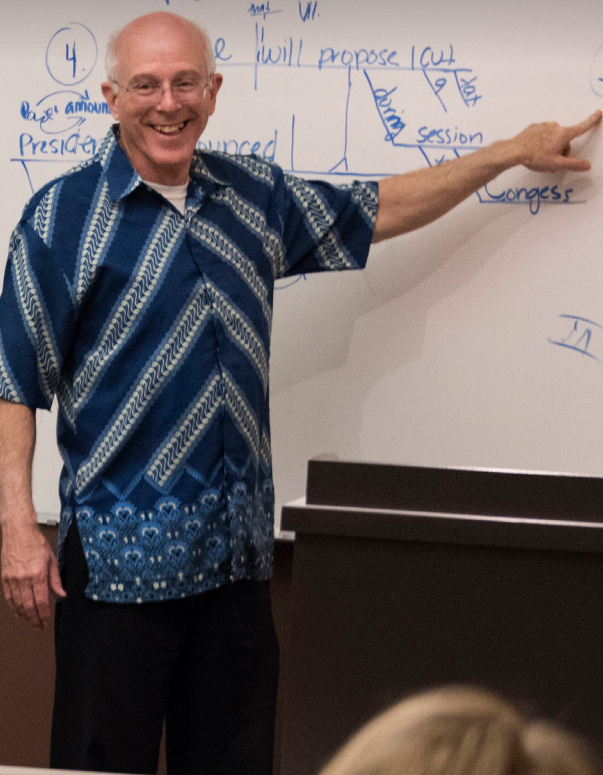


experience

the all-important details



bulletin

UNION
COLLEGE

2015-2016



BULLETIN 2015–2016

VOLUME 77

CONTACT US

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UNION
C O L L E G E

President's Message

Are you ready to change the world?

Others before you have done it. Whether building breakthrough technology that is changing the lives of diabetics, creating a learning television show that influenced an entire generation or providing health care in remote African villages, Union graduates are changing the world.

Sounds daunting, right? It doesn't have to be. God created you for a purpose and gave you the unique talents and abilities to accomplish that purpose. With Him, you can change your world.

At Union College, you will discover a community ready to do everything possible to prepare you to be the best at what you do. We will help you learn to think critically, address complex problems, explore new cultures, and use modern technologies and information resources—all vital skills most valued by employers.

But more importantly, our community will help you discover what you are good at and what you love to do—and help you find a way to turn your passion into a fulfilling, world-changing career.

So get ready for the ride of your life with an extraordinary group of fellow students who will become your closest friends and professors who will mentor and guide you on your journey—all in a growing and vibrant city filled with learning and career opportunities.

There is no better time to be a Union College student. I'm praying that you will enjoy a meaningful and successful school year.

A handwritten signature in black ink that reads "Vinita Sauder". The script is fluid and cursive, with the first name "Vinita" being more prominent than the last name "Sauder".

Vinita Sauder
President

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Student Financial Services	402.486.2505 402.486.2592 (Fax) sfs@ucollege.edu
Cashier	402.486.2992
Academic Administration	402.486.2501
Campus Ministries	402.486.2508
Career Planning and Testing	402.486.2540
Information Systems (computer and telephone services)	402.486.2511 402.486.2895 (Fax)
Library	402.486.2514
Student Employment	402.486.2502
Student Housing	402.486.2507
Vice President for Student Services	402.486.2507
Men's Residence Halls	402.486.2533
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Teaching Learning Center	402.486.2506

Academic Year Calendar 2015-2016

2015

May 12	Summer Classes Begin
Aug.16-23	New Student Orientation
Aug. 23	Registration for Fall Semester
Aug. 24	First Semester Classes Begin
Aug. 25-Sept. 1	Late Registration Period (\$100 Fee)
Aug. 28	Last Day to Complete Summer Graduation Requirements
Sept. 1	Last Day to Drop (no record)/Add Classes
Sept. 7	Labor Day Holiday
Oct. 9	Midterm Break
Nov. 5	Last Day to Withdraw from a Class/Receive a "W"
Nov. 11	Pre-registration for Second (Spring) Semester Begins
Nov. 23-27	Thanksgiving Vacation
Dec. 14-16	First (Fall) Semester Examinations
Dec. 17	Last Day to Complete December Graduation Requirements

2016

Jan. 10	Registration for Spring Semester
Jan. 11	Classes Begin
Jan. 12-20	Late Registration Period (\$100 Fee)
Jan. 18	Martin Luther King Day Holiday
Jan. 20	Last Day to Drop (no record)/Add Classes
Feb. 11-12	Winter Break
Mar. 7-11	Spring Vacation
Mar. 24	Last Day to Withdraw from a Class/Receive a "W"
April 6	Pre-registration for Fall Semester Begins
May 2-4	Second (Spring) Semester Examinations
May 6-8	Commencement Weekend

This is Union College

Mission and Vision

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

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

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

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

We believe...

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

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

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

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

DIVERSITY Diversity enriches campus life. We create cordiality of discourse, encourage respect for differences, promote inclusiveness, and welcome diversity among employees, students and leaders.

- COMMUNITY** We best learn and develop in the context of a diverse global community. We seek opportunities to strengthen our network of alumni, employees, families, church and business friends while welcoming new collaborative connections.
- STEWARDSHIP** Union College has been entrusted by God with stewardship of His resources. We respect our students and care for our employees while maximizing our financial and physical capital in service of our mission.

Union College Educational Goals

Union College graduates possess the competencies to:

1. Engage the Bible as Scripture, recognizing the significance of choosing Jesus Christ as Savior, of becoming His disciple, and valuing the mission of the Seventh-day Adventist church.
2. Engage different viewpoints and read texts in thoughtful and deliberative ways, making critical judgments and defending them reasonably using appropriate quantitative and qualitative sources of information and methods.
3. Listen actively and communicate ideas effectively through speaking and writing.
4. Examine the human, natural and aesthetic worlds, and articulate one's place in them.
5. Recognize and affirm the importance of diversity in the natural world and human society.
6. Engage in the ways of knowing, including research methods, and participate in discourse across the arts, sciences, and humanities.
7. From the perspective of a Christian worldview, reflect theologically and philosophically on significant questions about the value and meaning of life and living.
8. Live healthfully and serve as a wise, humane, responsible and ethical citizen of our diverse nation and world.
9. Discern one's calling, develop traits of persistence and reliance and prepare for personal leadership.
10. Understand the professional standards of one's chosen discipline, and demonstrate its expected knowledge, skills and values.
11. Union College students develop their knowledge, understanding, and abilities within a community whose culture exemplifies and communicates the great importance it places on integrity, participation in community, and the application of common sense in solving life's challenges.

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 to help students find and fulfill their God-given calling in both personal and professional life, making an positive impact on their family, community and the world.

Accreditation

Union College is Accredited by:

- The Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, IL 60604
800.621.7440
<http://hlcommission.org>
- Accrediting Association of Seventh-day Adventist Schools, Colleges, and Universities
- Accreditation Review Commission on Education for the Physician Assistant, Inc.
- Commission on Collegiate Nursing Education
- Council on Social Work Education
- National Council for the Accreditation of Teacher Education

Union College Is a Member of

- American Alliance for Health, Physical Education, Recreation and Dance
- American Association of Colleges for Teacher Education
- American Association of Colleges of Nursing
- American Association of Collegiate Registrars and Admissions Officers
- American College of Sports Medicine
- Adventist Library Information Cooperative
- Association of Independent Colleges and Universities of Nebraska
- Association for Institutional Research
- Association of Physician Assistant Programs
- National Collegiate Honors Council
- National Council on Social Work Education
- 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
- United States Gymnastics Federation
- Upper Midwest Honors Council

Union College Is Approved by

- Nebraska Department of Education
- Nebraska State Board of Nursing

Admission to the College

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

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

Admission of First-Year Students

The admission process is designed to indicate the applicant's success in high school and the ability to perform well in academic coursework.

The recommended high school curriculum includes the coursework listed below. Depending on career goals, additional study in math, science, foreign language, and other fields will improve the preparation for college.

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

In completing these courses, high school applicants should meet or surpass the following minimum standards:

- A high school grade point average (GPA) of 2.50 on a 4-point scale and
- An ACT composite score of 18 or a combined SAT score of 1290.
- Applicants applying on the basis of high school equivalency using the General Education Development Test (GED) must achieve an average score of 500 with no score below 450.

International Students

- Applications are welcomed from graduates of recognized secondary schools in other countries or who earn government credentials (e.g., the Hong Kong HKDSE). When lacking ACT scores, applicants may be evaluated by other standards for admission, though ACT or SAT English, reading and math test results may still be required for placement in specific courses.
- Students whose native language is not English and who do not meet the minimum ACT English score of 17 (or equivalent) must demonstrate current English proficiency by scores on a standardized test taken within the past two years. The college accepts the following examinations and, for regular admission, requires minimum scores of TOEFL: Internet-based (iBT), 79; International paper-based, 550; IELTS 6.5.
- Applicants not meeting the regular admission scores will be considered for provisional admission if they possess an iBT score between 60 and 79, or an IELTS between 5.5 and 6.0. Provisional admission involves courses preparatory to freshman composition while taking selected college courses. The regular admission requirements must be met within two years

Application Process

Two documents are essential for the admission process:

- A completed application, which may be found online at www.ucollege.edu/apply.
- A high school transcript. The college requires an official transcript with date of graduation prior to enrollment. Home school students should submit a home school transcript and an explanation of the home school curriculum with completion date. Official transcripts are required from any schools attended.

International Student Admission Process

If an applicant's original documents are not in English, a certified translation must be provided. Except for applicants from certain affiliated colleges and universities, all transcripts from foreign universities must be sent to www.wes.org.

For a Form I-20 to be issued, the applicant must provide an Affidavit of Support (available at www.ucollege.edu/international), bank statements as proof of sufficient income, a deposit of \$5,000, and a copy of the applicant's passport photo page.

For further information contact the Enrollment Office or go to www.ucollege.edu/international.

Provisional Admission

Applicants who do not meet the published standards may receive provisional acceptance, which requires enrollment in programs through the Teaching Learning Center.

Freshman Development provides an academic coach to help with the transition to college. Students on Freshman Development must complete the following requirements:

- Participate in Personal Academic College Coaching (PACC) the first semester.
- Limit course loads to a maximum of 15 hours.
- Complete the course TLCM 100 Bridge: Building Connections.

Integrated College Experience (ICE) supports and assists students needing preparatory coursework in English and mathematics by providing a holistic approach to the first college experience. Students accepted for the ICE program will sign the ICE learning community contract and

- Participate in one year of Personal Academic College Coaching (PACC) and the ICE learning community.
- Take 12-15 credit hours from the ICE approved class schedule.
- Complete 21 semester hours with a minimum cumulative GPA of 2.00 during the first two semesters.
- Pursue a two-year degree with a general studies major. After successful completion of the ICE program, students may declare a bachelor's level major.

Transfer Student Admission

Students wishing to transfer from another regionally-accredited college or university must provide the following as part of the admission process:

- A completed application (available online at www.ucollege.edu/apply).
- Final official transcripts from all schools attended.
- Transfer students whose native language is not English may demonstrate their language proficiency through the standards listed for admission or by the successful completion of a full year of English composition.
- Applicants who have completed the equivalent of 24 semester hours including one semester of English composition at a regionally accredited institution with a cumulative minimum GPA of 2.00 are accepted based on college performance. However, ACT or SAT test scores are used for placement in specific courses.

Non-Degree Students

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

Guaranteed Education Program

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

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

Baccalaureate Bonus Program

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

- Applicants must submit an official transcript verifying completion of the previous degree.
- The Baccalaureate Bonus program's half-tuition rate applies only to fall and spring semesters.
- Discounts are applied to tuition only and do not apply to laboratory or other fees, clinical coursework, off-campus courses, individual lessons, or the professional phases of Health Sciences, Nursing or the International Rescue and Relief program.
- International students who hold a degree equivalent to the American bachelor's and meet the English language requirement may qualify for the discount.
- Students paying full tuition will receive priority for registration in limited-enrollment classes and laboratory sections.
- Baccalaureate Bonus students must maintain satisfactory academic progress each semester (2.0 minimum semester GPA) in order to continue in the Baccalaureate Bonus program.

Financial Considerations

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

- The student remains responsible for summer school tuition, other expenses, and fees, which, unlike regular tuition, are not reduced. The student also assumes full financial responsibility for classes taken at other colleges or universities.
- Students in the programs are not eligible to receive any other Union College scholarships or financial awards.
- On-campus employment is not usually available to students in either program. However, based on campus employment needs, the Student Finance Committee may approve a student's application for employment.
- Other restrictions may apply. Contact Enrollment Services and Student Financial Services.

Financial Information

Student Financial Services

Student Financial Services assists students in determining how to pay for college. Students are required to complete their financial plans online in the My Financial Aid section of the student portal before classes begin each semester.

To better serve students, parents, sponsors, and others who plan to travel long distances to the campus for business purposes, appointments are recommended (see Contact Information in the front section of this bulletin or the Union College website www.ucollege.edu).

Tuition and Fees

Students at Union College are entitled to information on applying for, receiving and continuing with financial aid as well as educational costs, refunds, and transportation costs for students living off-campus.

A schedule of Scholarships, Tuition and Fees may be found online at www.ucollege.edu/costs.

Typically student charges include tuition, student housing, dining, books and supplies for classes. Other charges might include health insurance, special academic attention and testing, and music lessons. Additional service charges are listed in the Miscellaneous Charges section.

Payment Arrangements

Student charges and financial aid at Union College are calculated on a yearly basis. Payment for any previous balance due is expected at the beginning of each term. Families may elect to make payments using a 10-month payment plan. The payment amount will be calculated based on the yearly balance due (estimated charges minus estimated aid) divided into ten equal payment amounts due payable on the first day of each month (August through May). A late payment fee of \$25 will be applied each month the required payment is not made.

All prior year balances must be paid in full in order to receive federal financial aid the following year.

International Student Deposit

International students needing an I-20 (except citizens of Mexico and Canada) are required to pay a \$5,000 deposit. Of this deposit, \$4,000 is applied towards the first semester of attendance, and \$1,000 is withheld and may be returned after a student leaves the college and the account is paid in full. Union College reserves the right to apply the \$1,000 remainder of the deposit to an outstanding balance if applicable.

An initial payment of \$2,500 is required upon arrival. The remaining account balance will be divided into nine monthly payments due the first of each month (September-May).

Refund Policy

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

REFUND	CALENDAR DAYS
100%	Up to and including <i>Last Day to Add/Drop Classes</i>
80 %	days 9 to 18
60 %	days 19 to 35
40 %	days 36 to 52
20 %	days 53 to 69
None	Exceeding 69 days

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

Keeping Current

In order to be eligible to register for classes for the upcoming term, the account balance must be paid up to date.

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

Transcripts and Diplomas

The student account needs to be current in order to expedite the release of transcripts and diplomas. Payment should be made to cover any outstanding account balance when a transcript or diploma request is submitted. It is Union

College policy to withhold transcripts and diplomas if a student has an unpaid account balance. Under provisions of federal loan programs, Union College withholds all academic records when Federal Student Loan payments become past due. This policy applies to all student account charges and all other educational related expenses.

Interest

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

Credit Balances

When a credit balance is generated on a student account (payments and credits exceed total charges due), a refund will be processed and the excess returned to the student.

Students select their preferred method of refund during the registration process.

Collection Policy

Regardless of reason for leaving, students are responsible for any outstanding balance left on their account. Satisfactory payment arrangements must be made within ninety (90) days after student is no longer enrolled. The college reserves the right to use third-party agencies for collections on non-current accounts more than one hundred and eighty (180) days past due.

Other Charges

Music Lessons

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

Program Fees

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

- International Rescue and Relief
- Nursing
- Physician Assistant

Charges Per Usage

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

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

College Level Examination Program (CLEP)

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

Miscellaneous Charges

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

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

*Account must be paid in full.

Other Services and Information

Summer School Sessions

Union College offers summer school courses which are substantially discounted from the regular tuition rates. Some exceptions to discounted rates apply.

Multi-Campus Enrollment

Students who are required by their program to take classes at another institution while attending Union College must (1) obtain approval from the Academic Dean's Office and (2) make financial arrangements with Student Financial Services prior to enrolling for classes. If approved, a student may have credits taken at another institution for the given term count towards their

overall enrollment for the purposes of being considered full-time for financial aid. Students must be enrolled at least half-time at Union College in order to be eligible for financial aid under a Multi-Campus Enrollment contract.

Affiliated Off-Campus Programs

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

Family Educational Rights and Privacy Act (FERPA)

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

Resources Available

Financial assistance is available from the college and federal/state/private agencies. Most financial aid eligibility is based on results of the Free Application for Federal Student Aid (FAFSA). Students are encouraged to complete the FAFSA early to receive the maximum financial awards. The earliest date to file is January 1 for the following school year. Except in extreme cases, students should file the FAFSA using actual (not estimated) tax return information.

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

Scholarships

Students are eligible to receive scholarships from multiple sources, including external and internal scholarships.

External Scholarships

There are many external scholarship opportunities available. Students are encouraged to research and apply for online and external scholarship opportunities. It is not recommended to pay for searching and/or applying for scholarships.

Nebraska Foundations

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

Veterans

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

Union College Merit Awards, Scholarships and Financial Assistance

Students enrolling at Union are eligible to earn significant awards based on academic merit, admission criteria or need. The scholarship and grant award chart can be viewed online for eligibility criteria at www.ucollege.edu/scholarships.

At Union, merit awards and grants are funded through institutional resources as well as numerous endowed and annual scholarships made possible by generous contributions from alumni, businesses and friends of the college. Students who meet the criteria and earn an award guarantee from Union College are required to acknowledge donors for their generosity by thanking them. This acknowledgement is a requirement for annual renewal. Scholarship recipients will be contacted by the Advancement Office to fulfill the donor acknowledgement process.

Total institutional aid (excluding loans) cannot exceed the institutional budget. Institutional budget is defined as full-time tuition, general fee, double room occupancy, minimum meal plan and average book plan.

Eligibility for Union College scholarships and financial assistance is based upon full-time enrollment (12 hours or more per semester). Awards will be cancelled if a student's academic load drops below full-time. For detailed information on awarding policies please visit <https://www.ucollege.edu/sfs/forms>.

Church Grant Matching program is discontinued for any students beginning their enrollment in the 2015-2016 academic year.

Summer Camp Scholarships are for students employed in a Seventh-day Adventist conference summer camp program. Summer earnings have to be applied to the student's account to be eligible for a camp match scholarship. Union College matches applied camp earnings at 100% up to \$1,500.

Literature Evangelism Scholarships. Union College matches 100% of earnings up to \$2,000.

Task Force Scholarships are for Union College students who participate in qualified Task Force assignments. Scholarships of \$2,000 are awarded when student returns to Union College.

Student Missionary Scholarships of \$2,000 are awarded to participants in qualified student missionary assignments. Scholarships are awarded when student returns to Union College.

Eligibility for Accepting Financial Assistance

Financial aid offers are typically based on full-time (12 hours or more) enrollment. If a student enrolls for less than 12 hours each semester or drops below full-time, their award will be reduced or cancelled. Students who plan to register for less than 12 hours in a semester should contact Student Financial Services in advance to discuss the effect their enrollment will have on their financial aid eligibility.

Federal Financial Aid

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

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

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

Federal Grants

Grants are awarded to students based on the results of the FAFSA application.

- **Federal Pell Grant.** A Federal Pell Grant is a federal grant awarded to undergraduate students who are United States citizens or permanent residents and have not earned a bachelor's or professional degree. Award amounts vary based on the results of the FAFSA.
- **Federal Supplemental Educational Opportunity Grant (FSEOG).** FSEOG awards provide assistance to students who are eligible for the Pell grant and have exceptional financial need. The amount of the award is based on the availability of funds and awarded on a first-come, first-served basis.

- **State of Nebraska Grant.** The Nebraska Opportunity Grant (NOG) is a state managed fund. Awards are made to qualified Nebraska residents who meet the eligibility requirements set by the state and college.
- **Government Loans.** The federal loan program provides low-interest, long-term loan opportunities to eligible degree-seeking students who are United States Citizens or permanent residents enrolled at least half-time at Union College. Eligibility for federal loan funds requires annual completion of the FAFSA. See Federal Financial Aid for information or help filing the FAFSA.
- **Federal Direct Loan.** This loan program provides eligible students access to low interest rate loans. Federal Direct Loan repayment begins approximately six months after the student is no longer enrolled at least half time in a degree seeking program. Repayment options may be found at studentloans.gov.

Subsidized loan means the federal government pays the interest while the student is enrolled at least half time and during deferment periods. Unsubsidized loans begin accruing interest immediately upon disbursement.

- **Federal Perkins Loan.** This program offers low-interest, long-term loans to eligible degree-seeking students who are United States citizens or permanent residents, demonstrating financial need. Interest on this loan does not accrue during enrollment and deferment periods. The amount of the award is based on the availability of funds and is awarded on a first-come, first-served basis. Because of the large demand for this loan, Union College implements a maximum award for its qualified applicants.
- **Federal Nursing Loan.** This loan program is available for students enrolled in the nursing program and has the same eligibility criteria as the Perkins loan.
- **Federal Parent PLUS Loan for Undergraduate Students.** Parent PLUS loans enable parents with satisfactory credit history to borrow funds to pay education expenses of their dependent undergraduate student enrolled at least half time. The maximum eligibility for a Parent PLUS loan is the cost of attendance less other financial aid received. Interest begins to accrue immediately upon disbursement. Repayment generally begins within 60 days after the final loan disbursement for the academic year, with a maximum repayment period of ten years, unless other arrangements are made. These payments may be deferred while the student is enrolled at least half time. For more information visit studentloans.gov.
- **Federal Graduate PLUS Loan for Graduate Students.** Graduate PLUS loans enable graduate students with a satisfactory credit history to borrow funds to pay educational expenses not covered by other funds. The maximum eligibility for a Graduate PLUS loan is the cost of attendance less other financial aid received. Interest begins to accrue immediately

upon disbursement. Repayment is deferred as long as the student is enrolled at least half time.

Employment Opportunities

Full-time students are encouraged to participate in the Union College work program. Earnings often are an important component of students' financial resources. Student employees are considered "at will" employees in harmony with Nebraska state laws and guidelines.

Finding Campus Employment

The student employment office assists students in finding on-campus work opportunities by posting employment openings online. Full-time students seeking their initial bachelor's degrees are given preference for employment. Campus employment is limited to 20 hours per week during the school year.

Federal Work-Study Employment

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

Worker's Comp Insurance

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

International Students

The U.S. Citizenship and Immigration Service only allow students on an I-20 to be employed in campus positions. International students are eligible to work 20 hours a week when enrolled in full-time classes and 40 hours a week during the summer. International students may apply for Occupational Practical Training (OPT) when course work is completed.

Documents for Employment

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

Summer Employment

Summer employment opportunities are available to students.

Policies That Affect Financial Aid Eligibility

Satisfactory Academic Progress to Keep Financial Aid

Students receiving Title IV Federal Financial Aid must maintain satisfactory academic progress (SAP) toward their degrees. This progress is measured at the end of each semester qualitatively (GPA) and quantitatively (semester hours completed).

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

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

Students who fail to meet all SAP regulations receive a financial aid warning for one semester. During the warning semester, students are eligible to receive financial aid. Performance during this semester determines whether financial aid is given in future terms. Federal, state, and institutional aid is terminated after the warning semester if the student fails to meet the overall 2.0 GPA requirements and/or reach the minimum completion percentage.

A student who does not meet satisfactory academic progress standards will not be eligible for federal, state or institutional aid.

Students have the right to appeal this decision. Appeals must be based on relevant, significant and documentable extenuating circumstances such as serious injury, illness, death of a close relative or other special circumstances. Appeal forms must be submitted at least two weeks prior to the semester to the Director of Student Financial Services. If an appeal is approved, the student will be placed on financial aid probation for one semester and evaluated at the end of the semester.

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

Master's Program. Students in master's program are granted 33 months to complete the program and clinical assignments.

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

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

Part-Time Enrollment. Students not classified as full time must satisfactorily complete a prorated number of credits.

Appealing Financial Suspension

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

- explaining the reasons for not making satisfactory progress;
- indicating how satisfactory progress will be achieved; and
- all supporting documentation for reasons for not making satisfactory progress.

Drug Law Violation

According to the United States Department of Education, if a student is convicted of a drug offense after receiving Federal aid money, he or she must notify the Student Financial Services office immediately and that student will become ineligible for further federal aid and also be required to pay back any and all aid received after the conviction.

Should a conviction result, a student can take advantage of rehabilitation programs that can make him or her eligible for federal financial aid again.

Students Convicted of Possession or Sale of Drugs

(The following information is excerpted from the Federal Student Aid Handbook, Volume 1 – Student Eligibility)

A federal or state drug conviction can disqualify a student for FSA funds. Convictions only count if they were for an offense that occurred during a period of enrollment for which the student was receiving Title IV aid—they do not count if the offense was not during such a period. Also, a conviction that was reversed, set aside, or removed from the student's record does not count, nor does one received when s/he was a juvenile, unless s/he was tried as an adult.

If the student was convicted of both possessing and selling illegal drugs, and the periods of ineligibility are different, the student will be ineligible for the longer period. A student regains eligibility the day after the period of ineligibility ends or when s/he successfully completes a qualified drug rehabilitation program. Further drug convictions will make him or her ineligible again. It is the student's responsibility to certify to that s/he has successfully completed the rehabilitation program.

Federal Verification Process

Some students who file the Free Application for Federal Student Aid (FAFSA) are selected for a process called 'Verification'. The verification selection process is dictated by the Department of Education. The Financial Aid Office has the right to select student records for the process under certain circumstances.

Verification is a quality-assurance measure used by the United States Department of Education (DOE). The college is required to confirm accuracy

of the data reported on the FAFSA. Verification is completed by collecting the documents the student used to complete the FAFSA and comparing them with the information the student provided to the DOE.

Students selected for verification are notified by the DOE on the Student Aid Report (SAR). A request letter for the needed documents will be sent from Student Financial Services office. Required documents are updated as needed and can be viewed on the Financial Aid section of the Union College Student Portal.

Professional Judgement

Students who feel that the results of the Free Application for Federal Student Aid (FAFSA) do not accurately reflect the family financial circumstances correctly may file an appeal. The appeal must be based on a documentable, justified situation. Some examples include death in the family, loss of income, exceptional medical expenses, etc. In order to be considered for special circumstance appeal, students must first complete the verification process (see Federal Verification Process) as well as provide documentation to substantiate their claim.

Student Life and Services

Student Life

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

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

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

Student Life Agreement

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

- Honesty;
- Modesty as expressed by appropriate and tasteful clothing;
- Christian standards for the fine arts including art, music and literature;
- Graciousness demonstrated through respect for diversity;
- Truth, as demonstrated in Scripture;
- Respect for others' property, personal dignity, time and privacy;
- Taste and decency in conduct, expression and citizenship;
- Healthy lifestyle including nutrition, exercise, rest and abstinence from alcohol, tobacco, and illegal drugs on or off campus;

- Moral purity;
- Spiritual development and service to others; and
- Understanding that regardless of age, parents or guardians may be notified if student is admitted to a hospital, has a serious health condition, or has violated a Federal, State or local law or major campus policy, including but not limited to use or possession of drugs or alcohol.

Vibrant Spirituality

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

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

Sabbath Observance

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

Volunteer Opportunities

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

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

Philosophy of Campus Conduct

As a Christian college, Union seeks to integrate Christian teachings with academic pursuits, extracurricular activities, social development and lifestyle choices.

The guiding philosophy holds that the Scriptures establish a framework of values which should guide the development of Christian character, behavior and thought. The administration, faculty and students of Union are expected to embrace these principles.

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

Residence Life Policy

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

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

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

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

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

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

Room Reservations

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

College-Owned Apartments

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

Personal Effects

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

Residence at Union College While Studying Elsewhere

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

Campus Dining Services

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

Student Health Services

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

To register, each student must complete a health form and provide an official record of immunizations. Forms are available at www.ucollege.edu/forms. 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. For specific information, please visit the website.

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

Pharmaceutical or Chemical Trial

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

FERPA

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

Health Insurance

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

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

Motor Vehicles

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

Athletics Philosophy

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

Intramural Sports

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

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

Intercollegiate Sports

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

Eligibility

Students must have attained a 2.50 GPA for the past semester or cumulatively and must be registered for a minimum of 12 credit hours to be fully eligible to participate on an intercollegiate team. First semester freshmen academic eligibility is based on the high school GPA. A one semester probationary period is available to team members whose GPA falls between 2.00 and 2.50 for the past semester. Those placed on probation may be allowed to practice, and play in games or travel with the team at the coaches' and Athletic Director's discretion. Team members who do not reach a 2.50 GPA after one semester of probation will not be eligible until they have met this requirement.

Policy Regarding Student Complaints

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

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

Grievance Process

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

Informal Complaint Procedure

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

Formal Complaint Procedure

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

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

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

Grievance Committee

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

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

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

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

Withdrawal of Grievance

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

Matters Not Grievable

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

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

Academic Resources

Ella Johnson Crandall Memorial Library

www.ucollege.edu/library

Sabrina Riley, Library Director

Gillian Connors

Jeannette Wetmore

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

Within the library's 38,000-square-foot facility, librarians offer reference assistance, research instruction, collection development, and special programming. Through the Reference Assistance Program, patrons can schedule a reference appointment with a librarian, or receive help on a walk-in basis, by phone, email, or Instant Messaging from the library's home page. Through the liaison librarianship, librarians provide effective research instruction, collection development (selection of resources), and online subject research guides for each major on campus. The library's resources are highlighted through physical and online book displays and through special programming.

The library's collection of more than 160,000 physical items includes a variety of formats such as books, eBooks, periodicals, DVDs and audio books. Online collections include full-text access to more than 28,000 periodical titles, 170,000 electronic books, and 15,000 academic streaming videos. Both physical and electronic collections are searchable through the library's online catalog. The Lora McMahon King Heritage Room houses a large collection of Adventist books, periodicals and microforms, in addition to Union College archival materials. A selection of these materials is also available online through the Union College Heritage Collections database. The library subscribes to approximately 30 article databases accessible via the Web from services such as EBSCOhost and OCLC. Students may log in to these databases from any campus computer or from off campus via the Linux proxy server.

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 70,000 member libraries of OCLC. Additionally, patrons visiting the library can choose from a variety of study spaces including small group study rooms, individual study rooms, open tables, study carrels, and lounge seating.

Computer Services Information Systems

www.ucollege.edu/information-systems

Richard Henriques, Director

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

Microcomputer Laboratory

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

Gary Dickerson, Director

The Division of Business and Computer Science maintains the largest general-use computer lab on campus. The micro lab is available for more than 80 hours per week during the school year. The micro lab gives students access to the internet, a place to print out their papers for classes, as well as word processing, spreadsheets and presentation software.

Graphic Arts Computer Laboratory

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

Bruce Forbes, Director

The graphic arts computer lab, an open lab located in Engel Hall, is maintained to support photo editing and printing, print production, graphic design, and web design. Macintosh computers run drawing, page layout, image editing, and web design software. Color and black and white printers, scanners, stock photography and illustration collections, and type collections support graphic design, photography, and illustration work. The Internet is available for these uses.

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

Career Center

www.ucollege.edu/career-center

Teresa Edgerton, Coordinator

The Union College Career Center assists students in making satisfying major and career choices.

Career Planning

- Career advising: individual appointments with a career counselor
- Career counseling and inventories: skills, interests, abilities, strengths and personality assessments

- Career shadowing and internship information
- Student Employment
- On-campus employment: www.ucollege.edu/student-jobs
- Off-campus employment and internships: JobZone <https://ncrc-csm.symplicity.com/students>

Job Search assistance

Computerized job placement service: Nebraska Interview Consortium JobZone database available at ncrc-csm.symplicity.com

- Job search skills: assistance with cover letter and résumé writing, interviewing, salary negotiation and business etiquette
- Career and Graduate School Fair: employers are hosted on campus each fall - information provided on internships, part-time jobs, full-time employment, and university graduate programs
- Testing
- ACT & SAT: tests given on non-Sabbath test dates (Union College test center number and clergyman's letter available at the Career Center may be required for these Sunday tests)
- CLEP tests: a computerized CLEP test available upon request (see Academic Information section for academic credit information)
- Online distance education or correspondence tests proctored as requested
- Graduate entrance exams: LSAT administered at Union College on non-Saturday test dates.

Teaching Learning Center

www.ucollege.edu/tlc

Deborah Forshee-Sweeney, Director

Accessibility Services for Students with Disabilities

Union College is committed to providing educational opportunities to students with disabilities by honoring Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and ADA Amendments Act of 2008. These 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 accessibility guidelines or download them from the college website.

Personal Academic College Coaching (PACC)

The Teaching Learning Center provides life and academic coaching for all Union College students through the Personal Academic College Coaching

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

Academic Success Programs

See Admission to the College section for more information on the Freshman Development (FD) and Integrated College Experience (ICE) programs.

Studio for Writing and Speaking

www.ucollege.edu/humanities/thestudio

Tanya R. Cochran, Director

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

The Studio for Writing and Speaking

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

Because any written or oral text requires time and persistence, the Studio encourages students to make an appointment at the early stages of the process. Peer consultants are available to brainstorm before the writer puts something on notebook paper or computer screen or a speaker utters one word as well as to offer feedback on first, in-between, and final drafts of writing projects and oral presentations. As a later concern, consultants support instruction in grammar and mechanics. While they are not trained as editors or proofreaders, consultants help student writers and speakers identify and revise their own errors. Ideally, consultants and the students they work with develop a trusting relationship within which both hone their communication skills. Studio services are provided without charge. For more information on location and appointments, visit the Studio Web page.

Adventist Colleges Abroad

www.ucollege.edu/aca
Mark Robison, Coordinator
Tamara Seiler, Assistant

The Adventist Colleges Abroad (ACA) program at Union College allows students to immerse themselves in the culture and life of the host country and become conversant in the language; mature socially, spiritually and intellectually; and develop sensitivity to cultural differences and a sense of responsibility for and mission to other people of the world. This opportunity is provided to qualified students for international study while completing degree requirements at their home colleges and universities.

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

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

Because geopolitical situations can change rapidly, an ACA campus may be closed. Check with the Humanities Division for the latest updates.

Academic Year Study Abroad

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

Argentina	Universidad Adventista del Plata
Austria	Seminar Schloss Bogenhofen
Brazil	Brazil Adventist University
England	Newbold College of Higher Education
France	Campus Adventiste du Salève
Germany	Friedeusau Adventist University
Italy	Istituto Avventista Villa Aurora
Lebanon	Middle East University
Spain	Escuela Superior de Español de Sagunto

(See Foreign Language Studies section for degree information.)

Application Policies

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

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

Summer Study Abroad

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

Hong Kong (Chinese)	Hong Kong Adventist College
Israel (Hebrew)	Jerusalem Study Center
Lebanon (Arabic)	Middle East University
Ukraine (Russian)	Ukrainian Adventist Center of Higher Education

College Applicants

For Union College to process an application for summer study abroad, the college applicant must:

- complete at least one full-time semester in residence at Union College;
- be in good and regular standing at Union College while maintaining an overall minimum GPA of 2.5; and
- establish a financial payment contract with Union College Student Financial Services or pay for the program in full.

High School Applicants

For Union College to process an application for summer study abroad, the high school applicant must:

- complete at least the sophomore year in high school;
- apply and enroll at Union College as a non-degree seeking student;
- submit tuition payment in full to Union College Student Financial Services; and
- provide a letter from your high school registrar verifying minimum GPA of 3.00.

Academic Information

This section of the Bulletin provides basic information for progress through college, from registration to final exams and transcripts.

Academic Advising

Beyond completing the courses required for a major, earning a degree includes satisfying a variety of requirements and deadlines. To assist in meeting these challenges, each student is appointed a faculty advisor. Besides guiding course selection and general academic planning, advisors assist a student's orientation to campus life, discuss broader personal concerns, and encourage career planning.

However, ultimate responsibility for planning the academic program and fulfilling graduation requirements lies with the student.

Academic Course Load

The semester system defines courses in semester hours. Traditionally, each hour consists of one 50-minute class period and two hours of additional study per week. A laboratory period of two and one-half to three hours equals one semester hour.

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

Class Standing

Student classification is based on the semester hours applied to a union college degree. The minimum number of hours for each class is

- Freshman—admitted/0 semester hours
- Sophomore—24 semester hours
- Junior—56 semester hours
- Senior—92 semester hours

- Graduate—enrolled in a master's program
- Other—special students, guest students and others not seeking a degree enrolled for up to six hours.

Course Numbers

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

Prerequisites for All Upper Division Courses

Registration for any 300 or 400-level course requires successful completion of ENGL 112 College Writing II and sophomore class standing.

Auditing Courses

Students seeking to attend a course may register to audit most courses on a space-available basis. No grade is assigned nor credit given, and the tuition rate is greatly reduced. Changes from credit to audit, or the reverse, must take place during the add-drop registration period each semester or during the first two days of summer sessions. Nursing courses, most laboratory courses, and some others may not be audited.

New Student Orientation

New student orientation provides an important introduction to the college experience, extending from academic preparations to social activities, spiritual programs, and services available to students. Orientation is scheduled each fall before registration and as announced for spring semester.

First-year students are required to register for and attend the one-semester-hour introductory course CORE 108 linked to their chosen major. An abbreviated orientation program is available for transfer students.

Registration

Registration is the process of arranging to take courses for a semester as well as the associated steps to pay for them and become a Union College student. To accomplish this, students register for courses through Self-Service, the college's online portal, and complete the assigned steps in the final clearance checklist. Students are registered only after the student completes all steps.

Students who consult with their advisors and reserve courses during the pre-registration periods benefit from priority access to courses and reduce unnecessary stress. Financial clearance should also be completed before the

formal registration period. At the end of the add/drop period, reservations for courses are canceled for students who have not completed registration.

