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 College marine station. Each course is not necessarily offered every summer.

BIOL 101, 102, 103 General Biology 2.67, 2.67, 2.67

(equivalent to BIOL 151, 152 UC)

Prerequisite: High school chemistry strongly recommended

Study of the basic principles of biology of animals, plants, and microorganisms. Topics include the cell, physiology, genetics, development, taxonomy, and ecology. Must be taken in sequence.

BIOL 426 Systematic Botany 3.33

Prerequisite: BIOL 101 (WWC) 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.

BIOL 460 Marine Ecology - "marine-oriented course" 3.33

Prerequisite: BIOL 103 (WWC) or BIOL 152 (UC)

Study of interspecific, intraspecific and community relationships demonstrated by marine organisms.

BIOL 468 Comparative Physiology - "marine-oriented course" 3.33

Prerequisite: BIOL 392 (WWC) or BIOL 406 (UC)

Comparative study of the physiology and life processes of animals with emphasis on invertebrates.

BIOL 475 Marine Invertebrates - "marine-oriented course" 3.33

Prerequisite: BIOL 103 (WWC) or BIOL 152 (UC)

A study of the biology of selected groups of marine invertebrates.

BUSINESS ADMINISTRATION

- BUAD 101 Students in Free Enterprise** 1
Provides a framework for the Union College Students in Free Enterprise (SIFE) team to successfully meet the goals set forth by the International SIFE organization. Emphasizes project evaluation/analysis, preparation of an annual report, and a written and visual presentation. Upper division credit (BUAD 301) is given to students in leadership roles. Course may be repeated for credit. Graded CR/NC. *Does not apply toward a major or minor. Spring semester.*
- 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 301 Students in Free Enterprise** 1
Prerequisite: Permission of instructor
See BUAD 101 for description. Course may be repeated for credit.
Graded CR/NC. *Does not apply toward a major or minor. 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 323 Entrepreneurship** 3
Prerequisites: ACCT 211
Examines the role of the entrepreneur in a free enterprise economy. Develops entrepreneurial skills through practical experience.

- BUAD 376 Human Resources Management** 3
Prerequisites: ENGL 112; 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 425 Business Communications (WR)** 3
Prerequisites: COMM 105, CPTR 220, ENGL 112; 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 (WR)** 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. Methods are introduced to help in dealing with difficult customers, peer-to-peer problems, and working with supervisors who are challenging. *Fall semester.*
- BUAD 445 Business Law** 4
Prerequisite: Junior standing or permission of instructor
Includes a discussion 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. *Spring semester.*
- BUAD 455 Advanced Human Resource Management** 2
Prerequisites: BUAD 376; 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 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 first year algebra in high school with a minimum grade of *B*
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 102 Introductory Organic and Biochemistry 4
Prerequisite: CHEM 101 or 151
Covers those principles of organic and biochemistry essential to an elementary understanding of the chemistry of living cells and organisms. Topics include organic functional groups, nomenclature, and reactions of organic compounds with emphasis on the structure and role of carbohydrates, fats, and proteins. Glycolysis, the citric acid cycle, and oxidative phosphorylation are also included. Three lectures and one laboratory per week. *Does not apply toward a chemistry major or minor. Spring semester*

CHEM 151 General Chemistry 4
Prerequisites: Two units of high school algebra or MATH 111 (a good math background is essential), high school chemistry or physics
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, 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, gas laws, 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: CHEM 151 with a minimum grade of *C*
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 311 Analytical Chemistry** 3
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 spectrophotometry, 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

Prerequisite: CHEM 151

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 396 Research Methods III 1

Prerequisite: CHEM 296 and either CHEM 386, MATH 221 or 331

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 I 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 II 4

Prerequisites: CHEM 152, MATH 286, 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/BIOLOGICAL 445 Biochemistry I 4

Prerequisite: CHEM 212 and BIOL 151

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/BIOLOGICAL 445

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

Provides basic instruction in elements essential to producing stage presentations. Students are given the opportunity to become involved in one or more aspects of the production process such as acting, lighting, sound, costuming, set design and construction, and publicity. Practical experience

includes assisting in readying a play for public performance. *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.

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.

COMMUNICATION—JOURNALISM

COJR 151 Photography 4
Provides the basic techniques in black-and-white photography, including camera usage, composition and darkroom skills. *Fall semester.*

COJR 221 Reporting (WR) 3
Prerequisite: Sophomore standing
Introduces the student to basic newspaper reporting and writing. Students are encouraged to submit articles to *The Clocktower*. *Fall semester.*

COJR 245 Editing 3
Covers principles of editing, copy editing, layout, headline writing, handling of pictures, achieving editorial balance and integrity. Students concentrate on practical applications for actual publications. *Fall semester, alternate years.*

COJR 348 Press History, Ethics and Law (WR) 4
Prerequisite: COMM 125 or permission of instructor
Covers the history of broadcast and print journalism in America and examines the basic ethical and legal questions related to mass communication. *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, alternate years.*

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 157 Introduction to Signing 2
Introduction for hearing persons to the culture of the deaf primarily through the various communication modes: gesture, finger spelling and sign language. *This course is not designed to prepare one to be an interpreter for the deaf. Spring semester, alternate years.*

COMM 335 Video Production I 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 majors.*

COMM 435 Video Production II 3

Prerequisite: COMM 335

Uses advanced video production techniques including lighting and graphics as well as advanced post-production techniques. Each student produces a completed video program. *Spring semester.*

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 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 486 Senior Communication Project 2

Selected readings and practical work focused on an aspect of the fields of communication, journalism, or public relations relevant to each student's career objectives.

COMM 490 Communicators' Forum 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; and discusses current events and their journalistic ramifications. The setting is informal with a discussion-centered format. *Spring 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. *Spring semester, alternate years.*

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. *Spring semester, alternate years.*

COPR 332 Rhetoric and Persuasion (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 376 Promotional Copywriting (WR) 3
Applies principles of persuasion to the writing of copy for advertisements, brochures, radio spots, news releases, direct mail appeals and other forms for print and electronic media. Emphasizes adapting promotional messages to various audiences effectively and ethically. *Spring semester, alternate years.*

COPR 445 Applied Public Relations (WR) 3
Prerequisite: COPR 241 or permission of instructor
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, alternate years.*

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.*

COMPUTER INFORMATION SYSTEMS

CPTR 125 Introduction to Computers 3
Prerequisite: Skill to type at least 20 words per minute
A look at the fundamentals of computers (hardware, software, privacy, ethics, etc.) with the majority of time being devoted to hands-on projects in Internet, e-mail, word processing, spreadsheets and databases in the Windows environment. Designed for students with limited knowledge of computer applications. *Fall/spring semesters.*

CPTR 200 PC Architecture Fundamentals 3
Prerequisite: CPTR 125 or permission of the instructor
Explores hardware components of the PC in terms of troubleshooting, maintaining, upgrading, installing peripheral devices and understanding the PC architecture. *Spring semester.*

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- CPTR 211 UNIX Operating System** 1
Prerequisite: CPTR 125 or permission of the instructor
An introduction to the UNIX operating system. Includes managing files and directories, creating/editing files using the vi editor, redirecting input and output files, redirecting output to another process, manipulating and processing text, and controlling processes. *Fall 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
Prerequisite CPTR 125 or permission of the instructor
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
Prerequisite: CPTR 125 or permission of instructor; MATH 111 or ACT math score 21 (SAT of 500); CPTR 211 is recommended
An introduction to 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
Prerequisites: CPTR 226 with a minimum grade of C
Recommended: CPTR 211
Advanced programming principles and problem solving techniques are explored in an object-oriented programming environment. Abstraction and data structures (stacks, queues, linked lists, etc.) are explored. *Spring semester.*
- CPTR 320 Networking** 3
Prerequisites: CPTR 200, 220
An 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 Advanced Programming Techniques** 3
Prerequisites: CPTR 225, 227 with C++
Explores the newer programming languages and techniques used in traditional, object-oriented, and web-based application environments. Possible topics could include: Java, Javascript, PHP, Perl, network programming, and graphics

programming. This course is periodically updated for newer languages and technologies. *Spring semester.*

CPTR 326 COBOL Programming 3

Prerequisites: CPTR 211, 227

Covers beginning, intermediate, and advanced concepts of the COBOL programming language. Programming applications are primarily chosen from business problems. *Fall semester, alternate years.*

CPTR 327 Systems Analysis and Design (WR) 3

Prerequisites: CPTR 220 or 226, ENGL 112

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 405 Software Engineering 3

Prerequisites: CPTR 225, 227, 327

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 424 Database Systems 3

Prerequisites: CPTR 211, 225, 227, 327; junior standing

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 475 Internship in Computer Science (WR) 1-3

Prerequisite: 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

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.

CPTR 477 Applied Systems Management 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

A capstone systems course integrating the knowledge and abilities gained through the microcomputer and management courses. Students supervise the work of others and oversee the appropriate utilization of resources in a management area of computer information systems.

ECONOMICS**ECON 235 Principles of Microeconomics 3**

Prerequisites: ENGL 112, MATH 111 or acceptable math placement score

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 112, MATH 111 or acceptable math placement score; 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. 20 hours of field experience required. *Fall semester.*

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 10 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

Gives education majors opportunity to interact with diverse school populations, especially those of other cultures. 20 hours of field experience required. *Fall semester.*

EDUC 245 Physical Education in Elementary School 2

Prerequisite: EDUC 125

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 Curriculum 3

Prerequisite: EDUC 345 or permission of division chair

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. *Spring semester.*

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: EDUC 125, PSYC 215, successful completion of the Pre-Professional Skills Test (PPST), and full admission to the teacher preparation program or permission of division chair

An intradisciplinary 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 the visually impaired, speech and language impaired, hearing impaired, orthopedically handicapped and other health impaired, mentally impaired, learning disabled, behavior disordered, gifted and talented, bicultural child and the abused and neglected are studied. Overview of PL 94-1442 is included. Course does not

apply toward psychology minor. 30 hours of field experience required. *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 40 hours of field experience required. *Spring semester.*

EDUC 357 Literature for Children and Adolescents 2

Prerequisite: Successful completion of the Pre-Professional Skills Test (PPST)

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 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 Corequisite: 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 Corequisite: 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 Corequisite: EDUC 355 or 360
Directed specific assignments in subject area as applications of EDUC 355 or 360. *Summer.*
- EDUC 364 Language Arts/English Methods** 1
Prerequisite: Practicing Teacher
Prerequisite or Corequisite: 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 Corequisite: 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 Corequisite: 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 Corequisite: 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 Corequisite: 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 Corequisite: 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 Corequisite: 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 345

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 corequisite: EDUC 345

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 corequisite: EDUC 345

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 345

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 corequisite: EDUC 345

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 3

Prerequisite: EDUC 345

An exploration of secondary social science, teaching strategies, textbook selection criteria, planning and assessment. Also emphasizes techniques for teaching secondary religion. Includes 10 to 20 hours of classroom experiences and use of technology. *Fall semester.*

- EDUC 416 Methods: Physical Education** 3
Prerequisite or corequisite: EDUC 345
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 418 Methods: Science Education** 3
Prerequisite or corequisite: EDUC 345
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 Bible Methods** 1
Prerequisite: Practicing Teacher
Designed to help practicing elementary 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 421 Secondary Bible Methods** 1
Prerequisite: Practicing Teacher
Designed to help practicing 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** 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. *Spring semester.*
- EDUC 445 Reading Methods (K-8)** 4
Prerequisite: EDUC 345
Instruction in the method of teaching fundamental reading proficiencies: readiness, vocabulary instruction, locational and study skills, comprehension, questioning, management, diagnostic skills and assessment. A survey of reading programs and approaches and appropriate technology is included. Opportunity is given to plan and use varied instructional approaches in the development of oral language, reading and writing. Up to 20 hours of field experiences are included. *Spring semester.*

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- EDUC 446 Reading Assessment** 2
Prerequisite: EDUC 345
Instruction in assessing the reading abilities and progress of elementary students. Emphasizes stages of literacy and techniques of informal reading 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 457 Methods in Language Arts (K-8)** 4
Prerequisite: EDUC 345
Emphasis is placed on elementary (K-8) language arts skills (viewing, listening, reading, speaking, visually representing, and writing). Spelling, grammar, handwriting and reference skills are specifically included. Traditional and whole language approaches are studied, as are multicultural literature and the evaluation and use of the Internet and other technology. Microteaching and 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 25 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** 1-14
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. *Maybe repeated for additional credit. Secondary -Fall semester. Elementary - Fall/spring semesters.*

EDUC 476 Content Reading and Writing 2

Prerequisite or corequisite: EDUC 345

Designed to help prepare 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.*

ENGLISH**ENGL 111 College Writing I 3**

Prerequisite: Minimum ACT English raw score of 17 or an SAT Verbal score of 430, TLMC 071 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.