Late Registration

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

Changes In Registration

Add/drop

Students who are considering changing courses should consult with their advisors and attend the new courses as soon as possible if space is available. Courses already in progress may be added or dropped only during the first six days of classes (two days in summer session). Thereafter, permanent academic records are established and a W (withdrawal) grade will be assigned. Students benefit from confirming their class schedule on Self-Service to ensure that the registered courses are those actually intended.

Withdrawal

Courses dropped between the add/drop deadline and the published withdrawal deadline receive the designation W (withdrawal) instead of a letter grade. After that date, letter grades are assigned based on the work completed.

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

Administrative Withdrawal

The college administration may grant an administrative withdrawal (W) from a course or courses for a student suffering an emergency or unexpected circumstance. Administrative withdrawals are not granted to avoid failing grades or for circumstances normally addressed by a regular withdrawal. A student receiving an administrative withdrawal in all courses must demonstrate evidence of recovery from the circumstances before returning to Union College.

Transfer Credits

A student transferring from another regionally accredited college or university receives credit for course work elsewhere when the following conditions are met:

- an official transcript is received directly from the other institution;
- credits transferred have a grade of C- (1.67) or above;

- vocational and technical courses if approved by the appropriate academic division, by petition, or by Academic Administration;
- transfer credits from two-year institutions are limited. At least 56 hours must be taken from a four-year institution before graduation.

Remedial, developmental, or basic skills courses are not transferable, and credit is not granted for non-college sponsored instruction or life experiences.

The transfer of credits does not guarantee that credits meet specific requirements, but when they are equivalent to Union College coursework, they satisfy corresponding requirements for general education, a major or a minor.

Administrative approval may be required if the course is not strictly comparable, and the student is expected to provide evidence such as the course description or syllabus.

Course Transfers from Institutions without Regional Accreditation

Courses from institutions without regional accreditation do not generally transfer. However, a student may request that such credits be transferred by filing an academic petition with the Records Office. Provision of a syllabus is required for the evaluation; other materials may be helpful, and the division chair must validate the equivalence.

Credit By Examination

Several types of examinations are available for a student to demonstrate knowledge sufficient for academic credit, which may not exceed credit granted for similar classes offered by the college.

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

Applications for CLEP and Proficiency Examinations are available in the Records Office and on the Union College website.

Advanced Placement (AP)

Advanced Placement (AP) credit is granted to students who pass certain College Board AP Examinations with a score of 4 or higher. Language and Composition substitutes for College Writing I, while Literature and Composition substitutes for literature. However, no AP course may substitute for College Writing II.

College Level Examination Program (CLEP)

Union College grants credit for CLEP subject examinations as recommended by the Commission on Educational Credit of the American Council on Education. Applications for CLEP exams are available in the Records Office,

while requests to schedule CLEP tests are made with the Career Center. A recording fee is charged for credits earned on CLEP exams (see fees). Credit by CLEP carries the following stipulations:

- not available after a student has completed 56 hours of college credit.
- not available for College Writing I and II.
- not granted for the general tests in Humanities, College Mathematics, Natural Sciences, or Social Sciences and History.
- not available for elementary language tests in one's native tongue.
- will not necessarily satisfy requirements for a major or minor. The student seeking to use CLEP credit for a major or minor should obtain program approval before taking the test.

Challenge Examinations

Proficiency examinations may be arranged for some courses. Students who want to take an exam should contact the chair of the division. A fee will be charged for the exam's preparation and credit registration. A course already taken cannot be replaced by a proficiency examination.

Alternative Programs

General Studies

The Bachelor of Science degree in general studies allows students to develop academic knowledge and skills in several areas of study. The student must meet graduation requirements for bachelor's degrees, substituting a general studies curriculum for a major. Because it lacks a major, the college does not extend the Guaranteed Education option to students who graduate under this program.

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

The Associate of Science degree in general studies requires a minimum of 12 semester hours earned in one academic division and 6 semester hours each from two other academic divisions. Additionally, 8 hours of electives and the general education (LEAD) requirements for an associate's degree are also required. All qualifying courses must be completed with a grade of C or higher.

Personalized Degree

The personalized degree option is intended for a student who, in consultation with an advisor, wishes to design and fulfill a unique program of study at the bachelor's level that achieves individual educational goals. Such an individually

designed program may prepare for employment or further study. However, the program carries no endorsement or recommendation for such results by the college, and the Guaranteed Education option is not available to students graduating under this program.

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

Requirements for a personalized degree are broadly the same as for a regular bachelor's degree. Variations in the general education requirements are permissible but must also be approved by Academic Council. Personalized degree students may utilize courses offered on other campuses for which the student is financially responsible. The residency requirement is that 64 of the final 80 hours of this degree or at least 100 hours total must be taken at Union College.

Post-Baccalaureate Professional Program

Exceptional students occasionally gain acceptance into professional graduate programs such as medicine, dentistry or law before completing a bachelor's degree. The appropriate bachelor's degree will be conferred upon those who

- apply for a Union College degree within two years after successfully completing the first year of a post-baccalaureate professional program;
- complete the general education requirements as outlined in the relevant bulletin;
- complete a minimum of 96 semester hours of undergraduate courses, including 20 or more upper division hours;
- complete 30 of the last 36 undergraduate hours in residence; and
- arrange verification from the professional school that the applicant has successfully completed the first year of the professional program and is eligible to continue.

Study Elsewhere

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

To ensure that the proposed coursework elsewhere will satisfy the course of study at Union College, students should submit an academic petition to the Director of Records prior to enrolling at the other institution. Failure to do so may result in a student earning credit that will not apply toward graduation.

Grade Reports

Grades and unofficial transcripts are available at the midterm and conclusion of each semester on the Self-Service website. Only the final grade is recorded on the official transcript; the midterm grade serves as an indication of progress and is not factored into a student's GPA calculation.

Students are responsible for reviewing their Self-Service accounts regularly to ensure the accuracy of the academic information on file in the Records Office.

Grade Definitions

- 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 met course objectives in a satisfactory manner. A grade of C- or below may not apply for a course in a major, minor or professional education.
- D The student has not demonstrated a satisfactory learning of the material, but met course objectives in a minimal manner.
- F The student failed to master the material or meet course objectives.

GRADE GRADE POINTS

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

Other Designations

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

Grade Point Average (GPA)

The cumulative grade point average is computed by totaling the grade points of all courses and dividing by the total semester hours of courses for which grades are received. When calculating graduation and honors requirements, GPAs are not rounded up. Thus, a student with a GPA of 1.997 does not meet

the graduation requirement of 2.00; likewise, a GPA of 3.749 will not satisfy the requirements for the Dean's List (3.75).

Repeat Courses

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

Incomplete

Students may petition to receive the designation of incomplete (I) in case of illness or unavoidable circumstances unrelated to the course requirements. By federal regulation, an incomplete is only available if a major portion of the course has been completed satisfactorily.

A request for an incomplete must be approved by the instructor and division chair. It must be submitted before the final examination week. The deadline for course completion is no later than the end of the following term (not including the summer term). Failure to meet this contract deadline will result in recording of the original grade as indicated on the request. Forms are available in the Records Office.

In Progress

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

If the course 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 Academic Council.

Changes of Assigned Grades

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

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

Dean's List

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

RECOGNITION	GPA RANGE
Dean's Distinguished List	3.90 - 4.00
Dean's List	3.75 - 3.89

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

Academic Sanctions

Academic Probation

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

Students on academic probation are required to

- limit their class load to a maximum of 15 hours;
- renegotiate financial agreements in case of loss of financial aid; and
- meet the academic requirements stipulated by Academic Administration in the probation letter.

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

Academic Suspension

A student already on academic probation will be suspended from the college if the following semester GPA falls below 2.00. Any appeals should be directed to the Vice President for Academic Administration. A student may also be suspended after a single semester with a current GPA of less than 1.00, even when the cumulative GPA exceeds the 2.00 minimum for graduation.

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

Academic Alert

A student whose cumulative GPA remains above 2.00, but whose semester GPA falls below a C- level (1.67), is placed on Academic Alert. This involves limiting the subsequent semester to 15 hours and setting goals for improved performance.

Academic Dismissal

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

Course Cancellation

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

Attendance

The Union College faculty considers regular class attendance vital to learning, and students are expected to attend each class period. Each syllabus provides the policy for the course, which may include an automatic failing grade for absence (for whatever reason) from 20% of the regularly scheduled class periods. Individual instructors are responsible for determining the degree to which missed classroom activities and assignments can be made up.

Final Examination Schedule and Exceptions

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

Prep Days for Finals

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

Student Mission and Task Force Credits

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

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

Veterans' Information

Union College courses meet the standards of the Nebraska Department of Education State Approving Agency for benefits to veterans and other persons eligible under the various GI Bill programs administered by the department of Veterans Affairs (VA).

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

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

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

Integrity of Scholarship

The Union College community values high academic and ethical standards. Inspired by both Christian and scholarly principles, its students and faculty commit to exhibit integrity and truth in all academic endeavors, including the preparation of class assignments and taking examinations. Scholarship thus carries the broad expectation that no unauthorized aids were used.

Specific dishonesty includes cheating on assignments or examinations, plagiarism (copying of others' published works), excessive revision by someone other than the student, unauthorized collaboration, forgery of signatures, fabrication or unauthorized use of data, and the misuse of copyrighted material. In addition to exhibiting personal honesty in creating their own work, students should refrain from suspicious behavior or allowing others to use their works in a dishonest manner.

Course syllabi spell out specific consequences of dishonesty in individual courses. Teachers are expected to report incidents involving standards of integrity to the division chair and Vice President for Academic Administration.

When allegations of academic dishonesty are substantiated beyond reasonable doubt, the consequences may range from receipt of a failing grade for the assignment to dismissal from the course or even expulsion from the college. If a student feels unjustly charged with dishonesty, an appeal should follow the grievance policy provided in the Student Life and Services section.

Family Educational Rights and Privacy Act (FERPA)

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

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

Union College designates the following as directory information:

- name;
- home address;
- local address;
- 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;
- academic recognition;
- photograph;
- institutions attended prior to admission to Union College;
- participation in recognized activities and sports at Union College.

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

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

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

Parental Access

Students may grant educational record access to parents or guardians through Self-Service. They should contact the Records Office for more information.

Assessment

Student learning is the central academic focus of the Union College mission. Assessment of that learning is vital to strategic planning and to maintaining

an environment where students achieve the goals of their disciplines and value life-long learning.

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

Assessment occurs in three areas:

- **Course Assessment:** Professors assess their courses based on established program goals and objectives formalized as student learning outcomes.
- **Program Assessment:** Each division conducts an annual review of program learning outcomes and their assessment. The review process assists each division in determining and implementing evidence-based changes.
- **Program Review:** Each academic program is reviewed and compared with external programs to ensure relevancy and currency. Each program is reviewed once every five years.

Student Right to Know Act Graduation Rate

In accordance with the Student Right to Know Act, Union College annually releases its graduation rate. As of December 2013, the four-year average student-right-to-know completion or graduation rate was 49%.

Transcripts

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

Changes to Current Bulletin

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

Graduation Requirements for Bachelor's and Associate's Degrees

The responsibility of meeting requirements for graduation rests primarily upon the student. Students should acquaint themselves with the various requirements in the bulletin and plan their college courses for the next four years accordingly.

Bulletin for Graduation

Students maintaining continuous residence may meet the requirements in any bulletin published during that time of residence. Students discontinuing residence longer than two consecutive semesters must meet the requirements in a bulletin valid after they return.

Bachelor's Degree Requirements

Bachelor's degrees are conferred upon students who have

- successfully completed at least 128 semester hours, with at least 40 hours at the 300-level or above;
- fulfilled the specific requirements of a major described in this bulletin (General studies and personalized programs may present more individualized requirements);
- earned a minimum of C (2.00) for all courses forming part of the major;
- achieved a minimum cumulative grade point average of 2.00 or higher as required by the individual major;
- completed the general education program, LEAD@Union, appropriate to the degree;
- met the residency requirements, including those for the major and any minors (see below);
- participated in the assessment program as requested;
- applied for graduation three semesters before intended completion date; and
- provided all official transcripts and completed courses designated I or IP.

Associate's Degree Requirements

Associate degrees are conferred upon students who have

- successfully completed at least 64 semester hours;
- fulfilled the specific requirements described in this bulletin;
- earned a minimum of C (2.00) for all courses in the discipline of the degree forming part of the major;
- achieved a minimum cumulative grade point average of 2.00;
- completed the general education program, LEAD@Union, appropriate to the degree;
- met the residency requirement;
- participated in the assessment program as requested;
- applied for graduation three semesters before the intended completion date;
- provided all official transcripts and completed courses designated I or IP.

Commencement

Commencement exercises are held annually in May, although diplomas are also issued in August and December. Students who complete a program at the end of the spring semester are expected to participate in the graduation exercises. Graduates from the previous December are invited to participate. A fee is charged to all graduates to cover the costs associated with graduation.

Academic Administration grants exemption from participation in the annual exercises on request.

Prospective August Graduates Participation

Students planning to complete requirements during the following summer may apply to participate in the May 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 they can complete the remaining requirements before the August graduation date. A deposit of \$200 will be charged to the student's account, and refunded or applied to any unpaid Union College charges if all graduation requirements are completed by the August graduation date. If the degree is not completed on time, the deposit will be forfeited.

Academic Recognition at Graduation

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

GPA

Summa Cum Laude	3.90
Magna Cum Laude	3.75
Cum Laude	3.50

Residency Requirements

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

A minimum of 56 semester hours must be completed at a four-year college or university.

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

Second Degrees

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

If the second-degree requirements do not contain a religion course, students must take RELT 110 or RELT 141.

Multiple Majors

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

Academic Minors

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

Completion of a minor is not completion of a degree, so a minor is not recognized separately from completion of a bachelor's degree.

General Education: LEAD@Union

Statement of Purpose

Union College's general education program, LEAD@Union, reflects the college's mission to empower students in learning, service, and leadership. As they fulfill its requirements, undergraduates will:

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

Beyond addressing these goals, LEAD@Union participates in the broader culture of student learning. Small class sizes, a liberal arts heritage, and active student organizations provide opportunities to practice effective leadership. The college also seeks to infuse academic learning into the campus work environment, student government, service activities, and spiritual endeavors—and these in turn enhance effective learning. Thus general education at Union becomes much more than narrow objectives tied to specific courses. Instead, it seeks the harmonious development of all students into graduates who understand themselves and the world around them, and who adapt to circumstances while living lives of discipleship, learning, and community.

General Education Requirements—4-Year

Baccalaureate degrees require a minimum of 54 (60 for Bachelor of Arts) hours of general education courses in the total of 128 hours. Major or minor courses may also be used as general education requirements.

Religion	12 hours
RELT 141—Christian Beliefs or RELT 110—Introduction to Christian Faith and Adventism (3) or RELT 205—Developing the Christian Mind (3)	3
RELB (Biblical Studies)	3
REL (Religion electives)	6
Students transferring from institutions other than Seventh-day Adventist colleges as	
• sophomores - 9 (reduce electives to 3 hours);	
• juniors - 6 (omit electives; may substitute RELT 300 or above for RELB);	
• seniors -3 (take RELT 110 or RELT 141).	

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

Fine Arts and Humanities	7 hours
Literature course First-year courses require approval; children's and young adult literature courses will not be accepted.	3
Four hours including credits from two of the following three areas:	4
• Philosophy or HMNT 332	
• Academic fine arts course—ART 321, ART 322, HMNT 305, MUHL 260, MUHL 261, or MUTH 151	
• Applied fine arts courses from music performance (MUPF), applied ART, drama production (CODR), or photography (PHOT)	

History and Social Science	9 hours
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History course (U.S. or World)	3
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Students who completed both United States and world history in high school may choose a course from either area. It is recommended that a student lacking a year-long course in one area complete that in college.

Three hours each from two of the following disciplines: Anthropology, Economics, Geography, History, Leadership, Political Science, Psychology, or Sociology.	6
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Science	7 hours
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Life sciences	3-4
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Recommended: BIOL 104, 106, 107, 111, 151, 205, or 377

Physical sciences	3-4
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Recommended: ASTR 111, CHEM 101, 151, PHYS 111, 151, or SCNC 377.

One course must be a laboratory course.

Mathematics	3 hours
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MATH 111, 121, 165, 184, or 221 (MATH 221 is highly recommended.)	3
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Computer	3 hours
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One college level course in computer applications or in computer science.	3
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Students who demonstrate competency by a minimum grade of B in a high school applications course may substitute FNCE 215 Personal Finance. Alternatively, students successful on a Union College proficiency exam for CPTR 220 will receive three hours of credit.

Health and Human Performance	4 hours
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HHPA 155—Concepts of Wellness	2
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HHPA (Two different one-hour activity courses)	2
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Foreign Language	6 hours
Beginning foreign language (Required for BA degree only)	3, 3
Students who have completed two years of the same foreign language in high school have satisfied this requirement.	

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

Transfer of Courses for General Education

Transfer students who meet all the general education requirements at a regionally accredited Seventh-day Adventist college thus satisfy Union College requirements.

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

General Education Requirements—2-Year

Associate degrees require a minimum of 29 hours of general education courses in the total of 64 hours.

Religion	6 hours
RELT 141—Christian Beliefs	3
or RELT 110—Introduction to Christian Faith and Adventism (3)	
RELB course	3
or RELT 305—Christian Ethics	
Communication	5-6 hours
ENGL 111—College Writing I	3
ENGL 112—College Writing II	3
or COMM 105—Public Speaking	2

Fine Arts and Humanities	2-3 hours
One of the following four areas:	2-3
<ul style="list-style-type: none">• Philosophy or HMNT 332• Academic fine arts course: ART 321, ART 322, HMNT 305, MUHL 260, MUHL 261, or MUTH 151• Applied fine arts courses from music performance (MUPF), applied ART, drama production (CODR), or photography (PHOT).• Literature course, 200 level recommended (ENGL 112 is a prerequisite to literature courses.)	
History	3 hours
History (U.S. or World)	3
Students who completed a year each of United States and world history in high school may choose a course from either area. A student lacking a year course in one area must complete that in college.	
Science	4 hours
Science laboratory course	4
Mathematics	3 hours
MATH 111, 121, 165, 184, or 221 (MATH 221 is highly recommended)	3
Computer	3 hours
One college level course in computer applications or in computer science.	3
Students who demonstrate competency by a minimum grade of B in a high school applications course may substitute FNCE 215 Personal Finance. Alternatively, students successful on a Union College proficiency exam for CPTR 220 will receive three hours of credit.	
Health and Human Performance	2 hours
HHPA 155—Concepts of Wellness	2
Core	1 hour
All freshmen and transfer students with less than 24 hours are required to take CORE 108—Connections	1

Professional General Education Requirements

For Education, IRR, Medical Lab Science, Nursing, & Social Work

Professional baccalaureate degrees require a minimum of 39 hours of general education courses in the total of 128 hours. Major or minor courses may also be used as general education requirements.

Religion	12 hours
RELT 141—Christian Beliefs	3
or RELT 110—Introduction to Christian Faith and Adventism (3)	
or RELT 205—Developing the Christian Mind (3)	
RELB (Biblical Studies)	3
REL (Religion electives)	6
Students transferring from institutions other than Seventh-day Adventist colleges as	
• sophomores - 9 (reduce electives to 3 hours);	
• juniors - 6 (omit electives; may substitute RELT 300 or above for RELB);	
• seniors -3 (take RELT 110 or RELT 141).	

Communication	8 hours
COMM 105—Public Speaking	2
ENGL 111—College Writing I	3
ENGL 112—College Writing II	3
Satisfactory completion of at least one writing-designated (WR) course. Excludes ENGL 111 and 112 courses.	

Fine Arts and Humanities	3 hours
Choose from any of the following disciplines:	3
• Literature	
• Philosophy or HMNT 332	
• Academic Fine Art (HMNT 305, Art or Music History, Music Theory)	
• Applied Fine Art (Drama Production, Photography, Music Performance, ART courses)	
No more than one hour in applied fine art may count towards the total in this category.	

History and Social Science	6 hours
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History (World, regional, or national)	3
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Choose from the following disciplines	3
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- Anthropology
 - Economics
 - Geography
 - Leadership
 - Political Science
 - Psychology
 - Sociology
-

Science	4 hours
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A life or physical science course with a lab	4
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Astronomy, Biology, Chemistry, or Physics is recommended to meet this requirement.

Mathematics	3 hours
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MATH 111, 121, 165, 184, or 221	3
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(MATH 221 is highly recommended.)

Health and Human Performance	2 hours
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HHPA 155—Concepts of Wellness	2
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HHPA activity courses

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

Master of Physician Assistant Studies

Mission

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

Goals

- **Professionalism.** Graduates will act in a professional manner, and, by integrating interprofessional education and collaboration, will acknowledge the physician assistant as one member of the health care team.
- **Clinical Relevance.** Graduates will proficiently perform the more routine duties of personal health care management typically provided by primary care physicians.
- **Academic Excellence.** Graduates will possess competence in a balanced core of knowledge drawn from the fields of medical and behavioral sciences which enables life-long learning, critical thinking, and effective communication.
- **Responsible Servanthood.** Graduates will render service in the spirit of compassion and self-refraining love demonstrated by Christ in His ministry on earth, recognizing the privilege of serving others regardless of race, ethnicity, gender, religion, age, marital status, disabilities, or socioeconomic status.

Contact Information

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www.ucollege.edu/pa

Faculty

Michelle Buller, Jodi Chewakin, Megan Heidtbrink, Cliff Korf, Dwain Leonhardt, Frankie Rose

Description

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

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

Student Life Philosophy and Services

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

Application and Admission

The MPAS program invites applications for admission from individuals who have completed a baccalaureate degree from an accredited college or university or who expect to do so within the next year.

Admission into the graduate curriculum of the physician assistant program is limited and competitive. While a minimum grade point average of 2.80 or higher on a 4.00 scale is required for all undergraduate and graduate courses, nearly all successful applicants have earned undergraduate grades with a grade point average of 3.50 or higher in both the cumulative GPA for all credits and the GPA specific to all science credits.

Application Procedure

Application to the PA Program should be made through the Central Application Service for Physician Assistants (CASPA) at www.caspaonline.org.

All applications are reviewed without regard to age, sex, ethnicity, creed, race, color, or national origin. However, as an institution owned and operated by the Seventh-day Adventist Church, Union College gives first consideration to students who uphold biblical principles of morality and lifestyle as interpreted by the Seventh-day Adventist Church and to students who have completed their pre-PA coursework at Union College. It is a firm policy of the college to admit a number of qualified students into each class who have not completed coursework at Union College but who demonstrate a strong commitment to the mission of the college and its physician assistant program.

Admission Requirements

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

- successful completion of the prerequisite coursework listed under Required Prerequisites;
- cumulative GPA and science GPA (biology, chemistry and physics courses) of 2.80 or higher on a 4.00 scale for all college work;
- demonstrated proficiency in a variety of cognitive, problem solving, manipulative, communicative and interpersonal skills, as described in the PA program's technical standards (available at ucollege.edu/pa);
- three letters of recommendation;
- a written Motivational Statement;
- a signed Lifestyle Agreement;
- completion of a required physical exam upon acceptance into the program;
- meeting educational standards of the United States Department of Education for foreign courses;
- at least three months (480 hours) of work experience related to direct patient care including exposure to the PA role;
- criminal background check clearance upon acceptance into the program;
- submission of complete application materials; and
- personal interview with PA Program admissions team.

Possession of a baccalaureate degree prior to entering the MPAS program is required for all applicants to the PA Program who are not Union College students applying through the health sciences major. The focus of the degree may vary, but studies must include the prerequisite courses of the PA Program.

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

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

All PA students enrolled at Union College must possess personal health insurance. Personal liability insurance is also encouraged. (See Student Life and Services, "Health Insurance.")

Application Deadlines

Completed application forms must be submitted to CASPA by October 1 of the year prior to the desired enrollment. Applicants will receive formal notification of acceptance by the end of February of the year of admission. Applicants designated as alternates or who are not accepted also receive notification by this time.

International Students

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

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

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

International applicants with questions or needing additional information should view the PA Program website. For specific questions about the admission of international students, contact the Union College Admissions Office at (402) 486-2504.

Academic Information

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

Transfer of Courses

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

Suspension and Dismissal Policy

A cumulative 3.00 GPA is required for MPAS courses. Students receiving a C- or below on any single examination or evaluation may receive an academic warning. A cumulative GPA of less than 3.00 will place a student on academic probation, as will poor clinical performance. The complete policy can be found in the student handbook.

A student may be dismissed from the MPAS program if the student:

- receives a grade of C- or below;
- earns a cumulative GPA below 3.00 in PHAS courses at the conclusion of the Fall semester prior to the start of clinical rotations (first four semesters); or
- is found guilty of unprofessional or illegal behavior according to the guidelines in the PA Student Handbook

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

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

Progression and Graduation Requirements

Guidelines for progression and graduation include the following:

- individual course grades must be C or higher;
- overall GPA for all PHAS courses must be maintained at 3.0 or higher on a 4.0 scale;
- all assigned coursework and clinical rotations must be completed;
- no PHAS course may be repeated more than once and no more than one course may be repeated;
- additional graduation requirements established by the program and published in the PA Student Handbook must be met;
- successful completion of assessment activities approved by the program; and
- during the final year of study, an application for a graduate degree must be filed with the Records Office.

Delayed Graduation

Students who need to complete requirements during the following summer may apply to participate in the May graduation ceremonies as a prospective summer graduate if the remaining requirements are limited to 8 credit hours. Students must present evidence that the remaining requirements can reasonably be completed prior to the August graduation date. A deposit of \$200 will be charged to the student's account, and can be refunded or applied to any unpaid Union College charges if all graduation requirements are completed by the August graduation date. If the degree is not completed on time, the deposit will be forfeited.

Academic Recognition at Graduation

	GPA
High Distinction	3.90
Distinction	3.75

Academic Resources

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

Teaching Learning Center

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

Academic Advising

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

Program-Specific Fee

For the most recent information regarding fees and financial assistance, applicants should contact Union College Student Financial Services. 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 on the college's website: www.ucollege.edu/pa.

MASTER OF PHYSICIAN ASSISTANT STUDIES

Required courses—117 hours

PHAS 505	Medical Literature Review (WR)	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	2
PHAS 531	Clinical Medicine I	6
PHAS 532	Clinical Medicine II	6
PHAS 533	Preventive Health	1
PHAS 534	Clinical Medicine III	3
PHAS 539	Christian Health Care and Bioethics (WR)	3
PHAS 546	Clinical Skills I	4
PHAS 547	Clinical Skills II	2
PHAS 553	Cultural Competencies in Medicine	1
PHAS 557	Electrocardiography	2
PHAS 558	Medical Physiology	3
PHAS 559	Clinical Pathophysiology	4
PHAS 562	Medical Genetics	1
PHAS 564	Clinical Therapeutics	4
PHAS 584	Pharmacology	5
PHAS 585	Master's Research Seminar	1
PHAS 594	Master's Capstone Project I	3
PHAS 595	Master's Capstone Project II	1
PHAS 620	Family Practice I Rotation	4
PHAS 621	Family Practice II Rotation	4
PHAS 622	Internal Medicine Rotation	4
PHAS 623	Surgery Rotation	4
PHAS 624	Obstetrics and Gynecology Rotation	4
PHAS 625	Pediatrics Rotation	4
PHAS 626	Cardiology Rotation	4
PHAS 627	Emergency Medicine Rotation	4
PHAS 628	Orthopedics Rotation	4
PHAS 629	Psychiatry Rotation	4
PHAS 630	Elective Rotation	4

Required Prerequisites—47 hours

BIOL 151, 152	General Biology I and II	4, 4
BIOL 205	Microbiology	4
BIOL 411	Advanced Human Anatomy	4
BIOL 416	Advanced Human Physiology (WR)	4
CHEM 151, 152	General Chemistry I and II*	4, 4
CHEM 211, 212	Organic Chemistry I and II*	4, 4
CHEM 445	Biochemistry I	4
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
PSYC 215	Developmental Psychology^	3

Additional Requirements

- American Heart Association Healthcare Provider CPR Certification**
- All science classes and required labs must be taken in person, rather than online.
- Generally, science courses should be completed in the seven years preceding application to the PA Program.
- Since the MPAS is a rigorous graduate program, Union College prefers courses from four-year colleges or universities, rather than from community colleges. We recommend that you add upper division biology courses such as Advanced Microbiology, Cell Biology, Developmental Biology, Endocrinology, Genetics, Immunology, Physiology, Advanced Anatomy, and Molecular Biology to your transcript to show your academic strength. We also recommend an upper division Biochemistry II.
- Union College PA program does not accept courses with grades less than "C".

(*) Individual colleges will determine their own chemistry sequences of preparation for Biochemistry.

(^) Abnormal Psychology is recommended.

(**) CPR certification must be valid through November of the student's first year in the PA Program.

Academic Divisions

DIVISION OF BUSINESS AND COMPUTER SCIENCE

Mission

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

Goals

Students graduating with degrees in business or computing will be prepared to

- apply a Christian philosophy to business and technology ethics;
- demonstrate Christian involvement through volunteering in community activities;
- apply theory to practical situations;
- benefit from student/teacher involvement through personalized advising and career planning as well as social and professional activities;
- integrate technology into the workplace through appropriate use of computer software;
- work together in effective teams;
- demonstrate professional communication and business decorum; and
- 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 by tracking graduates' job placement, graduate school acceptance, and scores on nationally recognized tests.

Contact Information

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402.486.2521
baforbes@ucollege.edu
www.ucollege.edu/bcs

Faculty

Gary Dickerson, Barry Forbes, Lisa Forbes, Seth McNeill, Aaron Purkeypile, Kent Stahly, Jon Turk, Debra Unterseher

Adjunct Faculty

Ben Barber, Shane Flowers, Judy Glass, Darrel Huenergardt, Matthew Orian, Jonathan Rickard

DEGREES AND PROGRAMS**Bachelor of Science**

Business Administration with emphases in:

- Accounting
- Finance
- Management
- Marketing
- Science
- Small Business Management

Computing with emphases in:

- Computer Information Systems
- Computer Science
- Web Development

Associate of Science

Accounting

Business Administration

Computing

Minors

Accounting

Business Administration

Business Analytics

Computer Information Systems

Marketing

Small Business Management

DIVISION OF EMERGENCY MANAGEMENT AND EXERCISE SCIENCE

Mission

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

Contact Information

Emergency Management and Exercise Science, Chair
International Rescue and Relief, Director

Rick Young
Don Love Building- South
402.486.2980
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r2young@ucollege.edu
www.ucollege.edu/irr

Exercise Science & Health and Human Performance

Nancy Petta, Director
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www.ucollege.edu/hhp

Faculty

Shawntae Horst, Aaron Kent, Nancy Petta, Ric Spaulding, Gary Walter,
Rick Young

Adjunct Faculty

Denise Bulling, Phyllis Gorton, Ryan Perry

DEGREES AND PROGRAMS

Bachelor of Science

Exercise Science

Health and Human Performance with emphases in:

- Business/Sport Management
- Fitness and Wellness

International Rescue and Relief with emphases in:

- Pre-Professional
- Public Safety

Physical Education—Secondary Subject Endorsement

Associate of Science

Emergency Medical Services

Rescue and Relief/Allied Health

Minors

Business/Sport Management

Coaching

Disaster Management

Fitness and Wellness

Personal Training

Physical Education

Survival and Rescue

DIVISION OF FINE ARTS

Mission

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

Goals

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

- pursue careers and professions in art and music;
- pursue graduate degrees in a variety of art or music fields;
- be artistic leaders and contributors to the community and church; and
- serve God and humanity through the gifts of art and music.

Contact Information

Bruce Forbes, Division Chair
Nancy Meier, Office Manager
Engel Hall
402.486.2553
402.486.2528 fax
nameier@ucollege.edu
www.ucollege.edu/fine-arts

Faculty

Bruce Forbes, Richard Little, James D. McClelland, Kurt Miyashiro

Adjunct Faculty

Ben Barber, Lynn Davis, Marina Fabrikant, Debra Johnson, Ed Mejia, Steve Nazario, Julia Noyes, Marcelo Plioplis, Benjamin Tallman

DEGREES AND PROGRAMS

Bachelor of Arts

Music

Studio Art

Bachelor of Music

Music Education, K-12 Field Endorsement with emphases in:

- Instrumental
- Keyboard
- Vocal

Music Performance with emphases in:

- Instrumental
- Keyboard
- Vocal

Bachelor of Science

Art Education K-12 Field Endorsement

Graphic Design with emphases in:

- Business
- Communication

Instrumental Music Education, Subject Endorsement K-8; 7-12

Vocal Music Education, Subject Endorsement K-8; 7-12

Associate of Science

Art

Graphic Design

Music Pedagogy

Minors

Art

Graphic Design

Music

DIVISION OF HUMAN DEVELOPMENT

Mission

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

Goals

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

- entry-level career positions; and
- graduate study.

Contact Information

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402.486.2522
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liturk@ucollege.edu
www.ucollege.edu/humandev
www.ucollege.edu/education,
www.ucollege.edu/psychology
www.ucollege.edu/socialwor

Faculty

Kathy Bollinger, Jody Detwieler, Melanie Gabbert, Trudy Ann Holmes-Caines, Shawna Herwick, Timothy Simon, Denise White

Adjunct Faculty

Steven Bassett, Rich Carlson, Lynn Davis, Sarah Gilbert, David Hartman, Jenienne Kriegelstein, Jan Nash, Nancy Petta, Linda Robison, Wayne Schaber, Jackie Simpson, Ric Spaulding, Natalie Swift

DEGREES AND PROGRAMS

Bachelor of Science

Elementary Education

Psychology

Secondary Education Endorsements (see major division section)

Bachelor of Social Work

Social Work

Minor

Psychology

DIVISION OF HUMANITIES

Goals

- Create community
- Create dialogue
- Be deliberate about assessment

Contact Information

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402.486.2523
marobiso@ucollege.edu
www.ucollege.edu/humanities

Faculty

Christopher Banks, Chris Blake, Tanya R. Cochran, William D. Fitts, Brett Hadley, Mark Robison, Benjamin Tyner, Peggy Wahlen

Adjunct Faculty

Scott Cushman, LuAnn Davis, Bruce Forbes, Amanda Funk-Hilton, Jack Kinworthy, Jill Morstad, Malcolm Russell, David Subiabre, Brian Weed

DEGREES AND PROGRAMS

Bachelor of Arts

Communication with emphases in:

- Emerging Media
- Fundraising and Philanthropy
- Public Relations

English with emphases in:

- Literature
- Writing and Speaking

Foreign Language Studies with emphases in:

- French
- German
- Italian
- Spanish

History

International Relations

Social Science

Bachelor of Science

English Language Arts Education, Secondary Field Endorsement

History Education, Secondary Subject Endorsement

Secondary English Education, Subject Endorsement

Social Science Education, Secondary Field Endorsement

Minors

Communication

Drama

Emerging Media

English

French

German

History

International Relations

Italian

Pre-Law

Public Relations

Social Science

Spanish

DIVISION OF NURSING

Union College offers a four-year curriculum in nursing, leading to a Bachelor of Science in Nursing. The baccalaureate program at Union College is accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791. The program is also approved by the Nebraska State Board of Nursing. Graduates are eligible to write the National Council Licensing Examination RN (NCLEX-RN) for professional licensure.

Mission

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

Contact Information

Nicole Orian, MSN, RN
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402.486.2524
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Missy Sorter
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Faculty

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Clinical Instructors

Tracy Hagele, Rebecca Randa

Adjunct Faculty

Melissa Blome, Michelle Broman, Valeree Krueger, Lisa Lorenz, Elysia Ockenga, Zemis Sedriks, Elaine Selig-Polizien, Allison Strom, Jill Weyers

Simulation Center Coordinator

Tracy Hagele

DEGREE

Bachelor of Science in Nursing

Nursing

DIVISION OF RELIGION

Mission

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

Goals

The goals of the Division of Religion are to enable students to

- express an informed commitment to Jesus Christ as Savior and Lord;
- cultivate and model Christian discipleship;
- demonstrate knowledge of the teachings of the Bible common to the Christian faith, and of distinctive Seventh-day Adventist beliefs;
- demonstrate the ability to interpret and apply biblical and ethical principles; and
- prepare to pursue graduate studies.

Contact Information

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402.486.2526
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www.ucollege.edu/religion-division

Faculty

Edward Allen, Robert Fetrick, Ben Holdsworth, Thomas Toews

Adjunct Faculty

Harold Alomia, Richard Carlson, Michael Halfill, Stan Hardt, Michael Paradise, Lena Toews

DEGREES AND PROGRAMS

Bachelor of Arts

Theology

Bachelor of Science

Religion with emphases in:

- Business
- Mission Service
- Pastoral Care

Religious Education, Secondary Subject Endorsement

Social Media Ministry

Minors

- Biblical Languages
- Religion
- Social Media Ministry
- Youth Ministry

DIVISION OF SCIENCE AND MATHEMATICS

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

Mission

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

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

Contact Information

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www.ucollege.edu/science-and-mathematics

Faculty

Richard Clark, Lesa Kean, Corrairie McNeill, Seth McNeill, Salvador Moguel, Kenneth Osborn, Frankie Rose, Amy Utt, Richard Webb, Carrie Wolfe

Adjunct Faculty

Angie Hardt, Marcia A. Kilsby, Keith Riese, Robert Ruyle

DEGREES AND PROGRAMS

Bachelor of Arts

Biology
Chemistry
Mathematics
Physics

Bachelor of Science

Biology

Biology Education, Secondary Subject Endorsement

Biomedical Science with emphases in:

- Pre-Dentistry/Pre-Medicine/Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Physician Assistant
- Pre-Genetic Counseling

Chemistry with emphases in:

- Biochemistry
- General Chemistry

Chemistry Education, Secondary Subject Endorsement

Mathematics

Mathematics Education, Secondary Subject Endorsement

Medical Laboratory Science

Natural Science Education, Secondary Field Endorsement with emphases in:

- Biology
- Chemistry
- Physics

Physics

Physics Education, Secondary Subject Endorsement

Associate of Science

Engineering

Pre-Allied Health

Minors

Biology

Chemistry

Mathematics

Physics

Affiliations

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

Art

Mission

The mission of the art program is to prepare students to appreciate, produce, and share artwork within a Christian framework.

Goals

Students graduating from the art program will be able to

- understand aesthetic literacy in which they perceive formal relationships in works of art, interpret meanings and judge significance;
- develop skills in observation and perception, creative thinking and artistic problem solving; and
- value the role of the arts in society and to recognize the impact of the arts on themselves and others.

Contact Information

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Faculty

Bruce Forbes, James D. McClelland

Adjunct Faculty

Lynn Davis, Debra Johnson, Julia Noyes

Academic Programs

Studio Art, BA

Art Education, BS—K-12 Field Endorsement

Art, AS

Minor in Art

Art Core—17 Hours

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

STUDIO ART—BA

Students in Studio Art will develop

- skills in the areas of the visual arts in which they are focusing;
- skill in marketing and exhibiting their works;
- a historical perspective in the visual arts;
- potential for creative expression;
- capacities for sharing and communicating their knowledge and skills (exhibition, participation and appreciation);
- professionalism, including ethics;
- a knowledge of fundamental business and marketing practices; and
- the necessary social and personal attributes, Christian and business or professional ideals to successfully promote their creative works.

Required courses—46 hours

Art Core 17

Studio Art Core

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

Cognates

Select nine hours from 9

ACCT 211	Principles of Accounting (3)
BUAD 138	Dynamics of Business (3)
BUAD 219	Small Business Management (3)
BUAD 376	Human Resource Management (3)
BUAD 425	Business Communications (WR) (3)
MRKT 327	Marketing (WR) (3)
MRKT 443	Consumer Behavior (3)
PSYC 105	Introduction to Psychology (3)
SOCI 105	Introduction to Sociology (3)

ART EDUCATION—BS

K-12 Field Endorsement

Students graduating with a degree in art education will be able to

- develop a knowledge of the field of art, including principles and current methods in the visual arts;
- have competence in at least one art medium;
- use pencil, ballpoint and felt tip pen, charcoal, conte crayon, scratchboard, ink, wash, oil, watercolor, and acrylic;
- work with thrown and hand-built forms of pottery, the additive and subtractive approaches to sculpture and design sculpture;
- design by computer;
- utilize pertinent professional journals and other printed resources;
- develop planned units of instruction in art concepts and skills which incorporates a historical and appreciative perspective;
- share and communicate their knowledge and skills (teaching, exhibiting, participation and appreciation);
- oversee an art program which includes creation and innovation of programs, promotion, media, and fiscal responsibility; and
- develop social and personal attributes, Christian ideals and attitudes to successfully promote Christ and to successfully generate continued support for the arts and for continued support for future professional responsibilities.

Required courses—108 hours

Art Core 17

Art Education Core

ART 125	Oil Painting	2
ART 135	Pottery	2
ART 145	Watercolor	2
ART 215	School Art	2
ART 245	Sculpture	2
ART 347	Illustration Techniques I	2
ART 445	Illustration Techniques II	2

Cognates

GRPH 150	Introduction to Graphic Arts	3
GRPH 252	Computer Design	3
GRPH 254	Publication Design	3
GRPH 358	Typography	3
PHOT 151	Photography	3
Select six hours from	6	
GRPH 301	Web Design (3)	
GRPH 460	Prepress Production (3)	
GRPH 464	Advertising Design (3)	
GRPH/ART 476	Internship (3)	

Professional Education

EDUC 410	Methods: Art Education	3
Additional Professional Education		53
(See Education—Secondary Education Endorsements)		

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

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

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

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

Biology

Mission

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

Goals

Students graduating with a bachelor's degree in biology will be able to

- independently access and organize relevant data in the biological sciences;
- independently synthesize and communicate relevant data in the biological sciences;
- demonstrate familiarity with basic techniques of investigation in varied fields of biological research;
- apply knowledge acquired from varied aspects of biological sciences to critical thinking in research and everyday life;
- apply knowledge acquired from varied aspects of biological sciences to ethical decision making in stewardship and everyday life;
- demonstrate knowledge of past contributions and awareness of current progress in the biological sciences;
- engage in senior-level research; and
- pursue graduate studies.

Contact Information

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Faculty

Corrairie McNeill, Salvador Moguel, Frankie Rose, Amy Utt

Academic Programs

Biology, BA

Biology, BS

Biology Education, BS – Secondary Subject Endorsement

Minor in Biology

Biology Core & Cognates — 53-56 Hours

Core

BIOL 151, 152	General Biology I and II	4, 4
BIOL 296	Research Methods I	1
or MATH 221	Elementary Statistics and Probability (3)	
or MATH 331	Statistics and Probability (3)	
BIOL 310	Seminar in Biology (WR)	1
BIOL 321	Genetics (WR)	4
BIOL 386	Research Methods II	1
BIOL 404	Cell Biology	4
BIOL 416	Advanced Human Physiology (WR)	4
BIOL 477	Issues in Origins and Speciation	3

Cognates

CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CPTR 220	Microcomputer Applications	3
PHYS 151, 152	General Physics I and II	4, 4
or PHYS 251, 252	College Physics I and II (4.5, 4.5)	

BIOLOGY—BA

Required courses—69-77 hours

Biology core	53-56	
BIOL 365	Plant Biology	3
or BIOL 375	Ecology (WR) (4)	
BIOL	Biology electives (300 or 400-level)	9-12

Cognate

MATH 121	Precalculus	5
or MATH 184	Calculus I (4)	

BIOLOGY—BS

Required courses—75-81 hours

Biology Core	53-56	
BIOL 365	Plant Biology	3
BIOL 375	Ecology (WR)	4
BIOL 396	Research Methods III	1
BIOL 496	Research Methods IV (WR)	1
BIOL	Biology electives (300 or 400-level)	9-12

Cognate		
MATH 184	Calculus I	4

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

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

BIOLOGY EDUCATION—BS
Secondary Subject Endorsement

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

- the ability to recognize the fixed, the changing and the unrelated factors to experimental situations;
- the ability to recognize cause-and-effect relationships;
- the ability to test and evaluate evidence, to recognize and make reasonable assumptions, to distinguish between fact and theory, to apply generalizations and principles and to make valid conclusions;
- an ability to accept, clarify and use ideas, to state a point of view objectively, 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; and
- an ability to use scientific instruments, to dissect biological specimens and to treat live animals humanely.

Required courses—106-112 hours

Core		
BIOL 151, 152	General Biology I and II	4, 4
BIOL 205	Microbiology	4
BIOL 321	Genetics (WR)	4
BIOL 375	Ecology (WR)	4
BIOL 404	Cell Biology	4
BIOL 416	Advanced Human Physiology (WR)	4
or BIOL 111, 112	Human Anatomy and Physiology I and II (4, 4)	
BIOL 477	Issues in Origins and Speciation	3

Cognates

ASTR 111	Astronomy	4
CHEM 151, 152	General Chemistry I and II	4, 4
MATH 111	College Algebra	3
or MATH 121	Precalculus (5)	
PHYS 111	Principles of Physics	4
or PHYS 151	General Physics I (4)	

Professional Education

EDUC 418	Methods: Science Education	3
Additional Professional Education		53

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

MINOR IN BIOLOGY**Required courses—32 hours**

BIOL 151, 152	General Biology I and II	4, 4
BIOL 321	Genetics (WR)	4
BIOL 375	Ecology (WR)	4
BIOL	Biology electives	8
CHEM 151, 152	General Chemistry I and II	4, 4

Biomedical Science

Mission

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

Goals

Students graduating with a bachelor's degree in Biomedical Science will be prepared to

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

Contact Information

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Faculty

Richard Clark, Salvador Moguel, Ken Osborn, Frankie Rose, Richard Webb, Carrie Wolfe

Academic Programs

Biomedical Science, BS

- Pre-Dentistry/Pre-Medicine/Pre-Pharmacy
- Pre-Genetic Counseling
- Pre-Physical Therapy
- Pre-Physician Assistant

BIOMEDICAL SCIENCE—72-80 HOURS

A sequence of the most essential courses to prepare the student for health-related professional/graduate programs. Many of these courses are entrance requirements for professional programs. Recommended entrance requirements for this major: High School GPA 3.5, ACT 27 or SAT 1220. Minimum entrance requirements: High School GPA 3.2, ACT 23 or SAT 1070. Minimum of 3.2 cumulative college GPA to stay in major. Choose one of the following emphases: Pre-Dentistry/Pre-Medicine/Pre-Pharmacy, Pre-Genetic Counseling, Pre-Physical Therapy, or Pre-Physician Assistant.

Core

BIOL 151, 152	General Biology I and II	4,4
BIOL 386	Research Methods II	1
BIOL 416	Advanced Human Physiology (WR)	4
BIOM 201	Professional Shadowing	1

Cognates

CHEM 151, 152	General Chemistry I and II	4,4
HHPT 256	Medical Terminology	1

Emphasis in Pre-Dentistry/ Pre-Medicine/Pre-Pharmacy

Required courses—57 hours

BIOL 296	Research Methods I	1
or MATH 221 Elementary Statistics and Probability (3)		
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 445	Biochemistry I	4
MATH 121	Precalculus	5
or MATH 184 Calculus (4)		
PHYS 151, 152	General Physics I and II	4, 4
PSYC 105	Introduction to Psychology	3
Select ten hours from: 10		
BIOL 205	Microbiology (4)	
BIOL 306	Histology (3)	
BIOL 314	Immunology (3)	
BIOL 321	Genetics (WR)(4)	
BIOL 403	Molecular Biology (3)	
BIOL 404	Cell Biology (4)	
BIOL 411	Advanced Human Anatomy (4)	
CHEM 446	Biochemistry II (3)	

*Minor or individualized supporting area

Emphasis in Pre-Genetic Counseling

Required courses—53 hours

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	
BIOL 321	Genetics (WR)	4
BIOL 403	Molecular Biology	3
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 445	Biochemistry I	4
PSYC 105	Introduction to Psychology	3
Select ten hours from:	10	
BIOL 306	Histology (3)	
BIOL 314	Immunology (3)	
BIOL 404	Cell Biology (4)	
BIOL 411	Advanced Human Anatomy (4)	
CHEM 446	Biochemistry II (3)	

*Minor (psychology recommended) or individualized supporting area 18

Emphasis in Pre-Physical Therapy

Required Courses — 49 hours

BIOL 411	Advanced Human Anatomy	4
MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	
PHYS 151, 152	General Physics I and II	4, 4
PSYC	Two psychology courses	6
Select ten hours from:	10	
BIOL 205	Microbiology (4)	
BIOL 306	Histology (3)	
BIOL 314	Immunology (3)	
BIOL 321	Genetics (WR)(4)	
BIOL 403	Molecular Biology (3)	
BIOL 404	Cell Biology (4)	
CHEM 445	Biochemistry I (4)	
HHPT 356	Physiology of Exercise (3)	
HHPT 360	Biomechanics (3)	

*Minor or individualized supporting area 18

Emphasis in Pre-Physician Assistant

Required Courses — 54 hours

BIOL 205	Microbiology	4
BIOL 411	Advanced Human Anatomy	4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 445	Biochemistry I	4
MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	
PSYC	A Psychology course	3
Select ten hours from:	10	
BIOL 306	Histology (3)	
BIOL 314	Immunology (3)	
BIOL 321	Genetics (WR) (4)	
BIOL 403	Molecular Biology (3)	
BIOL 404	Cell Biology (4)	
CHEM 446	Biochemistry II (3)	
*Minor or individualized supporting area		18

*Supporting Area—18 hours

This requirement may be met by either taking a minor, or by taking an individualized sequence of courses that either complements the professional program of choice or broadens the student's skill set in a meaningful way. If a minor is used to fulfill this requirement, a maximum of 9 hours can overlap between the major requirements and the minor. A minimum of 18 hours are required. The individualized sequence of courses must be approved by the student's faculty advisor, the advisor(s) within the supporting field, and the division chair of Science and Mathematics. Options include Business, International Rescue and Relief, and Psychology. A sequence of courses from any other academic field may be taken with program director approval.

If a student has previously earned a degree from Union College and is completing an additional degree, the supporting emphasis cannot be the same area as the previous degree.

Business Administration

Mission

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

Goals

Students graduating from the business administration program will be prepared to

- apply a Christian philosophy to business and technology ethics;
- demonstrate Christian involvement through volunteering in community activities;
- apply theory to practical situations;
- benefit from student/teacher involvement through personalized advising and career planning as well as social and professional activities;
- integrate technology into the workplace through appropriate use of computer software;
- work together in effective teams;
- demonstrate professional communication and business decorum;
- be prepared for advanced study;
- analyze comprehensive business problems; and
- apply classroom ideas to current events in business.

The division's 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 by tracking graduates' job placement, graduate school acceptance, and scores on nationally recognized tests.

Contact Information

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Faculty

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Adjunct Faculty

Judy Glass, Darrel Huenergardt, Matthew Orian, Jonathan Rickard

Academic Programs

Business Administration, BS, with emphases in:

- Accounting
- Finance
- Management
- Marketing
- Science
- Small Business Management

Accounting, AS

Business Administration, AS

Minors

- Accounting
- Business Administration
- Business Analytics
- Marketing
- Small Business Management

Business Core & Cognates—39 hours

Core

ACCT 211, 212	Principles of Accounting	3, 3
BSAN 230	Information Display for Decision Making	3
BUAD 376	Human Resource Management	3
BUAD 425	Business Communications (WR)	3
BUAD 428	Business Policies	3
BUAD 445	Business Law	3
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
FNCE 325	Business Finance	3
MRKT 327	Marketing (WR)	3

Cognates

CPTR 220	Microcomputer Applications	3
RELT 305	Christian Ethics	3

Admission to some graduate programs may require additional courses.

BUSINESS ADMINISTRATION—BS—Accounting Emphasis

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

Required courses—71 hours

Business Core & Cognates 39

Accounting Core

ACCT 313, 314	Intermediate Accounting	4, 4
ACCT 315	Federal Income Tax—Individual	3
ACCT 316	Federal Tax—Corporate, Partnership and Fiduciary	3
ACCT 325	Cost and Managerial Accounting	3
ACCT 443	Governmental and Not-for-Profit Accounting	3
ACCT 449	Advanced Accounting	3
ACCT 455	Auditing	4
BUAD 405	Business Ethics	1
___ 475	Internship in ACCT, BUAD, FNCE, or MRKT	1

Accounting Cognate

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

Many students choose to obtain certification as Certified Public Accountants (CPAs). Most states require completion of an undergraduate degree in accounting before the CPA exam may be written. Nebraska and many other states have a minimum education requirement of 150 semester hours after high school.

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

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

BUSINESS ADMINISTRATION—BS—Finance Emphasis**Required courses—67 hours**

Business Core & Cognates	39
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Finance Core

ACCT 313, 314	Intermediate Accounting	4, 4
BUAD 405	Business Ethics	1
FNCE 330	Financial Institutions and Markets	3
FNCE 332	Investments	3
FNCE 370	International Finance	3
___ 475	Internship in ACCT, BUAD, FNCE, or MRKT	1

Select additional courses from

ACCT, BSAN, BUAD, FNCE, or MRKT	6
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Finance Cognate

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

BUSINESS ADMINISTRATION—BS—Management Emphasis**Required courses—66 hours**

Business Core & Cognates	39
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Management Core

BUAD 310	Quality Management	3
BUAD 316	Operations and Resource Management	3
BUAD 350	Project Management	2
BUAD 405	Business Ethics	1
BUAD 430	Conflict Management	3
BUAD 455	Advanced Human Resource Management I	2
___ 475	Internship in ACCT, BUAD, FNCE, or MRKT	1

Select additional courses from (at least one must be ACCT 313 or 325)	9
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ACCT 313	Intermediate Accounting (4)
ACCT 325	Cost and Managerial Accounting (3)
FNCE 332	Investments (3)
Any ACCT, BSAN, BUAD, FNCE or MRKT course(s) (3-6)	

Management Cognate

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

BUSINESS ADMINISTRATION—BS—Marketing Emphasis

Required courses—65 hours

Business Core & Cognates 39

Marketing Core

BUAD 405	Business Ethics	1
MRKT 333	Professional Selling	3
MRKT 443	Consumer Behavior	3
MRKT 456	Marketing Research	3
___ 475	Internship in ACCT, BUAD, FNCE, or MRKT	1

Marketing Cognates

COEM 440	Social Media Public Relations and Marketing	3
COPR 241	Public Relations Principles	3
MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

Select additional courses from 6

COMM 365	Institutional Development (3)
COPR 316	Advertising Practices (3) <i>Recommended</i>
COPR 332	Rhetoric (WR) (3)
COPR 445	Public Relations Campaigns (WR) (3)
GRPH 150	Introduction to Graphic Arts (3) <i>Recommended</i>

Recommended general education course: PSYC 105 Introduction to Psychology

BUSINESS ADMINISTRATION—BS—Science Emphasis

The degree in business and science prepares the student for professional schools in the medical field and trains the student for employment in careers which encourage or require knowledge in both business and scientific principles. Students taking this major should work with both divisions to plan classes that will be the most beneficial for their career goals. Students should be aware that the minimum major requirements will not prepare them for graduate school in science and courses should be chosen carefully to meet business graduate school requirements. General education classes and electives should be carefully chosen to reach the 40 hours at the 300-level or above.

Required courses—81 hours

Business Core & Cognates 39

FNCE 332 Investments 3

Cognate

Select course from 3

MATH 121	Precalculus (5)
MATH 165	Calculus for Managers (3)
MATH 184	Calculus I (4)
MATH 221	Elementary Statistics and Probability (3)
MATH 331	Statistics and Probability (3)

Science Courses

BIOL 151, 152	General Biology I and II	4, 4
or BIOL 111, 112	Human Anatomy & Physiology I and II (4,4)	
CHEM 151, 152	General Chemistry I and II	4, 4
PHYS 151, 152	General Physics I and II	4, 4

or PHYS 251, 252 College Physics I and II (4.5, 4.5)

or upper division science courses (8)

Select three science courses numbered 200 or above (one must be 300 or 400 level)

BIOL, CHEM, PHYS 12

BUSINESS ADMINISTRATION—BS—Small Business Management Emphasis**Required courses—64 hours**

Business Core & Cognates	39
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Small Business Core

ACCT 315	Federal Income Tax-Individual	3
ACCT 335	Accounting Information Systems	3
BUAD 219	Small Business Management	3
BUAD 310	Quality Management	3
or BUAD 430	Conflict Management (3)	
BUAD 405	Business Ethics	1
BUAD 455	Advanced Human Resource Management I	2
FNCE 215	Personal Finance	3
FNCE 332	Investments	3
or BUAD 316	Operations Management (3)	
___ 475	Internship in ACCT, BUAD, FNCE, or MRKT	1

Small Business Cognate

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

ACCOUNTING—AS**Required courses—32 hours****Core**

ACCT 211, 212	Principles of Accounting	3, 3
ACCT 313	Intermediate Accounting	4
ACCT 314	Intermediate Accounting	4
or ACCT 455	Auditing (4)	
ACCT 315	Federal Income Tax—Individual	3
ACCT 335	Accounting Information Systems	3
FNCE 325	Business Finance	3
Select two additional courses from		6

ACCT, BSAN, BUAD, ECON, FNCE or MRKT

Cognate

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

BUSINESS ADMINISTRATION—AS

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

Required courses—27 hours

Core

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 138	Dynamics of Business	3
or 300 or 400-level course from ACCT, BSAN, BUAD, ECON, FNCE, MRKT (3)		
BUAD 425	Business Communications (WR)	3
ECON 235	Principles of Microeconomics	3
or ECON 236 Principles of Macroeconomics (3)		
Select additional courses from		9
ACCT	Any ACCT course above 212 (3-4)	
BUAD 376	Human Resource Management (3)	
BUAD 445	Business Law (3)	
CPTR 220	Microcomputer Applications (3)	
FNCE	Any 300-400-level FNCE course (3)	
MATH	Any MATH course above 111 (3)	

Cognate

MATH 221	Elementary Statistics & Probability	3
or MATH 165 Calculus for Managers (3)		
or MATH 184 Calculus I (4)(3)		
or MATH 331 Statistics and Probability (3)		

MINOR IN ACCOUNTING

Required courses—19 hours

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

MINOR IN BUSINESS ADMINISTRATION

Required courses—18 hours

ACCT 211	Principles of Accounting	3
ECON 235	Principles of Microeconomics	3
or ECON 236 Principles of Macroeconomics (3)		
Select at least 12 hours from		12
ACCT 212	Principles of Accounting (3)	
BUAD 138	Dynamics of Business (3)	
300-400 level ACCT, BSAN, BUAD, FNCE or MRKT courses		

Recommended courses include:

BUAD 376	Human Resource Management (3)
BUAD 430	Conflict Management (3)
BUAD 445	Business Law (3)
FNCE 332	Investments (3)
MRKT 327	Marketing (WR)(3)

MINOR IN BUSINESS ANALYTICS

Required courses—18 hours

BSAN 230	Information Display for Decision Making	3
BSAN courses	300-400 level	12
MATH 221 or MATH 331	Elementary Statistics and Probability Statistics and Probability (3)	3

MINOR IN MARKETING

Required courses—19 hours

COEM 440	Social Media Public Relations and Marketing	3
COPR 241	Public Relations Principles	3
MRKT 327	Marketing (WR)	3
MRKT 333	Professional Selling	3
MRKT 443	Consumer Behavior	3
MRKT 456	Marketing Research	3
MRKT 475	Internship in Marketing	1

MINOR IN SMALL BUSINESS MANAGEMENT

Required courses—21 hours

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

Select two courses from 6

ACCT 212	Principles of Accounting (3)
BUAD 138	Dynamics of Business (3)
BUAD 445	Business Law (3)
FNCE 332	Investments (3)
MRKT 327	Marketing (WR)(3)

Chemistry

Mission

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

Goals

Students graduating from the chemistry program will be prepared to

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

Contact Information

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Faculty

Richard Clark, Kenneth Osborn, Carrie Wolfe

Academic Programs

Chemistry, BA

Chemistry, BS, with emphases in:

- Biochemistry
- General Chemistry

Chemistry Education, BS—Secondary Subject Endorsement

Minor in Chemistry

Chemistry Core & Cognates—47-49 hours

Core

CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 296	Research Methods I	1
or MATH 221	Elementary Statistics and Probability (3)	
or MATH 331	Statistics and Probability (3)	
CHEM 311	Analytical Chemistry	4
CHEM 312	Instrumental Analysis (WR)	4
CHEM 386	Research Methods II	1
CHEM 412	Physical Chemistry II: Thermodynamics	4

Cognates

MATH 184, 285	Calculus I, II	4, 4
PHYS 251, 252	College Physics I and II	4.5, 4.5

CHEMISTRY—BA

Required courses—65-70 hours

Chemistry Core & Cognates		47-49
CHEM 411	Physical Chemistry I: Quantum Mechanics and Kinetics	4
CHEM	Chemistry Electives (300 or 400-level)	4-6

Cognates

CPTR	A computer language course	3-4
Divisional or approved electives (at least 3 hours must be non-chemistry)		7

CHEMISTRY—BS—Biochemistry Emphasis

Required courses—75-80 hours

Chemistry Core & Cognates		47-49
CHEM 445, 446	Biochemistry I and II	4, 3
CHEM	Chemistry elective (300 or 400-level)	2-4

Cognates

BIOL 151, 152	General Biology I and II	4, 4
BIOL 321	Genetics (WR)	4
BIOL 404	Cell Biology	4

Select one of the following courses: 3-4

BIOL 306	Histology (3)
BIOL 314	Immunology (3)
BIOL 411	Advanced Human Anatomy (4)
BIOL 416	Advanced Human Physiology (WR) (4)

CHEMISTRY—BS—General Chemistry Emphasis

Required courses—70-74 hours

Chemistry Core & Cognates	47-49
CHEM 396	Research Methods III 1
CHEM 411	Physical Chemistry I: Quantum Mechanics and Kinetics 4
CHEM 496	Research Methods IV (WR) 1
CHEM	Chemistry Electives (300 or 400-level) 8

Cognates

CPTR	A computer language course	3-4
MATH 286	Calculus III	4
	or MATH 352 Linear Algebra (3)	
	or MATH 385 Differential Equations (3)	
	or MATH 486 Numerical Analysis (3)	
Divisional or approved (non-chemistry) electives		3

CHEMISTRY EDUCATION—BS

Secondary Subject Endorsement

The teaching major in chemistry is designed to prepare the candidates for secondary teaching through a program which will

- allow them to develop a knowledge of the major concepts of chemistry, its historical development and its significance to the individual and to society;
- give them a concept of the logic and processes of scientific inquiry;
- provide a working knowledge of the mechanics of a chemistry teaching program including: ordering of materials and supplies, organizing and operating a laboratory, handling and storage of hazardous materials and safety procedures;
- acquaint them with professional agencies and professional journals and the value of these to their work.

Required courses—112-115 hours

CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 296	Research Methods I	1
or MATH 221	Elementary Statistics and Probability (3)	
or MATH 331	Statistics and Probability (3)	
CHEM 311	Analytical Chemistry	4
CHEM 312	Instrumental Analysis (WR)	4
CHEM 386	Research Methods II	1
CHEM 396	Research Methods III	1
CHEM 445	Biochemistry I	4

Cognates

ASTR 111	Astronomy	4
BIOL 151, 152	General Biology I and II	4, 4
MATH 184	Calculus I	4
PHYS 151, 152	General Physics I and II	4, 4
or PHYS 251, 252	College Physics I and II (4.5, 4.5)	
SCNC 301	Science and Society	1

Professional Education

EDUC 418	Methods: Science Education	3
Additional Professional Education		53

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

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

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

Communication

Mission

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

Goals

Students graduating from the communication program will be prepared to

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

Contact Information

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Faculty

Chris Blake, Bruce Forbes, Brett Hadley, Mark Robison

Adjunct Faculty

Scott Cushman, LuAnn Davis

Academic Programs

Communication, BA, with emphases in:

- Emerging Media
- Fundraising and Philanthropy
- Public Relations

Minors in

- Communication
- Drama
- Emerging Media
- Public Relations

Communication Core & Cognates —27 hours

Core

COMM 125	Media and Meaning	3
COMM 290	Sophomore Seminar	1
COMM 465	Interpersonal Communication	3
COMM 490	Senior Seminar	1

Cognates

COEM 476, COMM 375, or COPR 475 Internship		4
COJR 221	Reporting (WR)	3
COJR 245	Editing	3
COJR 457	Magazine Writing (WR)	3
GRPH 150	Introduction to Graphic Arts	3
PHOT 151	Introduction to Photography	3

COMMUNICATION—BA—Emerging Media Emphasis

Required courses—54 hours

Communication Core & Cognates	27
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Emerging Media Core

COEM 260	Writing in the Digital World	3
COEM 324	Web Research and Analytics	3
COEM 362	Interacting with an Online Audience	3
COEM 410	Digital Storytelling	3
COEM 440	Social Media Public Relations and Marketing	3

Emerging Media Cognates

COPR 241	Public Relations Principles	3
or MRKT 327	Marketing (WR) (3)	
CPTR 245	Web Development Basics	3
MATH 221	Elementary Statistics and Probability	3
MRKT 456	Marketing Research	3

Major or minor required from another discipline or an emphasis in fundraising and philanthropy or public relations.

COMMUNICATION—BA—Fundraising and Philanthropy Emphasis**Required courses—54 hours**

Communication Core & Cognates	27
ACCT 211	Principles of Accounting 3
BUAD 425	Business Communications (WR) 3
COEM 362	Interacting with an Online Audience 3
COMM 365	Institutional Development 3
COPR 241	Public Relations Principles 3
COPR 332	Rhetoric (WR) 3
ENGL 378	Technical Writing and Grant Proposals (WR) 3
Select six hours from	6
ACCT 212	Principles of Accounting (3)
ACCT 443	Government and Not-for-Profit Accounting (3)
COEM 260	Writing In the Digital World (3)
COEM 410	Digital Storytelling (3)
COMM 425	Intercultural Communication (3)
GRPH 254	Publication Design (3)
MRKT 327	Marketing (WR) (3)

COMMUNICATION—BA—Public Relations Emphasis**Required courses—56 hours**

Communication Core & Cognates	27
COMM 365	Institutional Development 3
COPR 241	Public Relations Principles 3
COPR 377	Crisis Public Relations 2
COPR 445	Public Relations Campaigns (WR) 3
MATH 221	Elementary Statistics and Probability 3
MRKT 456	Marketing Research 3
Select twelve hours from	12
COEM 440	Social Media Public Relations and Marketing (3)
COMM 425	Intercultural Communication (3)
COPR 316	Advertising Practices (3)
COPR 332	Rhetoric (WR) (3)
ENGL 378	Technical Writing and Grant Proposals (WR)(3)
GRPH 254	Publication Design (3)
MRKT 327	Marketing (WR) (3)

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

COMM 125	Media and Meaning 3
COMM 290	Sophomore Seminar 1
COMM 465	Interpersonal Communication 3
GRPH 150	Introduction to Graphic Arts 3

Select nine hours from: (3 hours must be 300 or 400 level)		9
COEM 260	Writing in the Digital World (3)	
COEM 324	Web Research and Analytics (3)	
COEM 362	Interacting with an Online Audience (3)	
COEM 410	Digital Storytelling (3)	
COJR 221	Reporting (WR) (3)	
COJR 245	Editing (3)	
COJR 457	Magazine Writing (WR) (3)	
COMM 425	Intercultural Communication (3)	
COPR 241	Public Relations Principles (3)	
COPR 316	Advertising Practices(3)	
COPR 445	Public Relations Campaigns (WR)(3)	
GRPH 254	Publication Design (3)	
PHOT 151	Introduction to Photography (3)	

MINOR IN DRAMA

Required courses—21 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 229	Play Production I	3
CODR 329	Play Production II	3
CODR 471	Play Direction	3
COMM 355	Advanced Speech and Oral Interpretation	3

MINOR IN EMERGING MEDIA

Required courses—22 hours

COEM 260	Writing in the Digital World	3
COEM 324	Web Research and Analytics	3
COEM 362	Interacting with an Online Audience	3
COEM 410	Digital Storytelling	3
COEM 440	Social Media Public Relations and Marketing	3
COMM 290	Sophomore Seminar	1
COPR 241	Public Relations Principles	3
or MRKT 327	Marketing (WR) (3)	
CPTR 245	Web Development Basics	3

MINOR IN PUBLIC RELATIONS

Required courses—22 hours

COEM 440	Social Media Public Relations and Marketing	3
COMM 125	Media and Meaning	3
COMM 290	Sophomore Seminar	1
COMM 465	Interpersonal Communication	3
COPR 241	Public Relations Principles	3
COPR 445	Public Relations Campaigns (WR)	3
GRPH 150	Introduction to Graphic Arts	3
MRKT 456	Marketing Research	3

Computing

Mission

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

Goals

Students graduating with a degree in computing will be prepared to

- apply a Christian philosophy to business and technology ethics;
- demonstrate Christian involvement through volunteering in community activities;
- apply theory to practical situations;
- benefit from student/teacher involvement through personalized advising and career planning as well as social and professional activities;
- integrate technology into the workplace through appropriate use of computer software;
- work together in effective teams;
- demonstrate professional communication and business decorum;
- be prepared for advanced study;
- apply traditional and newer problem-solving techniques to an ever-changing field of computing; and
- understand how various areas of computing relate to each other.

The division's 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 scores on nationally recognized tests.

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Faculty

Gary Dickerson, Seth McNeill, Debra Unterseher

Adjunct Faculty

Ben Barber, Shane Flowers

Academic Programs

Computing, BS, with emphases in:

- Computer Information Systems
- Computer Science
- Web Development

Computing, AS

Minor in Computer Information Systems

Computing Core & Cognate—25 hours

Core

CPTR 126	Fundamentals of Computer Science	3
CPTR 226	Computer Science I	4
CPTR 240	Systems Administration	3
CPTR 245	Web Development Basics	3
CPTR 322	SQL	3
CPTR 327	Systems Analysis and Design	3
CPTR 475	Internship in Computing (WR)	3

Cognate

RELT 305	Christian Ethics	3
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COMPUTING—BS—Computer Information Systems Emphasis

Required courses—68 hours

Computing Core & Cognate	25
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Computer Information Systems Core

CPTR 227	Computer Science II	4
CPTR 300-400 level courses		5

Computer Information Systems Cognates

ACCT 211, 212	Principles of Accounting	3, 3
BSAN 230	Information Display for Decision Making	3
BUAD 405	Business Ethics	1
BUAD 425	Business Communications (WR)	3
Select 18 hours from 300-400 level ACCT, BSAN, BUAD, CPTR, FNCE		18
MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

COMPUTING—BS—Computer Science Emphasis**Required courses-70 hours**

Computing Core & Cognate	25
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Computer Science Core

CPTR 227	Computer Science II	4
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Select 15 hours from 300-400 level CPTR courses	15
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Cognates

MATH 121	Precalculus	5
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MATH 184	Calculus I	4
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MATH 285	Calculus II	4
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MATH 286	Calculus III	4
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MATH 331	Statistics and Probability	3
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MATH 340	Discrete Mathematics	3
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MATH	300-400-level mathematics electives	3
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MATH 352 Linear Algebra recommended (3)	
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COMPUTING—BS—Web Development Emphasis**Required courses—68 hours**

Computing Core & Cognate	25
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Web Development Core

CPTR 335	Web Technologies	3
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Select six hours from 300-400 level CPTR	6
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Cognates

ART 115	Design I	2
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ART 225	Color Theory	2
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BUAD 425	Business Communications (WR)	3
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COEM 324	Web Research and Analytics	3
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GRPH 150	Introduction to Graphic Arts	3
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GRPH 250	Digital Imaging	3
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GRPH 252	Computer Design	3
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GRPH 301	Web Design	3
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GRPH 358	Typography	3
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GRPH 401	Interactive Web Design	3
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MATH 221	Elementary Statistics and Probability	3
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or MATH 331	Statistics and Probability (3)	
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PHOT 151	Introduction to Photography	3
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or PHOT 225	Intermediate Photography (3)	
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COMPUTING—AS

Required courses—34 hours

Core

CPTR 126	Fundamentals of Computer Science	3
CPTR 220	Microcomputer Applications	3
CPTR 226	Computer Science I	4
CPTR 240	Systems Administration	3
CPTR 245	Web Development Basics	3
CPTR 332	SQL	3
CPTR 335	Web Technologies	3
Select nine hours from 300-400 level computer courses		9

Cognate

MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	

MINOR IN COMPUTER INFORMATION SYSTEMS

Required courses—22 hours

CPTR 126	Fundamentals of Computer Science	3
CPTR 220	Microcomputer Applications	3
CPTR 226	Computer Science I	4
CPTR 240	Systems Administration	3
CPTR 245	Web Development Basics	3
CPTR 332	SQL	3
CPTR 335	Web Technologies	3

Education

Mission

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

Goals

Students graduating with a degree in education will be able to

- demonstrate academic excellence;
- practice healthful living;
- practice spiritual and social caring in their own lives;
- demonstrate commitment to growth in the lives of their students;
- respond effectively to diversity in multiple educational settings;
- perform professional roles with a high degree of competency; and
- pursue advanced study.

Contact Information

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Adjunct Faculty

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Academic Programs

Elementary Education, BS

Secondary Education, BS or BMusic
(see field and subject endorsements below)

ELEMENTARY EDUCATION—BS

Required courses—110 hours

Core (minimum grade of C required)

EDUC 125	Introduction to Teaching	3
EDUC 218	Philosophy of Christian Education (WR)	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	Educational Organization and Administration (K-8)	3
EDUC 446	Reading Assessment (K-8)	2
EDUC 450	Methods in Reading and Language Arts (K-8)	5
EDUC 458	Methods in Religion, Health, Science, Social Studies (K-8)	4
EDUC 465	Math Methods and Materials (K-8)	3
EDUC 475	Student Teaching	16
EDUC 490	Student Teacher Seminar—Elementary	1

Cognates (minimum grade of C required)

ART 215	School Art	2
HHPA 155	Concepts of Wellness	2
MATH 320	Mathematical Concepts for Elementary School Teachers	3
MUED 347	Music in the Elementary School	2
PSYC 215	Developmental Psychology	3
RELB	RELB (Biblical Studies) elective	3
RELH 310	History of the Seventh-day Adventist Church (WR)	3
RELT 141	Christian Beliefs	3
RELT 455	Prophetic Guidance in the Advent Movements	3

Specific program requirement (passing grade required)

BIOL	Biology elective*	3-4
CHEM	Chemistry elective*	3-4
CPTR 220	Microcomputer Applications	3
GEOG 137	Introductory Geography	3
or GEOG 227	World Regional Geography (3)	
HIST 157	The West in the World	3
HIST 255	The U.S.: Discovery to Civil War	3
HIST 386	Economic History of the United States	3
or HIST 450	20th Century American History (3)	
LITR 231	Ancient Western Literature (WR)	3
or LITR 232	Modern Western Literature (WR) (3)	

MATH 111	College Algebra	3
PHYS 111	Principles of Physics	4
or ASTR 111	Astronomy (4)	
PLSC 208	American Politics	3

*One of the biology or chemistry electives must include a lab

SECONDARY EDUCATION

Required Professional Education courses—56 hours

Core (minimum grade of C required)

EDUC 125	Introduction to Teaching	3
EDUC 218	Philosophy of Christian Education (WR)	3
EDUC 225	Seminar in Education Diversity: Multicultural/HRT	1
EDUC 345	Learning Theories and Measurement	3
EDUC 346	Special Education in the Classroom	3
EDUC 356	General Secondary Methods	3
EDUC 410-418	Special Methods—In area of Major	3
EDUC 475	Student Teaching	16
EDUC 476	Content Reading and Writing	3
EDUC 485	Issues in Education	1

Cognates (minimum grade of C required)

HHPA 155	Concepts of Wellness	2
PSYC 215	Developmental Psychology	3
RELB	RELB (Biblical Studies) elective	3
RELH 310	History of the Seventh-day Adventist Church (WR)	3
RELT 141	Christian Beliefs	3
RELT 455	Prophetic Guidance in the Advent Movement (WR)	3

Required Courses for Major

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

FIELD ENDORSEMENTS

Art Education K-12
 English Language Arts Education 7-12
 Music Education K-12
 Natural Science Education 7-12
 Social Science Education 7-12

SUBJECT ENDORSEMENTS

Biology Education 7-12
 Chemistry Education 7-12
 History Education 7-12
 Instrumental Music Education K-8; 7-12
 Mathematics Education 7-12
 Physical Education K-6; 7-12
 Physics Education 7-12
 Religious Education K-12
 Secondary English Education 7-12
 Vocal Music Education K-8; 7-12

MINOR IN RELIGION

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

Admission to the teacher education program

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

The four steps of the teacher education program are

- provisional admission;
- full admission;
- student teaching; and
- program completion, certification and competencies.