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. Students study the relationship of language to thought and are introduced to logic and propaganda. Writing exercises include an analysis of literature, a researched and documented paper, and persuasive writing. Readings and class discussions foster critical thinking skills. Includes application of APA and MLA research formats. *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 has for English language learners.

ENGL 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.*

ENGL 236 Approaches to Literature: World (WR) 3

Prerequisite: ENGL 112

A chronological approach to major works of literature from all major genres, with emphasis on works in translation. As with ENGL 235, students explore various methods of approaching literature. A chief aim is the appreciation and enjoyment of the expressions of various cultures and times and their analysis from a Christian perspective. *General education requirement for educational certification. Spring semester.*

ENGL 277 Grammar and Linguistics 4

Prerequisite: ENGL 112

Introduces the origin, history and development of the English language, and various grammatical systems. Structural and transformational systems are emphasized. *Spring semester, alternate years.*

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.

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 related to error analysis in the second language context. Students have the opportunity to implement diagnostic skills and remediation strategies in student case studies.

ENGL 345 Studies in Early American Literature (WR) 3

Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, 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.*

- ENGL 348 Studies in British Literature (WR)** 3
Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the 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.*
- ENGL 352 Women and Minority Writers (WR)** 3
Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the 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.*
- ENGL/RELB 366 Biblical Literature (WR)** 3
Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, 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 ENGL or RELB general education requirements but not both. Fall semester, alternate years.*
- ENGL 378 Career Writing (WR)** 3
Prerequisite: ENGL 112
Provides intensive instruction in the essentials of good writing for all disciplines. Focus is on career-oriented writing, including technical and critical 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.*
- ENGL 436 Studies in American Literature (WR)** 3
Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the 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.*
- ENGL 445 Early British Literature (WR)** 3
Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the 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.*

ENGL 475 Twentieth-Century Writers (WR) 3

Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the instructor

Presents an overview of 20th Century American (or British) literature (novel, poetry, or drama) and critical stances. *May be repeated for credit. Spring semester, alternate years.*

ENGL 485 Advanced Studies Seminar (WR) 3

Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the 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.*

ENGL 499 Seminar in Non-Western Literature (WR) 3

Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, or permission of the instructor

An overview of major non-Western writers, including African, Indian, Chinese, Japanese, et al. *Fall semester, alternate years.*

ENGINEERING

Prerequisites are listed for each course but in some cases permission may be granted by the instructor.

ENGR 111 Introduction to Engineering 2

Engineering communications with emphasis on sketching, conventional engineering drafting practices, an introduction to Computer Aided Design, principles of descriptive geometry and problem solving skills. *Fall semester.*

ENGR 112 Introduction to Engineering 2

Prerequisite: ENGR 111

Continuation of ENGR 111. Includes a study of engineering analysis, an introduction to the design process, elements of professional engineering and advanced CAD. *Spring semester.*

ENGR 211 Statics 3

Prerequisite: MATH 184; corequisite: 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; corequisite: 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, Kirchoff's law and circuit equations, AC steady-state analysis, frequency characteristics. Three lectures and one three-hour laboratory per week. *Fall semester.*

ENGLISH AS A SECOND LANGUAGE

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. All ENSL prefix courses are available only to students whose primary language is not English.

ENSL 012 Grammar I 1-5
A basic program in two sections: 1) emphasis is on parts of speech, simple present tense, present progressive tense, and irregular verbs; 2) emphasis is on simple past tense, past progressive tense, simple future tense, modals, and comparisons. One 50-minute computer lab is included. *Fall/spring semesters.*

ENSL 014 Reading I 1-5
An intensive program designed for basic reading skills and vocabulary development. Emphasis is placed on reading comprehension. *Fall/spring semesters.*

ENSL 016 Writing I 1-3
Introduces beginning writing skills, helping to develop basic sentence structures and paragraphs. Also emphasizes basic grammar and reading. *Fall/spring semesters.*

ENSL 018 Speaking/Listening I 1-5
Provides the student with opportunities to practice basic listening and speaking skills and to increase vocabulary. Three class sessions and two 50-minute tutor labs per week. *Fall/spring semesters.*

- ENSL 022 Grammar II** 1-5
A low-intermediate course which reviews Grammar I material and then moves into phrasal verbs, present perfect tense, gerunds and infinitives, modals, irregular verbs and articles. One 50-minute computer lab is included. *Fall/spring semesters.*
- ENSL 024 Reading II** 1-5
Designed for enhancing reading skills learned in Reading I. Emphasizes reading proficiency, comprehension and vocabulary development. *Fall/spring semesters.*
- ENSL 026 Writing II** 1-3
Further develops basic writing skills, emphasizes paragraphing. *Fall/spring semesters.*
- ENSL 028 Speaking/Listening II** 1-5
Provides the student with opportunities to develop English listening and speaking skills through a variety of methods, such as listening practice, presentations, discussions, and small-group listening/speaking practice. Three class sessions and two 50-minute tutor labs per week. *Fall/spring semesters.*
- ENSL 043 ESL Lab** 1-5
An independent course which provides extra help in specific areas. Arranged with the ESL advisors. *Fall/spring semesters.*
- ENSL 051 Cultural Orientation** 1-5
Provides new arrivals with survival skills for life in the USA. Also orients students to American history, government, holidays and other aspects of American life. *Fall/spring semesters.*
- ENSL 132 Grammar III** 3
Prerequisite: TOEFL score of 475 or higher
A high-intermediate course which emphasizes a number of language complexities such as passive and active voice, verbals, clauses and conditional sentences. Students practice grammatical application with a weekly essay. One 50-minute computer lab is included. *Fall/spring semesters.*
- ENSL 134 Reading III** 3
Prerequisite: TOEFL score of 475 or higher
Designed to further reading skills learned in Reading II. Emphasis is placed on developing a larger English vocabulary, increasing reading speed and comprehension, and developing reading strategies while reading many different kinds of reading material. *Fall/spring semesters.*

ENSL 136 Writing III 2

Prerequisite: TOEFL score of 475 or higher

Emphasizes the process of planning, writing, revising, and editing essays for a particular audience. This course encourages the clear written expression of ideas and the importance of correct word choice, organization, and sentence construction. Grammar, syntax, usage, and paragraph structure are also covered. A research project is required. *Fall/spring semesters.*

ENSL 138 Speaking/Listening III 2

Prerequisite: TOEFL score of 475 or higher

Combines basic theories of public speaking, listening and interpersonal communication with actual speaking experiences in the classroom. Modern idiomatic expressions in American culture and language are discussed. Students practice CAL (Computer Assisted Learning) by completing several computer presentations in class. Three class sessions and two 50-minute tutor labs per week. *Fall/spring semesters.*

ENSL 144 Reading IV 3

Prerequisite: TOEFL score of 475 or higher

Employs critical reading/thinking skills and creative communication skills to promote full understanding of the text. Course includes a survey of modern American writers, poetry and literature. Students read an American novel or current non-fiction book and keep a reading log. *Fall/spring semesters.*

ENSL 146 Writing IV 2

Prerequisite: TOEFL score of 475 or higher

Further develops the skill of writing both strong scholastic essays and creative essays, developing editing skills, and expressing one's thoughts on particular subjects. Also emphasizes grammar skills and vocabulary. *Fall/spring semesters.*

ENSL 187 TOEFL Preparation 3

Prerequisite: TOEFL score of 475 or higher

This advanced course reviews the structure of the English language and provides practice on the skills needed to pass TOEFL. Students practice grammatical application with a weekly essay. One 50-minute lab is included. *Fall/spring semesters.*

FINANCE**FNCE 215 Personal Finance** 3

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, estates, and retirement planning. *Fall semester.*

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- FNCE 325 Business Finance** 3
Prerequisite: ACCT 212
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, 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
Prerequisite: MATH 111 or an ACT math raw score of 20 or an SAT math score of 480; sophomore standing
A study of investment alternatives and the development of rational investment objectives and philosophies for the individual. Major types of investments studied in detail include: stocks; bonds; real estate; money market instruments; mutual funds; and tax-sheltered investments. *Spring semester.*
- FNCE 370 International Finance** 3
Prerequisite: MATH 111
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.
- FRENCH**
- FREN 101 Beginning French** 3
An introductory course develops listening, speaking, reading and writing as well as the fundamentals of French grammar. The course gives students a foundation in contemporary French civilization, its arts and people. Students develop aural comprehension and the ability to express thought orally through readings of adapted French literature and poetry. *Fall semester, alternate years.*
- FREN 102 Beginning French** 3
Prerequisite: FREN 101
Continuation of FREN 101. *Spring semester, alternate years.*

FREN 201 Intermediate French 3
Prerequisite: FREN 102 or equivalent
Students are challenged to move into a more mature command of the French language. Regular readings of modern literary and journalistic material, presentations and discussions of cultural elements and ideas. *Fall semester, alternate years.*

FREN 202 Intermediate French 3
Prerequisite: FREN 201
Continuation of FREN 201. *Spring semester, alternate years.*

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.*

GERMAN

GRMN 101 Beginning German 3
Introduction to basic German conversation structure, vocabulary and culture. Includes dictations, simple readings, written exercises, with the emphasis on oral communication. *Laboratory required. Fall semester, alternate years.*

GRMN 102 Beginning German 3
Prerequisite: GRMN 101
Continuation of GRMN 101. *Spring semester, alternate years.*

GRMN 201 Intermediate German 3
Prerequisite: GRMN 102 or equivalent
Intensive review of basic German grammar with an emphasis on oral communication. Includes dictations, readings and written exercises. *Laboratory required. Fall semester, alternate years.*

GRMN 202 Intermediate German 3
Prerequisite: GRMN 201
Continuation of GRMN 201. *Spring semester, alternate years.*

GRAPHIC DESIGN

- GRPH 150 Introduction to Graphic Arts 3**
Prerequisite: Art, Communication or Graphic Design major or permission of instructor
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 QuarkXPress applications to create corporate logos, business materials, photo collages and newsletters. *Fall/spring semesters.*
- 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.*
- GRPH 254 Publication Design 3**
Prerequisite: GRPH 150
Further study of design principles and QuarkXPress. Includes production of print projects such as programs, brochures, magazine spreads and newsletters. *Spring semester.*
- GRPH 301 Web Design/Dreamweaver 3**
Prerequisite: CPTR 225 or permission of instructor
Dreamweaver is a professional HTML editor for visually designing and managing Web sites and pages. Emphasis is on optimizing for speedy download and user-centered design. *Spring semester.*
- 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 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/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

HHPA credits may be applied to the general education requirements only once, but may be repeated for additional credit with permission of the instructor.

HHPA 115 Beginning Swimming 1
Prerequisite: Nonswimmer
Assists students to develop skills to the level equivalent to Red Cross Beginner and Advanced Beginners Swimming Certificates. *Fall/spring semesters.*

HHPA 130 Rhythmical Aerobics 1
Students learn different styles of aerobic exercise performed to music. Cardiovascular conditioning and strength training are included. *Spring semester.*

HHPA 132 Gymnastics for Everyone 1
Gives instruction in basic tumbling, balancing skills, partner skills, pyramids, trampoline, vaulting, and ring. Students have a conditioning component and are required to perform a basic routine in an area of their choice.