Program Completion, Certification and Competencies

To qualify for program completion each candidate will have

- earned a minimum of a baccalaureate degree and completed all requirements of the approved program for which recommendation is desired;
- met a minimum 2.75 cumulative GPA standard of scholarship;
- shown evidence of physical fitness, emotional maturity and moral character;
- passed the Core exam with minimum scores set by the State of Nebraska;
- successfully completed student teaching assignment;
- completed a portfolio with rating of 2 or above on each outcome;
- taken and passed the Praxis II— Elementary Education: Curriculum, Instruction, and Assessment; PRAXIS II— Secondary Education Content Test;
- a background free of criminal convictions as shown by a professional background check (\$40.00 per check); and
- certification (\$105.00 for non-resident / \$55.00 for resident)*.

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

To qualify for Nebraska State Certification each candidate will have

- earned a minimum of a baccalaureate degree and completed all requirements of the approved program for which recommendation is desired;
- attained a minimum of 18 years of age;
- shown evidence of physical fitness, emotional maturity and moral character;
- met a 2.75 minimum GPA standard of scholarship;
- passed the Core with minimum scores set by the State of Nebraska
- taken and passed the PRAXIS II—Elementary Education: Curriculum, Instruction, and Assessment; PRAXIS II— Secondary Education Content Test (Core/PRAXIS II Testing costs may vary from \$120.00 – \$170.00 per test);
- successfully completed student teaching assignment;
- completed a portfolio with rating of 2.0 or above on each outcome;
- background free of criminal convictions as shown by a background check (\$40.00 per check); and
- certification (\$105.00 for non-resident / \$55.00 for resident)

* Fees subject to change

Seventh-day Adventist Denominational Certificate: Application for SDA certification is made in the division office using the form provided by the Mid-America Union Conference (MAUC).

To qualify for Seventh-day Adventist certification in the North American Division each candidate will have

- met all state certification requirements;
- taken RELT 141 Christian Beliefs, an RELB elective, RELT 455 Prophetic Guidance and RELH 310 History of the SDA Church;
- membership in good standing at a Seventh-day Adventist church; and
- affirmed a willingness to subscribe to and teach within the framework and philosophy of the church.

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

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

Change of Certification Requirements

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

Transfer Students and Credits

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

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

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

Engineering

Mission

The engineering program at Union College prepares students to finish advanced studies leading to a baccalaureate degree in engineering.

Goals

Students graduating with an associate degree in engineering will

- have a firm foundation in chemistry, physics and mathematics to solve engineering problems;
- demonstrate familiarity with basic techniques of investigation in the sciences and engineering; and
- successfully complete course work in preparation for the final two years of a baccalaureate degree in engineering.

Contact Information

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Faculty

Seth McNeill

Academic Programs

Engineering, AS

ENGINEERING—AS

Required courses—40.5-42 hours

Core

ENGR 111, 112	Introduction to Engineering I and II	2, 2
ENGR 211	Statics	3
ENGR 212	Dynamics	3
ENGR 228	Electric Circuit Analysis	4

Cognates

CHEM 151	General Chemistry I	4
CPTR	An approved computing course	3
MATH 184	Calculus I	4
PHYS 251	College Physics I	4.5
Select 3 courses from the list below or approved elective		11-12.5
CHEM 152	General Chemistry II (4)	
MATH 285	Calculus II (4)	
MATH 286	Calculus III (4)	
MATH 352	Linear Algebra (3)	
PHYS 252	College Physics II (4.5)	

Consult engineering advisor for general education and elective course selections.

MINOR IN ENGINEERING

Required courses—21 hours

CPTR	An approved computing course	3
ENGR 111, 112	Introduction to Engineering I and II	2, 2
ENGR 211	Statics	3
ENGR 228	Electric Circuit Analysis	4
MATH 184	Calculus I	4
MATH 352	Linear Algebra	3

English

Mission

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

Goals

Students who graduate from the English program will be able to

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

Contact Information

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Faculty

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Adjunct Faculty

Amanda Funk-Hilton, Jill Morstad

Academic Programs

English, BA, with emphases in:

- Literature
- Writing and Speaking

English Language Arts Education, BS—Secondary Field Endorsement

Secondary English Education, BS—Subject Endorsement

Minor in English

Portfolio Requirement

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

English Core and Cognate—15 hours

Core

ENGL 271	History of the English Language	3
ENGL 272	Grammatical Systems	3
ENGL 378	Technical Writing and Grant Proposals (WR)	3
ENGL 379	Creative Writing (WR)	3

Cognate

COMM 355	Advanced Speech and Oral Interpretation	3
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ENGLISH —BA—Literature Emphasis

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

Required courses—36 hours

English Core & Cognate 15

Select five courses from 15

LITR 345	Studies in Early American Literature (WR) (3)
LITR 348	Studies in British Literature (WR) (3)
LITR 352	Women and Minority Writers (WR) (3)
LITR 436	Studies in American Literature (WR) (3)
LITR 445	Early British Literature (WR) (3)
LITR 475	Twentieth-Century Writers (WR) (3)

Required specific general education courses

LITR 231	Ancient Western Literature (WR)	3
or LITR 232	Modern Western Literature (WR) (3)	
RELB 366	Biblical Literature (WR)	3

ENGLISH—BA—Writing and Speaking Emphasis

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

Required courses—36 hours

English Core & Cognate 15

COJR 457	Magazine Writing (WR)	3
COMM 125	Media and Meaning	3
COPR 332	Rhetoric (WR)	3

Select two courses from 6

LITR 299	Seminar in Non-Western Literature (WR) (3)
LITR 348	Studies in British Literature (WR) (3)
LITR 352	Women and Minority Writers (WR) (3)

LITR 436	Studies in American Literature (WR) (3)	
LITR 445	Early British Literature (WR) (3)	
LITR 475	Twentieth-Century Writers (WR) (3)	
Required specific general education courses		
LITR 231	Ancient Western Literature (WR)	3
or LITR 232	Modern Western Literature (WR) (3)	
RELB 366	Biblical Literature (WR)	3

ENGLISH LANGUAGE ARTS EDUCATION—BS

Secondary Field Endorsement

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

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

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

Required courses—114 hours

CODR 229	Play Production I	3
COJR 221	Reporting (WR)	3
COJR 245	Editing	3
COJR 457	Magazine Writing (WR)	3
COMM 125	Media and Meaning	3
COMM 355	Advanced Speech and Oral Interpretation	3
COMM 465	Interpersonal Communication	3
COPR 332	Rhetoric (WR)	3
EDUC 357	Literature for Children and Adolescents	2
ENGL 271	History of the English Language	3

ENGL 272	Grammatical Systems	3
ENGL 378	Technical Writing and Grant Proposals (WR)	3
ENGL 379	Creative Writing (WR)	3
LITR 299	Seminar in Non-Western Literature (WR)	3
LITR 352	Women and Minority Writers (WR)	3
LITR	British literature 300 level or above	3
LITR	American literature 300 level or above	3

Required specific general education course

COMM 105	Public Speaking	2
ENGL 112	College Writing II	3
LITR 231	Ancient Western Literature (WR)	3
or LITR 232	Modern Western Literature (WR)(3)	
RELB 366	Biblical Literature	3

Professional education

EDUC 412	Methods: Language Arts Education	3
Additional Professional Education		50

(See Education-Secondary Education Endorsements)

Auxiliary Requirement

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

SECONDARY ENGLISH EDUCATION—BS

Subject Endorsement

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

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

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

Required courses—91 hours

COJR 457	Magazine Writing (WR)	3
COPR 332	Rhetoric (WR)	3
EDUC 357	Literature for Children and Adolescents	2

ENGL 112	College Writing II	3
ENGL 271	History of the English Language	3
ENGL 272	Grammatical Systems	3
ENGL 378	Technical Writing and Grant Proposals (WR)	3
ENGL 379	Creative Writing (WR)	3
LITR 231	Ancient Western Literature (WR)	3
LITR 232	Modern Western Literature (WR)	3
LITR	One British Literature (300 level or above)	3
LITR	One American Literature (300 level or above)	3

Required specific general education course

RELB 366	Biblical Literature (WR)	3
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Professional education

EDUC 412	Methods: Language Arts Education	3
Additional Professional Education		50

Recommended

LANG	Beginning College Modern Language (6)	
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It is strongly recommended that every student finish requirements for at least two subject endorsements (See Education-Secondary Education Endorsements).

MINOR IN ENGLISH

Required courses—18 hours

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

Foreign Language Studies

A major in Foreign Language Studies with emphases in French, German, Italian, and Spanish can be acquired through Union College's participation in Adventist Colleges Abroad. This major is designed for students who want proficient speaking skills along with an appreciation of the culture, history and literature associated with the language. Students who are required to attend ACA campuses for their major are not eligible for Union College scholarships.

Contact Information

Mark Robison, Chair, Division of Humanities
Tamara Seiler, Office Manager
Dick Building, Room 409
402.486.2523
marobiso@ucollege.edu
www.ucollege.edu/humanities

Goals

Upon graduating students should:

- Exhibit competence in speaking a second language.
- Be able to cope with the unfamiliar, both linguistically and culturally.
- Understand the value of diversity.

Academic Programs

Foreign Language Studies, BA, with emphases in:

- French
- German
- Italian
- Spanish

Minors

- French
- German
- Italian
- Spanish

Foreign Language Studies—BA

Available as a second major only.

Required courses—32 semester hours (48 quarter hours)

LANG* prefix beyond 102, 12 semester hours (18 quarter hours) of which must be at or above the 300-level, including

LANG*	History, civilization, or literature	4 SH	(6 QH)
LANG	Language or grammar (3 SH/5 QH at 300 level or above)	14 SH	(21 QH)
LANG	Modern language electives	11 SH	(16.5 QH)
LANG 485**	Advanced Research in a Foreign Language	3 SH	

Pass Level B2 of the CEFR (Common European Framework of Reference for Languages: Learning, Teaching, Assessment)

*LANG is replaced by the language studied.

** Course completed at Union College after completion of courses at an ACA campus.

MINORS IN FOREIGN LANGUAGES

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

Required courses-20 semester hours (30 quarter hours)

LANG* prefix beyond 102 (6 SH; 9 QH), which must be at or above the 300-level including

LANG*	History civilization, or literature (3 SH; 4.5 QH)
LANG	Language or grammar (10 SH; 15 QH)
LANG	Modern language electives (7 SH; 10.5 QH)

*LANG is replaced by the language studied.

SH=semester hours

QH=quarter hours

Graphic Design

Mission

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

Goals

Students graduating with a degree in graphic design will be prepared to

- promote creative ideas to clients;
- design in a broad spectrum of ways;
- understand the historical perspective in the visual arts;
- demonstrate professionalism and a thorough knowledge of the field; and
- apply knowledge of fundamental business and marketing practices.

Contact Information

Bruce Forbes, Chair, Division of Fine Arts
Nancy Meier, Office Manager
Engel Hall
402.486.2553
402.486.2528 Fax
b2forbes@ucollege.edu
www.ucollege.edu/fine-arts

Faculty

Bruce Forbes, James D. McClelland

Adjunct Faculty

Ben Barber, Lynn Davis, Debra Johnson, Ed Mejia, Steve Nazario, Julia Noyes, Marcelo Plioplis, Benjamin Tallman

Academic Programs

Graphic Design, BS, with emphases in:

- Business
- Communication

Graphic Design, AS

Minor in Graphic Design

Auxiliary Requirements for Baccalaureate Degrees in the Visual Arts

- Presentation of a senior exhibit;
- Participation in other exhibitions each year;
- Regular attendance at professional conferences and/or seminars;
- Participation in regularly scheduled interviews and portfolio reviews; and
- The development of a personal and a professional portfolio as a capstone educational record of academic experiences.

Graphic Design Core & Cognates—63 hours

Core

GRPH 175, 275, 375, 475	Graphic Design Seminar (0.5 each)	2
GRPH 150	Introduction to Graphic Arts	3
GRPH 210	Page Layout	3
GRPH 250	Digital Imaging	3
GRPH 252	Computer Design	3
GRPH 254	Publication Design	3
GRPH 301	Web Design	3
GRPH 350	History of Graphic Design	3
GRPH 358	Typography	3
GRPH 401	Interactive Web Design	3
GRPH 460	Prepress Production	3
GRPH 464	Advertising Design	3
GRPH 476	Internship	3

Cognates

ART 105	Drawing I	2
ART 115	Design I	2
ART 225	Color Theory	2
ART 235	Drawing II	2
ART 315	Design II	2
ART 321	European Art History (WR)	3
ART 322	American Art History (WR)	3
ART 347	Illustration Techniques I	2
ART 485	Senior Exhibit	1
CPTR 245	Web Development Basics	3
PHOT 225	Intermediate Photography	3

GRAPHIC DESIGN—BS—Business Emphasis

Required courses—75 hours

Graphic Design Core & Cognates

63

Cognates

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

*Recommended

GRAPHIC DESIGN—BS—Communication Emphasis

Required courses—75 hours

Graphic Design Core & Cognates

63

Cognates

Select 12 hours from	12
COEM 410	Digital Storytelling (3)
COJR 221	Reporting (WR) (3)
COJR 245	Editing (3)*
COJR 457	Magazine Writing (WR) (3)
COMM 125	Media and Meaning (3)*
COMM 465	Interpersonal Communication (3)*
COPR 241	Public Relations Principles (3)
COPR 316	Advertising Practices (3)*

*Recommended

GRAPHIC DESIGN—AS

Required courses—31-32 hours

Core

GRPH 150	Introduction to Graphic Arts	3
GRPH 175, 275	Graphic Design Seminar (0.5 each)	1
GRPH 252	Computer Design	3
GRPH 254	Publication Design	3
GRPH 358	Typography	3
GRPH 460	Prepress Production	3
GRPH 464	Advertising Design	3

Cognates

ART 105	Drawing I	2
ART 115	Design I	2
ART 225	Color Theory	2
ART/GRPH/PHOT Electives		6-7

MINOR IN GRAPHIC DESIGN

Required courses—21 hours

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

Health and Human Performance

Mission

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

Outcomes

1. Graduates will develop a foundation of human movement, physiology, and fitness and wellness concepts.
2. Graduates will understand the need for lifelong physical activity and how it benefits them by being provided with opportunities to experience:
 - a. a balanced Christian lifestyle through lifetime physical activities;
 - b. intramural and inter-collegiate sports; and
 - c. a progressive exercise program.
3. Graduates will be able to practice leadership, teamwork, and Christian service within athletic environments by
 - a. understanding the structure, rules, and participant roles for various sports;
 - b. participating in internships, practicum and student teaching opportunities within various organizations; and
 - c. creating, conducting, and successfully completing athletic and/or behavior modification program.
4. Graduates will acquire the knowledge and application of professionalism, ethical behavior and personal responsibility to maintain ethical standards specific to their role within their chosen profession.

Contact Information

Rick Young, Chair, Division of Emergency Management and Exercise Science
Nancy Petta, Director
402-486-2889 or napetta@ucollege.edu
Larson Lifestyle Center, lower level
402.486.2525
www.ucollege.edu/hhp

Faculty

Shawntae Horst, Nancy Petta, Ric Spaulding

Adjunct Faculty

Phyllis Gorton, Ryan Perry

Academic Programs

Exercise Science, BS

Health and Human Performance, BS, with emphases in:

- Business/Sport Management
- Fitness and Wellness

Physical Education, BS—K-6, 7-12 Secondary Subject Endorsement

Minors

- Business/Sport Management
- Coaching
- Fitness and Wellness
- Personal Training
- Physical Education

Health and Human Performance Core & Cognates—46 hours

Core

HHPA 220	Healthy Eating and Fitness	1
HHPA 235	Weight Training and Physical Conditioning	1
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	3
HHPT 345	Sports Nutrition	2
HHPT 350	Practicum	1
HHPT 356	Physiology of Exercise	3
HHPT 357	Motor Learning (WR)	3
HHPT 360	Biomechanics	3
HHPT 366	Adapted Physical Education	2
HHPT 370	Personal Training	3
HHPT 437	Measurement and Evaluation in HHP	2
HHPT 475	Internship	4
HHPT 485	Seminar in Health and Human Performance	1
HHPT 486	Senior Capstone (WR)	1

Cognates

BIOL 111, 112	Human Anatomy and Physiology I and II	4, 4
CPTR 220	Microcomputer Applications	3
PSYC 215	Developmental Psychology	3

EXERCISE SCIENCE—BS

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

Required courses—79 hours

Health and Human Performance Core & Cognates	46
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Exercise Science Core

HHPT 256	Medical Terminology	1
HHPT 474	Internship	
2		

Exercise Science Cognates

BIOL 151	General Biology I	4
CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211	Organic Chemistry	4
MATH 221	Elementary Statistics and Probability	3
PHYS 151, 152	General Physics I and II	4, 4
PSYC 105	Introduction to Psychology	3

HEALTH AND HUMAN PERFORMANCE—BS—Business/Sport Management Emphasis

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

Required courses—78 hours

Health and Human Performance Core & Cognates	46
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Business courses

ACCT 211, 212	Principles of Accounting	3, 3
BUAD 219	Small Business Management	3
or BUAD 138	Dynamics of Business (3)	
BUAD 376	Human Resource Management	3
BUAD 425	Business Communications (WR)	3
MRKT 327	Marketing (WR)	3
Select two Health and Human Performance activity courses from		2
HHPA 126	Team Activities (1)	
HHPA 137	Gymnastics for Everyone (1)	
HHPA 145	Beginning Badminton (1)	
HHPA 151	Beginning Volleyball (1)	

Additional Health and Human Performance required courses

HHPA 147	Beginning Tennis	1
or HHPA 146	Beginning Pickleball (1)	
HHPA 149	Beginning Golf	1

HHPA 215	Intermediate/Advanced Swimming	1
or HHPA 216	Lifeguard Training (1)	
or HHPA 219	Water Safety Instruction (1)	
HHPT 235, 236	Principles of Sports Officiating I and II	1.5, 1.5
HHPT 335	Administration of Intramural Sports	3
HHPT 340	Introduction to Coaching Theory	2
HHPT 351	Practicum	1

HEALTH AND HUMAN PERFORMANCE—BS—Fitness and Wellness Emphasis

The emphasis in fitness and wellness is designed for students who are planning to seek employment in the fitness marketplace, work-site wellness or community health promotion. Participation in an annual fitness test is required.

Required courses—75 hours

Health and Human Performance Core & Cognates	46
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Business courses

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

Additional Health and Human Performance courses

HHPA 216	Lifeguard Training	1
or HHPA 219	Water Safety Instruction(1)	
HHPT 129	Introduction to Fitness and Wellness Management	3
HHPT 235, 236	Principles of Sports Officiating	1.5, 1.5
HHPT 335	Administration of Intramural Sports	3
HHPT 351	Practicum	1
HHPT 476	Wellness Methods, Materials and Management	3

Other course

PSYC 311	Introduction to Counseling Theory and Techniques	3
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PHYSICAL EDUCATION—BS

K-6, 7-12 Subject Endorsement

The teaching degree in physical education is designed to prepare candidates for elementary and secondary teaching in physical education. The following competencies are required:

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

- an understanding of the nature of the curriculum and programs that are suitable for various maturity and ability levels and a minimal level of proficiency in specific activities;
- knowledge of and experience with a variety of methods and techniques suitable for teaching including adapted physical activities for the disabled;
- an understanding of appropriate evaluative techniques and the utilization of these for motivation and for the determination of progress and outcomes; and
- an understanding of the value of research and its implication for the improvement of the profession and the development of skill in the scientific method and in the reporting of research.

Participation in annual fitness test is required.

Required courses—111 hours

Health and Human Performance Courses

HHPA 147	Beginning Tennis	1
HHPA 149	Beginning Golf	1
HHPA 151	Beginning Volleyball	1
or HHPA 137	Gymnastics for Everyone (1)	
or HHPA 145	Beginning Badminton (1)	
HHPA 215	Intermediate/Advanced Swimming	1
or HHPA 216	Lifeguard Training (1)	
or HHPA 219	Water Safety Instruction (1)	
HHPA 235	Weight Training and Physical Conditioning	1
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	3
HHPT 235, 236	Principles of Sports Officiating I and II	1.5, 1.5
HHPT 316	Leisure and Recreational Activities	2
HHPT 326	Team Activities	2
HHPT 335	Administration of Intramural Sports	3
HHPT 337	Gymnastics for Teachers	1
HHPT 340	Introduction to Coaching Theory	2
HHPT 345	Sports Nutrition	2
HHPT 350	Practicum	1
HHPT 356	Physiology of Exercise	3
HHPT 357	Motor Learning (WR)	3
HHPT 360	Biomechanics	3
HHPT 366	Adapted Physical Education	2
HHPT 370	Personal Training	3
HHPT 437	Measurement and Evaluation in HHP	2
HHPT 485	Seminar in Health and Human Performance	1
HHPT 486	Senior Capstone (WR)	1

Other required courses

BIOL 111, 112	Human Anatomy and Physiology I and II	4, 4
CPTR 220	Microcomputer Applications	3

Professional Education

EDUC 245	Physical Education in Elementary School	2
EDUC 416	Methods: Physical Education	3
Additional Professional Education		51

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

MINOR IN BUSINESS/SPORT MANAGEMENT

Participation in annual fitness test is required.

Required courses—26 hours

Health and Human Performance Courses

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

Other required courses

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

MINOR IN COACHING

Participation in annual fitness test is required.

Required courses—23 hours

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

MINOR IN FITNESS AND WELLNESS

Participation in annual fitness test is required.

Required courses—23 hours

Health and Human Performance Courses

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

Other required courses

BIOL 111, 112	Human Anatomy and Physiology I and II	4, 4
GRPH 150	Introduction to Graphic Arts	3
or MRKT 333	Professional Selling (3)	

MINOR IN PERSONAL TRAINING

Participation in annual fitness test is required.

Required courses—23 hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4, 4
HHPA 220	Healthy Eating and Fitness	1
HHPA 235	Weight Training	1
HHPT 215	Emergency Health Care	2
HHPT 216	Athletic Injuries	3
HHPT 345	Sports Nutrition	2
HHPT 356	Physiology of Exercise	3
HHPT 370	Personal Training	3

MINOR IN PHYSICAL EDUCATION

Participation in annual fitness test is required.

Required courses—23 hours

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

Health Sciences

The major in Health Sciences combines courses at the undergraduate and graduate levels to enable exceptional, qualified Union College students to enter the Master of Physician Assistant Studies (MPAS) program after three years of undergraduate study and receive the bachelor's degree during the first year of graduate MPAS studies.

Contact Information

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402.486.2527
paprog@ucollege.edu
www.ucollege.edu/pa

Faculty

Michelle Buller, Jodi Chewakin, Megan Heidtbrink, Cliff Korf, Dwain Leonhardt, Frankie Rose

Academic Program

Health Sciences, BS

Admission, Progression, and Graduation Requirements

The PA Program intends that an applicant for the Bachelor of Science in Health Sciences (BSHS) degree is qualified for the proposed curriculum and is capable of profiting from the education experience offered by Union College.

Students may enter the BSHS major either as a traditional or as a transfer student. The application is designed to recognize appropriate prior work to ensure content mastery and likelihood of success in the BSHS degree.

Students are invited to apply to the BSHS degree once the minimum criteria have been met. Applications are processed and reviewed upon receipt. Upon review, applicants will be notified of status by the PA Program.

Upon acceptance to the BSHS degree program, students will be assigned an academic advisor from the PA Program to provide guidance in their Academic Program.

Minimum criteria for application to the BSHS major:

- Sophomore standing (24 semester hours) and successful completion ("B" or higher) of the following courses or their equivalents: General Chemistry I, General Chemistry II, College Writing I, and College Writing II; and
- A cumulative GPA of 3.50 or above on a 4.00 scale on all college-level coursework; and
- A GPA of 3.50 or above on a 4.00 scale for all science courses.

Exposure to the PA role (e.g. professional shadowing) is highly recommended, though not required for application.

Progression in the BSHS major:

Students who do not meet the following criteria will be counseled to complete a four-year degree prior to applying to the PA Program.

- Maintain a cumulative GPA of 3.50 or above on a 4.00 scale;
- Receive a "B" or higher in all science classes;
- Complete the following courses by the conclusion of the fall semester of the junior year: Organic Chemistry I, General Biology I, General Biology II, and Mammalian Physiology;
- Complete 101 semester hours before entering the graduate course sequence, including 30 of the last 36 semester hours in residence at Union College;
- Meet all admission requirements for the MPAS program, including all general education, major, and prerequisite requirements—except completion of a college degree—before entering the PHAS graduate courses; and
- Be accepted into the MPAS program (students who have been denied may reapply only after completion of a baccalaureate degree with another major).

HEALTH SCIENCES—BS

Required courses—76 hours

BIOL 151, 152	General Biology I and II	4, 4
BIOL 205	Microbiology	4
BIOL 411	Advanced Human Anatomy	4
BIOL 416	Advanced Human Physiology (WR)	4
CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 445	Biochemistry I	4
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability	3
or MATH 331	Statistics and Probability (3)	
PSYC 215	Developmental Psychology	3
PHAS 510	Clinical Nutrition	2

PHAS 511	Human Anatomy	5
PHAS 514	Medical History and Physical Examination Skills	4
PHAS 518	Psychiatry and Behavioral Medicine	3
PHAS 525	Physician Assistant Professional Issues	2
PHAS 533	Preventive Health	1
PHAS 539	Christian Health Care and Bioethics(WR) **	3
PHAS 559	Clinical Pathophysiology	4
PHAS 584	Pharmacology	5

Additional Requirement

American Heart Association Healthcare Provider CPR certification*

Recommended

PSYC 415	Abnormal Psychology	3
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(*) CPR certification must be valid through November of the student's first year in the PA program.

(**) Meets undergraduate general education requirement for one religion elective

History

Goals

Students graduating from the history program will have

- a knowledge of global history appropriate for admission to graduate school;
- become prepared for law or professional schools;
- conducted independent historical study and research; and
- familiarity with schools of historical thought and the contributions of significant historians.

Contact Information

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Faculty

Christopher Banks, Benjamin Tyner

Adjunct Faculty

George Gibson

Academic Programs

History, BA

History Education, BS—Secondary Subject Endorsement

Minor in History

HISTORY—BA

Required courses—45 hours

Core

HIST 157	The West in the World	3
HIST 220	World Antiquity	3
HIST 497	Historiography (WR)	3

Cognates

BIOL 377	Origins	3
or SCNC 377	Origins (3)	
GEOG 137	Introductory Geography	3
or GEOG 227	World Regional Geography (3)	
PLSC 208	American Politics	3
Select 27 hours from the following, including 6 from U.S. history:		27
HIST 255	The U.S.: Discovery to Civil War (3)	
HIST 258	Africa's Global Emergence (3)	
HIST 260	Latin America and the Caribbean (3)	
HIST 346	Russia: 1400-present (3)	
HIST 349	Medieval Europe (WR) (3)	
HIST 378	Early Modern Europe (WR) (3)	
HIST 380	The U.S.: Crisis, Consolidation, and Expansion (3)	
HIST 383	The North Atlantic: War and Peace 1900s(3)	
HIST 386	Economic History of the United States (3)	
HIST 392	The Modern Middle East (3)	
HIST 396	East and South Asian History (3)	
HIST 401	Europe: 1789-1914 (WR) (3)	
HIST 405	Africa's Economic History (3)	
HIST 465	The U.S. War on Terror (3)	
PLSC 105	Introduction to International Relations (3)	

HISTORY EDUCATION—BS

Secondary Subject Endorsement

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

- a general knowledge of American and world history;
- a basic undergraduate historical knowledge that prepares a student for graduate or law school;
- an understanding of democracy as exemplified in the political process of the government of the United States and other countries;
- the basic skills to undertake independent study and research, to be effective in the use of a library, to have the ability to analyze documents and to be able to write fluently;
- the ability to contribute to more responsible citizenship of students through a broader understanding of history;
- a physical and human geographical approach to the world; and

- the special knowledge and skills pertinent to the effective teaching of history at the secondary level, supplied through a course in the methods of teaching high school and junior high school social studies, a course in secondary methods and a course in methods of historical research.

Required courses—92 hours

Core

HIST 157	The West in the World	3
HIST 255	The U.S.: Discovery to Civil War	3
HIST 497	Historiography (WR)	3

Cognates

GEOG 137	Introductory Geography	3
or GEOG 227	World Regional Geography (3)	
PLSC 208	American Politics	3

Select 21 hours from the following, including 3 hours from U.S. history: 21

HIST 220	World Antiquity (3)	
HIST 258	Africa's Global Emergence (3)	
HIST 260	Latin America and the Caribbean (3)	
HIST 346	Russia: 1400-present (3)	
HIST 349	Medieval Europe (WR) (3)	
HIST 378	Early Modern Europe (WR) (3)	
HIST 380	The U.S.: Crisis, Consolidation, and Expansion (3)	
HIST 383	The North Atlantic: War and Peace 1900s(3)	
HIST 386	Economic History of the United States (3)	
HIST 392	The Modern Middle East (3)	
HIST 396	East and South Asian History (3)	
HIST 401	Europe: 1789-1914 (WR) (3)	
HIST 405	Africa's Economic History (3)	
HIST 465	The U.S. War on Terror (3)	

Professional Education

EDUC 415	Methods: Social Science and Religious Education	3
Additional Professional Education		53
Recommended: Beginning College Modern Language (6)		

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

MINOR IN HISTORY

Required courses—18 hours

HIST 157	The West in the World	3
HIST 220	World Antiquity	3
PLSC 208	American Politics	3
HIST	History electives (300 level and above)	9

International Relations

Goals

The Bachelor of Arts in International Relations is designed to prepare the student for careers in a variety of areas including careers in U.S. or international politics and government service, international aspects of law, business and communications, church positions and graduate studies in related fields. Upon graduation all international relations majors may sit for the U.S. Department of State Foreign Service exam in the following summer.

Contact Information

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Faculty

Christopher Banks, Benjamin Tyner

Academic Programs

International Relations, BA

Minor

- International Relations

INTERNATIONAL RELATIONS—BA

Required courses—87 Hours

Core

HIST 157	The West in the World	3
HIST 386	Economic History of the United States	3
HIST 405	Africa's Economic History	3
PLSC 105	Introduction to International Relations	3
PLSC 208	American Politics	3
PLSC 258/HIST 258	Africa's Global Emergence	3

PLSC 260/HIST 260	Latin America and the Caribbean	3
PLSC 346/HIST 346	Russia: 1400-present	3
PLSC 383/HIST 383	The North Atlantic: War and Peace 1900s	3
PLSC 392/HIST 392	The Modern Middle East	3
PLSC 396/HIST 396	East and South Asian History	3
PLSC 430/HIST 430	Global Migrations	3
PLSC460	Global Political Economy and International Labor	3
PLSC465/HIST465	The U.S. War on Terror	3
PLSC 475	Political Science Internship	3

Cognates

ACCT 211, 212	Principles of Accounting	3, 3
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
FNCE 325	Business Finance	3
FNCE 330	Financial Institutions and Markets	3
FNCE 370	International Finance	3
GEOG 137	Introductory Geography	3
GEOG 227	World Regional Geography	3
LANG	Foreign Language (at intermediate level)	6
PHIL 335	Introduction to Philosophy	3
PSYC 340, 341	Research Methods I and II (WR)	3, 3

MINOR IN INTERNATIONAL RELATIONS

Required courses—18 Hours

GEOG 137	Introductory Geography	3
PHIL 335	Introduction to Philosophy	3
PLSC 105	Introduction to International Relations	3
Select 9 hours from the following		9
HIST 386	Economic History of the United States (3)	
HIST 405	Africa's Economic History (3)	
PLSC 208	American Politics (3)	
PLSC 258/HIST 258	Africa's Global Emergence (3)	
PLSC 260/HIST 260	Latin America and the Caribbean (3)	
PLSC 346/HIST 346	Russia: 1400-present (3)	
PLSC 383/HIST 383	The North Atlantic: War and Peace 1900s (3)	
PLSC 392/HIST 392	The Modern Middle East (3)	
PLSC 396/HIST 396	East and South Asian History (3)	
PLSC 430/HIST 430	Global Migrations (3)	
PLSC 460	Global Political Economy and International Labor (3)	
PLSC 465/HIST 465	The U.S. War on Terror (3)	

International Rescue and Relief

The International Rescue and Relief program is designed for students seeking careers in community service and the skills to serve in times of disaster and humanitarian need. There are three foundational elements of the program: a summer session in Colorado dedicated to survival and rescue training; a semester abroad studying and providing humanitarian relief; and clinical emergency training throughout the entire program. The curriculum also provides graduates with the knowledge, skills, and ability for professional certification in emergency response and management. The IRR program prepares students for a variety of career opportunities depending on their degree focus; such as in mission service, public health, public services, non-profit agencies, business, and social services. The pre-professional emphasis prepares students for graduate studies to become a doctor, dentist, physician assistant, or physical therapist. The Public Safety emphasis prepares a graduate to work as a paramedic, in emergency medical services, emergency manager, firefighter, forest or park ranger, search and rescue, and law enforcement. Union College offers this program in its long-standing tradition of Christian service.

Mission

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

Goals

Students graduating with a major in International Rescue and Relief will be prepared to

- Demonstrate leadership skills by serving effectively, compassionately and enthusiastically in providing current humanitarian relief in both national or international environments;
- Competently deploy during emergencies and disasters as trained and certificated search and rescue technicians;

- Identify and determine the necessary emergency medical treatments for patients experiencing a medical crisis in urban, rural, or austere locations;
- Obtain an entry-level career in their chosen field or pursue advanced study.

Contact Information

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www.ucollege.edu/irr

Faculty

Aaron Kent, Gary Walter, Rick Young

Adjunct Faculty

Denise Bulling

Academic Programs

International Rescue and Relief, BS, with emphases in:

- Pre-Professional (pre-dental, pre-medical, pre-physical therapy, pre-physician assistant)
- Public Safety (firefighter, law enforcement, paramedic)

Emergency Medical Services, AS

Rescue and Relief/Allied Health, AS

Minors

- Disaster Management
- Survival and Rescue

Preparatory Coursework for Admission to the Program

Recommended high school preparation for admission includes year-long courses in biology and chemistry, two years of algebra, computer applications and two years of foreign language.

Admission and Progression Requirements

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

Criteria for Admission to the IRR Program

- Acceptance into Union College
- The physical, mental, and emotional capacity to function as a professional emergency responder
- Passport for international travel

Progression in the program requires the student to

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

Program-Specific Fees

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

International Rescue and Relief Core & Cognates—50 hours

Core

INRR 100	Emergency Medical Technician I*	7
INRR 110	Search and Rescue*	2
INRR 112	Swift Water Rescue and Flood Management*	1
INRR 114	Technical Rope Rescue*	1
INRR 116	Basic Survival*	1
INRR 202	Emergency Medical Technician II*	4

INRR 210	Principles of Emergency Management	3
INRR 220	Social Dimensions of Disaster*	3
INRR 302	HIV and Emerging Diseases	1
INRR 310	Emergency Care I	3
INRR 311	Emergency Care II	3
INRR 316	Jungle, Coastal and Ocean Survival	1
INRR 321	Global Health	3
INRR 330	Travel and Tropical Medicine	3
INRR 351	Stress and Rescue Diving*	1
INRR 430	Expeditionary Leadership	3
INRR 482	Int'l Development and Cultural Integration (WR)	3
INRR 491	Disaster Management and Terrorism (WR)	3

Cognates

HHPA 217	Skin and Scuba Diving*	1
	or evidence of diving certification	
RELT 347	World Religions	3

* Certificate course

INTERNATIONAL RESCUE AND RELIEF—BS

Required courses—75 hours

International Rescue and Relief Core		50
INRR 420	IRR Preceptorship	1
SOCI 415	Crisis and Resilience	3

Select a minor from below that enhances career choice goals or work with advisor to create an approved set of coursework * **21**

Accounting—19	Marketing—19
Biology—32	Mathematics -23
Business Administration—18	Physical Education—23
Business/ Sport Management—26	Physics—21
Chemistry—20	Pre-law—18
Communication—19	Psychology—18
Computer Information Systems—22	Religion—18
English—18	Small Business Management—21
Fitness and Wellness—23	Social Science—18
Graphic Design—21	Youth Ministry—18
History—18	

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

INTERNATIONAL RESCUE AND RELIEF—BS—Pre-Professional Emphasis

Pre-Dental, Pre-Medical Track

Required courses—100-102 hours

International Rescue and Relief Core & Cognates	50
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Cognates

BIOL 151, 152	General Biology I and II*	4, 4
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BIOL 411	Advanced Human Anatomy	4
BIOL 416	Advanced Human Physiology (WR)	4
BIOL 445	Biochemistry I	4
CHEM 151, 152	General Chemistry I and II*	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
PHYS 151, 152	General Physics I and II	4, 4
MATH	MATH 111 or above	3-5
PSYC	A Psychology course*	3

Pre-Physical Therapy Track

Required courses—99 hours

International Rescue and Relief Core & Cognates	50
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Cognates

BIOL 151, 152	General Biology I and II*	4, 4
BIOL 205	Microbiology	4
BIOL 411	Advanced Human Anatomy	4
BIOL 416	Advanced Human Physiology (WR)	4
CHEM 151, 152	General Chemistry I and II*	4, 4
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability*	3
PHYS 151, 152	General Physics I and II	4, 4
PSYC 105	Introduction to Psychology*	3
PSYC 215	Developmental Psychology	3
PSYC 415	Abnormal Psychology	3

Pre-Physician Assistant Track

Required courses—97 hours

International Rescue and Relief Core & Cognates	50
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Cognates

BIOL 151, 152	General Biology I and II*	4, 4
BIOL 205	Microbiology	4
BIOL 411	Advanced Human Anatomy	4
BIOL 416	Advanced Human Physiology (WR)	4
BIOL 445	Biochemistry I	4
CHEM 151, 152	General Chemistry I and II*	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
HHPT 256	Medical Terminology	1
MATH 221	Elementary Statistics and Probability*	3
PSYC 215	Developmental Psychology	3

Highly recommended elective courses for pre-professional emphasis:

BIOL314	Immunology (4)
BIOL 321	Genetics (WR) (4)
BIOL404	Cell Biology (4)
PHYS 151, 152	General Physics I and II (4, 4)

*Meets general education requirements

INTERNATIONAL RESCUE AND RELIEF—BS—Public Safety Emphasis

Required courses—82 hours

International Rescue and Relief Core & Cognates	50
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Public Safety Core

INRR 420	IRR Preceptorship	1
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Public Safety Cognates

PSYC 105	Introduction to Psychology	3
PSYC 415	Abnormal Psychology	3
SOCI 415	Crisis and Resilience	3

Select a minor or work with advisor to create an approved set of coursework that enhances career choice goals*—22

Accounting—19	Computer Information Systems—22
Biology—32	Pre-law—18
Business Administration—18	Psychology—18
Chemistry—20	Social Science—18
Communication—19	

*Minor and electives must total a minimum of 22 hours and be approved by the advisor.

Public Safety Emphasis (Firefighter track)

Students complete the first three years at Union College. Students complete this emphasis by submitting a copy of their certification as a Firefighter I, Firefighter II, and Hazardous Materials Operations, as well as an official college transcript showing completion of an accredited Fire Protection Technology program. Students who complete the firefighter portion of the program after the junior year at Union College may meet the residency requirement for graduation during the junior year. Thirty credit hours are accepted for the Fire Protection program and will satisfy the Union College upper division requirement. Firefighter program must be completed within two years of completing the IRR Core requirements

Required courses—80 hours

International Rescue and Relief Core & Cognates	50
Completion of an Accredited Firefighter Program	30

Public Safety Emphasis (Paramedic track)

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

completing the IRR Core requirements. Students who will complete their paramedic training and national certification during the following summer may apply to participate in the graduation ceremonies in May as prospective summer graduates.

Required courses—88 hours

International Rescue and Relief Core	50
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Cognates

Completion of an Accredited Paramedic Program	30
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BIOL 111, 112	Human Anatomy and Physiology I and II*	4, 4
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*Meets general education requirements

EMERGENCY MEDICAL SERVICES—AS

Required courses—33 hours

Core

INRR 100	Emergency Medical Technician I	7
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INRR 110	Search and Rescue	2
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INRR 112	Swift Water Rescue and Flood Management	1
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INRR 114	Technical Rope Rescue	1
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INRR 116	Basic Survival	1
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INRR 202	Emergency Medical Technician II	4
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INRR 210	Principles of Emergency Management	3
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INRR 220	Social Dimensions of Disaster	3
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INRR 351	Stress and Rescue Diving	1
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Cognates

FNCE 215	Personal Finance	3
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HHPA 217	Skin and Scuba Diving	1
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or evidence of diving certification

PSYC 215	Developmental Psychology	3
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SOCI 105	Introduction to Sociology	3
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RESCUE AND RELIEF/ALLIED HEALTH—AS

An Associate of Science Degree in Rescue and Relief/Allied Health is a 2-3 year+2 year partnership between Union College and Loma Linda University that provides students with rescue certifications and the prerequisites needed to complete a Bachelor of Science Degree from Loma Linda University in the following fields: Cardiac Electrophysiology; Clinical Laboratory Science; Communication Sciences and Disorders; Cytotechnology; Health Informatics and Information Management; Nutrition and Dietetics; Orthotics and Prosthetics; and Respiratory Care.

Required Courses—39-63 hours

Core

INRR 100	Emergency Medical Technician	7
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INRR 110	Search and Rescue	2
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INRR 112	Swift Water Rescue and Flood Management	1
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INRR 114	Technical Rope Rescue	1
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INRR 116	Basic Survival	1
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INRR 210	Principles of Emergency Management	3
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INRR 220	Social Dimensions of Disaster	3
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Cognates

PSYC 105	Introduction to Psychology	3
SOCI 105	Introduction to Sociology	3

Choose one track below—15-39 hours

Cardiac Electrophysiology Track—23 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
CHEM 151, 152	General Chemistry I and II	4,4
MATH 111	College Algebra	3
PHYS 151	General Physics I	4

Clinical Laboratory Science Track—27 Hours

BIOL 111	Human Anatomy and Physiology I and II	4
CHEM 151, 152	General Chemistry I and II	4,4
CHEM 211, 212	Organic Chemistry I and II	4,4
MATH 111	College Algebra	3
PHYS 151	General Physics I	4

Communication Sciences and Disorders Track—21—22 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
CHEM 104	Introduction to General, Organic, and Biochemistry	4
MATH 111	College Algebra	3
MATH 221	Elementary Statistics and Probability	3
Any Science course	3-4	

Cytotechnology Track—39 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
BIOL 151, 152	General Biology I and II	4,4
BIOL 205	Microbiology	4
CHEM 151, 152	General Chemistry I and II	4,4
CHEM 221, 212	Organic Chemistry I and II	4,4
MATH 111	College Algebra	3

Health Informatics and Information Management Track—15 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
HHPT 256	Medical Terminology	1
MATH 111	College Algebra	3
Additional ANTH, ECON, GEOG, PLSC, or SOCI elective		3

Nutrition and Dietetics Track—23 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
BIOL 205	Microbiology	4
CHEM 151, 152	General Chemistry I and II	4,4
MATH 111	College Algebra	3

Orthotics and Prosthetics Track—23 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
CHEM 151, 152	General Chemistry I and II	4,4
MATH 331	Statistics and Probability	3
PHYS 151	General Physics I	4

Respiratory Care Track—27 Hours

BIOL 111, 112	Human Anatomy and Physiology I and II	4,4
BIOL 205	Microbiology	4
CHEM 151, 152	General Chemistry I and II	4,4
MATH 111	College Algebra	3
PHYS 151	General Physics I	4

MINOR IN DISASTER MANAGEMENT**Required courses—18 hours**

INRR 210	Principles of Emergency Management	3
INRR 220	Social Dimensions of Disaster	3
INRR 302	HIV and Emerging Diseases	1
INRR 482	Int'l Development and Cultural Integration (WR)	3
INRR 491	Disaster Management and Terrorism (WR)	3
Select five hours from	5	
COMM 365	Institutional Development (3)	
COMM 425	Intercultural Communication (3)	
COPR 377	Crisis Public Relations (2)	
NURS 391	Global Health Nursing (2)	
SOCI 415	Crisis and Resilience (3)	

MINOR IN SURVIVAL AND RESCUE**Required courses—21 hours**

HHPA 217 Skin and Scuba Diving*		1
or evidence of diving certification		
INRR 100	Emergency Medical Technician I*	7
INRR 110	Search and Rescue*	2
INRR 112	Swift Water Rescue and Flood Management*	1
INRR 114	Technical Rope Rescue*	1
INRR 116	Basic Survival*	1
INRR 202	Emergency Medical Technician II*	4
INRR 351	Stress and Rescue Diving*	1
INRR 491	Disaster Management and Terrorism (WR)	3

*Certificate course

Leadership Minor

A leader needs a wide variety of knowledge, skills, and dispositions to be effective. These attributes may be innate, or they may be learned and absorbed through observation. A wide variety of classroom and practical experiences will assist students who pursue the leadership minor to assimilate and develop these qualities.

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

Mission

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

Goals

Students graduating with the Leadership Minor will

- understand leadership theory;
- practice moral and ethical leadership;
- be effective in interpersonal communication and conflict resolution;
- evaluate information using critical thinking skills;
- appreciate the power of forgiveness and acceptance; and
- value the leadership qualities of Jesus

Contact Information

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Faculty

Linda Becker, Ben Holdsworth, Benjamin Tyner

Adjunct Faculty

Kelly Moguel

MINOR IN LEADERSHIP

Required courses—19 hours

HMNT 332	Historical Issues in Leadership	2
LEAD 225	Creative Leadership	3
LEAD 245	Leadership Cohort	1
LEAD 345	Leadership Cohort	1
LEAD 425	Experiences in Leadership	3
LEAD 475*	Leadership Internship	
3		
RELT 305	Christian Ethics	3
Students will select three hours from		3
BUAD 310	Quality Management (3)	
BUAD 430	Conflict Management (3)	
COMM 365	Institutional Development (3)	
COMM 425	Intercultural Communication (3)	
COMM 465	Interpersonal Communication (3)	
INRR 430	Expeditionary Leadership (3)	
NURS 453	Management and Leadership (3)	
SOCI 321	Issues of Diversity (WR) (3)	

* Or other approved internship, practicum, or preceptorship.

Mathematics

Mission

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

Goals

Students graduating from the mathematics program will be prepared to

- read mathematical literature and communicate mathematically and statistically;
- think logically and analytically based on methods of mathematical proof;
- solve a variety of problems using standard heuristic techniques;
- connect knowledge from one branch of mathematics to another and to other disciplines;
- pursue life-long learning of mathematically related concepts;
- value and enjoy mathematics through a growing understanding of its historical context and relationship to other sciences; and
- value its power, and its application to societal needs.

Contact Information

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Faculty

Lesa Kean

Adjunct Faculty

Angie Hardt, Keith Riese, Robert Ruyle

Academic Programs

Mathematics, BA

Mathematics, BS

Mathematics Education, BS—Secondary Subject Endorsement

Minor in Mathematics

Mathematics Core & Cognates—49 hours

Core

MATH 121	Precalculus	5
MATH 184	Calculus I	4
MATH 285, 286	Calculus II, III	4, 4
MATH 331	Statistics and Probability	3
MATH 340	Discrete Mathematics	3
MATH 351	Abstract Algebra	3
MATH 352	Linear Algebra	3

Cognates

CPTR 226	Computer Science I	4
CPTR 227	Computer Science II	4

Supporting Area* (to be approved by the mathematics faculty) 12

*A sequence of courses requiring extensive use of mathematics chosen from biology, chemistry, computer science, engineering, or physics.

MATHEMATICS—BA

Required courses—55 hours

Mathematics Core & Cognates		49
MATH 385	Differential Equations—recommended if supporting area is in science or engineering	3
or MATH 486	Numerical Analysis—recommended if supporting area is in computer science (3)	
MATH	Mathematics electives (numbered 300 or above)	3

MATHEMATICS—BS

Required courses—61 hours

Mathematics Core & Cognates		49
MATH 385	Differential Equations	3
MATH 491	Real Analysis	3
MATH 492	Complex Variables	3
MATH	Mathematics electives (numbered 300 or above)	3

MATHEMATICS EDUCATION—BS
Secondary Subject Endorsement

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

- the ability to inspire and motivate students in mathematics;
- an understanding of the cultural heritage and the place of mathematics in the school curriculum as a creative and expanding subject;
- an understanding of the interplay of mathematics and science in today’s scientific society;
- the conceptualization of mathematics as a science built upon postulates;
- the investigation of the application of mathematics in order to:
 - 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; and
- acquisition of a degree of facility with selected mathematical techniques.

Required courses—96 hours

Core

MATH 121	Precalculus	5
MATH 184	Calculus I	4
MATH 285, 286	Calculus II, III	4, 4
MATH 331	Statistics and Probability	3
MATH 340	Discrete Mathematics	3
MATH 351	Abstract Algebra	3
MATH 352	Linear Algebra	3
MATH 409	Modern College Geometry	3
MATH 451	Mathematical Connections for Secondary Teachers	4

Cognate

CPTR 226	Computer Science I	4
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Professional Education

EDUC 413	Methods: Mathematics Education	3
Additional Professional Education		53

(See Education-Secondary Education Endorsements)

MINOR IN MATHEMATICS

Required courses—23 hours

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

Medical Laboratory Science

Mission

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

Contact Information

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Faculty

Richard Clark, Corrairie McNeill, Salvador Moguel, Frankie Rose, Amy Utt, Carrie Wolfe

Adjunct Faculty

Marcia A. Kilsby

Academic Program

Medical Laboratory Science, BS

MEDICAL LABORATORY SCIENCE

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

Academic Requirements

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

- The residence requirement of 30 hours must be satisfied in the junior year at Union College.
- The major is satisfied in the senior year at an affiliated professional school.
- Specific requirements for entrance into the clinical program are found in the bulletin of the affiliated professional school. At the time of application to the clinical program, the student must also meet the current minimum prerequisites for admission to a clinical facility as prescribed by the National Accrediting Agency for Medical Laboratory Science.
- Acceptance into the clinical program is on a competitive basis. Completion of the outlined requirements at Union College does not guarantee admission to the affiliated school of medical laboratory science.
 - A GPA of 3.00 or higher will 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 three semesters before planned 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); and
 - send pictures or make arrangements with the yearbook editor.

MEDICAL LABORATORY SCIENCE—BS

Required courses—83-85 hours

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

Additional courses recommended (choose from)

BIOL 205	Microbiology (4)
BIOL 306	Histology (3)
BIOL 314	Immunology (3)
BIOL 321	Genetics (WR) (4)
BIOL 416	Advanced Human Physiology (WR) (4)
CHEM 311	Analytical Chemistry (4)
CHEM 312	Instrumental Analysis (4)
PHYS 111	Principles of Physics (4)
or PHYS 151, 152	General Physics I and II (4, 4)

Music

Mission

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

Goals

Students graduating with a degree in music will be prepared to

- show improvement in the areas of technical proficiency and artistic musicianship;
- analyze musical materials and structures;
- organize musical thoughts through composition and arranging;
- articulate historical and theoretical perspective with an understanding of stylistic trends and their evolution;
- communicate musical ideas and knowledge; and
- demonstrate proficiencies in the use of current music technologies.

Contact Information

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Faculty

Richard Little, Kurt Miyashiro

Adjunct Faculty

Marina Fabrikant

Academic Programs

Music, BA

Music Education, BMusic—K-12 Field Endorsement, with emphases in:

- Instrumental
- Keyboard
- Vocal

Music Performance, BMusic, with emphases in:

- Instrumental
- Keyboard
- Vocal

Instrumental Music Education, BS—Subject Endorsement K-8 or 7-12

Vocal Music Education, BS—Subject Endorsement K-8 or 7-12

Music Pedagogy, AS

Minor in Music

Auxiliary Requirements for All Baccalaureate Degrees in Music

(except K-8 subject endorsements)

- 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.
- Students are expected to take private lessons in a primary performance area each semester.

Music Core—30 hours

MUHL 351	Music History I (WR)	2
MUHL 352	Music History II (WR)	2
MUHL 353	Music History III (WR)	2
MUHL 354	Music History IV (WR)	2
MUPF 257	Introduction to Conducting	2
MUTH 151	Theory I	3
MUTH 152	Theory II	3
MUTH 161	Sight-Singing and Ear Training I	1
MUTH 162	Sight-Singing and Ear Training II	1
MUTH 253	Theory III	3
MUTH 254	Theory IV	3
MUTH 263	Form and Analysis	2
MUTH 462	Introduction to Counterpoint	2
MUTH 465	Orchestration	2

MUSIC—BA

Required courses—42 hours

Music Core	30	
MUPF	Concentration in voice or one instrument	8
	(4 hours must be 200-400 level and 4 hours must be 400 level)	
MUPF	Performance electives	3
MUPF 451	Senior Recital	1
Participate in a large ensemble each semester; select additional experiences in chamber ensembles.		

MUSIC PERFORMANCE—BMUSIC

Required courses—62 hours

Music Core	30	
MUED 307	Keyboard Pedagogy	2
or MUED 317	Instrumental Pedagogy (2)	
or MUED 327	Vocal Pedagogy (2)	
MUPF 341	Choral Conducting	1
MUPF 342	Instrumental Conducting	1
Primary Performance Area		19
MUPF 351	Junior Recital (1)	
MUPF 451	Senior Recital (1)	

Select one emphasis:

Instrumental or Keyboard Emphasis

MUPF	Concentration in one instrument (17)
	(11 hours must be 200-400 level and 6 hours must be 400 level)

Vocal Emphasis

MUPF 266	English/Italian Diction (1)
MUPF 267	German/French Diction (1)
MUPF 201, 401	Voice (15)
	(9 hours must be 200-400 level and 6 hours must be 400 level)

Secondary Performance Area

Select four hours from	4
MUAP	Techniques and Materials (1-4)
	(and/or MUPF Performance Studies (1-4))
MUPF	Music electives
	5

Participate in a large ensemble each semester; select additional experiences in chamber ensembles.

MINOR IN MUSIC

Required courses—21-22 hours

MUHL	Select music history in consultation with advisor	2-3
MUTH 151	Theory I	3
MUTH 152	Theory II	3

MUTH 161	Sight-Singing and Ear Training I	1
MUTH 162	Sight-Singing and Ear Training II	1
MUPF	Performance Studies	8
(6 hours in a concentration—2 at 300 level) (6)		
Performance electives (2)		
Partial recital		
MUPF	Electives: ensembles (recommended)	3
(One hour must be 300-400 level)		

Music Education

Students graduating with a degree in music education will be able to

- develop a conceptual understanding of the elements of music in order to form a basis for listening, composing, performing, conducting and teaching;
- perform in a variety of ways in the role of listener, composer, performer, conductor, scholar and teacher;
- develop a repertoire in musical styles that embraces different cultures and historical periods; and
- develop an understanding of music within its historical framework, including knowledge of the major periods of music.

MUSIC EDUCATION—BMUSIC

K-12 Field Endorsement

Required courses—111-112 hours

Music Core	30	
MUED 307	Keyboard Pedagogy	2
or MUED 317	Instrumental Pedagogy (2)	
or MUED 327	Vocal Pedagogy (2)	
MUED 347	Music in the Elementary School	2
MUPF 341	Choral Conducting	1
MUPF 342	Instrumental Conducting	1

Primary Performance Area

MUPF 451	Senior Recital	1
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Select one emphasis: 12-13

Instrumental or Keyboard Emphasis

MUPF	Concentration in one instrument (12)
(6 hours must be 200-400 level and 6 hours must be 400 level)	

Vocal Emphasis

MUPF 201, 401	Voice (12)
(6 hours must be 200-400 level and 6 hours must be 400 level)	
MUPF 266	English/Italian Diction (1)
or MUPF 267	German/French Diction (1)

Secondary Performance Area

MUAP 207	Brass Techniques and Materials	1
MUAP 217	Guitar Techniques and Materials	1

MUAP 227	Percussion Techniques and Materials	1
MUAP 237	String Techniques and Materials	1
MUAP 247	Vocal Techniques and Materials	1
MUAP 257	Woodwind Techniques and Materials	1

Candidates are strongly encouraged to take up to six hours in a second performance area. Example: voice majors take instrumental, or instrumental majors take voice. They may choose to gain additional experiences in chamber ensembles.

Professional Education

EDUC 414	Methods: Music Education (Required for 7-12 only)	3
Additional Professional Education		51
(See Education-Secondary Education Endorsements)		

INSTRUMENTAL MUSIC EDUCATION—BS

K-8 or 7-12 Subject Endorsement

Required courses—103 hours

Music Core	30	
MUED 317	Instrumental Pedagogy	2
MUED 347	Music in the Elementary School	2
MUPF 342	Instrumental Conducting	1
MUPF 451	Senior Recital	1
Select three courses from MUAP 207-257		3
MUAP 207	Brass Techniques and Materials (1)	
MUAP 217	Guitar Techniques and Materials (1)	
MUAP 227	Percussion Techniques and Materials (1)	
MUAP 237	String Techniques and Materials (1)	
MUAP 247	Vocal Techniques and Materials (1)	
MUAP 257	Woodwind Techniques and Materials (1)	

Primary Performance Area 8

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

Participate in a large ensemble each semester; select additional experiences in chamber ensembles.

Professional Education

EDUC 414	Methods: Music Education (Required for 7-12 only)	3
Additional Professional Education		51

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

VOCAL MUSIC EDUCATION—BS

K-8 or 7-12 Subject Endorsement

Required courses—104 hours

Music Core	30	
MUAP 247	Vocal Techniques and Materials	1

MUED 327	Vocal Pedagogy	2
MUED 347	Music in the Elementary School	2
MUPF 341	Choral Conducting	1
MUPF 451	Senior Recital	1

Select one course from 1

MUAP 207	Brass Techniques and Materials (1)
MUAP 217	Guitar Techniques and Materials (1)
MUAP 227	Percussion Techniques and Materials (1)
MUAP 237	String Techniques and Materials (1)
MUAP 257	Woodwind Techniques and Materials (1)

Primary Performance Area

MUPF201/401	Voice	8
(4 hours must be 200-400 level and 4 hours must be 400 level)		
MUPF 266	English-Italian Diction	1
MUPF 267	German-French Diction	1

Participate in a large ensemble each semester; select additional experiences in chamber ensembles.

Professional Education

EDUC 414	Methods: Music Education (Required for 7-12 only)	3
Additional Professional Education		53

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

MUSIC PEDAGOGY—AS

Required courses—42 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

Primary Performance Area

MUPF	Concentration in instrument, voice or keyboard	8
(2 hours must be 300-400 level)		
MUPF	Electives: ensembles (recommended)	6

Participate in an ensemble each semester; select other electives in diction, conducting, techniques and materials, or music history.

Other required courses

BUAD 138	Dynamics of Business	3
MUED 275	Music Practicum	4
PSYC 215	Developmental Psychology	3

Natural Science Education

Mission

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

Contact Information

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Faculty

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Academic Program

Natural Science Education, BS—Secondary Field Endorsement

NATURAL SCIENCE EDUCATION—BS

Secondary Field Endorsement

The teaching major in natural science is designed to prepare for secondary teaching by providing the ability to

- demonstrate knowledge and understanding and be able to teach the concepts, skills and processes of science;
- design and manage safe and supportive learning environments for science instruction;
- apply unifying concepts to help students integrate science with the natural world and relate science to their community;
- apply the processes of scientific inquiry, including the ability to design and conduct scientific investigations and evaluate and interpret data;
- apply physical and life science facts, concepts and theories;
- establish connections between science and technology;
- apply science concepts, principles and processes to personal and social decision making; and
- understand the history and nature of science.

Required courses—113-120 hours

ASTR 111	Astronomy	4
BIOL 151, 152	General Biology I and II	4, 4
BIOL 477	Issues in Origins and Speciation	3
CHEM 151, 152	General Chemistry I and II	4, 4
PHYS 151, 152	General Physics I and II	4, 4
	or PHYS 251, 252 College Physics I and II (4.5, 4.5)	
	(PHYS 251, 252 required for physics emphasis)	
Science Elective	1	

Professional Education

EDUC 418	Methods: Science Education	3
Additional Professional Education		53

Emphasis (choose from below) 25-32

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

NATURAL SCIENCE EDUCATION—BS—Biology Emphasis -25 hours

BIOL 321	Genetics (WR)	4
BIOL 375	Ecology (WR)	4
BIOL 111, 112	Human Anatomy and Physiology I and II	4, 4
	or BIOL 416	
	Advanced Human Physiology (WR) (4)	
	and Biology Elective (4)	
CHEM 211	Organic Chemistry I	4
MATH 121	Precalculus	5

NATURAL SCIENCE EDUCATION—BS—Chemistry Emphasis -25 hours

BIOL	Biology Elective with Lab	4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM 311	Analytical Chemistry	4
CHEM/BIOL 445	Biochemistry I	4
MATH 121	Precalculus	5

NATURAL SCIENCE EDUCATION—BS—Physics Emphasis -32 hours

CHEM 211, 212	Organic Chemistry I and II	4, 4
MATH 184	Calculus I	4
MATH 285	Calculus II	4
MATH 286	Calculus III	4
PHYS 228	Electric Circuit Analysis	4
PHYS 350	Modern Physics (WR)	4
PHYS/CHEM 412	Physical Chemistry :Thermodynamics	4

Nursing

Union College offers a four-year curriculum in nursing, leading to a Bachelor of Science in Nursing degree. The baccalaureate program at Union College is accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791. The program is also approved by the Nebraska State Board of Nursing. Graduates are eligible to write the National Council Licensing Examination-RN (NCLEX-RN) for professional licensure.

Mission

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

Goals

Students graduating with a bachelor's degree in nursing will be prepared to

- use Christian values as a foundation of professional practice standards to demonstrate accountable, patient-centered care, and servant leadership;
- demonstrate leadership in collaboration with the interprofessional team to design and manage patient-centered care;
- utilize current technological resources to manage information, mitigate error, foster effective communication, and support decision making in provision of safe, quality patient-centered care;
- integrate best, current evidence with clinical judgment and patient preferences to provide safe, quality care across the lifespan in a variety of health care systems;
- participate in quality improvement activities promoting individual performance and system effectiveness to achieve optimal patient outcomes;
- demonstrate knowledge, skills, and attitudes in preparation for lifelong learning required in a changing practice environment; and
- synthesize knowledge from liberal education and nursing courses to provide patient-centered care.

Contact Information

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Clinical Instructors

Tracy Hagele, Rebecca Randa

Adjunct Faculty

Melissa Blome, Michelle Broman, Valeree Krueger, Lisa Lorenz, Elysia Ockenga, Zemis Sedriks, Elaine Selig-Polizien, Allison Strom, Jill Weyers

Simulation Center Coordinator

Tracy Hagele

Admission, Progression and Graduation Requirements

The Division of Nursing Admissions and Academic Evaluation Committee (AAEC) intends that an applicant to the Nursing Program is well prepared to successfully complete the nursing program curriculum. The AAEC accomplishes this by examining evidence of scholastic preparation and potential as well as evidence of professional and personal values. Applicants are considered for admission at the recommendation of the AAEC.

A student may enter the nursing program as a traditional student, transfer nursing student, or a BSN Completion student as a licensed practical nurse or registered nurse. Upon selecting nursing as a major, students will be assigned

an academic advisor from the nursing program to provide guidance with the academic plan. Based on point of entry, pathways have been designed to support student learning and nursing program progression while recognizing appropriate prior course work to ensure content mastery and achievement of program outcomes.

Progression in the baccalaureate nursing program must be completed following the sequence of nursing courses in the degree completion guide. Students accepted into the nursing program will have a maximum of five years to complete the requirements for the bachelor's degree in nursing. Graduates must have 65 credit hours of nursing courses. Transfer students may need to take additional nursing courses to reach the 65 credit hour requirement. Nursing courses transferred from another school are considered part of the 65 credit hour requirement.

Applications for admission to the nursing program are due on February 1 for fall admission and September 1 for spring admission. The Test of Essential Academic Skills (TEAS) scores are due on March 1 for fall admission and October 1 for spring admission. Acceptance into the nursing program is provisional, contingent upon satisfactory completion of all admission requirements. Applicants will be notified of their status by the Division of Nursing. Once admitted to the nursing program, students who interrupt their studies must confirm eligibility in writing to resume nursing courses by March 1 for continuation in the fall semester or October 1 for the spring semester.

Eligibility to apply

- A cumulative GPA of 2.75 or above on a 4.00 scale in general education and required courses for a Union College nursing major
- In progress or completion of required prerequisite courses with a grade of C or above

REQUIRED PREREQUISITES	SEMESTER HOURS
Anatomy and Physiology (with lab)	8
Intro to General, Organic and Biochemistry or equivalent general chemistry with lab (4)	4
Microbiology (with lab)	4
Developmental Psychology	3
Elementary Statistics	3
English (College Writing II)	3

Chemistry and College Writing II prerequisites must have been taken within the last five years. The Anatomy and Physiology, Elementary Statistics, Developmental Psychology and Microbiology prerequisites must have been taken in the last ten years.

A Test of English as a Foreign Language (TOEFL) is required for students whose native language is other than English. Regardless of prior college course

credit, the applicant must achieve an Internet score of 92 or a score of 580 on the Union College administrated TOEFL (not the essay portion).

Application Process

Completion of the NursingCAS application* due on February 1 for fall admission and September 1 for spring admission including:

- Two recommendation forms (a current or recent teacher at the collegiate level and employer/supervisor)
- Personal statement
- All high school and college transcripts
- Test of Essential Academic Skills (TEAS) exam* with a minimum achievement score of 64 in three attempts due on March 1 for fall admission and October 1 for spring admission
- A personal interview with members of the AAEC may be required.
- BSN Completion students, transfer nursing students, and students reapplying to the nursing program must complete a Nursing Program Director Recommendation form. Placement for LPN-BSN applicants will be determined using Assessment Technology Institute (ATI)* course assessments. A level 2 must be achieved on the ATI assessments to demonstrate content mastery and allow recognition of the course.

The AAEC recognizes practical and educational benefits of healthcare work experience. It is recommended that an applicant become a Certified Nursing Assistant (CNA) and have some level of clinical work experience prior to applying to the nursing program. Related clinical work experience that includes direct patient care and certification will benefit the applicant in the admission process.

Following acceptance to the nursing program students will need to complete:

- Payment of the \$250 confirmation fee
Following receipt of an acceptance letter from Union College Division of Nursing, students must notify the program of their intent to begin the nursing program within 2 weeks of the date of the acceptance letter by paying a confirmation fee of \$250 or the seat in the program will be forfeited.
- Physical Examination
Applicants are required to have a physical exam completed by a physician, nurse practitioner, or a physician assistant sent to the Union College Student Health office.
- Health Policy requirements
Nursing students are to comply with the minimum immunization guidelines established by the Union College Division of Nursing in collaboration with local healthcare facilities.
- All nursing students are required to carry personal health insurance which may be purchased through Student Services.

- Current American Heart Association for Healthcare Providers CPR certification (only)
- Satisfactory drug screen and background checks

* indicates an additional fee for student

Progression in the Nursing Program

Nursing courses are arranged in a progressive curriculum from concrete and simple to abstract and complex. Learning begins with conceptualization, then moves to application and, finally to the abstract and complex. To facilitate student learning, the nursing program has organized nursing course sequences by a progression pathway. Individual student academic plans may vary depending on entry point and courses accepted in transfer. A student's academic plan is developed with the assistance of a nursing program academic advisor.

Criteria for progression in the Nursing Program

- a grade of C (2.00) or above in all nursing, prerequisite and cognate courses;
- a cumulative GPA and nursing course GPA of 2.50;
- a grade of C (2.00) must be achieved in theory and a "pass" in the clinical component of each course;
- no nursing course may be attempted more than twice;
- a withdrawal from a nursing course after the Drop/Add date is considered a course attempt;
- failure of 2 nursing courses is considered a nursing program failure and the student will be withdrawn from the program;
- regular and prompt attendance at all classes and clinical appointments;
- compliance with Health Policy requirements including:
 - a complete physical examination including tuberculin skin test (TST) or chest x-ray, up-to-date immunizations, and vision and hearing assessment on admission to the Nursing Program;
 - Hepatitis B vaccination required prior to first clinical course;
 - Tuberculin skin test (TST) annually;
 - Influenza vaccination or declination annually;
- personal health insurance; and
- current American Heart Association for Healthcare Providers CPR certification (only).

Criteria for graduation and eligibility for state board licensure examination

The candidate for graduation from the Division of Nursing at Union College shall comply with the following:

- Achieve cumulative GPA of 2.50 or higher in all college level courses and an overall nursing GPA of 2.50 with no grade lower than a C (2.00) in nursing courses;
- Meet progression requirements as specified in the Nursing Student Handbook;
- Be in good standing with the nursing program; and
- Complete 65 credit hours of nursing courses.

The nursing program will notify the Nebraska State Board of Nursing when the graduate has met all graduation requirements. Graduation date and diploma conferral will occur according to Union College policy.

Program Specific Fee

In addition to regular college fees, a fee is assessed each semester for all students enrolled in the nursing program. These fees are published annually in the college's schedule of Scholarships, Tuition and Fees.

Early Admission Track

The Early Admission track guarantees admission to a limited number of high school seniors with excellent academic records. To qualify for Early Admission, students must meet traditional admission requirements and the following requirements detailed below.

High school eligibility requirements:

- Cumulative GPA of 3.67 or above on a 4.00 scale
- Minimum score of 24 on ACT; or 1650 on SAT
- Completion of the following prerequisite high school courses:
 - English—4 years
 - Math—3 years
 - Sciences—3 years
 - Social studies—3 years
- No repeated high school courses
- No pass/fail science courses
- No course below a "C"

Interested applicants will complete the Early Admission application prior to the April 1 deadline and the Division of Nursing will begin reviewing complete applications for fall admission. A personal interview with members of the AAEC will be required. Acceptance into the Nursing Program is provisional,

contingent upon satisfactory completion of all admission requirements. Applicants will be notified of their status by the Division of Nursing.

Requirements in college to maintain Early Admission:

- Cumulative GPA 3.67 or above on a 4.00 scale
- No pass/fail science courses
- No courses below a "C"
- Must be a full time student (at least 12 credit hours per semester) and follow advised curriculum

Failure to meet or maintain these requirements will result in the loss of guaranteed admission. Students may still apply for regular admission according to the Traditional Student Admission Policy.

Prior to entering nursing courses, the following requirements must be completed:

- Nursing program prerequisite courses
- Completion of NursingCAS application* including two recommendations (A current or recent teacher at the collegiate level, and an employer or supervisor)
- Personal Statement
- All college and high school transcripts
- Test of Essential Academic Skills** (TEAS) completed with an adjusted individual total score of 64 or above in three attempts

Upon completion of the requirements for the Early Admission track, students will continue in the acceptance process and complete the acceptance checklist consistent with traditional students entering the Nursing Program.

* fee paid by Division of Nursing for students accepted into the Early Admission Track

** indicates an additional fee for student

Bachelor of Science in Nursing (BSN) Completion Program

Licensed practical nurses (LPNs), diploma, and associate degree registered nurses (RNs) must hold requisite U.S. nursing licensure to apply. Progression in the baccalaureate nursing program must be completed on a full-time basis and completion must be within the five year allotted timeframe. Sequencing is varied for the BSN Completion Program and assumes that the student has completed prerequisites. Each applicant is evaluated for placement in the program and spots are based on space available. Applicants with any disciplinary action on their LPN or RN license are not eligible for admission to the nursing program.

LPNs and RNs who are admitted to the BSN Completion Program must transfer their previous nursing education courses to Union College and document successful completion of the NCLEX-LPN® or NCLEX-RN®.

Licensed Practical Nurse (LPN)—Bachelor of Science in Nursing (BSN) Curriculum

Licensed practical nurses will complete required medical-surgical courses and demonstrate content mastery through successful completion of corresponding ATI assessments for placement.* Regardless of prior education or experience, NURS 305 Physical Assessment and NURS 347 Nursing Program Integration must be completed at Union College. LPN-BSN students are eligible for credit for NURS 208 Fundamentals and NURS 334 Gerontology from their previous nursing education dependent on ATI placement and after successfully completing nine semester hours of NURS courses at Union College. Contact the Division of Nursing for curriculum tracks. NURS 311 Pathophysiology I, NURS 312 Pathophysiology II, and NURS 334 Gerontology may be transferred in with petition for course equivalence.

*indicates an additional fee for student

Registered Nurse (ADN or diploma)—Bachelor of Science in Nursing (BSN) Curriculum

Associate degree or diploma RNs who have graduated from an accredited nursing program are eligible to transfer up to 46 hours of credit for Physical Assessment, Fundamentals, Gerontology, Pathophysiology I and II, Pharmacology, Medical-Surgical I, II, and III, Maternal Child Health, Mental Health, and Transition to Professional Practice from their previous nursing education after successfully completing nine semester hours of NURS courses at Union College.

Non-United States educated RNs not licensed in the United States must pass standardized assessments for Fundamentals, Medical-Surgical, Maternal Child Health, Mental Health, and successfully validate clinical performance in nursing courses to receive credit for previous nursing education.

NURSING—BSN

Required courses—93 hours

Core

NURS 204	Introduction to Professional Nursing	3
or NURS 347	Nursing Program Integration (for BSN completion students only) (3)	
NURS 208	Fundamentals	6
NURS 243	Evidence-Based Practice (WR)	3
NURS 305	Physical Assessment	3

NURS 310	Pharmacology	3
NURS 311	Pathophysiology I	2
NURS 312	Pathophysiology II	2
NURS 321	Medical-Surgical I	6
NURS 322	Medical-Surgical II	6
NURS 334	Gerontology	2
NURS 383	Mental Health	3
NURS 415	Maternal Child Health	6
NURS 423	Medical-Surgical III	5
NURS 433	Disaster Nursing	2
NURS 453	Management and Leadership	3
NURS 474	Community Health (WR)	4
NURS 495	Transition to Professional Practice	2
NURS 499	Preceptorship	4
Cognates		
BIOL 111, 112	Human Anatomy and Physiology I and II	4, 4
BIOL 205	Microbiology	4
CHEM 104	Intro to General, Organic and Biochemistry	4
or CHEM 151	General Chemistry I (4)	
ENGL 112	College Writing II	3
MATH 221	Elementary Statistics and Probability	3
PSYC 215	Developmental Psychology	3
RELT 305	Christian Ethics	3
Recommended		
NURS 391	Global Health Nursing (2)	

In addition to the above requirements, the student will select other courses to fulfill the general education professional curriculum (see LEAD general education section). A minimum of 128 semester hours is necessary for a bachelor's degree at Union College (see graduation requirements section).

Physics

Mission

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

Goals

Students graduating from the physics program will be prepared to

- think logically and analytically;
- exhibit competence in understanding the application of physics principles;
- solve a variety of problems using standard techniques;
- value physics through an understanding of its historical context and its relationship to other sciences and connect knowledge about physics to other disciplines beyond the sciences;
- identify career options appropriate to their degree program that fit their strengths, both within and outside the physics field;
- value the power of physics and its application to societal needs and an understanding of God; and
- show competence as a scientist by conducting a personal research project including identification of an idea, experimental design, data collection and analysis, and both written and oral presentations.