HHPA 145 Beginning Badminton 1
Instruction and practice of the fundamental skills and techniques essential for successfully playing badminton. *Students provide their own equipment for class. Fall/spring semesters.*

HHPA 147 Beginning Tennis 1
Instruction and practice in the fundamental skills involved in playing tennis. *Students provide their own equipment for class. Fall/spring semesters.*

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- HHPA 149 Beginning Golf (Fee)** 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 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. *Fall/spring semesters*
- HHPA 205 Special Physical Education** 1
Developmental activities, games and sports suited to the interests, capabilities and limitations of students with disabilities, who may not safely or successfully engage in regular, unrestricted participation in general physical education programs. *May be repeated for additional credit.*
- 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 (Fee)** 1
Prerequisite: HHPA 215 or equivalent
Provides knowledge and skills necessary for underwater diving. A fee in addition to tuition is necessary for equipment rental. Other expenses may be incurred in connection with test dives. *Students must provide their own fins, mask and snorkel. The additional class fee can be reduced if the student has more personal scuba gear. Fall/spring semesters.*
- HHPA 218 Boardsailing (Fee)** 1
Theory and practice of sailing applied to the windsurfer. Solo sailing, safety, equipment and racing techniques to allow each student to master beginner skills are covered in class. *A fee in addition to tuition is necessary for equipment rental. Summer.*
- 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 245 Cycling 1
Introduction to the various types of cycling techniques. Emphasis is on muscular and cardiorespiratory endurance. Basic mechanical repairs of bicycles is also be included. *Students provide their own equipment. Fall semester.*

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 255 Aerobic Fitness 1
Prerequisite: HHPA 155
Designed to improve fitness and to make exercise enjoyable. Students exercise and set personal goals for improving health and fitness. *Spring semester.*

HHPA 270 Racquetball (Fee) 1
Instruction and practice in the fundamental skills involved in racquetball. *Additional fee beyond tuition is required. Students provide their own equipment. Fall/spring semesters.*

HHPA 316 Lifeguard Training 1
Prerequisites: HHPA 215 or equivalent and HHPT 215 or equivalent
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 Emergency Water Safety and Lifeguarding Certificates upon successful completion of the requirements. *Spring semester.*

HHPA 317 Water Safety Instruction 1
Prerequisite: HHPA 215 or equivalent
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. *Spring semester.*

HEALTH AND HUMAN PERFORMANCE THEORY

HHPT 135 Leisure and Recreational Activities 2
Prerequisite: Permission of the instructor
Provides instruction as well as opportunity to participate in selected leisure and recreational activities, and instruction in the methods and techniques of teaching these activities. *Fall semester, alternate years.*

HHPT 136 Team Activities 3
Prerequisite: Permission of the instructor
Designed to aid 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, volleyball and track and field. *Spring semester, alternate years.*

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- HHPT 137 Gymnastics for Teachers** 1
Prerequisite: Permission of the instructor
Provides opportunities for experiences in mat-tumbling, balance beam, uneven parallel bars, sidehorse, stationary rings, horizontal bar and vaulting. *Spring semester, alternate years.*
- HHPT 140 Introduction to Coaching Theory** 2
Designed to develop coaching strategies and practical coaching theories. Includes information on sport psychology, sport pedagogy, and management. *Fall semester, alternate years.*
- HHPT 215 Emergency Health Care** 2
Leads to certification in CPR/AED for the professional rescuer first responding to emergencies (first aid). Treatment and care of common household, work and recreational injuries covered with practical hands-on experience. *Spring semester, alternate years.*
- HHPT 216 Athletic Injuries** 2
Focuses on skills for the treatment and care of athletic and recreational injuries. *Spring semester, alternate years.*
- HHPT 235 Principles of Sports Officiating** 1
Prerequisite: Permission of the instructor
Covers rules, mechanics and practical experience in officiating flag football and volleyball. Also covers interpretation and officiating techniques for intramural sports. Course meets weekly with laboratory experience required. *Students are required to have a complete official's uniform. Fall semester, alternate years.*
- HHPT 236 Principles of Sports Officiating** 1
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 weekly with laboratory experience required. *Students are required to have a complete official's uniform. Spring semester, alternate years.*
- HHPT 255 Clinical Observation** 1
An overview of the work place skills dealing with general fitness, corrective exercises and rehabilitation. *Students are responsible for their own transportation to off-campus appointments. Fall/spring semesters.*
- HHPT 256 Medical Terminology** 1
This self-study module enables students to pace their learning of medical terms. *Fall/spring semesters.*

- HHPT 335 Administration of Intramural Sports** 1
Prerequisites: HHPT 235, 236
Designed to provide instruction and develop skills necessary to administer a successful intramural program. Emphasis is also be 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 336 Administration of Intramural Sports** 1
Prerequisite: HHPT 335
Continuation of HHPT 335. *Spring semester, alternate years.*
- HHPT 355 Kinesiology (WR)** 3
Prerequisites: BIOL 111, 112 and permission of the instructor
Designed so the student may learn and apply the anatomical and mechanical principles relative to human movement. *Spring semester, alternate years.*
- HHPT 356 Physiology of Exercise (WR)** 3
Prerequisites: BIOL 111, 112 with a minimum grade of C and permission of the instructor
Covers training, sedentary lifestyle and the study of the physiological factors related to human movement. *Fall semester, alternate years.*
- HHPT 357 Motor Learning** 3
Prerequisite: Permission of the instructor
Covers neurological and psychological factors affecting the learning of movement skills. *Spring semester, alternate years.*
- HHPT 366 Adapted Physical Education (WR)** 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 375 Human Assessment** 3
Prerequisites: BIOL 111, 112, HHPT 215, 356
Designed to develop skills dealing with patients for graded exercise testing including: pre-exercise screening procedures, proper electrode placement, appropriate workload progression, pre-exercise measurements, post exercise procedures and reduction of exercise data into an appropriate format. *Spring semester, alternate years.*
- HHPT 437 Measurement and Evaluation in HPER** 3
Prerequisite: Permission of the instructor
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 475 Internship 2-6

Prerequisite: HHPT 375

Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the program. Approximately 45 hours per credit hour are spent in the completion of all aspects of the intern experience. *Course repeatable to total of 6 credits.*

HHPT 485 Seminar in Health and Human Performance (WR) 2

A study of health and human performance from a cultural perspective--past and present. *Spring semester, alternate years.*

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. 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 150 Basketball 1

Intercollegiate basketball (men and women). 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 157 The West and the World 3

Deals topically with the unique contributions of Europe, Asia, America and Africa to present-day world civilization. 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 307 History of Bible Times (WR) 3
Prerequisite: HIST 157
Introduction to the civilizations which most affected ancient Israel and the early Christian church; namely, those of Mesopotamia, Egypt, Palestine, Greece, and Rome. *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 Civilization (WR) 3
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
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
Survey of the early modern period. The Reformation, the Counter Reformation, religious wars, expansion of Europe 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 20th century. *Spring semester, alternate years.*

HIST 457 History of Rome (WR) 3
Covers the rise, growth and disintegration of the Roman Empire. Attention given to changing political forms, socioeconomic bases for the Empire, rise of Christianity and reasons for the fall of the Empire. *Spring semester, alternate years.*

HIST 485 Seminar in History (WR) 3
Prerequisite: Permission of the division
Research course for history majors and minors. Includes historical method, research and preparation of a paper. *Fall 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 20th Century. Includes exposure to the art of world cultures and ethnic groups. Concerts, exhibitions, special events and programs and guest presentations enhance the classroom experience. *Fall semester.*

INTERNATIONAL RESCUE AND RELIEF

INRR 100 Emergency Medical Technician Basic with IV certification 10
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, students are eligible to take the examinations for state certification and national registry as Emergency Medical Technicians. *Spring semester.*

INRR 110 Bioterrorism/Basic Trauma Life Support 1
Prerequisite: INRR 100 or permission of instructor
Addresses biochemical, molecular, medical laboratory, and pathobiological aspects of living agents or organic products of potential use in warfare, terrorism, or criminal activities. Students look at current efforts to prevent, contain or counter the terrorist and criminal uses of biological weapons. Basic Trauma Life Support (BTLS) is a program designed to reduce death and disability for patients who suffer traumatic emergencies such as accidents, drowning and other injury related illnesses. *Summer.*

INRR 112 Swift Water Rescue Technician I/Advanced 1
Prerequisite: INRR 100 or permission of instructor
SRT-I meets *NFPA 1670 and 1006* standards for swift water rescue. SRTA is an *NFPA 1670* standard and the *NFPA 1006* standard at the technician level for water rescue. The initial emphasis is on self-rescue skills. Also covers pre-planning; rescue and recovery management; specific problems which arise with

floods; rescue from class IV-VI whitewater; raising/lowering systems; stokes litter management; cliff picket anchors, "A" frames, tripod setups; and a night mock Search and Rescue (SAR) problem. *Summer.*

INRR 114 Rope Rescue Technician **1**

Prerequisite: INRR 100 or permission of instructor
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. *Summer.*

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 a map, compass and natural aides. *Summer.*

INRR 118 Confined Space Technician **1**

Prerequisite: INRR 100 or permission of instructor
Designed for those emergency responders who are responsible for confined space entries, supervising confined space operations or act as part of a confined space rescue team. The course includes classroom and hands-on training, air monitoring, ventilation lockout/tagout trench rescue and rigging. *Summer.*

INRR 200 Critical Incident Stress Management (CISM) **2**

Prepares participants to provide a variety of crises intervention services with emphasis on the critical incident stress management of debriefing and defusing techniques and how they may be applied to personnel who respond to disasters or emergency situations. Covers fundamentals and understanding of the role of CISM methods and fundamentals. Specific protocols, terms, concepts, common problems and classroom practice sessions are the major emphasis of the course. *Spring semester.*

INRR 310 Emergency Care I **3**

Prerequisite: Admission to the IRR program
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.*

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- INRR 311 Emergency Care II** 3
Prerequisite: INRR 310
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 320 Public Health** 3
Prerequisite: INRR 310
A hands-on course in rural South American villages. Topic 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. *Overseas—Spring semester.*
- INRR 330 Travel Medicine/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. Also covers search and rescue techniques, and in-depth navigation.
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. Firecraft, 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 350 Dive Rescue** 1
Prerequisite: HHPA 217
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 in Venezuela. *Overseas—Spring semester.*

INRR 400 Firefighter I **6**

Beginning of prospective firefighters training, and provides the training, knowledge and skills necessary to attain the minimum basic requirements to perform safely as an entry level firefighter under direct supervision. This program is designed to meet the requirements of Firefighter I certification and follows *NFPA 1001*. *Fall semester.*

INRR 420 Capstone Leadership **3**

Prerequisite: Senior IRR standing
Covers refugee management with a summary of new developments in disaster management, rescue and survival. *Fall semester and summer.*

INRR 450 Hazardous Materials Awareness and Operations **2**

A hands-on course designed for hazardous materials emergency response personnel. It meets OSHA, PEOSHA and NFPA standards. Students participate in a series of practical situations including: chemistry of hazardous materials; material identification; detection devices; personal protection equipment; decontamination; zoning; high pressure cylinders; monitoring equipment; control; contaminated confinement; drum patching and over packing; and cargo tank truck plugging and patching techniques. *Fall semester.*

INRR/NRSG 491 Disaster Management **2-3**

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. This course is open to students of any major. IRR students complete a third hour. *Fall semester.*

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, 105, 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 105, 111, 121 or 221. *Fall semester.*

MATH 100 Intermediate Algebra 3

Prerequisite: 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 105 Contemporary Math 3

Prerequisites: One year of high school algebra and an ACT math score of 18 (SAT of 430) or MATH 100.

Investigates applications of concepts from various areas of mathematics and statistics found in the liberal arts. Laboratory activities are included. MATH 105 may not be taken for credit after a higher numbered math course is passed. *Does not apply toward a mathematics major or minor. 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-83 (highly recommended) or other graphics 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-83 (highly recommended) or other graphics 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-83 (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.*

MATH 184 Calculus I **4**

Prerequisite: MATH 121 with minimum grade of C

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-83 (highly recommended) or other graphics 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-83 (highly recommended) or other graphics calculator with comparable features is required for this course. *Does not apply toward a mathematics major or minor. Credit will not be given for both MATH 221 and 331. Fall/spring semesters.*

MATH 285 Calculus II **4**

Prerequisites: MATH 184 with a minimum grade of C

Continuation of MATH 184 with emphasis on methods of integration in rectangular and polar coordinate systems, indeterminate forms, and infinite sequences and series. *Fall semester.*

MATH 286 Calculus III **4**

Prerequisite: MATH 285 with a minimum grade of C

Continuation of analytical geometry integrated with applications of integration, partial differentiation and multiple integrals. *Spring semester.*

MATH 331 Statistics and Probability (WR) **3**

Prerequisite: MATH 286 with a minimum grade of C

Explores basic concepts of probability theory and statistics for students with preparation in calculus who desire a deeper understanding of the principles

underlying the statistical methods of the topics listed in MATH 221. *Credit will not be given for both MATH 221 and 331. Spring semester, alternate years.*

MATH 340 Discrete Mathematics 3

Prerequisite: MATH 184 with a minimum grade of C

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-83 (highly recommended) or other graphics calculator with comparable features is required for this course. *Fall semester.*

MATH 351 Abstract Algebra 3

Prerequisite: MATH 286 with a minimum grade of C

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 with a minimum grade of C

Provides instruction and experience that enable students to: solve systems of linear equations; apply the properties of vectors spaces, inner product spaces, and linear transformations to real-world problems; and answer various questions in engineering, computer science, and statistics. **A TI-83 (highly recommended) or other graphics calculator with comparable features is required for this course.** *Spring semester.*

MATH 360 History of Mathematics 3

Prerequisite: MATH 286 with a minimum grade of C

Provides instruction and experience related to major developments in mathematics through the ages. Includes historically relevant problem sets, videos, library research, presentations by students as well as the instructor, and class discussions. *Spring semester, alternate years.*

MATH 385 Differential Equations 3

Prerequisite: MATH 286 with a minimum grade of C

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 409 Modern College Geometry 3

Prerequisite: MATH 285 with a minimum grade of C, or experience teaching secondary geometry

Studies advanced Euclidean geometry and introduces modern geometrical concepts in non-Euclidean geometry. *Spring semester, alternate years.*