Contact Information

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Faculty

Richard Webb

Academic Programs

Physics, BA

Physics, BS

Physics Education, BS—Secondary Subject Endorsement

Minor in Physics

Physics Core & Cognates—57 hours

Core

PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics I and II	4.5, 4.5
PHYS 296	Research Methods I	1
or BIOL/CHEM 296	Research Methods I (1)	
or MATH 221	Elementary Statistics and Probability (3)	
or MATH 331	Statistics and Probability (3)	
PHYS 350	Modern Physics (WR)	4
PHYS 351	Quantum Mechanics	4
PHYS 386	Research Methods II	1
or BIOL/CHEM 386	Research Methods II (1)	
PHYS 3000	Mechanics (at NWU)	4
or PHYS 413	Analytical Mechanics (at SAU)	
PHYS 3100	Electromagnetism and Optics (at NWU)	4
or PHYS 414 and 415	(at SAU)	

Cognates

CHEM 151, 152	General Chemistry I and II	4, 4
CPTR	An approved computer language course	3
MATH 184, 285, 286	Calculus I, II, III	4, 4, 4
MATH 385	Differential Equations	3

PHYSICS—BA

Union College offers its physics program in cooperation with Nebraska Wesleyan University (NWU) in Lincoln, Nebraska. Students seeking a bachelor's degree in physics must take at least two courses on the NWU campus or through the Adventist Education Alliance.

Required courses-60 hours

Physics Core & Cognates	57
PHYS	Approved PHYS Elective (at NWU)
	3

PHYSICS—BS

Required courses—66 hours

Physics Core & Cognates		57
PHYS 396	Research Methods III	1
PHYS 496	Research Methods IV (WR)	1
PHYS 4100	Thermal and Statistical Physics (at NWU)	4
or PHYS 412	Physical Chemistry: Thermodynamics (4)	
PHYS	Approved PHYS Elective (at NWU)	3

PHYSICS EDUCATION—BS

Secondary Subject Endorsement

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

- an understanding that the disciplines of physical science have a definite position in the society of today;
- an ability to demonstrate their observational, investigative competence in the successful completion of at least one experimental project;
- a competence in discussion of scientific problems in their field along with the ability to demonstrate impromptu reactions in drawing from their factual background; and
- an ability to construct at least one unit of study, including selection of audiovisual material, laboratory type activities and field trips; construction of a model or other demonstration equipment to emphasize some area of the unit; a study guide; and an evaluative instrument for the unit.

Required courses—117-119 hours

ASTR 111	Astronomy	4
BIOL 151, 152	General Biology I and II	4, 4
CHEM 151, 152	General Chemistry I and II	4, 4
CPTR	An approved computer language course	3
MATH 184, 285, 286	Calculus I, II, III	4, 4, 4
MATH 385	Differential Equations	3
PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics I and II	4.5, 4.5
PHYS 296	Research Methods I	1
or BIOL/CHEM 296	Research Methods I (1)	
or MATH 221	Elementary Statistics and Probability (3)	
or MATH 331	Statistics and Probability (3)	
PHYS 350	Modern Physics	4
PHYS 386	Research Methods II	1
or BIOL/CHEM 386	Research Methods II (1)	
PHYS 412	Physical Chemistry: Thermodynamics	4

Professional Education

EDUC 418	Methods: Science Education	3
Additional Professional Education		53

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

MINOR IN PHYSICS
Required courses—21 hours

PHYS 228	Electric Circuit Analysis	4
PHYS 251, 252	College Physics I and II	4.5, 4.5
PHYS 350	Modern Physics (WR)	4
	or PHYS 351 Quantum Mechanics (4)	
PHYS	Approved PHYS Elective	4

Pre-Allied Health and Preprofessional

Mission

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

Contact Information

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Faculty

Richard Clark, Lesa Kean, Corrairie McNeill, Seth McNeill, Salvador Moguel, Kenneth Osborn, Frankie Rose, Amy Utt, Richard Webb, Carrie Wolfe

Academic Program

Pre-Allied Health, AS

Union College offers many of the courses necessary to prepare students for admission to professional schools. In addition there are certain minimum requirements relative to secondary school and college credits.

Students interested in entering a professional school should acquaint themselves with the particular requirements of that school and should pattern their preprofessional courses to be taken at Union College in harmony with such requirements. Advisors in the Division of Science and Mathematics will help plan a program of study.

Allied Health programs are available in

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

Professional programs are available in

- Dentistry
- Medicine
- Pharmacy

PRE-ALLIED HEALTH—AS

Required courses—20 hours

HHPT 256	Medical Terminology	1
Select eight hours from 8		
BIOL 111, 112	Human Anatomy and Physiology I and II (4, 4)	
BIOL 151, 152	General Biology I and II (4, 4)	
BIOL 205	Microbiology (4)	
Select four hours from 4		
CHEM 104	Introduction to General, Organic and Biochemistry (4)	
CHEM 151	General Chemistry I (4)	
PHYS 111	Principles of Physics (4)	
PHYS 151	General Physics I (4)	
Select four additional hours from 4		4
BIOL 111, 112	Human Anatomy and Physiology I and II (4, 4)	
BIOL 151, 152	General Biology I and II (4, 4)	
BIOL 205	Microbiology (4)	
CHEM 101	Introduction to Inorganic Chemistry (4)	
CHEM 104	Introduction to General, Organic and Biochemistry (4)	
CHEM 151	General Chemistry I (4)	
CHEM 152	General Chemistry II (4)	
PHYS 111	Principles of Physics I (4)	
PHYS 151	General Physics I (4)	
PHYS 152	General Physics II (4)	
Select one course from PSYC or SOCI		3

Consult advisor for general education and elective courses. Students should consult with their advisor to verify that their program of study includes the requirements for the allied health major they wish to enter upon completion of Union's Associate of Science in pre-allied health.

Allied Health Professions—Andrews University

Andrews University offers a Doctor of Physical Therapy program. The first three years of pre-requisites may be taken at Union College.

Allied Health Professions—Loma Linda University

The Division of Science and Mathematics works with the Loma Linda University School of Allied Health Professions to offer educational programs in

- Dental Hygiene
- Nutrition and Dietetics, Dietetic Technology
- Occupational Therapy and Occupational Therapy Assistant

- Physical Therapy and Physical Therapy Assistant
- Radiation Therapy and Medical Radiography
- Respiratory Therapy

One year of studies at Union College is required prior to admission into programs leading to the Associate of Science degree and two years of studies are required prior to admission to the programs leading to the Bachelor of Science degree at Loma Linda University. Consult the appropriate sections of Loma Linda University bulletins for information on these programs.

Acceptance

In selecting students to clinical programs, the Admissions Committee looks for evidence of intellectual vigor, self-discipline, integrity and good health. Manual dexterity, aptitude in science, a sensitive concern for the sick and a capacity for unusual devotion and personal effort are essential.

Consideration is given first to applicants who are seeking to transfer from one of the colleges in the Seventh-day Adventist system of higher education. Other applicants are accepted as vacancies permit.

Application

For the Occupational Therapy and Physical Therapy programs, application should be made early in the school year prior to admission. Application deadlines for other programs are later. Students should consult their academic advisor or Andrews University or Loma Linda University for exact application information.

Dentistry—Loma Linda University

Application

Preference is given to applicants who will have completed the baccalaureate degree prior to starting dentistry. The Dental Admissions Test (DAT), taken within the last two years, and a minimum of three years (96 semester hours) of collegiate preparation along with a minimum of 50 hours of dental practice observation/shadowing 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 December 1 for entry into the next first-year dental class. Applicants are urged to take the DAT and complete their AADSAS application during the summer one year before their anticipated enrollment in dental school. Both AADSAS and DAT application forms and deadline information are available from the predental advisor.

Minimum Requirements for Admission (in terms of Union College courses)

BIOL 151, 152	General Biology I and II	4, 4
BIOL/CHEM 445	Biochemistry I	4
CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
ENGL 111, 112	College Writing I and II	3, 3

PHYS 151, 152	General Physics I and II	4, 4
or PHYS 251 and 252 College Physics I and II (4.5, 4.5)		
20 hours of observation		

CLEP and credit/no credit performances are not acceptable for the required courses. Prerequisites must be taken in the U.S or Canada. Science coursework completed at a four year school is preferred.

Strongly recommended electives include CHEM 446 Biochemistry II and BIOL 411 Advanced Human Anatomy. Other recommended electives include calculus, genetics, histology, management, and physiology.

Medicine—Loma Linda University

Application

Applicants are expected to obtain a baccalaureate degree from an accredited institution of higher education (United States or Canada) prior to matriculation. The degree can be in any field of study. No major field is given preference. A curriculum that includes the study of humanities, social sciences, and natural sciences is recommended to provide a solid preparation for the future role of physician. The Medical College Admissions Test (MCAT), taken within the last two years is required. Candidates should have demonstrated ability in the sciences.

Application to the Loma Linda University School of Medicine is made directly to the Association of American Medical Colleges through its application service (AMCAS). Applications are accepted from June 1 through November 1 for entry into the next first-year medical class. Applicants are urged to take the MCAT in the spring of the year of application and to have the basic requirements completed at the time of application. Both AMCAS and MCAT application forms and deadline information are available from the premedical advisor.

Minimum Requirements for Admission (in terms of Union College courses)

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

CLEP, pass/fail performances, and online classes are not acceptable for the required science courses.

Loma Linda University recommends courses in basic statistics, psychology, and sociology. Most successful medical school candidates will have studied additional courses taken from histology, biochemistry, anatomy, physiology, genetics, cell biology, and molecular biology.

Pharmacy—Loma Linda University

Application

Preference is given to applicants who will have completed the baccalaureate degree (preferably) in chemistry, biology, physics, or a related scientific field. The Pharmacy College Admission Test (PCAT) or Graduate Record Examination (GRE) is not required and is not considered in the application process. Candidates should have demonstrated ability in the sciences. It is highly recommended that applicants obtain volunteer or paid pharmacy work experience.

Application to the Loma Linda University School of Pharmacy begins with application to the Pharmacy College Application Service (PharmCAS). Applications are accepted from June 3 to November 1 for entry into the next first-year pharmacy class. Prerequisites must be completed by the end of Spring Term prior to entering pharmacy school.

Minimum Requirements for Admission (in terms of Union College courses)

BIOL 111	Human Anatomy and Physiology I	4
or BIOL 411	Advanced Human Anatomy (4)	
BIOL 151, 152	General Biology I and II	4, 4
BIOL 205	Microbiology	4
CHEM 151, 152	General Chemistry I and II	4, 4
CHEM 211, 212	Organic Chemistry I and II	4, 4
CHEM/BIOL 445	Biochemistry I	4
COMM 105	Public Speaking	2
or COMM 355	Advanced Speech and Oral Communication (3)	
ECON 235	Principles of Microeconomics	3
or ECON 236	Principles of Macroeconomics (3)	
MATH 184	Calculus I	4
PHYS 151, 152	General Physics I and II	4, 4
PSYC 105	Introduction to Psychology	3

CLEP credit is not accepted. Recommended additional courses: BIOL 112 Human Anatomy and Physiology II (or BIOL 416 Advanced Human Physiology), BIOL 306 Histology, BIOL 314 Immunology, BIOL 403 Molecular Biology and BIOL 404 Cell Biology.

Psychology

Mission

The psychology program at Union College prepares students to be seekers of knowledge, and thinkers who practice service to all humanity with a Christ-centered attitude.

Goals

On completion of the psychology program at Union College, graduates will be able to

Knowledge

- exhibit knowledge of major concepts and theoretical perspectives in the general field of psychology and its sub-fields;
- identify ways in which psychological research and application impact everyday functioning;

Skills

- carry out the research process;
- critically assess data and general information;
- be competitive applicants for graduate programs and/or professional placement

Values

- evaluate psychological theories from a Christian perspective;
- demonstrate interest, respect and concern for others, regardless of religion, race, gender, sexual orientation or any other differences;
- demonstrate an understanding of ethical behavior; and
- demonstrate increased self-understanding and insight into the behavior of others.

Contact Information

Trudy Ann Holmes-Caines or Melanie Gabbert
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www.ucollege.edu/psychology

Faculty

Melanie Gabbert, Trudy Ann Holmes-Caines

Adjunct Faculty

Richard Carlson

Academic Programs

Psychology, BS

Minor in Psychology

PSYCHOLOGY—BS

Required courses—48 hours

Core

PSYC 100	Careers in Psychology	.5
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 225	Psychology of Religion	3
PSYC 300	Career and Graduate School Preparation	.5
PSYC 337	History and Systems of Psychology (WR)	3
PSYC 340	Research Methods I	3
PSYC 341	Research Methods II (WR)	3
PSYC 475	Current Issues in Psychology	2
PSYC 476	Senior Research Project (WR)	3

Select five courses from the following two groups: 15

Select at least one course from

PSYC 315	Social Psychology (3)
PSYC 338	Cognitive Psychology (3)
PSYC 380	Biopsychology (3)

Select at least two courses from

PSYC 311	Introduction to Counseling Theory and Techniques (3)
PSYC 375	Theories of Personality (3)
PSYC 415	Abnormal Psychology (3)
PSYC 425	Human Sexuality (3)
PSYC 427	Clinical Assessment (3)
PSYC 450	Psychological Testing (3)

Cognates

Select at least nine additional hours from PSYC or SOCI electives 9

Recommended

PSYC 455	Internship (1-3)
SOCI 315	Marriage and Family (3)
SOCI 415	Crisis and Resilience (3)

Participate in department senior assessment.

Cognates

SOCI 105	Introduction to Sociology	3
SOCI 321	Issues of Diversity (WR)	3

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

PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 337	History and Systems of Psychology (WR)	3
Select 9 hours of approved PSYC electives (3 hours must be 300-400 level)		9

Religion

Mission

The religion program will prepare students for graduate studies leading to Christian service in a professional setting.

Goals

Students graduating from the religion program will be prepared to

- express an active faith in a life of Christian discipleship
- demonstrate knowledge of the Old and New Testaments;
- demonstrate substantial knowledge of the history, mission and theological beliefs of the Seventh-day Adventist church; and
- demonstrate the ability to apply biblical and ethical principles

Contact Information

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Faculty

Edward Allen, Robert Fetrick, Ben Holdsworth, Thomas Toews

Adjunct Faculty

Harold Alomia, Richard Carlson, Michael Halfhill, Stan Hardt, Michael Paradise,
Lena Toews

Academic Programs

Religion, BS

- Business
- Mission Service
- Pastoral Care

Religious Education, BS—Secondary Subject Endorsement

Social Media Ministry, BS

Minors

- Religion
- Social Media Ministry
- Youth Ministry

Religion Core & Cognates—45 hours

RELB 226	Old Testament Survey	3
or RELB 325	Prophets (3)	
RELB 246	Sanctuary and Salvation	3
RELB 250	Revelation	3
RELB 255	Jesus and the Gospels	3
RELB 335	New Testament Epistles	3
or RELB 260	Interpretation of Romans (3)	
RELB 348	Daniel (WR)	3
RELH 310	History of the Seventh-day Adventist Church (WR)	3
RELP 149	Dynamics of Christian Living	3
RELP 465	Personal Witnessing	3
RELT 141	Christian Beliefs	3
RELT 305	Christian Ethics	3
RELT 347	World Religions	3
RELT 455	Prophetic Guidance in the Advent Movements	3
Cognates		
HIST 220	World Antiquity	3
LEAD 225	Creative Leadership	3
or RELP 361	Church Leadership I (3)	

Requires a Business, Mission Service, or Pastoral Care emphasis, or a Biblical Languages minor, or a minor from another division

RELIGION—BS

Required courses—63 hours

Religion Core & Cognates	45
Minor	18

RELIGION—BS—Business Emphasis

This pre-professional program prepares students for graduate work in an MBA program with an opportunity for a career in Christian service such as a school or church business administrator.

Required courses—66-67 hours

Religion Core & Cognates		45
Business Cognates		
ACCT 211, 212	Principles of Accounting	3, 3
BUAD 376	Human Resource Management	3
or MRKT 327	Marketing (WR) (3)	
BUAD 430	Conflict Management	3
or BUAD 445	Business Law (4)	
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
MATH 221	Elementary Statistics and Probability	3
or MATH 165	Calculus for Managers (3)	

RELIGION—BS—Mission Service Emphasis

This program provides a strong biblical foundation for students to prepare for Christian service in mission work with frontier missions, and international development and relief ministries.

Required courses—56 hours

Religion Core & Cognates		45
Mission Service Cognates		
COMM 425	Intercultural Communication	3
UCSM 205	Introduction to Overseas Service	2
UCSM 490, 491	Student Mission Service I and II (6 and 3 non-credit)	0
UCSM 495	Student Mission Service III (3 elective hours only)	0

Additional required courses

____ 101, 102	Beginning Foreign Language	6
or two years of the same language in high school		

RELIGION—BS—Pastoral Care Emphasis

This pre-professional program enables students to pursue graduate studies and prepare for opportunities in Christian counseling careers such as an academy dean, guidance counselor, psychologist or marriage and family counselor.

Required courses—69 hours

Religion Core & Cognates		45
Pastoral Care Cognates		
COMM 465	Interpersonal Communication	3
PSYC 105	Introduction to Psychology	3
PSYC 215	Developmental Psychology	3
PSYC 225	Psychology of Religion	3

PSYC 311	Introduction to Counseling Theory and Techniques	3
PSYC 415	Abnormal Psychology	3
SOCI 105	Introduction to Sociology	3
SOCI 315	Marriage and Family	3

RELIGIOUS EDUCATION—BS

Secondary Subject Endorsement

Students graduating from the religious education program will be prepared for state and church certification for teaching biblical studies classes on the secondary level.

In addition to the general goals of the Division of Religion students graduating with this major will

- demonstrate substantial knowledge of the Old and New Testaments;
- demonstrate substantial knowledge of the history, mission and doctrinal beliefs of the Seventh-day Adventist church;
- demonstrate knowledge of Christian church history;
- apply skills in communicating biblical faith and values to adolescents through teaching, preaching, and personal evangelism; and
- be prepared to pursue graduate studies.

Required courses—81 hours

RELB 226	Old Testament Survey	3
or RELB 325	Prophets (3)	
RELB 246	Sanctuary and Salvation	3
RELB 250	Revelation	3
RELB 255	Jesus and the Gospels	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel (WR)	3
RELH 310	History of the Seventh-day Adventist Church (WR)	3
RELH 410	History of the Christian Church (WR)	4
RELP 235	Introduction to Youth Leadership	3
or RELP 335	Youth Leadership in the SDA Church(3)	
RELP 321	Biblical Preaching I	3
RELT 141	Christian Beliefs	3
RELT 455	Prophetic Guidance in the Advent Movements	3

Professional education

EDUC 415	Methods: Social Science and Religious Education	3
Additional Professional Education		41

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

SOCIAL MEDIA MINISTRY—BS

This major provides a strong biblical background united with courses that will enable a student to provide social media ministry and evangelism for churches, schools, conferences, and other organizations using existing and emerging social media tools.

Required courses—72 hours**Religion**

RELB 226	Old Testament Survey	3
or RELB 325	Prophets (3)	
RELB 246	Sanctuary and Salvation	3
RELB 250	Revelation	3
RELB 255	Jesus and the Gospels	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel (WR)	3
RELP 287	Tpc: Social Media Evangelism	3
RELP 321	Biblical Preaching I	3
RELP 361	Church Leadership I	3
or LEAD 225	Creative Leadership (3)	
RELT 141	Christian Beliefs	3
or RELT 205	Developing Christian Mind (3)	
RELT 305	Christian Ethics	3
RELT 347	World Religions	3
RELT 455	Prophetic Guidance in the Advent Movements	3

Communication

COEM 260	Writing in the Digital World	3
COEM 410	Digital Storytelling	3
COEM 440	Social Media Public Relations and Marketing	3
COMM 465	Interpersonal Communication	3
COPR 241	Public Relations Principles	3

Graphics

CPTR 245	Web Development Basics	3
GRPH 150	Introduction to Graphic Arts	3
GRPH 301	Web Design	3
PHOT 151	Introduction to Photography	3
or PHOT 225	Intermediate Photography (3)	

Marketing

MRKT 327	Marketing (WR)	3
MRKT ____	One upper division MRKT course	3

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

RELT 141	Christian Beliefs	3
or RELT 205	Developing the Christian Mind (3)	
RELT 455	Prophetic Guidance in the Advent Movements	3
RELB 348	Daniel (WR)	3
or RELB 250	Revelation (3)	

Select one New Testament course from	3
RELB 255 Jesus and the Gospels (3)	
RELB 335 New Testament Epistles (3)	
RELB260 Interpretation of Romans (3)	
Select one Old Testament course from	3
RELB 226 Old Testament Survey (3)	
RELB 246 Sanctuary and Salvation (3)	
RELB 325 Prophets (3)	
Select one additional course from RELB, RELH, RELP, RELT	3

MINOR IN SOCIAL MEDIA MINISTRY

Required courses—19 hours

COMM 125	Media and Meaning	3
COMM 290	Sophomore Seminar	1
COMM 465	Interpersonal Communication	3
GRPH 150	Introduction to Graphic Arts	3
RELP 287	Tpc:Social Media Evangelism	3
Select six hours from: (3 hours must be 300 or 400 level)		6
COEM 260	Writing in the Digital World (3)	
COEM 324	Web Research and Analytics (3)	
COEM 362	Interacting with an Online Audience (3)	
COEM 410	Digital Storytelling (3)	
COJR 221	Reporting (WR) (3)	
COJR 245	Editing (3)	
COJR 457	Magazine Writing (WR) (3)	
COMM 425	Intercultural Communication (3)	
COPR 241	Public Relations Principles (3)	
COPR 316	Advertising Practices (3)	
COPR 445	Public Relations Campaigns (3)	
GRPH 254	Publication Design (3)	
PHOT 141	Introduction to Photography (3)	

MINOR IN YOUTH MINISTRY

Youth ministry is an enhancing minor to be combined with a major such as theology or secondary education, for those who would like additional training in counseling and specific youth ministry techniques.

Required courses—18 hours

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

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

Social Science

Goals

Students graduating with a degree in social science will have

- a knowledge of U.S. history and politics;
- preparation for graduate and 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
- an awareness from a Christian perspective regarding the problems of political societies and their 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; and
- questionnaires given to alumni who earned majors from the humanities division, including social science majors.

Contact Information

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Faculty

Christopher Banks, Benjamin Tyner

Academic Programs

Social Science, BA

Social Science Education, BS—Secondary Field Endorsement

Minors

- Pre-Law
- Social Science

SOCIAL SCIENCE—BA

Required courses—39 hours

ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
HIST 157	The West in the World	3
HIST 255	The U.S.: Discovery to Civil War	3
HIST 383	The North Atlantic: War and Peace 1900s	3
HIST 386	Economic History of the United States	3
HIST 497	Historiography (WR)	3
PHIL 335	Introduction to Philosophy	3
PLSC 105	Introduction to International Relations	3
PLSC 208	American Politics	3
PSYC 340	Research Methods I	3
PSYC 341	Research Methods II (WR)	3
SOCI 105	Introduction to Sociology	3

SOCIAL SCIENCE EDUCATION—BS

Secondary Field Endorsement

The teaching major in social science is designed to prepare candidates for secondary teaching by providing them with

- a general knowledge of American and world history;
- a basic knowledge that would enable students to go into advanced training such as law, teaching or other professional fields;
- an understanding of political theory as exemplified in the political process of the governments of the United States and other nations;
- a knowledge of the social problems of the modern community through courses in sociology, geography, economics and psychology;
- the basic skills to undertake independent study and research, which include a technical vocabulary, effective use of a library, the ability to analyze documents and to write fluently;
- an awareness of the Christian perspective toward the problems of society and its environment; and
- 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: economics, geography, history, political science, psychology, and sociology.

The hours shall be distributed as follows:

- A minimum of 24 hours in history; and
- A minimum of 6 hours in five remaining areas (ECON, GEOG, PLSC, PSYC, SOCI)

Required courses—113 hours

Economics—6 hours

ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3

Geography—6 hours

GEOG 137	Introductory Geography	3
GEOG 227	World Regional Geography	3

History—24 hours

HIST 157	The West in the World	3
HIST 255	The U.S.: Discovery to Civil War	3
HIST 497	Historiography (WR)	3
HIST	World-European history electives	6-9
HIST	American history electives	6-9

Political Science—6 hours

PLSC 208	American Politics	3
PLSC 460	Global Political Economy and International Labor	3

Psychology—6 hours

PSYC 215	Developmental Psychology	3
PSYC	Psychology Elective	3

Sociology—6 hours

SOCI 105	Introduction to Sociology	3
Sociology elective (choose one below)		3
SOCI 210	Group Dynamics (3)	
SOCI 220	Social Dimensions of Disasters (3)	
SOCI 315	Marriage and Family (3)	
SOCI 321	Issues of Diversity (3)	

Approved Electives—6 hours

Approved electives from:	6	
ANTH, ECON, GEOG, PLSC, PSYC, or SOCI		
Professional education		
EDUC 415	Methods: Social Science and Religious Education	3
Additional Professional Education		50
(See Education-Secondary Education Endorsements)		

MINOR IN PRE-LAW

The pre-law minor allows 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, 12 of which must be 300-400 level distributed as follows:

Required courses—18-34 hours

(12 hours must be 300-400 level)

Writing and Communication 3-9

COPR 332 Rhetoric (WR) 3

Select 0-6 hours from

 COMM 355 Advanced Speech and Oral Interpretation (3)

 COMM 465 Interpersonal Communication (3)

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

History and Political Science 3-9

HIST 386 Economic History of the United States 3

 or PLSC 208 American Politics (3)

 or PLSC 460 Global Political Economy and International Labor (3)

Select 0-6 hours from HIST and PLSC not chosen above

Sociology and Philosophy 0-6

PHIL 335 Introduction to Philosophy (3)

SOCI 321 Issues of Diversity (WR) (3)

Business, Economics and Marketing 3-10

BUAD 445 Business Law 3

Select 0-6 hours from

 BUAD 425 Business Communications (WR) (3)

 BUAD 430 Conflict Management (3)

 ECON 236 Principles of Macroeconomics (3)

 MRKT 333 Professional Selling (3)

MINOR IN SOCIAL SCIENCE

Required course—18 hours

HIST 157 The West in the World 3

HIST 255 The U.S.: Discovery to Civil War 3

HIST History electives (300 level or above) 3

Select three hours each from three of the following fields: 9

 Economics, geography, political science, and sociology.

Social Work

The social work program prepares students for entry-level generalist social work practice and graduate-level education. The program trains and educates people from all walks of life to be empowering agents of healing and change for individuals, families and communities. Students who successfully complete this program, which is accredited by the Council on Social Work Education, receive a Bachelor of Social Work (B.S.W.) degree.

Mission

With a foundation of Christian values, the social work program at Union College trains students to be competent general practitioners; empowering agents of healing and change for individuals, families and communities; and professionals who value service, social justice, human rights and self-determination.

Goals

Students graduating from the social work program will develop critical thinking skills with a broad liberal arts foundation and be prepared to

- demonstrate ethical and professional behavior;
- engage diversity and difference in practice;
- advance human rights and social, economic, and environmental justice;
- engage in research-informed practice and practice-informed research;
- engage in policy practice engage, assess, intervene, and evaluate practice with individuals, families, groups, organizations, and communities; and
- enter graduate social work programs with advanced standing.

For complete list of program goals, see the Union College social work web page at: www.ucollege.edu/socialwork or the social work program manual.

Contact Information

Shawna Herwick, Social Work Program Director
Dick Building, Room 406D
402.486.2522
shherwic@ucollege.edu
www.ucollege.edu/socialwork

Faculty

Jody Detwieler, Shawna Herwick

Academic Program

Social Work, BSW

SOCIAL WORK-BSW

Required courses—63 hours

Core

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 and Practice	3
SOWK 336	Social Work Practice I	3
SOWK 337	Social Work Practice II	3
SOWK 345	Social Work in Healthcare	3
SOWK 390	Research Seminar	2
SOWK 405	Social and Economic Justice (WR)	3
SOWK 415	Crisis and Resilience	3
SOWK 437	Social Work Practice III	3
SOWK 475	Field Practicum	12

Cognates

PSYC 105	Introduction to Psychology	3
PSYC 340	Research Methods I	3
PSYC 341	Research Methods II (WR)	3
SOCI 105	Introduction to Sociology	3
SOCI 321	Issues of Diversity (WR)	3

Select three hours from 3

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

Theology

Mission

The theology program will prepare students for gospel ministry in the Seventh-day Adventist Church.

Goals

Students graduating from the theology program will be prepared to

- express an active faith in a life of Christian discipleship;
- cultivate proficiency in Biblical languages;
- demonstrate competency in the knowledge and interpretation of the Bible;
- apply skills of pastoral ministry in preaching, personal and public evangelism, and interpersonal dynamics;
- demonstrate substantial knowledge of the history, mission and theological beliefs of the Seventh-day Adventist church;
- demonstrate knowledge of Christian theology and church history;
- demonstrate the ability to interpret and apply biblical and ethical principles; and
- express an active faith in a life of Christian discipleship.

Contact Information

Robert Fetrick, Chair, Division of Religion
Sandy Tallman, Office Manager
Dick Building, Room 412
402.486.2526
rofetric@ucollege.edu
www.ucollege.edu/religion-division

Faculty

Edward Allen, Robert Fetrick, Ben Holdsworth, Thomas Toews

Adjunct Faculty

Harold Alomia, Richard Carlson, Michael Halfhill, Stan Hardt, Michael Paradise, Lena Toews

Academic Programs

Theology, BA
Minor in Biblical Languages

Candidacy for Ministry

A call to gospel ministry is a divine calling from God, affirmed by the church, and demonstrated in the practical skills of ministry. This calling develops a high level of spiritual commitment and an exemplary lifestyle. The Bachelor of Arts degree with a theology major helps to prepare students to fulfill their call to gospel ministry. Because ministry involves more than the completion of a course of study, the Division of Religion has established a program of candidacy for ministry. Participation in the candidacy program includes:

- Freshman year—In Introduction to Ministry class, students begin the religion division portfolio.
- Sophomore year—In the second semester of the sophomore year, students formally apply for candidacy to ministry. In evaluating applicants, faculty will consider spiritual commitment, academic progress, emotional stability, and social and professional skills in order to determine the student's overall potential for success in ministry. Transfer students with sophomore standing or above must apply to enter the candidacy program during the second semester of their college residency.
- Junior year—In Biblical Preaching and Church Leadership classes, students are assigned to serve in local congregations for two years.
- Senior year—Students will participate in the capstone Leadership in Ministry experience
- Completion of the Bachelor of Arts degree with a major in theology with a cumulative GPA of 2.5 is required for recommendation to seminary.

If after being admitted into the candidacy program a student fails to meet the criteria of a candidate for ministry, the candidate forfeits the standing and privilege of being recommended for pastoral ministry.

THEOLOGY—BA

The general education requirement RELT 141 Christian Beliefs is met by RELT 337 Christian Theology I and RELT 338 Christian Theology II. The language requirement is met by the required Biblical languages minor.

Required courses—78 hours

Core

RELB 250	Revelation	3
RELB 255	Jesus and the Gospels	3
RELB 326	Old Testament Survey	3
RELB 335	New Testament Epistles	3
RELB 348	Daniel (WR)	3
RELH 310	History of the Seventh-day Adventist Church (WR)	3

RELH 410	History of the Christian Church (WR)	4
RELP 125	Introduction to Pastoral Ministry	2
RELP 321, 322	Biblical Preaching I and II	3, 3
RELP 361, 362	Church Leadership I and II	3, 3
RELP 465	Personal Witnessing	3
or RELP 466	Public Evangelism (3)	
RELP 490	Senior Seminar	1
RELT 305	Christian Ethics	3
RELT 337, 338	Christian Theology I and II	3, 3
RELT 455	Prophetic Guidance in the Advent Movements	3

Cognates

Biblical Languages Minor (see below)		20
PSYC 105	Introduction to Psychology	3
PSYC 311	Introduction to Counseling Theory and Techniques	3
or COMM 465	Interpersonal Communication (3)	

Additional courses recommended

EDUC 218	Philosophy of Education (3)
FNCE 215	Personal Finance (3)
LITR 366	Biblical Literature (WR) (3)
RELB 246	Sanctuary and Salvation (3)
SOCI 315	Marriage and Family (3)

MINOR IN BIBLICAL LANGUAGES

Required courses—20 hours

RELL 171, 172	New Testament Greek I and II	4, 4
RELL 273, 274	New Testament Greek III and IV	3, 3
RELL 385, 386	Biblical Hebrew I and II	3, 3

Union Scholars

Original Track

Program Requirements—49-57 hours

Baccalaureate degrees require a minimum of 49 (55 for Bachelor of Arts) hours of general education courses (Honors Concentration and General Concentration).

Honors Concentration—29 hours

Core—12 hours

HONS 125	Western Culture I	3
HONS 126	Western Culture II	3
HONS 215	Self and Society (WR)	3
HONS 325	Science and Religion (WR)	3

Seminars—10 hours

HONS 294	Economics, Religion, and Poverty	1
HONS 335	Wealth and Poverty	3

Select two of the following seminars: 6

(Students may take no more than one Topics course to fulfill this requirement.)

HONS 245 Freedom and Responsibility (WR) (3)

HONS 265 Conflict and Peacemaking (3)

HONS 287 Topics (3)

HONS 345 The Global Environment (3)

HONS 376 Critiquing Film in a Global Context (3)

Research—6-7 hours

HONS 112	Research and Composition	3
HONS 398	Research Methods	2
HONS 498	Honors Thesis	2

(HONS 398 and 498 waived for history majors. An oral and poster presentation is given to meet Scholars standards.)

General Concentration—20-28 hours

Core—1 hour

CORE 108	Connections	1
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(Required for all freshmen and transfer students with less than 24 hours)

Religion—6 hours

RELT 141	Christian Beliefs	3
or RELT 205	Developing the Christian Mind (3)	
RELB course	3	
or HONS 360	Romans in Context (3)	

Communication—3-5 hours

ENGL 111	College Writing I	3
COMM 105	Public Speaking	2
(The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.)		

Science—4 hour

Select a science laboratory course from		
BIOL 151, CHEM 151 or PHYS 151		4

Mathematics—3 hours

MATH 121 or above	3
(MATH 221 recommended)	

Health and Human Performance—3 hours

HHPA 155	Concepts of Wellness	2
HHPA	Activity course	1

Foreign Language (Required for BA degree only)—6 hours

Beginning foreign language	3, 3
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Biomedical Science Track

Program Requirements—40-42 hours

Baccalaureate degrees in the Biomedical Science track require a 40-42 hours of general education courses (Honors Concentration and General Concentration) beyond the requirements of the major.

Honors Concentration—27 hours

Core—12 hours

HONS 125	Western Culture I	3
HONS 126	Western Culture II	3
HONS 215	Self and Society (WR)	3
HONS 325	Science and Religion (WR)	3

Seminars—10 hours

HONS 294	Economics, Religion, and Poverty	1
HONS 335	Wealth and Poverty	3

Select two of the following seminars: 6

(Students may take no more than one Topics course to fulfill this requirement.)

HONS 245	Freedom and Responsibility (WR) (3)
HONS 265	Conflict and Peacemaking (3)
HONS 287	Topics (3)
HONS 345	The Global Environment (3)
HONS 376	Critiquing Film in a Global Context (3)

Research—5 hours

HONS 112	Research and Composition	3
BIOL 396	Research Methods III	1
BIOL 496	Research Methods IV (WR)	1

An oral and poster presentation is given to meet Scholars standards.

General Concentration—13-15 hours**Core—1 hour**

CORE 108	Connections	1
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(Required for all freshmen and transfer students with less than 24 hours)

Religion—6 hours

RELT 141	Christian Beliefs	3
or RELT 205	Developing the Christian Mind (3)	
RELB course	3	
or HONS 360	Romans in Context (3)	

Communication—3-5 hours

ENGL 111	College Writing I	3
COMM 105	Public Speaking	2

(The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.)

Health and Human Performance—3 hours

HHPA 155	Concepts of Wellness	2
HHPA Activity course	1	

Psychology Track**Program Requirements—42-44 hours**

Baccalaureate degrees in the Psychology track require a 42-44 hours of general education courses (Honors Concentration and General Concentration) beyond the requirements of the major.

Honors Concentration—22 hours**Core—9 hours**

HONS 125	Western Culture I	3
HONS 126	Western Culture II	3
HONS 325	Science and Religion (WR)	3

Seminars—10 hours

HONS 294	Economics, Religion, and Poverty	1
HONS 335	Wealth and Poverty	3
Select two of the following seminars:		6

(Students may take no more than one Topics course to fulfill this requirement.)

HONS 245	Freedom and Responsibility (WR) (3)
HONS 265	Conflict and Peacemaking (3)
HONS 287	Topics (3)
HONS 345	The Global Environment (3)
HONS 376	Critiquing Film in a Global Context (3)

Research—3 hours

HONS 112	Research and Composition	3
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An oral and poster presentation is given to meet Scholars standards.

General Concentration—20-22 hours

Core—1 hour

CORE 108	Connections	1
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(Required for all freshmen and transfer students with less than 24 hours)

Religion—6 hours

RELT 141	Christian Beliefs	3
or RELT 205	Developing the Christian Mind (3)	
RELB course	3	
or HONS 360	Romans in Context (3)	

Communication—3-5 hours

ENGL 111	College Writing I	3
COMM 105	Public Speaking	2

(The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.)

Science—4 hours

Select a science laboratory course from BIOL 151, CHEM 151 or PHYS 151		4
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Mathematics—3 hours

MATH 121 or above		
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(MATH 221 recommended)

3

Health and Human Performance—3 hours

HHPA 155	Concepts of Wellness	2
HHPA Activity course	1	

IRR Pre-Professional Emphasis Track

Program Requirements—36-38

Baccalaureate degrees in the IRR-PreProfessional Emphasis, Pre-Med track require a 38-39 hours of general education courses (Honors Concentration and General Concentration) beyond the requirements of the major in the total of 128 hours.