MATH 486 Numerical Analysis 3
Prerequisites: MATH 285 and CPTR 226 both with a minimum grade of C
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 Advanced Calculus 3
Prerequisite: MATH 286 with a minimum grade of C
Studies real numbers, sequences, series, limits of functions, continuity, differentiation, and Riemann integration. *Fall semester, alternate years.*

MATH 492 Complex Variables 3
Prerequisite: MATH 286 with a minimum grade of C
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
Prerequisite: ENGL 112
A general survey of major marketing methods, institutions and practices, and their effects on producers and consumers. *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 (WR) 3
Prerequisite: MRKT 327 or PSYC 105
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: MATH 221 or concurrent enrollment; 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. The members of this class 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 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. *Alternate years 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: Permission of instructor

Prepares future elementary teachers for teaching music at the K-6 level by teaching how to set goals and objectives for the music program and how to organize and institute a music program. Studies the various methods and techniques available to the elementary music teacher and considers the interrelationship between music and the entire curriculum. *Fall semester.*

MUSIC HISTORY AND LITERATURE

MUHL 260 Music in the Western World 3

Focuses on the development of music in Western civilization. Students become acquainted with important styles and genres of art music, as well as influential composers and specific pieces from Medieval to contemporary times. *Fall semester.*

MUHL 261 Traditional and World Music 3

Designed to increase cultural awareness through an overview of traditional music styles and performance practices from around the world. The cultural and historical context for each musical tradition is examined. *Spring semester.*

MUHL 315 Music and Christian Worship 2

A survey of congregational song and its use in Christian worship. Emphasis is placed on relationships between church history, theology, scripture, music and literature, criteria for planning and evaluation. *Offered as needed.*

- MUHL 351 Music History I (WR)** 2
Prerequisite: Permission of instructor
Western music from early Christian times through the medieval period and the early Renaissance. *Fall semester, alternate years.*
- MUHL 352 Music History II (WR)** 2
Prerequisite: Permission of instructor
Western music from late Renaissance through the Baroque period. *Spring semester, alternate years.*
- MUHL 353 Music History III (WR)** 2
Prerequisite: Permission of instructor
A study of the Classical and early Romantic periods. *Fall semester, alternate years.*
- MUHL 354 Music History IV (WR)** 2
Prerequisite: Permission of instructor
Music from late Romantic period to the present, including an overview of jazz. *Spring semester, alternate years.*

MUSIC PERFORMANCE

Music Performance Studies

Private lessons with studio classes as required. *May be repeated for additional credit.* Thirteen 30-minute lessons per semester and daily practice amounting to at least four periods per week shall yield one hour of academic credit. Credit will not be given until these requirements are met. All new students in music performance register at the 100 level. Upon successfully passing a jury examination, music majors, minors and other advanced students may be transferred to the 200 level. Upper-division students who have studied at the 200 level for four semesters may, upon a successful jury examination, move to the 400 level. The 300 level is reserved for upper-division students who are not majors.

MUPF 101, 201, 301, 401 Voice	1-3
MUPF 105, 205, 305, 405 Flute	1-3
MUPF 106, 206, 306, 406 Oboe	1-3
MUPF 107, 207, 307, 407 Clarinet	1-3
MUPF 108, 208, 308, 408 Bassoon	1-3
MUPF 109, 209, 309, 409 Saxophone	1-3
MUPF 111, 211, 311, 411 Piano	1-3
MUPF 112, 212, 312, 412 Organ	1-3
MUPF 113, 213, 313, 413 Harpsichord	1-3
MUPF 114, 214, 314, 414 Harp	1-3
MUPF 115, 215, 315, 415 Trumpet	1-3
MUPF 116, 216, 316, 416 Horn	1-3
MUPF 117, 217, 317, 417 Euphonium (Baritone Horn)	1-3

MUPF 118, 218, 318, 418 Trombone	1-3
MUPF 119, 219, 319, 419 Tuba	1-3
MUPF 121, 221, 321, 421 Percussion	1-3
MUPF 125, 225, 325, 425 Violin	1-3
MUPF 126, 226, 326, 426 Viola	1-3
MUPF 127, 227, 327, 427 Cello	1-3
MUPF 128, 228, 328, 428 String Bass	1-3
MUPF 129, 229, 329, 429 Guitar	1-3
MUPF 130, 230, 330, 440 Composition	1-3
MUPF 175 Band (Symphonic Concert Band)	1
Prerequisite: Permission of instructor	
See MUPF 375. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 176 Chamber Orchestra	1
Prerequisite: Permission of instructor	
See MUPF 376. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 177 Chamber Choir	1
See MUPF 377. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 185 Advanced Choir (Unionaires)	1
Prerequisite: Permission of instructor	
See MUPF 385. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 190 Small Ensembles	1
Prerequisite: Permission of instructor	
Select vocal and instrumental ensembles which may include Brass Ensemble, Guitar Ensemble, Handbell Ensemble, Keyboard Ensemble, Octet Ensemble, String Ensemble and Woodwind Ensemble. Consult class schedule for further information. See MUPF 390. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 257 Introduction to Conducting	2
Prerequisite: Permission of instructor	
<i>Spring semester.</i>	
MUPF 266 English-Italian Diction	1
Prerequisite: Permission of instructor	
<i>Fall semester, alternate years.</i>	
MUPF 267 German-French Diction	1
Prerequisite: Permission of instructor	
<i>Spring semester, alternate years.</i>	

MUPF 341 Choral Conducting	1
Prerequisite: MUPF 257; permission <i>Spring semester, alternate years as needed.</i>	
MUPF 342 Instrumental Conducting	1
Prerequisite: MUPF 257; permission <i>Alternate years as needed.</i>	
MUPF 346 Service Playing	1
Prerequisite: Permission of instructor The role of the organist in the church service; practical procedures. <i>Alternate years as needed.</i>	
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 390 Small Ensembles	1
Prerequisite: Sophomore standing and permission of instructor Select vocal and instrumental ensembles which may include Brass Ensemble, Guitar Ensemble, Handbell Ensemble, Keyboard Ensemble, Octet Ensemble, String Ensemble and Woodwind Ensemble. Consult class schedule for further information. See MUPF 190. <i>May be repeated for additional credit. Fall/spring semesters.</i>	
MUPF 451 Senior Recital	1
Prerequisite: MUTH 254 and permission of instructor	

MUSIC PIANO PEDAGOGY**MUPP 101 Introduction to Piano Pedagogy 2**

An introduction to the educational psychology involved in independent studio teaching. Various learning styles are explored as well as pedagogical methods and schools of thought that reach a wide variety of students. *Spring semester.*

MUPP 201 Teaching the Very Young Music Student 2

Prerequisite: MUPP 101

A comprehensive comparison of methodologies for the young beginner. This course focuses on teaching pre-school and early elementary-aged music students and incorporating developmentally-appropriate practices and methods for both. *Fall semester, alternate years.*

MUPP 202 Teaching Intermediate Piano Literature 2

Prerequisite: MUPP 101

Offers a greater focus on technical and musical development of the early and late intermediate student. A wide variety of teaching literature are explored and framed by issues relating to the teaching of technique, musicality, and interpretation. *Spring semester, alternate years.*

MUPP 301 Issues in Studio Management 2

Prerequisite: MUPP 101

Designed as a hands-on course or practicum for the pedagogy student. Topics include setting up a studio, business considerations, marketing, public relations and customer service. Students gain valuable experience working in and observing studio situations in the community. *Fall semester, alternate years.*

MUPP 302 Seminar in Piano Pedagogy 2

Prerequisite: MUPP 101

Intended to address special areas of interest in piano pedagogy and unify all the previous piano pedagogy courses. Areas of focus may include teaching the special needs child, teaching as ministry, serving your community through teaching, or teaching children of different cultures. *Spring semester, alternate years.*

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 362 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 365 Orchestration 2
Prerequisite: MUTH 254
Fall semester, alternate years as needed.

NURSING

NRSG 208 Pharmacology 1
Introduces pharmacologic principles. Examines various drug classifications and general characteristics of drugs within each class, including actions, indications for use, undesirable effects and education for clients. *Fall semester.*

NRSG 213 Fundamentals 5
Prerequisites: Admission to nursing program, BIOL 111, 112, CHEM 101, CHEM 102, HHPT 256, PSYC 105
Corequisite: NRSG 335
Introduces the roles and responsibilities of the professional nurse in acute care and home health settings. Utilizes the nursing process, emphasizing psychomotor skills in nursing. Includes basic principles of nursing theory, therapeutic communication, teaching-learning, stress adaptation, wholeness and high-level wellness, and critical thinking. Students use beginning skills/ therapeutics to

meet the comfort and safety needs of clients. Three class hours and six clinical hours per week. *Fall semester.*

NRSG 263 Medical-Surgical I **5**

Prerequisites: NRSG 213, 335

Corequisites: NRSG 359, PSYC 215, SOCI 105

Building upon principles from relevant arts and sciences, students use the nursing process in modifying commonly-occurring stressors involving the chronic and acutely-ill client. Students address client problems related to body systems. This course encourages the development of critical thinking in making beginning nursing decisions for client care. Three class hours and six clinical hours per week. *Spring semester.*

NRSG 335 Physical Assessment **3**

Prerequisite: Admission to nursing program

Corequisite: NRSG 213 or permission of instructor

Develops assessment skills necessary to provide competent care for clients of varying ages and ethnic backgrounds. Students practice skills in data collection, interpretation, health planning and client education. These skills help the student focus on client wholeness and placement on a health continuum for optimum care. Clinical hours are spent with preschool children, school-age children, adults and geriatric clients. Two class hours and three clinical hours per week. *Fall semester.*

NRSG 359 Pathophysiology **3**

Prerequisites: Admission to nursing program or permission of instructor;

Examines human pathophysiology, beginning at the cellular level and progressing to integrated systems analysis. An in-depth examination of normal body function is contrasted to physiological dysfunction. Emphasizes the relationship between theory and clinical findings. Three class hours per week. *Spring semester.*

NRSG 363 Medical-Surgical II **5**

Prerequisites: NRSG 263, 359

Continues to build upon principles from relevant arts and sciences. Students use the nursing process in modifying commonly-occurring stressors involving the chronic and acutely-ill client. Students address client problems related to body systems. This course encourages the development of critical thinking in making nursing decisions for client care. Three class hours and six clinical hours per week. *Fall semester.*

NRSG 383 Junior Seminar **1**

Prerequisite: Level III status or permission of instructor

Examines the historical as well as the future trends of the nursing profession. Nursing education, image and professional behavior, nursing theorists, and the political process are discussed. One class period per week. *Spring semester.*

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- NRSG 385 Childbearing Family** 5
Prerequisite: NRSG 335, 359, 363
Emphasizes the promotion of high-level wellness during the childbearing cycle. Students utilize the nursing process to meet the physical, mental, social-cultural, and spiritual needs of clients, taking into consideration the total family unit. Clinical experiences include care of childbearing families in hospital and community settings. Average of three class hours and six clinical hours per week. *Spring semester.*
- NRSG 387 Nursing Research (WR)** 3
Prerequisite: MATH 221; Level III status or permission of instructor
Focuses on basic research concepts and methodology involved in conducting studies in nursing. Students learn to critique research studies in order to apply findings to clinical nursing practice. The overall focus is a thorough understanding of the scientific method from a Christian perspective. Equivalent of three class hours per week. *Spring semester.*
- NRSG 391 Frontier Nursing** 2
Prerequisite: Level III status or permission of instructor
Introduces the nursing student to principles and practices of health care on the frontiers of developing and third world countries, and opportunities for professional practice in these areas throughout the world. Concepts of basic health education, use of natural remedies, prevention of diseases throughout the life cycle are emphasized. *Spring semester.*
- NRSG 392 Frontier Nursing—Field Experience** 2-3
Prerequisite: NRSG 391
An elective two-week field experience that allows third- or fourth-year nursing students to apply the principles that were learned in NRSG 391 Frontier Nursing. Students have the opportunity, as part of a multidisciplinary healthcare team, to perform village health assessments, provide basic public health education, and assist in providing healthcare to patients in a developing country. The field trip utilizes the Tasba Raya Adventist Clinic in Francia Sirpi, North Atlantic Autonomous Region, Nicaragua. This clinic provides health care to Miskito Indians who reside in this region. A third week may be added to this experience in the future.
- NRSG 423 Childrearing Family** 5
Prerequisites: NRSG 363, 385; PSYC 215
Provides an opportunity to develop awareness of the needs of children and their families at various stages of development. The nursing process is utilized in providing nursing care. Students learn nursing interventions that promote wellness and prevent illness, as well as caring for the ill child and family. The concept of wholeness is considered as it relates to the child and family. Clinical experience is obtained in hospital and community settings. Average of three class hours and six clinical hours per week. *Fall semester.*

- NRSG 435 Mental Health** 5
Prerequisites: NRSG 363, 387; PSYC 105, 215; SOCI 105
Studies thoughts, emotions and behavior, the application of mental health principles and current developments in the mental health field. Students use the nursing process in the psychiatric setting. Clinical experiences provide the students opportunity to develop therapeutic nurse-patient relationships while working with clients experiencing psychosocial stressors. Focus is on the promotion and maintenance of mental health, so that wholeness is facilitated and movement toward optimal health is achieved. Average of three class and six clinical hours per week. *Fall semester.*
- NRSG 437 Management and Leadership in Health Care** 3
Prerequisite: Level IV status
Corequisites: NRSG 423, 435
Examines the purpose and functions of management, leadership and current organizational styles. Emphasizes understanding human behavior as the basis of management effectiveness. Using critical thinking and decision making, students apply principles of management and leadership to promote high levels of wellness for patients in relation to changing societal and health need sand facilitate the actions of others in the delivery of healthcare. Average of two class and three clinical hours per week. *Fall semester.*
- NRSG 439 Complex Care** 5
Prerequisites: NRSG 435; 423 or permission of instructor
Builds upon the previous nursing courses to develop a systematic approach to caring for the client with multiple stressors affecting many systems. Students apply the nursing process to facilitate removal or modification of stressors for persons primarily in the acute care and partially in the community settings. Students address both the critically ill adult with complex problems of body systems as well as legal, ethical and psychosocial aspects of nursing the critically ill adult. Average of three class hours and six clinical hours per week. *Spring semester.*
- NRSG 447 Community Health Nursing** 5
Prerequisite: Last semester of nursing program
Focuses on nursing knowledge and skill needed in providing for health care of the community. Student are able to provide care to a variety of individuals, families and groups in the community who are at various positions on the age and health continuum. The focus of care is promotion of health with consideration for all dimensions of wholeness. Students apply the nursing process in the clinical setting and develop awareness and experience with community resources appropriate for community clients. Average of three class hours and six clinical hours per week. *Spring semester.*

- NRSG 483 Senior Seminar** 1
Prerequisite: Last semester of nursing program
Focuses on issues which will confront new graduates in the workplace. Discusses licensure, resumes and interviewing, ethical decision making, collective bargaining and legal concerns. Also explores career options and further professional development of nurses. One class hour per week. *Spring semester.*
- NRSG/INRR 491 Disaster Management** 2
Prerequisite: Level III or IV status or permission of the instructor
An elective course that 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.*
- NRSG 499 Preceptorship** 3
Prerequisites: Last semester of nursing program
Applies nursing knowledge in a clinical setting of the students' choice, bridging the gap between theory and practice at an entry level position. Preparation for the experience includes analysis of health care delivery systems and roles the students will fill within the system. Joint planning between the student, instructor, preceptor and agency determines the students' activities and experiences. This individualized program is the capstone course for Union College nursing students. No previous experience is accepted for credit. *Spring semester.*

NUTRITION

- NUTR 227 Nutrition** 3
An overview of the principles of nutrition. Students examine personal eating behaviors and nutritional adequacy of their diet in comparison to current recommendations. Basic nutrient functions are emphasized within the context of normal physiological processes. Relationships between nutrition and health of individuals and groups throughout the life cycle are examined, including special nutritional needs and dietary modifications. Chemistry and anatomy and physiology strongly suggested, though not required. *Fall semester.*

PHYSICIAN ASSISTANT STUDIES

Prerequisite for all PHAS courses: Admission to the Physician Assistant Program

- PHAS 505 Medical Literature Review (WR)** 2
Focuses on basic research concepts and methodology involved in health care research. Students learn to evaluate or critique research literature for

application of findings to clinical practice. Experience is gained in identifying researchable health care problems. *Summer.*

PHAS 510 Clinical Nutrition **2**

After a review of basic human nutrition science, guides students in examining individual eating behaviors and their nutritional adequacy compared to current recommendations. Nutrient functions are presented within the context of normal physiological processes, and then related to a variety of disease states and nutritional problems, including prescriptive diet modifications. Relationships between nutrition and health throughout the life cycle are also studied. *Fall semester.*

PHAS 511 Human Anatomy **5**

Recommended: Undergraduate anatomy
A graduate-level study of human anatomy and related clinical applications. Relationship of structures in the different regions of the body are studied in depth, including discussions of consequences of malfunction. Four lectures and one three-hour laboratory. Cadaver work required. *Fall semester.*

PHAS 514 Medical History and Physical Examination Skills (WR) **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, bone and organ radiography, 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 the acquisition of counseling skills necessary in communicating with patients facing common psychologic and psychiatric presentations (e.g., anxiety, stress, obsessive-compulsive, biochemical and reactive depression, schizophrenia, dementias, and mental retardation). Topics are discussed and role-played, integrating appropriate diagnostic and therapeutic interventions. Addressed also are management of the dying patient, practical assessment of the pediatric psychosocial development, and 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). *Summer*.

PHAS 519 Differential Diagnosis and Case Development 2

Emphasizes problem-based learning with applied exam skills required to properly diagnose various diseases. Through small group discussions, presents symptom complexes from clinical cases. 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. *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 pediatric, female medicine, 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, childhood and adult immunizations, abstinence programs, genetic screening, management of cardiac risk factors, stress management, and cancer screening. Reviews public health programs and emphasizes the role of the individual practitioner tailoring successful preventive health goals for patients of all ages. *Spring semester*.

PHAS 539 (WR)/RELP 439 Christian Health Care and Bioethics 3

Studies the Christian ministry of the healing professions. Includes an inductive study of the biblical account of the healing ministry of Jesus Christ, a presentation of themes in the biblical theology of health, and a study of topics in bioethics. WR applies only to PHAS 539. *Spring 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, reproductive 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 precautions, sterile technique, injections 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 experience. *Fall semester.*

PHAS 547 Clinical Skills II **2**

Emphasizes application of clinical skills in the actual clinical arena with students performing physical examinations in local 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 also provided. *Spring semester.*

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 and reproductive 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 **3**

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 575 Clinical Rotations **12**

The clinical rotations series of courses comprises three contiguous semesters of actual clinical practice experiences with supervision and instruction by physician preceptors, preparing students to function in medical and surgical settings. Students participate in required clinical rotations in family medicine,

internal medicine, pediatrics, obstetrics and gynecology, surgery, emergency medicine, cardiology and orthopedics. Additional elective rotations may be taken in a variety of specialized areas of medicine. Rotation sites are scheduled by the PA program, selecting experiences in ambulatory, emergency, inpatient and long-term care settings in both rural and urban locations. Students congregate on campus quarterly for two-three days of evaluation and seminars. These sessions include workshops on employment issues, medical-legal topics, and selected topics in rapidly changing areas of medicine. *Summer.*

PHAS 576 Clinical Rotations 16

Continuation of PHAS 575. *Fall semester.*

PHAS 577 Clinical Rotations 16

Continuation of PHAS 576. *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.

PHILOSOPHY

PHIL 335 Introduction to Philosophy 2

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 Judaeo-Christian world view. *Spring semester.*

PHYSICS

Prerequisites are listed for each course but in some cases permission may be granted by the instructor.

PHYS 111 Principles of Physics 3

Prerequisites: A knowledge of high school algebra and fulfillment of MATH general education requirement

Course intended to give the nonscience 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 equivalent

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.*

*Available through cooperative program at Nebraska Wesleyan University, Lincoln, NE.

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- *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
Prerequisites: 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 or 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 or 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
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*Available through cooperative program at Nebraska Wesleyan University, Lincoln, NE.

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: PHYS 251 with a minimum grade of C

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 350 Modern Physics (WR) **4**

Prerequisite: 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**

Prerequisite: 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**

Prerequisite: PHYS 251

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 396 Research Methods III 1
Prerequisite: PHYS 386 with a minimum grade of *B* or PHYS 296 with either MATH 221 or 331
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 II 4
Prerequisites: 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.*

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.*

PSYCHOLOGY

PSYC 105 Introduction to Psychology 3
Explores psychology as a science of behavior and experience. Emphasizes the basic psychological processes and concepts of motivation, learning, memory, emotion, sensation and perception. Topics include personality and adjustment, behavior disorders and treatment of abnormal behavior. *Fall semester.*

PSYC 110 Freshman Seminar in Psychology 1
Introduces psychology as it is used and practiced in the beginning of the 21st century. Covers the major areas of concentration in psychology, career options, professional organizations, and major sources of data and research information in psychology. *Fall semester.*

- PSYC 215 Developmental Psychology (WR)** 3
Prerequisite: ENGL 112
Studies theories of physical, cognitive and psycho-social development through each of the life stages, prenatal through old age. Attention is given to the influences of society and culture on the normal developmental process. *Fall semester.*
- PSYC 311 Christian Counseling** 3
Prerequisite: PSYC 105
Provides a comprehensive study of various theories of counseling examined from a Seventh-day Adventist Christian perspective. Students participate in counseling sessions. *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 335 Psychological Statistics** 3
Prerequisites: Junior standing; MATH above 100; PSYC 105 or permission of the division chair
Studies basic statistical methods such as frequency distribution, central tendency, variability, standard scores and normal curve correlation techniques, sampling and parametric and non-parametric tests. *Fall semester.*
- PSYC 336 Research Design (WR)** 3
Prerequisite: PSYC 335
Presents an integrated approach to concepts and processes of research. Considers the logic of various methods of research and emphasizes the appropriateness of those methods for gathering data about behavior. Each student is required to complete a research proposal. *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 415 Abnormal Psychology 3
Prerequisite: PSYC 105
Investigates the causes, symptoms and treatment of psychological disorders. Anxiety somatoform, dissociative, mood, schizophrenic and personality disorders are surveyed. *Spring semester.*

PSYC 427 Psychological Assessment 3
Prerequisites: PSYC 105, 215
A general introduction to the topic of psychological assessment. Trains the student to think clinically about persons they interact with in their professional role. Students presents both 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.

PSYC 435 Current Issues in Psychology 2
Prerequisite: PSYC 105
Investigates the research and dialogue of 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 the issue.

PSYC 436 Senior Research (WR) 4
Prerequisite: PSYC 336
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 as well as instruction in how to evaluate and choose a Bible translation. *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. Includes exegetical study of selected Old Testament prophets. *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 heavenly fulfillments in Christ's ministry. *Fall semester.*

RELB 255 Life and Teachings of Jesus 3
A study of the life, ministry and teachings of Jesus, with applications for daily living, based upon an inductive study of the four gospels. *Fall/spring semester.*

RELB 325 Prophets (WR) 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 (WR) 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) 2
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/ENGL 366 Biblical Literature (WR) 3
Prerequisite: ENGL 112 and either ENGL 235, ENGL 236, 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.*

RELB 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 origin and development of the Seventh-day Adventist Church within 19th-century culture with emphasis on the life and writings of Ellen G. White. *Spring semester.*

RELB 456 Adventist History Research 1
A research project in Adventist history to be taken in conjunction with Prophetic Guidance. For theology and religion majors planning to attend the seminary. *Spring semester.*

RELIGIOUS HISTORY

RELB 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.*

BIBLICAL LANGUAGES

RELB 271 Beginning New Testament Greek 4

The elements of Greek grammar and basic vocabulary. Translation from the Johannine writings, combined with a systematic approach to vocabulary building and the rules of Biblical Greek syntax. *Fall semester.*

RELL 272 Beginning New Testament Greek 4

Prerequisite: RELL 271
Continuation of RELL 271. *Spring semester.*

RELL 373 Intermediate New Testament Greek 2

Prerequisite: RELL 272 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 a pastoral study program. *Fall semester.*

RELL 374 Intermediate New Testament Greek 2

Prerequisite: RELL 373
Continuation of RELL 373. *Spring semester.*

RELL 385 Beginning Biblical Hebrew 3

The fundamentals of Biblical Hebrew: a small but practical vocabulary and an understanding of the grammar of the language. Emphasis is placed on learning to use lexicons and commentaries. *Fall semester.*

RELL 386 Intermediate Biblical Hebrew 3

Prerequisite: RELL 385
Continuation of RELL 385. *Spring semester.*

MINISTERIAL PRACTICES

RELP 125 Introduction to Ministry 1

A study of the principle elements in pastoral ministry, through class discussion, observation and report writing. Students are assigned to work with pastors and elders in local Adventist churches. *Fall semester.*

RELP 126 Introduction to Ministry 1

Continuation of RELP 125. *Spring semester.*

RELP 235 Introduction to Youth Leadership 3

Prerequisite: PSYC 105
A study of the philosophy of Youth Ministries from a psycho-social perspective including a comparison of youth ministry models and the development of a personal working model for each student. *Spring semester, alternate years.*

- RELP 285 Colloquium in Ministry** .25
Includes a study of both theological and practical aspects of ministry. Recommended for religion majors and required for theology majors each semester of their freshman and sophomore years. See RELP 485. *Fall/spring semesters.*
- RELP 321 Homiletics** 2
Prerequisite: COMM 105
A study of sermon methodology designed to train biblical preachers. Preaching skills are developed through theory, class and field experience. Emphasizes topical, narrative and expository preaching. *Fall semester.*
- RELP 322 Homiletics** 2
Prerequisite: RELP 321
Continuation of RELP 321. *Spring semester.*
- RELP 335 Youth Leadership in the SDA Church** 3
Prerequisite: PSYC 105
A comprehensive study of youth leadership in the Seventh-day Adventist church, including Pathfinders, Youth Sabbath School, academy chaplaincy, conference and summer camp administration. Includes an introduction to college chaplaincy work. *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. *Graded credit/no credit. Open only to Youth Ministry minors.*
- RELP 361 Church Leadership** 2
Combines a study of the theology of church leadership and on-the-job training assisting pastors in nearby churches. Usually taken in conjunction with RELP 321. *Fall semester.*
- RELP 362 Church Leadership** 2
Prerequisite: RELP 361
Continuation of RELP 361. Usually taken in conjunction with RELP 322. *Spring 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 376 Evangelism Internship 2
Active participation and preaching in an evangelism series. Students prepare a public evangelism proposal for a local church and carry out this project under the supervision of one of the religion faculty. Interim reports indicate the progress of the project and a final paper details the outcomes.