Honors Concentration—29 hours

Core—12 hours

HONS 125	Western Culture I	3
HONS 126	Western Culture II	3
or any HONS Seminar (3)		
HONS 215	Self and Society (WR)	3
HONS 325	Science and Religion (WR)	3

Seminars—10 hours

HONS 294	Economics, Religion, and Poverty	1
HONS 335	Wealth and Poverty	3
Select two of the following seminars:		6

(Students may take no more than one Topics course to fulfill this requirement.)

HONS 245	Freedom and Responsibility (WR) (3)
HONS 265	Conflict and Peacemaking (3)
HONS 287	Topics (3)
HONS 345	The Global Environment (3)
HONS 376	Critiquing Film in a Global Context (3)

Research—7 hours

HONS 112	Research and Composition	3
HONS 398	Research Methods	2
HONS 498	Honors Thesis	2

General Concentration—7-9 hours

Core—1 hour

CORE 108	Connections	1
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(Required for all freshmen and transfer students with less than 24 hours)

Religion—3 hours

RELT 141	Christian Beliefs	3
or RELT 205	Developing the Christian Mind (3)	

Communication—3-5 hours

ENGL 111	College Writing I	3
COMM 105	Public Speaking	2

(The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.)

Nursing Track

Program Requirements—35-37 hours

Baccalaureate degrees in the Nursing track require a minimum of 35-37 hours of general education courses (Honors Concentration and General Concentration) beyond the requirements of the major.

Honors Concentration—23 hours

Core—12 hours

HONS 125	Western Culture I	3
HONS 126	Western Culture II	3
or any HONS Seminar (3)		
HONS 215	Self and Society (WR)	3
HONS 325	Science and Religion (WR)	3

Seminars—10 hours

HONS 294	Economics, Religion, and Poverty	1
HONS 335	Wealth and Poverty	3
Select two of the following seminars:		6

(Students may take no more than one Topics course to fulfill this requirement.)

HONS 245	Freedom and Responsibility (WR)(3)
HONS 265	Conflict and Peacemaking (3)

HONS 287	Topics (3)	
HONS 345	The Global Environment (3)	
HONS 376	Critiquing Film in a Global Context (3)	

Research—1 hour

HONS 498	Honors Thesis	1
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An oral and poster presentation is given to meet Scholars standards.

General Concentration—12-14 hours

Core—1 hour

CORE 108	Connections	1
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(Required for all freshmen and transfer students with less than 24 hours)

Religion—6 hours

RELT 141	Christian Beliefs	3
or RELT 205	Developing the Christian Mind (3)	
RELB course	3	
or HONS 360	Romans in Context (3)	

Communication—3-5 hours

ENGL 111	College Writing I	3
COMM 105	Public Speaking	2

(The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.)

Health and Human Performance—2 hours

HHPA credits	2
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Biology (Bachelor of Science) Track

Program Requirements—35-37 hours

Baccalaureate degrees in the Biology track require a 37-42 hours of general education courses (Honors Concentration and General Concentration) beyond the requirements of the major in the total of 128 hours.

Honors Concentration—22 hours

Core—9 hours

HONS 125	Western Culture I	3
HONS 126	Western Culture II	3
HONS 215	Self and Society (WR)	3

Seminars—10 hours

HONS 294	Economics, Religion, and Poverty	1
HONS 335	Wealth and Poverty	3

Select two of the following seminars: 6

(Students may take no more than one Topics course to fulfill this requirement.)

HONS 245 Freedom and Responsibility (WR) (3)

HONS 265 Conflict and Peacemaking (3)

HONS 287 Topics (3)

HONS 345 The Global Environment (3)

HONS 376 Critiquing Film in a Global Context (3)

Research—3 hours

HONS 112 Research and Composition 3

An oral and poster presentation is given to meet Scholars standards.

General Concentration—15 hours

Core—1 hour

CORE 108 Connections 1

(Required for all freshmen and transfer students with less than 24 hours)

Religion—6 hours

RELT 141 Christian Beliefs 3

or RELT 205 Developing the Christian Mind (3)

RELB course 3

or HONS 360 Romans in Context (3)

Communication—3-5 hours

ENGL 111 College Writing I 3

COMM 105 Public Speaking 2

(The COMM 105 requirement will be waived for students who take HONS 245 Freedom and Responsibility.)

Health and Human Performance—3 hours

HHPA 155 Concepts of Wellness 2

HHPA Activity course 1

Course Descriptions

DISCIPLINE	PREFIX	PAGE	DISCIPLINE	PREFIX	PAGE
Accounting	ACCT	227	International Rescue and Relief	INRR	267
Art	ART	229	Leadership	LEAD	270
Astronomy	ASTR	231	Literature	LITR	271
Biology	BIOL	231	Mathematics	MATH	272
Biomedical Science	BIOM	236	Marketing	MRKT	276
Business Analytics	BSAN	236	Music Applications	MUAP	276
Business Administration	BUAD	236	Music Education	MUED	277
Chemistry	CHEM	238	Music History and Literature	MUHL	278
Communication			Music Theory	MUTH	281
Drama	CODR	241	Nursing	NURS	282
Emerging Media	COEM	241	Physician Assistant Studies	PHAS	285
Communication	COMM	242	Philosophy	PHIL	289
Public Relations	COPR	243	Photography	PHOT	289
Core	CORE	244	Physics	PHYS	290
Computing	CPTR	244	Political Science	PLSC	292
Economics	ECON	247	Psychology	PSYC	293
Education	EDUC	247	Religion		
English	ENGL	252	Biblical Studies	RELB	295
Engineering	ENGR	254	Religious Studies	RELH	296
Finance	FNCE	255	Biblical Languages	RELL	297
Foreign Language Studies	LANG	255	Professional Training	RELP	297
Geography	GEOG	256	Theological Studies	RELT	299
Graphic Design	GRPH	256	Science	SCNC	299
Health and Human			Sociology	SOCI	300
Performance			Social Work	SOWK	301
Activity	HHPA	258	Spanish	SPAN	302
Theory	HHPT	260	Teaching Learning Center	TLCM	303
Varsity	HHPV	263	Union College		
History	HIST	263	Student Mission Service	UCSM	303
Humanities	HMNT	265	Task Force Service	UCTF	303
Honors—Union Scholars	HONS	265			

Course Descriptions for Topics and Directed Studies

In addition to the courses described in this section, Topics and Directed Study courses are available for most disciplines. These and practicum courses that are not regularly listed in the class schedule require special procedures and division approval before they can be taken. Forms with instructions for enrolling in these classes may be obtained from the Records Office.

Topics, Directed Readings and Directed Study courses are generally described as follows: (In actual practice a specific discipline prefix will be used.)

___ 195 Directed Readings 1

Designed for students needing a lower division credit by summarizing assigned readings. Written approval of the division chair is required before registration for Directed Readings courses.

___ 287 Topics 1-3

Designed for students needing a lower division course not listed in the regular course offerings. Written approval of the division chair is required before registration for Topics courses.

___ 295 Directed Study 1-3

Designed for students doing library research or other special projects at the lower division level under faculty supervision. Written approval of the division chair is required before registration for Directed Studies courses.

___ 487 Topics 1-3

Designed for students needing an upper division course not listed in the regular course offerings. Written approval of the division chair is required before registration for Topics courses.

___ 495 Directed Study 1-3

Designed for students doing library research or other special projects at the upper division level under faculty supervision. Written approval of the division chair is required before registration for Directed Studies courses.

Accounting

ACCT 211 Principles of Accounting 3

An introduction to the basic principles of accounting. Students learn basic techniques for organizing and presenting financial data, using generally accepted accounting principles. Upon completion of this course, the students will be able to set up and maintain accounting records and prepare basic financial statements (Income Statement, Owner's Equity Statement, and Balance Sheet). *Fall semester.*

ACCT 212 Principles of Accounting 3

Prerequisite: ACCT 211 with a minimum grade of C

A continuation of ACCT 211 with additional discussion of basic accounting principles. Students gain further experience in setting up and maintaining basic accounting records, as well as preparing financial statements (including the statement of cash flows) with coverage of corporations and partnerships. Financial statement analysis is also introduced. *Spring semester.*

ACCT 313 Intermediate Accounting**4**

Prerequisite: ACCT 212 with a minimum grade of C

Covers accounting principles involved in the preparation and interpretation of financial statements. Topics include cash, receivables, inventory, property, depreciation, intangible assets and current liabilities. Accounting research using the FASB Codification, and International Financial Reporting Standards (IFRS) are also introduced. *Fall semester.*

ACCT 314 Intermediate Accounting**4**

Prerequisite: ACCT 313 with a minimum grade of C

A continuation of ACCT 313. Students learn to apply and understand generally accepted accounting principles for the following areas: long-term liabilities, corporate equity, earnings per share, investments, deferred income taxes, pensions, leases, revenue recognition and the statement of cash flows. *Spring semester.*

ACCT 315 Federal Income Tax - Individual**3**

An introductory course in U.S. income taxation of individuals. Upon successful completion of this course the student will have a fundamental understanding of the tax laws and regulations affecting individuals. The class focuses on preparation of a variety of income tax returns allowing the student to become acquainted with various scenarios common in the public accounting tax world. *Fall semester.*

ACCT 316 Federal Tax - Corporate, Partnership and Fiduciary**3**

Recommended preparation: ACCT 315

Study of U.S. income taxation of corporations, partnerships, estates, and trusts. Examines the federal internal revenue code and income tax regulations as they apply to basic federal gift and estate tax principles, corporation and partnership formation and operation, and the restructuring of organizations. Emphasizes tax planning, including the timing of transactions, the election of methods when alternative tax methods are available, and other means to minimize the impact of taxation. *Spring semester.*

ACCT 325 Cost and Managerial Accounting**3**

Prerequisites: ACCT 212 with a minimum grade of C

Students learn the uses of accounting information by managers in directing internal affairs of business organizations. Emphasizes: planning and controlling routine operations; non-routine decisions, policy-making and long-range planning; and inventory valuation and income determination. *Spring semester.*

ACCT 335 Accounting Information Systems**3**

Prerequisite: ACCT 211 with a minimum grade of C

Study of the concepts of accounting information systems, especially those pertaining to managerial decision-making and internal control. Students are provided with hands-on experience in setting up and operating commercial accounting software packages. *Spring semester.*

ACCT 443 Governmental and Not-for-Profit Accounting**3**

Prerequisite: ACCT 314

Study of fund accounting according to GASB principles for governmental entities, as well as FASB principles related to not-for-profit organizations. Financial statement reporting requirements under both models are also studied. *Fall semester.*

ACCT 449 Advanced Accounting**3**

Prerequisite: ACCT 314 with a minimum grade of C

Accounting principles and financial statement concepts as they relate to business combinations, partnerships and international transactions. *Fall semester.*

ACCT 455 Auditing**4**

Prerequisite: ACCT 313 with a minimum grade of C; ACCT 314 preferred

Study of generally accepted auditing standards and rules of professional conduct as they relate to planning an audit, performing tests of controls and substantive tests, and issuing audit reports. Students will complete a case-study audit. *Spring semester.*

ACCT 475 Internship in Accounting**1-3**

Prerequisites: Junior or senior standing and permission of division chair

Real-life experiences in a wide variety of settings providing creative and conventional hands-on learning opportunities. 90 hours of work are required for each hour of credit.

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. Students demonstrate a basic ability in such drawing media as pencil, ink, scratchboard, watercolor, conte crayon, charcoal and pastel. Figures, animals, landscape and still-life objects constitute the subject matter to be drawn. *Fall semester.*

ART 115 Design I**2**

Principles of design such as proportion, balance, rhythm, emphasis and unity are studied together with elements of design such as line, form, space, time, movement, texture, light and color. Projects are done in a variety of media. *Fall semester, odd years.*

ART 125 Oil Painting**2**

Exploration of the basic techniques and elements of painting in oil. Students demonstrate their mastery of such principles as style, line, color, texture, value and composition in a variety of paintings. May be repeated for additional credit. *Fall/spring semesters.*

ART 135 Pottery**2**

Introduction to ceramics by addressing clays, glazes, kilns and firing. Construction methods such as pinch, coil and slab are learned. Students develop a working vocabulary of ceramics tools, equipment and materials. Attention is given to form and function of individualized projects. *Fall/spring semesters.*

ART 145 Watercolor**2**

Beginning techniques and mechanics in working with watercolor as a transparent medium are stressed. A series of exercises is used for this purpose. Various techniques of watercolor painting are demonstrated in finished paintings. May be repeated for additional credit. *Fall/spring semesters.*

ART 215 School Art**2**

An exploration of the theory and practice of teaching art to children. Discussions and readings constitute a portion of the study. Students explore various media, resulting in a body of both two- and three-dimensional projects appropriate for teaching art in K-12 educational settings. *Fall semester.*

- ART 225 Color Theory** 2
Prerequisite: GRPH 150 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, odd years.*
- ART 235 Drawing II** 2
Prerequisite: ART 105 or permission of instructor
A focus on composition in drawing includes a variety of subject matter, media and expression. Principles of design such as proportion, balance, rhythm, emphasis and unity are studied, together with elements such as line, form, space, time, movement, texture, light and color. *Spring semester, even years.*
- ART 245 Sculpture** 2
An exploration of media suitable for sculpture such as clay, wood, paper, plastic, plaster, stone, or metal. Emphasis is given to construction methods while allowing individual expression of three-dimensional design principles. *Fall semester, even 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, even years.*
- ART 321 European Art History (WR)** 3
Prerequisite: HIST 160 or 161 or permission of the instructor
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, even years.*
- ART 322 American Art History (WR)** 3
A history of American art from the art of Native Americans to the present. Attention is given to a conceptual understanding of stylistic movements in America while emphasis is on individual painters and their specific works. *Fall semester, odd 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, even years.*
- ART 445 Illustration Techniques II** 2
Prerequisites: ART 105 or 145 or permission of instructor
Advanced concepts of illustration focusing on a variety of techniques and the development of a personal style. *Spring semester, odd years.*
- 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 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. *Fall/spring semesters.*
- ART 485 Senior Exhibit** 1
The final event in an art major's college experience. Students exhibit a body of works, and develop a statement of philosophy and a résumé. *Fall/spring semesters.*

Astronomy

ASTR 111 Astronomy

4

Prerequisite: A knowledge of high school Algebra and fulfillment of MATH general education requirement

An introduction for the general student to the basic elements of astronomy. Emphasizes the development of scientific ideas and models for the structure and contents of the universe. Laboratory activities emphasize personal observations of various astronomical objects, as weather permits. Three lectures and one evening laboratory weekly. *Fall semester.*

Biology

Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

BIOL 104 Insects and You

3

An introductory entomology course designed for students who are non-science majors. This course will focus on not just the basic structure and function of insects, but how insects interact with other insects, their environment and people. More specifically, this course will introduce the beneficial and damaging impacts that insects have on their environment, and how insects were/are important to people not only in Biblical, folklore and current cultures, but also as pollinators, parasites, vectors of disease, pests of agriculture and urban areas, bio-control agents, environmental quality indicators, and crime-solving forensic agents. Does not apply toward a major or minor offered in the Division of Science and Mathematics. *Spring semester.*

BIOL 106 Human Biology

3

A survey of the human body and focusing on the structure and function of each physiological system. This course is designed for those not requiring the depth offered in BIOL 111, 112. May be taken with or without BIOL 107. Does not apply toward a major or minor offered in the Division of Science and Mathematics. May not be taken for credit if BIOL 111 or 112 previously taken. *Fall semester.*

BIOL 107 Human Biology Lab

1

Corequisite: BIOL 106

Laboratory to accompany BIOL 106 covering the major structures and functions of the human body. *Fall semester.*

BIOL 111 Human Anatomy and Physiology I

4

Recommended preparation: 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 II

4

Prerequisite: BIOL 111

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 I**4**

Prerequisites: One year of high school chemistry or CHEM 101 or 151 and an ACT Math Score of 18 (SAT 430) or sophomore standing or permission of instructor

An introduction to the science of biology including the chemistry of life, cell biology, cellular respiration, photosynthesis, Mendelian, population and molecular genetics, speciation and macroevolution versus creation as models for origins. Three lectures and one three-hour laboratory per week. *Fall semester.*

BIOL 152 General Biology II**4**

Prerequisite: BIOL 151

A continuation of topics in BIOL 151 with coverage of protist diversity, plant and animal diversity; anatomy, physiology and reproduction in plants; animal anatomy and physiology including digestive, circulatory, respiratory, endocrine, nervous, reproductive, and immune systems; sensory specializations of humans and animal development. Three lectures and one three-hour laboratory per week. *Spring semester.*

BIOL 205 Microbiology**4**

Recommended preparation: CHEM 104

A survey of major groups of microbes with relationships to health and disease. Basic principles of microbial nutrition, metabolism, genetics, ecology, microbial control and microbe-human interactions are also considered. The laboratory introduces a variety of procedures, including asepsis, culture, isolation and identification of microorganisms, especially bacteria. Three lectures and one three-hour laboratory per week. Does not apply toward a biology major or minor. *Fall/summer semesters.*

BIOL 230 Introductory Tropical Field Ornithology**3**

Designed to introduce students to the diversity of birds in Central America (the locale may vary from year to year). Focus on aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. This course is conducted during a three-week intensive study tour. Does not apply toward a major in biology. May apply as a life science laboratory course. *Summer, alternate years.*

BIOL 234 Ornithology**4**

Introduction to the diversity of birds, with emphasis of birds endemic to the Midwest United States. Course will focus on all aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. Participation in scheduled field trips are required as part of this course. Does not apply toward a major in Biology. *Spring semester, odd years.*

BIOL 296 Research Methods I**1**

Prerequisite: ACT Math Score of 20 (SAT 480) or MATH 100

An introduction to the fields of descriptive and inferential statistics. Data sampling techniques, hypothesis testing and some applications of probability theory to science situations are examined. *Fall semester.*

BIOL 306 Histology**3**

Prerequisite: BIOL 112 or BIOL 152

A study of the structure, organization and function of mammalian tissues, with emphasis on identification. Two lectures and one three-hour laboratory per week. *Scheduled as needed.*

BIOL 310 Seminar in Biology (WR)**1**

Prerequisite: BIOL 152

Current topics in biology are presented by Union College faculty, students, and by guests. Students receiving seminar credit present a seminar. All biology majors are encouraged to attend these seminars while they are enrolled as Union College students. An evaluation of investigative methods of biologists, the development of techniques for oral presentations, the discussion of topics of current interest in biology, and the development of skills in critical evaluation and summarization of the biological literature are required. May be repeated for credit. *Spring semester.*

BIOL 314 Immunology**3**

Prerequisites: BIOL 152, BIOL 321

Basic concepts of the innate and adaptive immune systems are covered including details about the molecules, cells and organs involved. Emphasis will be placed on mechanisms of immune system development, response to pathogens, and the classic experiments performed to make key discoveries in immunology. *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 330 Tropical Field Ornithology**3**

Prerequisite: BIOL 152

Designed to introduce students to the diversity of birds in Central America (the locale may vary from year to year). It will focus on aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. A major paper or project is required. This course is conducted during a three-week intensive study tour. Biology major elective. *Summer, odd years.*

BIOL 334 Ornithology**4**

Prerequisite: BIOL 152

Introduction to the diversity of birds, with emphasis of birds endemic to the midwest United States. Course will focus on all aspects of avian biology with emphases on behavior, ecology, anatomy and physiology, and conservation. Participation in scheduled field trips are required as part of this course. A major paper or project is required as part of this course. *Spring semester, odd years.*

BIOL 338 Principles of Entomology**3**

Prerequisite: BIOL 152

Provides an introduction to the study of insects that addresses fundamental concepts such as insect classification, control, life history, structure, ecology, and basic physiology. This course will delve into areas of entomology included but not limited to medical and veterinary entomology, urban entomology, and agricultural entomology. Two lectures and one three-hour lab per week. Lab sessions may involve field trips, weather permitting. *Fall semester, even years as needed.*

BIOL 355 Vertebrate Natural History**3**

Prerequisite: BIOL 152

Introduction to the major classes of vertebrates endemic to the midwest United States. Course will focus on aspects of ichthyology, herpetology, ornithology, and mammalogy, with an emphasis on comparative anatomy and physiology, diversity, taxonomy, ecology,

behavior, and life history strategies. Several field trips are a required element of this course. *Spring semester, even years.*

BIOL 365 Plant Biology**3**

Prerequisite: BIOL 152

A survey of plant morphology, plant anatomy and physiology, plant ecology and the impact of plants in human life. Two lectures and one three-hour laboratory per week. *Fall semester, even 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. *Fall semester, as needed.*

BIOL/SCNC 377 Origins**3**

Prerequisites: Completion of one laboratory science course; junior standing

A study of issues in science and religion as they relate to origins. Consideration is given to interpretation of inspiration and scripture relating to evidence from nature and the scientific method. Data from the biological and physical sciences are evaluated as they relate to earth history and the origin of life. Evidence for change, mechanisms of change, speciation, the fossil record and issues of time are considered. Class may be taken to meet the general education requirements for either the Life Sciences (BIOL 377) or Physical Sciences (SCNC 377). *Does not apply toward a biology major or minor. Spring semester.*

BIOL 386 Research Methods II**1**

Prerequisite: BIOL 296 or MATH 221

An introduction to the methods and mechanics of the research process. Topics include the nature, methods, literature, funding, limitations and strengths of scientific research. A proposal and literature search are required. *Spring semester.*

BIOL 396 Research Methods III**1**

Prerequisite: BIOL 386

An emphasis upon research design. A research project is proposed, a research plan developed for the project and, depending upon the nature of the study, research initiated. *Fall/spring semesters.*

BIOL 403 Molecular Biology**3**

Prerequisite: BIOL 321

A study of DNA and RNA structure and function at the molecular level, understanding gene regulation and DNA technology and analysis. This course is organized in four parts: (1) Nucleic acid structure; (2) Molecular mechanisms related to both the flow of genetic information and regulation of gene expression (3) Genetic Recombination; and (4) DNA technology. Three lectures per week. *Fall semester, odd years.*

BIOL 404 Cell Biology**4**

Prerequisites: BIOL 321, CHEM 212 or concurrent enrollment in CHEM 212

A study of cell structures and functions with an emphasis on cell signaling and regulation at the molecular level. The course is organized in four parts: (1) methods of cellular research, cell composition and organization; (2) cell and organelle structure and function; (3) cell signaling and regulation; and (4) cell cycle regulation and cancer. Three lectures and one three-hour laboratory per week. *Spring semester.*

BIOL 411 Advanced Human Anatomy 4

Prerequisite: BIOL 112 or BIOL 152

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. *Scheduled as needed.*

BIOL 416 Advanced Human Physiology (WR) 4

Prerequisite: BIOL 112 or 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/CHEM 445 Biochemistry I 4

Prerequisite: CHEM 212, BIOL 151 or 111

A study of the chemical properties and biological functions of amino acids, proteins, enzymes, carbohydrates, and lipids. Covers metabolism including glycolysis, Krebs cycle and oxidative phosphorylation. The laboratory includes basic techniques and instruments used for biochemical research and biotechnology. Three lectures and one four-hour laboratory per week. *Fall semester.*

BIOL 477 Issues in Origins and Speciation 3

Prerequisite: One of BIOL/CHEM/PHYS 152 and sophomore standing

Examination of the biological, paleontological and geological factors affecting the study and interpretation of historical events in geological and biological systems. Evaluation of data, methods, assumptions, and theories relating to origins, the diversity of life, and historical biology are studied within the context of both a biblical and naturalistic world view. Designed for science majors. *Spring semester, even years*

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 transfer courses have been approved by Union and are offered during the summer at the Walla Walla University Rosario Beach Marine Laboratory. Each course is not necessarily offered every summer. Please contact Walla Walla University for more information on scheduling.

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 micro-organisms. Topics include the cell, physiology, genetics, development, taxonomy, and ecology. Must be taken in sequence. *Summer.*

BIOL 426 Systematic Botany 3.33

Prerequisite: BIOL 101 (WWU) or BIOL 152 (UC)

Study of the principles of plant classification, together with a systematic survey of vascular plants, with emphasis on natural history and ecology. *Summer.*

BIOL 460 Marine Ecology 3.33

Prerequisite: BIOL 103 (WWU) or BIOL 152 (UC)

Study of interspecific, intraspecific and community relationships demonstrated by marine organisms. *Summer.*

BIOL 468 Comparative Physiology 3.33

Prerequisite: BIOL 392 (WWU) or BIOL 406 (UC)

Comparative study of the physiology and life processes of animals with emphasis on invertebrates. *Summer.*

BIOL 475 Marine Invertebrates 3.33

Prerequisite: BIOL 103 (WWU) or BIOL 152 (UC)

A study of the biology of selected groups of marine invertebrates. *Summer.*

Biomedical Science

BIOM 201 Professional Shadowing 1

Prerequisite: admittance to the biomedical science degree or permission of instructor

Provides students with opportunities to job shadow health professionals. Students will gain an understanding of their chosen profession and relate their experiences to each other during class time. This course must be taken no later than the spring of the sophomore year, or for students changing their major to biomedical science, within one year of their transfer into the major. *Spring semester.*

Business Analytics

BSAN 230 Information Display for Decision Making 3

Prerequisite: CPTR 220

Introductory exploration of the concepts and practices of data analysis and presentation. Examines information display theory and its application through dashboards using MS Excel and Tableau. Includes an intermediate Excel module. *Spring semester.*

Business Administration

BUAD 138 Dynamics of Business 3

Introductory exploration of the principles and practices of modern global business. Examines accounting, business law, computers, economics, ethics, finance, insurance, investments, management, marketing, and small business. Credit will not be given for BUAD 138 taken after completing or while concurrently taking any upper division business course. *Fall/spring semesters.*

BUAD 219 Small Business Management 3

A practical course on the principles and problems of organizing and operating a small business. Topics include: procedures for starting a new business; physical facilities and layout; financing, organizing and managing a small business. Students complete a comprehensive business plan. *Spring semester.*

BUAD 310 Quality Management 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 100 or above
 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 350 Project Management** **2**
 Familiarizes the student with the basic concepts of project management through studying both theory and application. Provides experience using some basic tools. *Spring semester.*
- BUAD 376 Human Resource Management** **3**
 Prerequisite: Junior standing or permission of instructor
 Emphasizes the basics of human resource management in business organizations and considers a variety of topics in human relations, personnel management, and organizational behavior. *Spring semester.*
- BUAD 401 Life After College** **1**
 Designed to help students as they transition from college to the workforce. The focus will be on providing an overview of practical topics that everyone has to deal with in life including debt, budgets, investing, taxes, law, insurance, job search and benefits. The course is offered on a CR/NC basis. *Spring semester.*
- BUAD 405 Business Ethics** **1**
 Prerequisite: RELT 305
 Using class discussion format, introduces the student to ethical concepts relevant to identifying and resolving ethical issues in business while developing a personal code of ethics. *Spring semester.*
- BUAD 420 Advanced Excel** **1**
 Prerequisites: CPTR 220
 Using Microsoft Excel to study how to use other data sources, data tables, pivot tables, array formulas, charts and graphs, what-if analysis and an assortment of Excel functions helpful in business. *Spring semester.*
- BUAD 425 Business Communications (WR)** **3**
 Prerequisites: COMM 105, CPTR 220; junior standing
 Instruction in the principles and techniques of effective written and oral communication in business. Considers both individual and group communication skills. Includes the process of résumé writing, interview preparation, and professional wardrobe selection. *Fall semester.*
- BUAD 428 Business Policies** **3**
 Prerequisite: 30 hours of business courses; senior standing
 Designed as the capstone class for business administration majors. Includes study of the specific functions of top management with a particular focus on the elements of strategic planning. Students integrate the various functional areas of business through case study analysis and a comprehensive business simulation. *Spring semester.*
- BUAD 430 Conflict Management** **3**
 Prerequisite: Junior standing
 Provides a framework for how to effectively manage conflict in the workplace. Time is spent contrasting situations involving both positive and negative conflict. Topics include

building effective teams, biblical approaches to conflict, negotiation and effective accountability. *Fall semester.*

BUAD 445 Business Law**3**

Prerequisite: Junior standing or permission of instructor

A study of: legal institutions and origins; laws of contracts; agency; employment; negotiable instruments; personal property; bailments; transportation; suretyship and guaranty; partnerships; corporations; real property; mortgages; leases; trusts; decedents' estates; bankruptcy; business torts and crimes. *Fall semester.*

BUAD 455 Advanced Human Resource Management I**2**

Prerequisites: BUAD 376

Implementation of topics covered in BUAD 376 through a project-based structure. Topics covered include job descriptions, hiring, managing and evaluating employees, designing compensation plans, creating employee policies, and structuring orientation/training programs. Some topics are covered in BUAD 456. *Fall semester.*

BUAD 456 Advanced Human Resource Management II**2**

Prerequisites: BUAD 455

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. 90 hours of work are required for each hour of credit.

Chemistry

Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

CHEM 101 Introduction to Inorganic Chemistry**4**

Prerequisite: ACT math score of 18 or SAT math score of 430 or higher or MATH 100 (prerequisite with a C or higher or as co-requisite) or permission of instructor.

Introduction to inorganic chemistry including atomic structure, chemical bonding, states of matter, chemical equations, stoichiometry concepts and applications, 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. Scheduled as needed.

CHEM 104 Introduction to General, Organic and Biochemistry**4**

Prerequisite: ACT math score of 18 or SAT math score of 430 or higher or MATH 100 (prerequisite with a C or higher or as co-requisite)

Comprehensive study of the basic principles of chemistry applicable to the health science professions. Topics covered include measurements, the scientific method, atomic structure, the use of radiation in cancer treatment, pH, acids, bases and buffers in the body, organic functional groups and reactions, glycolysis, the citric acid cycle, oxidative phosphorylation and the biochemical functions of carbohydrates, stoichiometry, protein structure and function, nucleic acids, fats and proteins in the body. Three lectures and one three-hour laboratory per week. Does not apply toward a division major or minor. *Fall/Spring semesters.*

CHEM 151 General Chemistry I**4**

Prerequisite: ACT math score of 20 (SAT 480), or MATH 100 or permission of instructor.

A comprehensive introduction to the fundamental principles of chemistry for chemistry majors and pre-professional students (medical, dental, etc.). Topics include chemical nomenclature, unit analysis, reactions, the mole, stoichiometry, thermochemistry, atomic theory and structure, periodicity, molecular structure and bonding, gas laws, and kinetic theory. One laboratory per week. *Fall/Spring Semesters.*

CHEM 152 General Chemistry II**4**

Prerequisite: CHEM 151

A continuation of CHEM 151. Topics include intermolecular forces, crystal structure, solutions, chemical kinetics, chemical equilibrium, acid-base chemistry, reaction thermodynamics, electrochemistry, and nuclear chemistry. One laboratory per week *Spring/Summer semester.*

CHEM 211 Organic Chemistry I**4**

Prerequisite: CHEM 152

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 II**4**

Prerequisite: CHEM 211

A continuation of CHEM 211. A systematic study of the physical and chemical properties of organic functional groups including aldehydes through amines and aromatic compounds. Includes an introduction to the theory and practice of Infrared spectroscopy, NMR, and Mass Spectrometry. Three lectures and one four-hour laboratory per week. *Spring semester.*

CHEM 296 Research Methods I**1**

Prerequisite: ACT Math Score of 20 (SAT 480) or MATH 100

An introduction to the fields of descriptive and inferential statistics. Data sampling techniques, hypothesis testing and some applications of probability theory to science situations are examined. *Fall semester.*

CHEM 311 Analytical Chemistry**4**

Prerequisite: CHEM 152

An introduction to the principles and processes of chemical analysis with emphasis on classical techniques. Topics include solution concentration unit manipulation, analytical applications of statistics, gravimetric and volumetric analysis, calibration techniques, activity equilibria, titration equilibria, simultaneous equilibria, and basic electrochemistry. Labs employ gravimetric, volumetric, spectrophotometric, and potentiometric techniques. One laboratory per week. *Fall Semester, as needed.*

CHEM 312 Instrumental Analysis (WR)**4**

Prerequisite: CHEM 311 or permission of instructor

A continuation of CHEM 311. A study of the analytical process emphasizing instrumentation. Topics include applications of electronics, spectrometric, chromatographic, and electrochemical methods. Writing is emphasized through laboratory reports. Two lectures and one four-hour laboratory per week. *Spring Semester, as needed.*

CHEM 386 Research Methods II**1**

Prerequisite: CHEM 152

An introduction to the methods and mechanics of the research process. Topics include the nature, methods, literature, funding, limitations and strengths of scientific research. A literature search and proposal are required. *Spring semester.*

CHEM 396 Research Methods III**1**

Prerequisite: CHEM 386

An emphasis upon research design. A research project is proposed, a research plan developed for the project and depending upon the nature of the study, experimental research initiated. Chemistry education majors complete the entire sequence of skills listed for Research Methods III and IV, but with a briefer project. *Fall semester, as needed.*

CHEM 411 Physical Chemistry I: Quantum Mechanics and Kinetics**4**

Prerequisites: CHEM 152, MATH 285, 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. *Spring semester, odd years.*

CHEM/PHYS 412 Physical Chemistry II: Thermodynamics**4**

Prerequisites: CHEM 152, MATH 285, PHYS 252

Chemical thermodynamics is developed to describe energy and entropy changes in ideal and real gases and extended to a range of chemical systems. Manipulation of multiple variables is achieved by use of partial differential equations, and skill in identifying the conditions of the problem to derive the appropriate equations for a particular application are developed. Attention is given to the results of applying Gibbs Energy and other thermodynamic constructs to a variety of uses including electrochemistry and phase equilibria. Three lectures and one four-hour laboratory per week. *Fall semester, even 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. *Scheduled as needed.*

CHEM/BIOL 445 Biochemistry I**4**

Prerequisites: CHEM 212, BIOL 151

A study of the chemical properties and biological functions of amino acids, proteins, enzymes, carbohydrates, and lipids. Covers metabolism including glycolysis, Krebs cycle and oxidative phosphorylation. The laboratory includes basic techniques and instruments used for biochemical research and biotechnology. Three lectures and one four-hour laboratory per week. *Fall semester.*

CHEM 446 Biochemistry II**3**

Prerequisite: CHEM/BIOL 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. Two lectures per week. *Spring semester, odd 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 110/310 Adventist Christian Theatre****1**

Prerequisite: Permission of instructor

A touring drama team. Students learn the fundamentals of acting as a craft, improvisational skills, theater terminology, scene or skit building and the fundamentals of stage lighting and sound. Special emphasis is given towards the application of dramatic art as a ministry. May be repeated. *Fall/Spring semesters.*

CODR 229 Play Production I**1-3**

Prerequisite: Permission of instructor

Emphasizes a team-based approach to producing a play. Class members form a production company in which each student contributes to the success of the production by fulfilling responsibility in several aspects which include stage management, acting, lighting, sound, costuming, props management, set design and construction, publicity, and house management. Instruction in theater terminology, elements and practice is delivered within the context of preparing a show for public performances. 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. *Fall semester.*

CODR 329 Play Production II**1-3**

Prerequisite: Permission of instructor

Continuation of CODR 229. *Spring semester.*

CODR 471 Play Direction**3**

Prerequisite: CODR 229, 329 and permission of instructor

Provides instruction and practice in the skills needed to direct a play: script selection; script preparation; budgeting; casting; conducting rehearsals; and overseeing various production elements. Culminates in public performance of a student-directed play. *Spring semester.*

Communication—Emerging Media**COEM 260 Writing in the Digital World****3**

Prerequisite: CPTR 245

Teaches students the techniques and technology of writing for digital audiences including blogging, social media, and content management systems. *Fall semester.*

COEM 324 Web Research and Analytics 3

Prerequisite: CPTR 245

Discover the power of the Internet as a research tool for journalism, marketing, and public relations, while learning to analyze data to develop effective communication strategies. *Fall semester.*

COEM 362 Interacting with an Online Audience 3

Explore the ramifications of communicating with a world-wide audience and learn to leverage the interactive nature of social media to improve communication strategies. *Spring semester.*

COEM 410 Digital Storytelling 3

Master modern technologies including video, audio, and interactive multimedia to effectively tell stories online. *Spring semester.*

COEM 440 Social Media Public Relations and Marketing 3

Prerequisite: COPR 241 or MRKT 327

Study techniques and strategies for using social media as a public relations and marketing tool. Students will examine the application of communication theories in the context of social media. *Spring semester.*

COEM 476 Emerging Media Internship 4

Represents 200 clock hours of on-the-job training with authorities in a particular field off-campus. Open only to majors.

Communication—Journalism

COJR 221 Reporting (WR) 3

Prerequisite: Sophomore standing or permission of instructor

Introduces the student to basic newspaper reporting and writing. Students are encouraged to submit articles to The Clocktower. *Spring semester.*

COJR 245 Editing 3

Covers principles of editing, copy editing, layout, headline writing, handling of graphic elements, and achieving editorial balance and integrity. Students concentrate on practical applications for actual publications. *Fall semester.*

COJR 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.*

Communication

COMM 105 Public Speaking 2

Combines basic theories of public speaking, listening, and interpersonal communication with actual speaking experiences in the classroom. *Fall/spring semesters.*

COMM 125 Media and Meaning 3

Surveys mass communication in the U.S. (radio, television, film and print) and looks at the history, content, economics and social impact of these media. *Fall semester.*

COMM 290 Sophomore Seminar**1**

Prepares students to apply for internships with specific attention given to résumé preparation, preparation for job interviewing, development of a portfolio, and assistance in the job search process. *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, odd 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, odd years.*

COMM 375 Fundraising and Philanthropy Internship**4**

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 Communication majors with an emphasis in fundraising and philanthropy.