RELP 439/PHAS 539 (WR) Christian Health Care and Bioethics 3
Studies the Christian ministry of the healing professions. Includes an inductive study of the biblical account of the healing ministry of Jesus Christ, a presentation of themes in the biblical theology of health, and a study of topics in bioethics. WR applies only to PHAS 539. *Spring semester.*

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. *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 485 Colloquium in Ministry .25
Includes a study of both theological and practical aspects of ministry. Recommended for religion majors and required for theology majors each semester of their junior and senior years. See RELP 285. *Fall/spring semesters.*

RELP 486 Clinical Pastoral Seminar 2
Prerequisite: Junior or senior religion or theology major. Seniors are given priority.
Instructions in pastoral counseling with emphasis on hospital visitation. Includes both theory and practice. *Spring semester, alternate years.*

THEOLOGICAL STUDIES

RELT 141 Christian Beliefs 3
Surveys fundamental biblical doctrines from the Seventh-day Adventist perspective. *Fall/spring semesters.*

RELT 147 World Religions 3
A study of the major religions of the world including primal religions, Hinduism, Buddhism, Jainism and Sikhism, religions of China and Japan, Judaism, and Islam. The relationship of Christianity to these religions is discussed, including the Christian mission to the world. *Fall semester.*

RELT 149 Dynamics of Christian Living 2
Explores the realm of personal relationship with God, with emphasis on conversion, communion with God, spiritual growth, religious practices, witness and ethics. *Spring semester.*

RELT 305 Christian Ethics (WR) 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: RELT 141
Systematic study of the major theological questions of Christianity presented in the framework of their historical and contemporary implications. *Fall semester.*

RELT 338 Christian Theology II 3
Prerequisite: RELT 337
Continuation of RELT 337. *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 and 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. Spring semester.*

SOCIOLOGY

SOCI 105 Introduction to Sociology 3
Introduces the fundamental principles and concepts of sociology. Studies forms and processes of human group association; culture and its influence and

variety; socialization and personality; and social stratification, including race relations and segregation. *Fall/spring semesters.*

SOCI 210 Group Dynamics 3

Prerequisite: SOCI 105

An introduction to the stage theory of group development, small group dynamics, interpersonal 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 315 Marriage and Family 3

Assists students in their understanding and negotiating of relationships by examining friendships, dating, courtship, marriage and family life. Uses a strengths-based approach to relationship development with emphasis on positive communication and problem solving. Discusses the issues of divorce, single parenting, sexuality, death and dying, finances, pre-marital counseling. *Fall semester.*

SOCI 321 Issues of Diversity (WR) 3

Establishes a knowledge base for defining and understanding such concepts as minority status, Conflict and Functionalist theory of minority/majority relations, Noel hypothesis, assimilation, pluralism, prejudice, and discrimination. Relevant supreme court and lower court cases are used to explore institutional successes and failures on human rights. Guest speakers and student community involvement required. *Fall semester.*

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

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 social policies that affect the funding and services of social welfare agencies. Studies the social, political and value systems that create such policies. Examines the stages of development, change and implementation. *Spring semester.*
- 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
Prerequisites: SOWK 228 or permission of instructor
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. *Offered as needed.*
- SOWK 336 Social Work Practice I** 3
Prerequisites: SOWK 228 or permission of instructor
Assists students in developing generalist social work skills in individual and group levels of practice. Students practice relationship-building, problem solving, assessment, and intervention skills as they relate to individuals, families and groups. *Fall semester.*
- SOWK 337 Social Work Practice II** 3
Prerequisite: SOWK 316 or permission of instructor
An introductory course to the administration and planning of social service organizations with major emphasis upon community, organizational and legislative analysis; management skills; program planning and evaluation. Includes simulations, in-class projects, volunteer experience and personal introspection. *Spring semester.*

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- SOWK 345 Medical Social Services** 3
Prerequisite: SOWK 228
Provides basic orientation to the new generalist practitioner preparing to work as a medical social worker in a hospital 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
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. *Fall semester, alternate years.*
- SOWK 389 Leadership of an NPO/NGO** 3
Prerequisite: SOWK 228
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. *Fall semester, alternate years.*
- SOWK 390 Research Seminar** 1
Prerequisite: PSYC 336
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 426 Field of Corrections** 3
Prerequisite: SOWK 228
Surveys the field of corrections, providing a historical focus, the current picture, problems and possible outcomes. Covers the basic laws regarding corrections practices, the client and methods of handling the client. *Spring semester, alternate years.*
- SOWK 438 Gerontology** 3
Prerequisite: SOWK 228
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 **1-10**
Prerequisite: SOWK 228 Corequisite: SOWK 476
Capstone professional experience in a social service agency, under the mentorship of an MSW professional. A total of 480 hours are required. Placements are completed over a four-semester plan in the junior and senior years. *Fall/spring semesters.*

SOWK 476 Field Seminar **.5-2**
Corequisite: SOWK 475
Allows students to discuss experiences in their field placement and develop skills in handling various types of situations in the field of social work. Readings are assigned. *Fall/spring semesters.*

SPANISH

SPAN 101 Beginning Spanish **3**
Introduction to basic Spanish conversation, structure, vocabulary and culture. Includes dictations, simple readings, written exercises, with the emphasis on oral communication. *Laboratory required. Fall semester.*

SPAN 102 Beginning Spanish **3**
Prerequisite: SPAN 101
Continuation of SPAN 101. *Spring semester.*

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

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).

TLCM 071 Basic Skills in English **2**
Focuses on paragraph structure and development. Provides small group and individualized assistance and emphasizes process and product directed instruction. *Fall/spring semesters.*

UNION COLLEGE STUDENT MISSION SERVICE

UCSM 205 Introduction to Overseas Service 2

An orientation course for prospective student missionaries and others interested in cross-cultural mission service. *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.*

UNION SCHOLARS CORE

- USC 125 Western Culture I** 4
Prerequisite: Acceptance into Union Scholars, Required for Union Scholars during the first year
Studies significant issues in Western civilization approached through reading major works, considering artistic creations, and disciplined reflection in discussion and writing. The first semester's topics reflect 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: Art, History and Literature. *Fall semester.*
- USC 126 Western Culture II** 4
Prerequisite: Acceptance into Union Scholars, Required for Union Scholars during the first year
Continuation of USC 125. Second semester covers the Enlightenment to the modern world. Disciplines: Art, History and Literature. *Spring semester.*
- USC 255 Women of the Bible** 3
Prerequisite: Acceptance into Union Scholars
Explores the important and exciting ways God has used women to help forge His plan of salvation. Students research and seek to understand these women from the biblical and historical point of view as well as how they are portrayed in the arts.
Discipline: Humanities. *Fall semester, alternate years.*
- USC 256 Great Books (WR)** 3
Prerequisite: ENGL 112; acceptance into Union Scholars
A survey of great literature in several genres from ancient times to the present.
Discipline: Literature. *Fall semester, alternate years.*
- USC 280 Romans** 3
Prerequisite: Acceptance into Union Scholars
An in-depth study of the epistle of Paul to the Romans, its argumentation, theology, and instruction for Christian life, and the application of its message to today's world. Discipline: Religion. *Fall semester.*
- USC 284 The US Presidency** 3
Prerequisite: Acceptance into Union Scholars
Analyzes what leadership skills are needed to be an effective president. Students read about each United States president and analyze why they think each president was or was not successful. Discipline: History. *Fall semester, presidential election year.*

-
- USC 291 A Literary Walk in Tuscany** 3
Prerequisite: Acceptance into Union Scholars
Explores the rich history of Tuscany and its inspiration to many British and American authors. Disciplines: Literature and Humanities. *Spring semester, alternate years.*
- USC 305 The Holocaust (WR)** 3
Prerequisite: Junior standing; acceptance into Union Scholars
An in-depth study of the origins and events of the destruction of the European Jewish community by Nazi Germany during World War II. Discipline: History. *Fall semester, alternate years.*
- USC 316 Perceiving the Arts (WR)** 3
Prerequisite: Acceptance into Union Scholars
Provides basic technical knowledge of each artistic discipline in order to demystify the arts and reveal them to be the most basic and natural forms of human communication. Concerts, exhibitions, special events and programs, guest presentations, and videos enhance the classroom experience. Disciplines: Art and Music. *Spring semester, alternate years.*
- USC 320 Perspectives/Current Events (WR)** 3
Prerequisite: Acceptance into Union Scholars
Examination and analysis of current events using a multi-disciplinary approach. Emphasis is on examination of events and the ability to present ideas from a variety of perspectives. Discipline: History. *Spring semester, alternate years.*
- USC 323 Current Religious Events** 3
Prerequisite: Acceptance into Union Scholars
Studies topics in theology, biblical studies, or church life in order to introduce students to current issues. Discipline: Religion
- USC 396 Critiquing Film** 3
Prerequisite: Acceptance into Union Scholars
Applies critical thinking to help participants understand the language of film, become conversant with various genres of film, and gain an appreciation for the craft of film making while transcending personal preference in making judgments about film. Discipline: Communication. *Spring semester, alternate years.*
- USC 498 Honors Independent Study** 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 additional support from two other advisors. Culminates in a public presentation and the research paper filed in the Honors Office and Love Library communicates the conclusions to the campus and the wider academic community.

COLLEGE ORGANIZATION

BOARD OF DIRECTORS—2004-2005

Dennis Carlson, Chair	NE	Van Hurst	SD
David C. Smith, Secretary	NE	Otis Jackson	MO
Steve Bascom	IA	Keith Jacobson	NE
Mardian Blair	FL	Jack Krogstad	IA
James Boyle	CO	Jerome Lang	NE
Jim Brauer	CO	James McArthur	TN
Walter Brown	IA	Jay Miller, III	KY
Alex Bryant	KS	William K. Miller	MN
Ronald Carlson	ND	Larry Pitcher	NE
*Geraldine Dickinson	ID	Rich Reiner	FL
Charles Drake	NE	Ryan Reinke	FL
Shirley Eivins	IA	Ron Russell	NE
Tom Evans	NE	Jessica Saxton	MO
Derald Goetz	NE	Kent Seltman	MN
Mildred Greer	MO	Kent Thompson	NE
Jim Hoehn	KS	Samuel Turner, Sr	KS

By Invitation: Director, North American Division Higher Education Cabinet

*Honorary Board Member

ACADEMIC COMMITTEE

Jack Krogstad, Chair	Jay Miller
VP Academic Admin, Ex Officio Secr	William K. Miller
Don Abbey	Larry Pitcher
Mildred Greer	Ron Russell
Van Hurst	Kent Seltman
Otis Jackson	

CAMPUS LIFE COMMITTEE

Ryan Reinke, Chair	Walter Brown
VP Student Serv, Ex Officio, Secr	Charles Drake
UC Chaplain, Ex Officio	Shirley Eivins
Steve Bascom	Keith Jacobson
Deborah Bogdon	

FINANCE AND DEVELOPMENT COMMITTEE

MAUC Treasurer, Ex Officio Chair	Mardian Blair
VP Financial Admin, Ex Officio Secr	Jeff Joiner
UC President, Ex Officio	Jerome Lang
KS-NE Conf Treasurer, Ex Officio	Kent Thompson
VP Advancement, Ex Officio	

MASTER PLANNING AND FACILITIES

Kent Thompson, Chair	Jerome Lang
VP Finance, Ex Officio Secr	Dan Lynn
Plant Services Director, Ex Officio	Rich Reiner
James Boyle	James McArthur
Ron Carlson	Sam Turner
Derald Goetz	

RECRUITMENT, RETENTION, AND MARKETING

Jim Hoehn, Chair	Huda McClelland
VP Enrollment, Ex Officio Secr	Ron Russell
G Alexander Bryant	Jessica Saxton
Jim Brauer	Kent Seltman
Jack Burdick	Tom Shepherd

TRUSTEESHIP COMMITTEE

MAUC President, Ex Officio Chair	Charles Drake
UC President, Ex Officio Secretary	Jay Miller
Mardian Blair	Sam Turner

MIDWEST FOUNDATION FOR HIGHER EDUCATION BOARD

Jerome Lang, Chair	LuAnn Davis
Rick Krueger, Vice Chair	Charles Henkelmann
Gary Bollinger, Secretary/Treasurer	Jessica Saxton
Dennis Carlson	David Smith, Ex Officio
Ronald Carlson	

PRESIDENT'S COMMUNITY COUNCIL

Jay L. Dunlap, Chair/Chairman of the Board of Union Bank and Trust
 LaVon Crosby, Retired Nebraska State Senator
 Mike Dunlap, CEO, Union Bank and Trust
 Terri Dunlap
 Deanne Finnegan, Executive Director, Leadership Lincoln
 Mike Foley, Nebraska State Senator
 Ken Foster, VP Regional Development & Strategic Planning, Bryan LGH East
 Patrick A. Grewe, VP & Wealth Mgmt Consultant, U.S. Bank National Assoc.
 Albert C. Hamersky, Chairman Emeritus of Clark Enersen Partners
 Ronald L. Harris
 Chris Kingery, Kingery Construction
 Charlotte Liggett, VP Planning & Development, St Elizabeth Regional Med. Ctr.
 Cynthia Milligan, Dean of College of Business Administration, UNL
 Robert Milligan, MI Industries
 Russ Raybould, CEO of B & R Stores
 James E. Rembolt, Attorney
 Marlyn Schwartz, Owner, Lincoln Racquet Club
 Mark Seacrest
 David Smith, President, Union College

UNION COLLEGE PRESIDENTS

W. W. Prescott	1891-1893	A. H. Rulkoetter	1938-1942
J. W. Loughhead	1893-1896	E. E. Cossentine	1942-1946
E. B. Miller	1896-1897	R. W. Woods	1946-1950
N. W. Kauble	1897-1898	H. C. Hartman	1950-1957
W. T. Bland	1898-1901	D. J. Bieber	1957-1964
L. A. Hoopes	1901-1904	R. W. Fowler	1964-1970
C. C. Lewis	1904-1910	R. H. Brown	1970-1973
Frederick Griggs	1910-1914	M. O. Manley	1973-1980
H. A. Morrison	1914-1922	Dean L. Hubbard	1980-1984
O. M. John	1922-1924	Benjamin R. Wygal	1985-1985
W. W. Prescott	1924-1925	John Wagner	1986-1991
Leo Thiel	1925-1928	John Kerbs	1991-1998
P. L. Thompson	1928-1931	David C. Smith	1998- Pres
M. L. Andreasen	1931-1938		

EMERITUS FACULTY/STAFF

David Bieber, Ed.D., President Emeritus
 Wayne Fleming, Ed.D., Professor Emeritus of Health and Human Performance
 Chloe Foutz, Professor/Librarian Emerita
 Ray Fowler, Ph.D., President Emeritus
 Minon Hamm, Ph.D., Professor Emerita of English
 H. Ward Hill, Ph.D., Professor Emeritus of Religion and Sociology
 Earl Leonhardt, Ph.D., Professor Emeritus of Mathematics
 Leona Murray, B.A., Administrator Emerita
 Robert Murray, Ph.D., Professor Emeritus of Music
 Beatrice Neall, Ph.D., Professor of Religion Emerita
 Ralph Neall, Ph.D., Professor of Religion Emeritus
 Opal Miller Payne, M.Mus., Professor Emerita of Music
 Walter E. Page, Ph.D., Professor Emeritus of Biology
 Ruth C. Rolls, M.A., Associate Professor Emerita of Secretarial Science
 Neil Rowland, Ph.D., Professor Emeritus of Biology
 Virginia Simmons, Professor Emerita of Education and Psychology

COLLEGE ADMINISTRATION

Dates in parentheses indicate years of employment at Union College.

OFFICERS OF THE COLLEGE—2004-2005

David C. Smith (1998-) *President*

B.A. 1972, M.A. 1978, Andrews University; Ph.D. 1989, University of Tennessee

Malcolm Russell (2003-) *Vice President for Academic Administration*

Ph.D. 1977, The Johns Hopkins University

Gary Bollinger, (1983-85, 1989-) *Vice President for Financial Administration*
B.S. 1971, Union College; M.A. 1975, Seattle University

MAJOR ADMINISTRATIVE OFFICERS—2004-2005

Linda Becker (2001-) *Vice-President for Student Services*
B.A. 1972, Pacific Union College; M.A.T. 1974, Andrews University;
PhD. 2000, University of Nebraska-Lincoln

Richard Carlson, (1981-) *College Chaplain; Associate Professor of Psychology*
B.A. 1973, Union College; M.A. 1977, Andrews University; Ph.D.
1996, University of Nebraska

LuAnn Davis, (1982-86, 1992-) *Vice President for Advancement*
B.S. 1982, Union College; M.B.A. 1996, University of Nebraska-
Lincoln

Rob Weaver (1990-) *Vice-President for Enrollment Services*
B.A. 1972, Union College; M.S. 1987, College of Idaho

FACULTY—2004-2005

Dates in parentheses indicate years of employment at Union College.

Don H. Abbey (1998-) *Chair, Division of Science and Mathematics; Professor of Biology*
B.S. 1969, M.A. 1971, Walla Walla College; Ph.D. 1993, University of Alberta

Joseph R. Allison (2002-) *Chair, Division of Human Development; Associate Professor of Education*
B.S. 1979, Union College; M.A. 1985, Ed.S. 1991, Ed.D. 1999, Andrews University

Patricia Anderson (1999-) *Assistant Professor of Mathematics*
B.A. 1993, Southwestern Adventist University; Ph.D. 1999, University of Texas-Arlington

Osa-Karin Berg (1995-) *Director of Records, Research, and Assessment; Assistant Academic Dean; Associate Professor of French*
B.A. 1966, Atlantic Union College; M.A. 1987, Harvard University

Christopher Blake (1993-) *Associate Professor of English*
B.A. 1977, California State Polytechnic University-San Luis Obispo; M.A. 1980, Pacific Union College

Rebecca Bolinger (2003-) *Associate Professor of Social Work*

B.S. 1965, Pacific Union College; M.S.S.W 1970, University of Wisconsin

Kathy Bollinger (2002-) *Associate Professor of Education*

B.S. 1971, Union College; M.Ed. 1981, University of Nebraska-Lincoln

Karla Britain (1989-) *Technical Services Librarian; Associate Professor*

B.S. 1967, Union College; M.L.S. 1971, University of Maryland

Veneracion Cabana (2003-) *Professor of Biology*

B.S. 1964, Philippine Union College; M.S. 1972, Ph.D. 1980, University of Illinois

Sylvester Case (1997-) *Associate Professor of Religion*

B.A. 1982, M.Div 1985, Andrews University; M.A. 1987, Denver Baptist Seminary

Rudyard Dennis (2003-) *Associate Professor of Music*

B.A./B.S. 1986, Pacific Union College; M.M. 2001, D.M.A.. 2003, University of Washington

Arlie Fandrich (1984-) *Chair, Division of Business and Computer Science; Associate Professor of Computer Information Systems*

B.A. 1963, Union College; M.A.T. 1971, Andrews University

Robert Fetrick (1996-) *Associate Professor of Religion and Communication*

B.A. 1972, Pacific Union College; 1978 M.Div., Andrews University

William D. Fitts (1985-) *Professor of English*

B.A. 1974, Southwestern Union College; M.A.T. 1976, Andrews University; Ph.D. 1985, Texas A & M University

Barry Forbes (1988-) *Associate Professor of Business*

B.S. 1987, Southwestern Adventist College; M.B.A. 1988, Texas A & M University

Bruce Forbes (2000-) *Associate Professor of Art and Graphic Design*

B.S. 1986, Union College; M.F.A 1996, Savannah College of Art and Design

Lisa Forbes (2002-) *Assistant Professor of Accounting and Finance*

B.S. 1992, Union College; M.B.A. 1995, University of Nebraska-Lincoln

- Deborah Forshee-Sweeney (2001-) *Director of Teaching Learning Center, Instructor*
B.S.W. 1994, Union College
- Eugena Foster (2004-) *Assistant Professor of Nursing*
B.S.N. 1999, Union College; M.S.N. 2004, University of Nebraska Medical Center
- Charles Freidline (1983-) *Professor of Chemistry*
B.A. 1960, M.S. 1963, Westmont College; Ph.D. 1966, University of Minnesota
- Malcolm Gaskin (2002-) *Assistant Professor of Accounting*
B.S. 1992, M.A. 1995, University of Montana
- George Gibson (1981-) *Chair, Division of Humanities; Professor of History and Economics*
B.A. 1969, Union College; M.A. 1974, Western State College; Ph.D. 1987, University of Nebraska
- Kelly Sanford Hagele (1998-) *Assistant Professor of Business*
B.B.A. 1992, Pacific Union College; M.B.A. 1996, Southern Oregon University
- Lowell Hagele (1983-) *Professor of Mathematics*
B.A. 1964, M.A. 1966, Pacific Union College; Ed.D. 1973, University of Northern Colorado
- Debra Heinrich (2003-) *Assistant Professor of Nursing*
B.S. 1999, Union College; M.S.N. 2004, University of Phoenix
- Joann Herrington, (1995-1999, 2004-) *Associate Professor of Education*
B.S. 1974, Union College; M.A. 1995, LaSierra University
- Trudy Ann Holmes-Caines (1994-) *Professor of Psychology*
B.A. 1986, West Indies College; M.A. 1991, Ph.D. 1995, Andrews University
- Kenneth Hoppmann (2002-) *Associate Professor of Music*
B.Mus. 1986, M.M. 1988, University of Wyoming; Mus.D. 2001, American Conservatory of Music; DMA 2001, University of Nebraska-Lincoln

Michael Huckabee (1997-) *Program Director, Associate Professor of Physician Assistant Studies*
B.A. 1980, Northwest Nazarene College; B.S. 1983, M.P.A.S., 1997, University of Nebraska Medical Center

Jeff Joiner (2001-) *Chair, Division of Health Sciences; Associate Professor of Nursing*
B.S.N. 1986, Southwestern Adventist University; M.S.N., 1996, University of Kentucky

Laura Karges (1998-) *Associate Professor of Nursing*
B.S.N. 1985, Southwest Missouri State University; M.S. 1992, Andrews University

Clifford Korf (2000-2003, 2005-) *Associate Professor of Physician Assistant Studies; Outreach Director*
B.H.S. 1980, Wichita State University; M.P.A.S. 2001, University of Nebraska Medical Center

Valeree Krueger (1979-) *Associate Professor of Nursing*
B.S. 1977, Union College; M.S.N. 1983, Vanderbilt University

Dwain Leonhardt (1996-) *Medical Director; Professor of Physician Assistant Studies*
B.A. 1972, Union College; M.D. 1975, Loma Linda University

JoAnn Leung (1991-) *Associate Professor of Computer Science*
B.S. 1978, M.S. 1984, University of Nebraska

Daniel Lynn (1986-) *Chair, Division of Fine Arts; Professor of Music*
B.M.E. 1972, University of Nebraska; M.M. 1975, University of Hartford; D.M.A. 1987, University of Colorado

Frank J. Martinez (1985-88, 1990-) *Associate Professor of Health and Human Performance*
B.S. 1976, M.A.T. 1981, Andrews University

Norman McBride (2003-) *Associate Professor of Business*
B.S. 1972, Andrews University; M.B.A. 1977, University of Missouri

James D. McClelland (1974-) *Professor of Art*
B.A. 1964, Andrews University; M.A. 1977, Western Michigan University

- Laurel McClelland (1998-) *Assistant Professor of English as a Second Language*
B.S. 1996, Union College; M.A. 1997, Andrews University
- Ruth Mendenhall (1986-) *Associate Professor of Nursing*
B.S. 1980, Union College; M.S.N. 1986, University of Texas at Arlington
- Michael Mennard (2003-) *Assistant Professor of Communication*
B.A., B.S. 1991, Pacific Union College; M.A. 2002, Sonoma State University
- Michelle Velázquez-Mesnard (2002-) *Assistant Professor of Communication*
B.S. 1989, Pacific Union College; M.S. 2001, Garden Gate University
- Anthony Minear (1993-) *Associate Professor of Religion*
B.A. 1987, Southern College; M.Div. 1991, Andrews University
- Y. J. Moses (1992-) *Professor of Education*
B.A. 1970, Spicer Memorial College; M.A. 1976, Andrews University; Ph.D. 1979, Michigan State University
- DeForest Nesmith (1968-) *Associate Librarian; Associate Professor*
B.A. 1963, Union College; M.A. (L.S.) 1967, University of Denver
- Earl Pate (1997-) *Associate Professor of Physician Assistant Studies; Associate Program Director*
B.S.N 1966, Andrews University; M.S.H.A. 1976, University of Colorado
- Nancy Petta (1981-) *Program Director, Professor of Health and Human Performance*
B.S. 1980, University of Wisconsin; M.A.T. 1980, Andrews University; Ed.D. 1999, University of Nebraska-Lincoln
- Larry Ray (1983-) *Professor of Mathematics and Computer Science*
B.A. 1964, M.A. 1966, Pacific Union College; Ph.D. 1977, University of Southern California
- Keith Riese (1981-) *Professor of Engineering*
B.S. 1970, Walla Walla College; M.S.E.E. 1972, Oregon State University
- Sabrina Riley (2003-) *Head Librarian; Assistant Professor*
B.A. 1996, Andrews University; M.I.L.S. 1998, University of Michigan

Mark Robison (1996-) *Associate Professor of English*

B.A. 1977, Walla Walla College; M.A. 1993, St. John's College

Elizabeth Rodacker-Borgens (1998-) *Associate Professor of English as a Second Language*

B.A. 1990, M.A. 1993, California State University

Siegfried Roeske (1975-) *Chair, Division of Religion; Professor of Religion*

B.Th. 1965, Canadian Union College; M.A. 1969, Ph.D., 1997, Andrews University

Bruce Schlieder (1994-) *Associate Professor of Social Work*

B.S. 1975, University of New York; M.S.W. 1989, Rockefeller College, S.U.N.Y.

Charlotte Schober (1984-) *Associate Professor of Nursing*

B.S. 1972, Walla Walla College; M.S.N. 1988, University of Nebraska Medical Center

Karl-Heinz Schroeder (1977-) *Professor of History*

B.A. 1969, Southern College; M.A. 1971, University of California at Santa Barbara

Tom Shepherd (1994-) *Professor of Religion*

B.A. 1973, Pacific Union College; M.P.H., Dr. P.H. 1976, Loma Linda University; M.A. 1986, Ph.D. 1991, Andrews University

Jacquelyn Simpson (1989-95, 2000-) *Instructor, George Stone Elementary School*

B.S. 1988, Union College; M.A. 1993, La Sierra University

Ric Spaulding (1988-) *Director of Larson Lifestyle Center; Assistant Professor of Health and Human Performance*

B.S. 1983, Andrews University; M.Ed. 1988, University of Missouri

Rebecca Stafford (2004-) *Instructor in Physician Assistant Studies*

B.S. 2000, Union College

Kent Stahly (1988-) *Associate Professor of Finance*

B.S. 1967, M.A. 1969, University of Nebraska

Benjamin Thornton (2003-) *Assistant Professor of Biology*

B.S. 1994, Southwestern Adventist University; M.S. 2000, Andrews University

Debra Unterseher (1990-) Associate Professor of Computer Information Systems
B.S. 1987, Union College; M.A. 1993, University of Nebraska

Peggy Wahlen (1996-) *Associate Professor of English, and English as a Second Language; ESL Director*
B.A. 1970, Union College; M.A. 1979, Loma Linda University;
M.L.S. 1981, San Jose State University

Richard Webb (2003-) *Professor of Physics*
B.S. 1988, Loma Linda University; M.S. 1990, Ph.D. 1995,
Washington State University

Ryan Wells (1979-) *Professor of Music*
B.S. 1974, Union College; M.M. 1977, University of Nebraska;
D.M.A. 1982, University of Arizona

Carrie Wolfe (1999-) *Associate Professor of Chemistry*
B.A. 1990, Union College; Ph.D. 1995, University of Nebraska

Brian Y. Y. Wong (1999-) *Professor of Biology*
B.A. 1980, Hong Kong Adventist College; B.A. 1983, Loma Linda
University; 2 M.A.'s 1985, Loma Linda University; Ph.D. 1992,
Loma Linda University

Susan Zimmermann (1977-) *Instructor, George Stone Elementary School*
B.S. 1977, Union College; M.A. 1982, Loma Linda University

ADMINISTRATIVE STAFF—2004-2005

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

Anita Ahrens (2001-) *Director of Kiddie Kollege*
B.S. 1997, Union College; M.A. 2003, LaSierra University

Tom Becker (1969-) *Director, Information Systems*
B.S. 1969, Union College

Osa-Karin Berg, (1995-) *Director of Records, Research, and Assessment;
Assistant Academic Dean*
B.A. 1966, Atlantic Union College; M.A. 1987, Harvard University

Deborah Bogdon (1996-) *Director of Career Center*
B.A. 1981, B.Ed. 1985, P.G.D. 1986, University of Regina; M.Sc.
1993, Loma Linda University

Kirk Brown (2002-) *Counselor*

B.A.T. 1981, Union College; M.Div. 1985, Andrews University;
D.Min. 2001, Garrett-Evangelical Theological Seminary

Marilyn Carr (1983-) *Dean of Women*

B.A. 1963, Pacific Union College; M.A. 1965, Andrews University

Tommy Cash (1987-) *Chief Accountant*

B.S. 1967, Union College

Dean Dittberner (1965-) *Operations Manager, Information Systems*

B.S. 1965, Union College

Ron Dodds (1990-) *Assistant Dean of Men*

B.S. 1990, Union College

Jack Burdick (2003-) *Director of Student Financial Services*

M.B.A., 1989, Vanderbilt University

Lou Ann Fredregill (1998-Nov. 2004) *Manager, Campus Store*

A.S. 1973, Union College

Angie Hardt (1995-) *Assistant to the Director of Spiritual Discovery*

B.A. 1967, Union College; M.A. 1973 Andrews University

Stanley Hardt (1995-) *Director of Spiritual Discovery*

B.S. 1968, Union College; M.A. 1973, Andrews University

Anita Kidwiler (1963-1984, 1988-) *Associate Director of Records*

B.S. 1961, Union College; M.Ed, 1969, University of Missouri

Terri Lair (Nov. 2004-) *Manager, Campus Store*

B.A. 1985, Union College

Huda McClelland (1988-) *Director of Admissions*

B.A. 1964, Andrews University, M.A. 1993, University of Nebraska

Harvey Meier (1977-) *Controller*

B.A. 1973, Union College

Todd Mekelburg (1997-) *Director of Leadership Giving*

B.S. 1986, Union College

Leann Merth (1992-) *Assistant Dean of Women*

B.S.W. 1986, Union College; M.S.W. 1997, University of Nebraska

Don Murray (2002-) *Director of Plant Service*
B.S. 1981, Union College

Steve Nazario (1997-) *Director of Visual Communication*
B.A. 1980, Loma Linda University

Joe Parmele, (1978-) *Dean of Men*
B.A. 1968, Walla Walla College; M.A. 1983, University of Nebraska

Patricia Parmele (1985-) *Director of Food Service*
A.A. 1985, Union College

Linda Skinner (1983-) *Director of Development*

Jacque Smith (1999-) *Director of Public Relations*
B.A. 1995, Southern Adventist University; M.S. 1999, University of Tennessee-Knoxville

Ric Spaulding (1988-) *Director of Lifestyle Center*
B.S. 1983, Andrews University; M.Ed. 1988, University of Missouri

LECTURERS—2004-2005

Larry Aldred, M.S., Physical Education
Lilian Gomez Alvarez, M.A., Spanish, ESL
Steven Bassett, M.S., Science Education, Physician Assistant Studies
Thomas Berg, Ph.D., History
Deborah Bogdon, M.S., Sociology
Deborah Bouffard, M.M., Music
Peter Bouffard, M.M., Music
Leslie Camacho, B.A. Communication
LuAnn Davis, M.B.A., Communication
Lynn Davis, M.F.A., Art
Lisette Deemer, M.M., Music
Marina Fabrikand, M.M., Music
Furman F. Fordham II, M.Div., Religion
Patricia Fortney, Ph.D., Music
Diana Frazier, M.M., Music
Eric Fung, Ph.D., Physician Assistant Studies
Sarah Gilbert, M.M., Music
Phyllis Gorton, B.S., Health and Human Performance
Amber Guaita, B.A., ESL
Kent Hall, M.M., Music
Stanley Hardt, M.A., Health and Human Performance
Kristin Heslop, M.M., Music
Kim Hiser, R.N., M.S.N., Nursing

Gerald Holbrook, M.A., Music
Keith Jacobson, M.Div., Religion
Thompson Kay, M.A., Special Education
Maurice Eugene Kelley, M.M., Music
John Kinworthy, Ph.D., Geography
Carrie Kleinschmidt, B.S., Physician Assistant Studies
Kevin Kroon, B.S., Music
Carol Leonhardt, M.A., ESL
Erin Masada, M.D., Physician Assistant Studies
Rebecca McDowell, PA-C, Physician Assistant Studies
Ardyth Mendenhall, M.A., Music
Linda Moore, B.S., B.Ed., Health and Human Performance
Robert Moore, B.F.A., Graphic Arts
Harry Mueller, M.D., Physician Assistant Studies
Michelle Nash, B.A., English
Darcy Jo Percy, M.M., Music
Kari Gibbs Prouty, M.Div., Religion
Cynthia Ricker, M.M., Music
Luis Rivas, M.A., English
Sharon Russell, M.A., Health and Human Performance
Dallas Schlegel, PA-C, Physician Assistant Studies
Kathy Schulz, PA-C, Physician Assistant Studies
David Shaw, Ph.D., Physician Assistant Studies
Virginia Simmons, Ph.D., Education
Jacque Smith, M.S., Communication
Mark Smith, J.D., Business
M. Scott Stenson, M.A., English
Kellie Stivers, B.A., Chemistry
Judy Sweney, M.A., Art History
Ryan Teller, B.A., Communication
Man-kin Tsui, M.M., Music
Sarah Tupa, M.A., English
Nancy Vogt, M.M., Music
Deb Vokal, PA-C, Physician Assistant Studies

ADJUNCT FACULTY—2004-2005

Clinical Laboratory Science (Medical Technology)

Andrews University--Berrien Springs, Michigan

Marcia A. Kilsby, M.S., M.T. (ASCP) S.B.B., C.L.S. (NCA),
Program Director, Clinical Laboratory Sciences

Florida Hospital--Orlando, Florida

Luis Guarda, M.D.

Medical Director, School of Medical Technology

Patricia Rogers, M.T., (ASCP) SBB

Program Director, School of Medical Technology

COLLABORATING FACULTY—2004-2005

CANADIAN UNIVERSITY COLLEGE

Joanne Andersson, MM, Assistant Professor of Music
Knut Andersson, PhD, Adjunct Professor of Physical Science
Monique Auguste, MA, Associate Professor of French
Marcus V. F. Berger, MBA, Lecturer in Business
Karen Bottomley, MBA, MA, Associate Professor of History and Business
Richard Bottomley, PhD, MBA, Professor of Physics and Business
Aldo Bruccoleri, PhD, Adjunct Professor of Chemistry
Bruce E. Buttler, PhD, Professor of Biology
John B. Connors, PhD, Associate Professor of Psychology
David Delafield, MS, Assistant Professor of Outward Pursuits
Darla D. Devnich, BEd, Registrar
A. L. Sinikka Dixon, PhD, Professor of Sociology
Noble Donkor, PhD, Associate Professor of Biology
Carolyn J. Doss, PhD, Associate Professor of Education
Joy A. Fehr, MA, Assistant Professor of English
June Fiorito, EdD, Professor of Education
Reo E. Ganson, PhD, Professor of Education
Elizabeth George, MA, Associate Professor of Business
Darren M. George, PhD, Professor of Psychology
Patsy Glatt, MA, Assistant Professor of English
Terence A. Graham, PhD, Professor of History
David Shaun Gray, MD, Adjunct Professor of Psychology
Lori J. Gray, PhD, Lecturer in Psychology
Denise Dick Herr, PhD, Professor of English
Larry G. Herr, PhD, Professor of Religious Studies
John P. Hoyt, PhD, Professor of Art and Education
Ewa Kwiatkowska, MSc, Assistant Professor of Mathematics
Errol Lawrence, DMin, Associate Professor of Religious Studies
Keith J. Leavitt, MA, Associate Professor of Education
DonnaLee E. Lehmann, MPH, Assistant Professor of Outward Pursuits
Paul H. Lehmann, MPH, Associate Professor of Outward Pursuits
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