COMM 425 Intercultural Communication**3**

The effects of both verbal and nonverbal communication between cultures are studied. The course provides assessments of the media and business cultures around the world with an emphasis on how professionals can effectively function in other cultural settings. *Spring semester, odd years.*

COMM 465 Interpersonal Communication**3**

Prerequisite: COMM 105

Explores traditional and contemporary models of communication theory, with special application to the psychology of communication and human relations on an interpersonal level. *Spring semester.*

COMM 490 Senior Seminar**1**

As the capstone for all communication majors, this course: prepares students to enter the job market, with specific attention given to résumé preparation, preparation for job interviewing, and development of a portfolio; discusses selected topics in communication. The setting is informal with a discussion-centered format. *Fall semester.*

Communication—Public Relations**COPR 241 Public Relations Principles****3**

Examines the philosophy, objectives and methods of an effective public relations program, with an emphasis on the role of public relations in a formal setting. Uses tools and techniques of communication which build positive relationships with an organization's various publics. Provides opportunities for practical experiences. *Fall semester.*

COPR 316 Advertising Practices 3

An introduction to advertising, especially in the print, broadcast, direct mail and out-of-home media. Also covers marketing strategies and operations of advertising agencies and similar organizations. *Fall semester, even years.*

COPR 332 Rhetoric (WR) 3

Explores the classical approaches to rhetoric and logic; discusses modern avenues of persuasion as found in politics, advertising, and social issues. *Fall semester, odd years.*

COPR 377 Crisis Public Relations 2

Applications of public relations in a crisis situation. Students learn how to prepare for a crisis and what to do when a crisis occurs. In addition, students learn about assessment strategies following a crisis. Case studies take a central role in instruction. *Fall semester, odd years.*

COPR 445 Public Relations Campaigns (WR) 3

Prerequisite: COPR 241

Practical applications of public relations principles including: case studies; planning of campaigns and special events; and specific communication techniques for internal and external audiences. Students create material for newsletters, media publicity and audio-visual pieces that contribute to portfolio development. *Spring semester.*

COPR 475 Public Relations Internship 4

Prerequisite: 16 hours of public relations and communication courses

Represents 200 clock hours of on-the-job training with authorities in a particular field off campus. Open only to majors.

Core

CORE 108 Connections 1

While learning fundamental concepts and methods for academic achievement in higher education, students experience the world within their chosen major. A course expected for all freshmen. *Fall semester.*

Computing

CPTR 126 Fundamentals of Computer Science 3

Introduction to elements of computer science. Provides an overview of the different areas that make up the computing field, including an introduction to number systems (binary, octal, and hex), Boolean logic, computer hardware design and an introduction to high-level computer programming. The student is also introduced to areas of ethics related to computing. *Fall semester.*

CPTR 220 Microcomputer Applications 3

Extensive hands-on experience in word processing, electronic spreadsheets, presentation software, database management and basic Windows operating system commands. Designed for students with working knowledge of word processing (tables, formatting, graphics), spreadsheet basics and the Internet. *Fall/spring semesters.*

CPTR 226 Computer Science I**4**

Prerequisites: MATH 100 or ACT math score of 20 (SAT math score of 480)

Recommended: CPTR 126 with a minimum grade of C

Introduction to computer science, programming, and problem solving. Structured and object-oriented programming techniques are presented and applied through the creation of programming assignments. *Fall semester.*

CPTR 227 Computer Science II**4**

Prerequisite: CPTR 226 with a minimum grade of C

Advanced programming principles and problem-solving techniques are applied in an object-oriented programming environment. Abstraction and data structures (stacks, queues, linked lists, etc.) are explored. *Spring semester, odd years.*

CPTR 240 Systems Administration**3**

Prerequisite: CPTR 126 with a minimum grade of C

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

CPTR 245 Web Development Basics**3**

An introduction to static web pages. Major emphasis is placed on designing and creating web pages using HTML5 with Cascading Style Sheets. *Spring semester.*

CPTR 320 Networking**3**

Prerequisite: CPTR 126 with a minimum grade of C

Overview of networking including networking hardware and software, local area networks, wide area networks and network communication. Emphasis is placed on how to apply networking theory and troubleshoot networking problems. *Spring semester.*

CPTR 322 SQL**3**

Prerequisites: CPTR 126 with a minimum grade of C

Introduction to using the Structured Query Language. The course focuses on the Data Manipulation Language (DML) division of SQL. The use of SELECT, INSERT, UPDATE and DELETE are covered in detail. Also covers triggers, stored procedures, cursors and embedded SQL. *Spring semester.*

CPTR 327 Systems Analysis and Design**3**

Prerequisite: CPTR 220 with a minimum grade of C or CPTR 126 with a minimum grade of C

An introductory systems analysis and design course for those who want to be an information systems analyst, consultant, or project manager; and for those who will be users or managers involved in systems development projects. Covers information systems concepts, and the systems analysis and design methodologies and techniques, as well as techniques used during the development of information systems. Also explores project management concepts and issues that impact the development and acceptance of information systems. *Fall semester.*

CPTR 335 Web Technologies**3**

Prerequisites: CPTR 226 with a minimum grade of C and CPTR 245 with a minimum grade of C

Introduction to website publishing. Topics may include PHP, JavaScript, Ajax, database connectivity, application security and other related topics. Major emphasis is placed on

designing and creating dynamic web sites. The course includes a group project to build an application for a website. *Fall semester.*

CPTR 420 Advanced Systems Administration **3**

Prerequisite: CPTR 240 with a minimum grade of C

Continuation course of CPTR 240 that focuses on Directory services, project management, security issues, advanced scripting, and advanced interactions between services such as DNS, DHCP, web server, SQL and Mail Server. Emphasizing upfront design considerations, redundancy, scalability and total cost of ownership. *Spring semester.*

CPTR 424 Database Systems **3**

Prerequisites: CPTR 322 with a minimum grade of C and CPTR 327 with a minimum grade of C

Covers both a theoretical and practical understanding of database management systems. Emphasizes the relational database model. The Data Definition Language (DDL) of SQL is covered. Implementation of a database application that uses a relational database and SQL is required. *Fall semester.*

CPTR 435 Advanced Web Technologies **3**

Prerequisites: CPTR 335 with a minimum grade of C

The course consists of a major project for developing a web site using a framework of the students' choice. The project selected must be a comprehensive project showing the proficiency for the skills learned in other computer classes including but not limited to JavaScript, SQL, CSS and Ajax. The project may include applications for phones or tablets to integrate with the web site. *Fall semester even years.*

CPTR 440 Cloud Computing **3**

Prerequisites: CPTR 320 with a minimum grade of C

Introductory course to cloud computing. Topics explored may include distributed data crunching, cloud and datacenter file systems, virtualization, security & privacy, and interactive web-based applications. *Spring semester, odd years.*

CPTR 460 Security **3**

Prerequisites: CPTR 320 with a minimum grade of C

Covers various topics of computer security, which may include: network security, database security, security auditing, data encryption, operating system security, vulnerabilities, user authentication, access control, malicious software, secure software development techniques, firewalls and intrusion detection, site security, legal and ethical security issues, and risk management. *Spring semester, even years.*

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

Prerequisites: Minimum of Junior standing and CPTR 240 with a minimum grade of C, CPTR 245 with a minimum grade of C, CPTR 322 with a minimum grade of C and CPTR 327 with a minimum grade of C.

A capstone course that integrates knowledge and abilities gained through the computer curriculum with real-life work experiences in a computer related field. 90 hours of work are required for each hour of credit.

Economics

ECON 235 Principles of Microeconomics 3

Prerequisites: ENGL 111, MATH 100 or ACT Math score of 20 (SAT of 480)

Emphasizes basic economic concepts and problems, the capitalistic system, markets, price systems, allocation of resources, production, consumption, and employment. *Fall semester.*

ECON 236 Principles of Macroeconomics 3

Prerequisites: ENGL 111, MATH 100 or ACT Math score of 20 (SAT of 480); may be taken before ECON 235

An introduction to the principles of economic analysis, economic institutions and issues of economic policy. Emphasizes aggregative economics, including national income, monetary and fiscal policy and international trade. *Spring semester.*

Education

EDUC 125 Introduction to Teaching 3

Includes a study of the historical and philosophical backgrounds, aims, curriculum, organization, finance and current issues of American public and nonpublic education. Also provides training in the use of audiovisual equipment/technology. Twenty hours of field experience required. *Fall/spring semesters.*

EDUC 218 Philosophy of Christian Education (WR) 3

Prerequisites: ENGL 112 and provisional admission to the teacher preparation program

Includes a survey of the traditional and modern philosophies and their influence on educational practices, and the relationship of educational theories to their philosophic sources. Helps students understand the need for and develop a personal philosophy of Christian education. The missions of the Seventh-day Adventist Church and Union College influence the content of this course. Fifteen hours of field experience required. *Spring semester.*

EDUC 225 Seminar in Education Diversity: Multicultural/HRT 1

Prerequisite: Provisional admission to the teacher preparation program or permission of division chair

Focuses on three major areas: the ability to recognize personal and societal dehumanizing biases including, but not limited to, sexism, racism, prejudice and discrimination; the ability to recognize the ways these biases may be reflected in instructional materials and processes; and the ability to translate this knowledge into attitudes and strategies which result in favorable experiences for all students. Gives education majors opportunity to interact with diverse school populations, especially those of other cultures. Twenty hours of field experience required. *Fall semester.*

EDUC 245 Physical Education in the Elementary School 2

Prerequisite: EDUC 125 or permission of program director or division chair

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 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 218, PSYC 215, successful completion of the CORE exam, and full admission to the teacher preparation program or permission of division chair.

An interdisciplinary approach to fundamentals of learning and measurement. Includes a survey of behavioral, cognitive, social learning, constructivist, and humanistic learning theories; teaching, motivational strategies, management and discipline, and assessment. Twenty to thirty hours of field experience required. *Fall semester.*

EDUC 346 Special Education in the Classroom **3**

Prerequisite: EDUC 345 or permission of division chair

Causes of developmental patterns, behavioral characteristics and educational alternatives associated with specific exceptionalities which include students with visual impairments, speech and language impairments, orthopedic handicap and other health impairments, mental handicaps, learning disabilities, behavior disorders, students who are gifted and talented, children whose first language (and home culture) is not English, and those who are abused and/or neglected or at-risk for school failure are all briefly studied. Overview of PL 94-142 is included. Course does not apply toward psychology minor. Twenty hours of field experience required (15 hours special needs; 5 hours gifted). *Spring semester.*

EDUC 355 Secondary Methods **2**

Prerequisite: Practicing teacher

Helps the teacher translate teaching/learning theory into practice on the secondary level. Includes study of lesson planning, scheduling, managing the learning environment, discussion techniques, legal responsibilities, state and denominational standards and working with various publics. A choice of up to two subject areas methods EDUC 361-370 may be taken concurrently. *Summer.*

EDUC 356 General Secondary Methods **3**

Prerequisite: EDUC 345

Designed to help the teacher candidate translate teaching/learning theory into practice. Includes study of lesson planning, instruction, management, assessment, selected instructional strategies, legal responsibilities, state and denominational standards, and working with education's various publics. Students demonstrate micro-teaching competence. Up to 30-35 hours of field experience required. *Spring semester.*

EDUC 357 Literature for Children and Adolescents **2**

Prerequisite or co-requisite: EDUC 345 or permission of division chair

A survey of youth literature and teaching strategies to encourage application of languages and literacy genre, to foster personal-social growth and to encourage life-long enjoyment of literature. *Fall semester.*

EDUC 358 Special Child in the Classroom **3**

Prerequisite: Practicing teacher

Causes of developmental patterns, behavioral characteristics and educational alternatives associated with specific exceptionalities which include students with visual impairments, speech and language impairments, orthopedic handicap and other health impairments, mental handicaps, learning disabilities, behavior disorders, students who are gifted and talented, children whose first language (and home culture) is not English, and those who are abused and/or neglected or at-risk for school failure are all briefly studied. Overview of PL 94-142 is included. Course does not apply toward psychology

minor. Twenty hours of field experience required (15 hours special needs; 5 hours gifted). *Summer.*

EDUC 360 General Elementary Methods 2

Prerequisite: Practicing teacher

Helps the teacher translate teaching/learning theory into practice. Includes study of lesson planning, scheduling, managing the learning environment, discussion techniques, legal responsibilities, state and denominational standards and working with education's various publics. A choice of up to two subject areas methods EDUC 361-370 may be taken concurrently. *Summer.*

EDUC 361 Art Methods 1

Prerequisite: Practicing teacher; Prerequisite or co-requisite: EDUC 355 or 360

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

EDUC 362 Health Methods 1

Prerequisite: Practicing teacher; Prerequisite or 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/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 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 218
An exploration of the theory and practice of teaching art in grades 7-12 as well as assessment strategies. Includes approximately 20 hours of classroom experiences and use of appropriate technology. *Spring semester.*
- EDUC 412 Methods: Language Arts Education** 3
Prerequisite or co-requisite: EDUC 218
A study of various teaching methods appropriate for the secondary classroom. Attention is given to planning, motivation, instruction, assessment, technology, textbook and resource selection. Includes 10 to 20 hours of classroom experiences. *Fall semester.*
- EDUC 413 Methods: Mathematics Education** 3
Prerequisite: EDUC 218 or permission of instructor
Includes the theoretical and practical aspects of secondary mathematics education. Students study current journals, teaching and assessment strategies, textbook selection and use of technology. Includes 10 to 20 hours of classroom experiences. *Spring semester.*
- EDUC 414 Methods: Music Education** 3
Prerequisite or co-requisite: EDUC 218
Goals, objectives, organization, interrelationships between music and the entire curriculum. Includes 10 to 20 hours of classroom experiences and use of technology. *Fall semester.*
- EDUC 415 Methods: Social Science and Religious Education (K-12)** 3
Prerequisite: EDUC 218
An exploration of secondary social science, teaching strategies, textbook selection criteria, planning and assessment. Also emphasizes techniques for teaching K-12 religion. Includes 10 to 20 hours of classroom experiences and use of technology. *Fall semester.*
- EDUC 416 Methods: Physical Education** 3
Prerequisite or co-requisite: EDUC 218
Study strategies for teaching secondary students physical fitness, individual skills and team sports. Includes 10 to 20 hours of planning, assessment and classroom experiences and use of technology. *Fall semester.*
- EDUC 418 Methods: Science Education** 3
Prerequisite or co-requisite: EDUC 218
An exploration of secondary science teaching strategies, materials, textbooks, planning, assessment, ethics and preparation and supervision techniques for selected laboratory

activities. Includes 10 to 20 hours of classroom experiences and use of appropriate technology. *Fall semester.*

EDUC 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 422 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 425 Educational Organization and Administration (K-8) 3

Prerequisite: EDUC 345

An overview of curriculum development: basic concepts and principles of educational organization and administration, classroom management and pupil adjustment, and legal aspects of teaching. *Fall semester.*

EDUC 446 Reading Assessment (K-8) 2

Prerequisite: EDUC 345

Instruction in assessing the reading abilities and progress of elementary students. Emphasizes stages of literacy and techniques of informal reading, spelling and writing assessment. Students gain experience by conducting assessments and planning literacy activities in field-based, one-on-one sessions with elementary learners. *Fall semester.*

EDUC 450 Methods in Reading and Language Arts (K-8) 5

Prerequisite: EDUC 345

Emphasis is placed on elementary (K-8) language arts skills (viewing, listening, reading, speaking, visually representing, and writing) and reading skills (reading proficiencies, readiness, vocabulary instruction, study skills, comprehension, questioning, management, diagnostic skills, and assessment). Spelling, grammar, handwriting and reference skills are specifically included. A survey of language arts and reading programs, including Pathways, is included. Opportunity is given to plan and use varied instructional approaches in development of oral language, reading and writing. Traditional and whole language approaches are studied, as are multicultural literature. An evaluation and use of technology and the Internet will be included. Microteaching and up to 20 hours of field experience are included. *Spring semester.*

EDUC 458 Methods in Religion, Health, Science and Social Studies (K-8) 4

Prerequisite: EDUC 345

Instruction and practice in teaching Bible, health, science and social studies to grades K-8. Students learn to use scope and sequence charts and curriculum guides. Students develop lesson plans and learning centers, use technology and learn a variety of teaching and assessment techniques. Students demonstrate microteaching competence. Up to 20 hours of field experiences are included. *Fall semester.*

EDUC 465 Math Methods and Materials (K-8)**3**

Prerequisite: EDUC 345

K-8 math content taught in conjunction with appropriate teaching strategies. For each concept presented, a variety of interpretations and possible applications are given, followed by related activities for children that develop specific concepts and skills. Practicum and technology module are included. *Fall semester.*

EDUC 475 Student Teaching**1-16**

Prerequisite: Student Teaching Authorization from Teacher Preparation Committee

Real-life experiences in a wide variety of settings providing creative conventional and nontraditional hands-on teaching/learning opportunities for those planning to enter the helping professions. May be repeated for additional credit. Secondary -*Fall semester.* Elementary* -*Spring semester.*

*Elementary: Pre-Session Student Teaching must be completed in August, even though Student Teaching does not begin until January. This experience consists of 10 days spent in an assigned classroom. It is considered to be part of EDUC 475.

EDUC 476 Content Reading and Writing**3**

Co-requisite: EDUC 345

Designed to help prepare secondary classroom instructors to utilize reading and writing to enhance the teaching of their subject areas. Included are affective learning, vocabulary, comprehension and study skills, instructional strategies for individual content areas, and use of multiple resources. Students apply literacy strategies in field settings and through microteaching. *Fall semester.*

EDUC 477 Secondary Reading Methods**2**

Prerequisite: Practicing teacher

Designed for the in-service teacher, this course explores using metacognition, interactive reading and writing strategies, and current research on vocabulary development, comprehension, and graphic organizers in 7-12 classrooms. *Summer.*

EDUC 485 Issues in Education**1**

Prerequisite: EDUC 345

This course for secondary education majors includes discussion of contemporary educational trends and issues and certification procedures. *Spring semester.*

EDUC 490 Student Teaching Seminar-Elementary**1**

Prerequisite: EDUC 345

This course for elementary education majors includes discussion of classroom practice and management experiences, teaching methodology and materials, and current educational issues. *Spring semester.*

English

Courses numbered below 100 are considered developmental and do not count toward the 128 semester hours required for graduation. Similarly, grades in these courses do not affect a student's grade point average (GPA).

ENGL 080 Basic Skills in Grammar +**ENGL 100 Basic Skills in English (Intensive Sequence)****6**

Prerequisite: TOEFL Writing score below 47 or an iBT Writing score below 13 or an ACT English score below 14 or an SAT Writing score below 380

ENGL 080 emphasizes the basic sentence structures in English, including phrases and clauses, and provides skills needed for improved performance on the TOEFL and

ACT English. In the intensive sequence, students attend five class sessions and one or more labs per week for nine weeks. A minimum grade of C in ENGL 080 or a minimum TOEFL English score of 55 or a minimum iBT English score of 17 or an ACT English score of 17 or an SAT Verbal score of 430 is required to enter ENGL 100.

ENGL 100 focuses on the skills necessary to successfully complete ENGL 111, including sentence creation, paragraph development and essay writing. It stresses critical thinking, analytical reading and the writing processes of invention, drafting, peer review and revision. In the intensive sequence, students attend five class sessions and one or more labs per week for nine weeks. A minimum grade of C in ENGL 100 or a minimum TOEFL English score of 55 or a minimum iBT English score of 17 or a minimum ACT English score of 17 or an SAT Verbal score of 430 is required to enter ENGL 111. This accelerated sequence of ENGL 080 and ENGL 100 does not satisfy general education requirements. The ENGL 100 portion will count toward elective credit. *Fall semester.*

ENGL 100 Basic Skills in English

3

Prerequisite: TOEFL English score below 47 or iBT English score below 12 or an ACT English score between 14 and 16 or an SAT Writing score of 390-430 or ENGL 080 with a minimum grade of C

Focuses on the skills necessary to successfully complete ENGL 111 including sentence creation, paragraph development and essay writing. Stresses critical thinking, analytical reading and the writing processes of invention, drafting, peer review and revision. A minimum grade of C in ENGL 100 or a minimum TOEFL English score of 55 or a minimum iBT English score of 17 or a minimum ACT English score of 17 or an SAT Verbal score of 430 is required to enter ENGL 111. The course does not satisfy general education requirements but does count toward elective credit. *Fall/spring semesters.*

ENGL 103 Reading Skills

3

Prerequisite: TOEFL Reading score below 47 or iBT Reading score below 14 or an ACT Reading score below 17 or an SAT Reading score below 430

Emphasizes vocabulary development and comprehension skills for academic reading, including increased reading rate. The course also assists international students in reaching a minimum TOEFL reading score of 55. Three class sessions and one 50-minute lab per week. A minimum grade of C in ENGL 103 is required to enter ENGL 112. The course does not satisfy general education requirements but does count toward elective credit. *Fall/spring semesters.*

ENGL 111 College Writing I

3

Prerequisites: Minimum ACT English score of 17 or an SAT Verbal score of 430 or ENGL 100 with a minimum grade of C or a minimum TOEFL English score of 55 or a minimum iBT English score of 17.

The writing of clear, concise and well-developed exposition. Objectives include peer evaluation, learning to revise and edit drafts and evaluation of models for writing. Critical thinking and editing skills are emphasized. *Fall/spring semesters.*

ENGL 112 College Writing II

3

Prerequisite: ENGL 111; a minimum ACT Reading score of 17 or an SAT Reading score of 430 or a minimum TOEFL Reading score of 55 or a minimum iBT Reading score of 20 or ENGL 103 with a minimum grade of C.

The application of rhetorical principles to further expository and persuasive writing and sharpening of skills in basic research writing. Readings, class discussions and writing assignments foster critical thinking skills (including the recognition of logical fallacies) and acquaint students with academic language. Includes an introduction to various styles of documentation. *Fall/spring semesters.*

ENGL 271 History of the English Language 3

Prerequisite: ENGL 112

Introduces the student to the origin, history, and development of the English language including morphemes, phonemes, parts of speech, and basic diagramming. *Fall semester, even years.*

ENGL 272 Grammatical Systems 3

Prerequisite: ENGL 112

Introduces the student to various grammatical systems, including structuralism, transformational grammar, and prescriptive grammar for writing formal documents. *Spring semester, odd years.*

ENGL 378 Technical Writing and Grant Proposals (WR) 3

Prerequisite: ENGL 112

Provides intensive instruction in the essentials of technical writing including instructional and manual writing, report writing, letter writing, electronic documentation, managerial communication and grant-proposal writing. *Spring semester, even years.*

ENGL 379 Creative Writing (WR) 3

Prerequisite: ENGL 112

Focuses on the writing of short creative narratives and poetry. *Spring semester, odd years.*

Engineering

Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

ENGR 111 Introduction to Engineering I 2

Engineering communications with emphasis on problem solving skills, graphic techniques, engineering sketching and drafting practices including descriptive geometry and an introduction to Computer Aided Design (CAD). *Fall semester.*

ENGR 112 Introduction to Engineering II 2

Prerequisite: ENGR 111

Continuation of ENGR 111. Includes a study of elementary engineering mechanics, electric circuits, energy concepts, the design process, elements of professional engineering and advanced CAD. *Spring semester.*

ENGR 211 Statics 3

Prerequisite: MATH 184

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

Continuation of ENGR 211. Includes a study of kinetics, work and energy, dynamics of rotation, translation and plane motion, impulse and momentum. *Spring semester.*

ENGR/PHYS 228 Electric Circuit Analysis 4

Prerequisite: MATH 184

Introduces electric circuit variables and parameters, Ohm's and Kirchhoff's law, circuit equations, AC steady-state analysis, and frequency characteristics. Three lectures and one three-hour laboratory per week. *Fall semester.*

Finance

FNCE 215 Personal Finance 3

Prerequisite: Sophomore standing

Emphasizes practical financial planning dealing with the day-to-day issues that confront an individual or family, such as budgeting, taxes, housing, credit, insurance, savings, investments, wills, and retirement planning. *Fall semester.*

FNCE 325 Business Finance 3

Prerequisite: ACCT 212, MATH 100 or higher with a minimum grade of C

Emphasizes the fundamental principles of short- and long-term financial policy in business organization and operation. Also includes valuation models for stocks and bonds, analysis of financial statements, capital budgeting, working capital management, and a review of financial markets. *Fall semester.*

FNCE 330 Financial Institutions and Markets 3

Prerequisites: ACCT 212, ECON 235 or 236

A study of capital markets and financial institutions such as banks, thrifts and insurance companies. The study of capital markets focuses on understanding a wide range of instruments available for financing, investing, and controlling risk. *Fall semester.*

FNCE 332 Investments 3

A study of investment alternatives and investment objectives for the individual. Major types of investments studied in detail include stocks, bonds, money market instruments, mutual funds, and tax-sheltered investments. Approaches studied and contrasted for the review of equities include an analysis of company fundamentals and broad market indicators, as well as an examination of mathematical models. Tools and methodologies employed include an analysis of risk and return, time value of money, online sources, asset allocation and portfolio management. *Spring semester.*

FNCE 370 International Finance 3

A study of the international financial environment and operation of multinational enterprises, with major focus on trade, balance of payments, foreign exchange, money and capital markets, investment decisions and comparative financial systems. *Spring semester.*

FNCE 475 Internship in Finance 1-3

Prerequisites: Junior or senior standing and permission of division chair

Real-life experiences in a wide variety of settings providing creative and conventional hands-on learning opportunities. 90 hours of work are required for each hour of credit.

Foreign Language Studies

LANG 485 Advanced Research in a Foreign Language 3

Prerequisite: Complete all other requirements for the Foreign Language Studies degree at an ACA school

Students conduct independent research or produce a creative project under the direction of a professor. The final product is an 8-page paper written in the foreign language of their major. *Fall semester.*

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. *Fall semester.*

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.*

Graphic Design

GRPH 150 Introduction to Graphic Arts 3

An introduction to the field of graphic design and to the three major types of computer applications used in print design. Students use Adobe Illustrator, Photoshop and InDesign applications to create corporate logos, business materials, photo collages and print projects. *Fall/spring semesters.*

GRPH 175 Graphic Design Seminar .5

First in a series of courses designed to guide graphic design majors through the ongoing process of building and developing a portfolio. Related issues include career decisions, networking, interviewing, portfolio packaging, matting, framing, photographing art work, exhibition display and self promotion. See GRPH 275, 375 and 475. *Spring semester.*

GRPH 210 Page Layout 3

Prerequisite: GRPH 150 or permission of instructor

Reviews fundamental skills and stresses intermediate and advanced skills using computer-based page layout software on the Macintosh platform. Students learn the use of master pages, style sheets, typographic controls, and to flow and format text, to place and manipulate images, to combine images and text, to create tables, gradients and PDF's, and to correctly prepare digital files for offset printing. *Fall semester, odd years.*

GRPH 250 Digital Imaging 3

Prerequisite: GRPH 150 or permission of instructor

Focuses on image manipulation and enhancements using Adobe Photoshop, the industry standard for digital imaging. Students learn image enhancement and retouching, color correction, combining images and text, collaging, and high-quality digital output. *Fall semester, even years.*

GRPH 252 Computer Design 3

Prerequisite: GRPH 150 or permission of instructor

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, odd years.*

GRPH 254 Publication Design 3

Prerequisite: GRPH 150

Further study of design principles and page layout software. Includes production of print projects such as programs, brochures, magazine spreads and newsletters. *Spring semester.*

GRPH 275 Graphic Design Seminar .5

See GRPH 175 for description. *Spring semester.*

GRPH 301 Web Design 3

Prerequisite: CPTR 245 or permission of instructor

Introduction to the visual design and management of web sites. Includes the basics of site set up, user-centered design and integration of rich media. *Spring semester, odd years.*

GRPH 350 History of Graphic Design 3

A study of the historical development of graphic design and its influence on design trends today, including national and international styles, influences, major artists/designers, and their influence on current design trends. *Spring semester, even years.*

GRPH 358 Typography 3

Prerequisites: GRPH 150

A study of the history, terminology, practical and creative use of type in communication graphics. Comprehensive coverage of copy editing and fitting, illustration editing, print planning, and paper selection. Each student produces a final major project from plan to product. *Spring semester, even years.*

GRPH 375 Graphic Design Seminar .5

See GRPH 175 for description. *Spring semester.*

GRPH 401 Interactive Web Design 3

Prerequisite: CPTR 245, GRPH 301 or permission of instructor

This course teaches the principles of user interaction design and how to apply them to the web using HTML, CSS, and JavaScript. Students will gain experience designing, testing, and developing highly interactive websites and web applications. *Fall semester, odd 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, even 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, odd years.*

GRPH 475 Graphic Design Seminar**.5**

See GRPH 175 for description. *Spring semester.*

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

Prerequisites: Junior or senior standing and permission of supervising instructor

A real-life experience in a wide variety of settings providing a hands-on learning opportunity. Each hour of credit represents 50 clock hours of contact time. For majors only. May be repeated for additional credit.

Health and Human Performance Activity

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: Non-swimmer, minimal swimming skills, familiar with water

Assists students in developing skills equivalent to the level of Red Cross Beginner and Advanced Beginners Swimming Certificates. *Fall/spring semesters.*

HHPA 116 Leisure and Recreational Activities**1**

Provides instruction as well as participation in selected leisure and recreational activities. *Fall semester, odd years.*

HHPA 126 Team Activities**1**

Aids the student in learning and applying the skills and strategies common to major team sports. Basic sports covered include basketball, flagball, soccer, softball and volleyball. *Spring semester, odd years.*

HHPA 137 Gymnastics for Everyone**1**

Gives basic instruction in cheerleading, acrosports and ground tumbling. Students have a conditioning component and are required to perform a basic routine in an area of their choice. *Scheduled as needed.*

HHPA 145 Beginning Badminton**1**

Instruction and practice of the fundamental skills and techniques essential for successfully playing badminton. Students provide their own equipment. *Fall/spring semesters.*

HHPA 146 Beginning Pickleball**1**

Instruction and practice of the fundamental skills and techniques essential for successfully playing Pickleball. Students provide their own equipment. *Fall/spring semesters.*

HHPA 147 Beginning Tennis**1**

Instruction and practice in the fundamental skills involved in playing tennis. Students provide their own equipment. *Scheduled as needed.*

HHPA 149 Beginning Golf (Fee)**1**

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

HHPA 151 Beginning Volleyball**1**

Instruction and practice of basic skills for volleyball team participation. *Scheduled as needed.*

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- HHPA 155 Concepts of Wellness** 2
Assists students in developing a practical theory of general and cardiovascular fitness. Reviews the principles of health instruction as cited in the Scriptures and counsels of Ellen White. Application in aerobics, aquatics, calisthenics, running and weight training accomplishes improved fitness. Individual programs are made so that students with disabilities can develop better fitness. May not be repeated for additional credit. *Fall/spring semesters.*
- HHPA 215 Intermediate/Advanced Swimming** 1
Prerequisite: HHPA 115 or equivalent
Designed to assist students in developing skills equivalent to the level of Red Cross Intermediate and Advanced Swimmer Certificates. *Fall/Spring semester.*
- HHPA 216 Lifeguard Training** 1
Focuses on the development and refinement of skill for individuals who have good swimming techniques, first aid and CPR background. Leads to the Red Cross, Lifeguarding, First Aid and CPR Certification upon successful completion of the class requirements. *Spring semester.*
- HHPA 217 Skin and Scuba Diving (Fee)** 1
Prerequisite: HHPA 215 or equivalent
Provides knowledge and skills necessary for underwater diving. A fee in addition to tuition is necessary for equipment rental. Other expenses may be incurred in connection with test dives. Students must provide their own fins, mask and snorkel. The additional class fee can be reduced if the student has more personal scuba gear. *Fall/spring semesters.*
- HHPA 219 Water Safety Instruction** 1
Prerequisite: HHPA 215 or equivalent or permission of instructor
Designed to assist students in refining and developing skills necessary to teach aquatic courses. Leads to the Red Cross Water Safety Instructor Certificate upon successful completion of class requirements. *Fall semester.*
- HHPA 220 Healthy Eating and Fitness** 1
Prerequisite: HHPA 155
A comprehensive approach to weight loss that focuses on healthy eating, physical activity and exercise. Students will learn a simple, fun, whole-diet approach that shows how to make gradual changes to improve healthy living. *Scheduled as needed.*
- HHPA 235 Weight Training and Physical Conditioning** 1
Designed to give instruction for knowledge and experience in weight training relative to total fitness. *Fall/spring semesters.*
- HHPA 242 Cardio Fitness** 1
The emphasis is cardiovascular exercise in a variety of formats and includes instruction on proper warm up, cool down, heart rate monitoring, and stretching. *Scheduled as needed.*
- HHPA 249 Fitness Walking** 1
Designed to assist walkers of any age, background, or fitness level to acquire the knowledge, skills, and attitudes necessary for participation in a lifelong program of fitness walking. *Scheduled as needed.*

HHPA 250 Running for Fitness**1**

Designed to increase cardiovascular fitness and a practical knowledge of the healthy benefits of running as a lifestyle. *Fall/spring semesters.*

Health and Human Performance Theory**HHPT 129 Introduction to Fitness and Wellness Management****3**

An introduction to the fitness marketplace with emphasis in administration. Laboratory experience includes selected aspects of fitness including fitness screenings, weight management programs and fitness assessments. Visitation to hospitals, private clubs and corporate clubs are included. This course requires ten (10) hours of field-based experience. *Fall semester, odd years.*

HHPT 215 Emergency Health Care**2**

Leads to certification in CPR/AED for the Professional Rescuer and Responding to Emergencies First Aid. Provides hands-on experience for the knowledge and skills necessary in an emergency to help sustain life and to minimize pain and the consequences of injury or sudden illness until professional medical help arrives. *Fall semester.*

HHPT 216 Athletic Injuries**3**

Focuses on skills for the treatment and care of athletic and recreational injuries. *Spring semester.*

HHPT 235 Principles of Sports Officiating I**1.5**

Prerequisite: Permission of the instructor

Covers rules, mechanics and practical experience in officiating flag football, soccer and volleyball. Also covers interpretation and officiating techniques for intramural sports. Course meets twice a week throughout the semester with laboratory experience required. Completion of this course prepares students for National Intramural-Recreational Sports Association (NIRSA) officiating certification. Students are required to have a complete official's uniform. *Fall semester, even years.*

HHPT 236 Principles of Sports Officiating II**1.5**

Prerequisite: HHPT 235 or permission of the instructor

Covers rules, mechanics and practical experience in officiating basketball, floor hockey and softball. Also covers interpretation and officiating techniques for intramural sports. Course meets twice a week throughout the semester with laboratory experience required. Completion of this course prepares students for National Intramural-Recreational Sports Association (NIRSA) officiating certification. Students are required to have a complete official's uniform. *Spring semester, odd years.*

HHPT 256 Medical Terminology**1**

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

HHPT 316 Leisure and Recreational Activities**2**

Prerequisite: Permission of the instructor

Provides instruction as well as participation in selected leisure and recreational activities, and instruction in the methods and techniques of teaching these activities. *Fall semester, odd years.*

- HHPT 326 Team Activities** **2**
 Prerequisite: Permission of the instructor
 Aids the student in learning and applying the skills and strategies common to major team sports that will be used in teaching or coaching. Basic sports skills covered include basketball, flagball, floor hockey, soccer, softball and volleyball. *Spring semester, odd years.*
- HHPT 335 Administration of Intramural Sports** **3**
 Prerequisites: HHPT 235, 236
 Designed to provide instruction and develop skills necessary to administer a successful intramural program. Emphasis is also given to refining knowledge and skill from HHPT 235, 236. Laboratory experience required in administering, supervising and officiating intramural sports activities. *Fall semester, odd years.*
- HHPT 337 Gymnastics for Teachers** **1**
 Prerequisite: HHPA 137 or permission of the instructor
 Designed to further develop skills in cheerleading, acrosports and ground tumbling. Students become aware of safety considerations, create lesson plans and develop routines. Completion of this course prepares students to take the USA Gymnastics University Safety/Risk Management online course to obtain safety certification. *Spring semester, odd years.*
- HHPT 340 Introduction to Coaching Theory** **2**
 Designed to develop coaching strategies and practical coaching theories. Includes information on sport psychology, sport pedagogy, and management. Completion of this course prepares students for the American Sport Education Program (ASEP) coaching certification. *Fall semester, even years.*
- HHPT 345 Sports Nutrition** **2**
 Prerequisite: BIOL 111, 112
 Examines the interrelationships among nutrition, health, and exercise performance. General principles include: eating disorders, weight management, hydration, and ingested ergogenic acids, all of which are common among physically active individuals. *Fall semester, odd years.*
- HHPT 350 Practicum** **1**
 Prerequisite: Permission of instructor
 Affords the opportunity to observe practical work in a student's chosen field, and to assist in the organization and administration of the program (on-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the practicum experience. *Fall/spring semesters.*
- HHPT 351 Practicum** **1**
 Prerequisite: Permission of instructor
 Affords the opportunity to observe practical work in a student's chosen field, and to assist in the organization and administration of the program (on-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the practicum experience. *Fall/spring semesters.*
- HHPT 356 Physiology of Exercise** **3**
 Prerequisites: BIOL 111, 112
 Covers training, sedentary lifestyle and the study of the physiological factors related to human movement. *Fall semester, odd years.*

HHPT 357 Motor Learning (WR)**3**

Prerequisite: BIOL 111, 112

Covers neurological and psychological factors affecting the learning of movement skills. *Spring semester, odd years.*

HHPT 360 Biomechanics**3**

Prerequisites: BIOL 111, 112

Designed so the student may learn and apply the anatomical and mechanical principles relative to human movement. *Spring semester even years.*

HHPT 366 Adapted Physical Education**2**

Covers the physical educator's role in identifying and providing appropriate activities for individuals who have structural, physical, neurological or psychological disorders. *Fall semester, even years.*

HHPT 370 Personal Training**3**

Prerequisites: BIOL 111, 112, HHPT 215, or permission of instructor

Designed to develop the skills necessary for being a personal trainer. Completion of this course prepares students for the National Council on Strength and Fitness (NCSF) personal training certification. *Spring semester, even years.*

HHPT 437 Measurement and Evaluation in HHP**2**

Prerequisite: MATH 111 or above

Covers elementary statistics applicable to test construction, evaluation and grading. Students develop appropriate measurement and evaluation techniques essential for all professionals in the exercise and sport science and physical education fields. *Fall semester, even years.*

HHPT 474 Internship**2**

Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the program (off-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the intern experience.

HHPT 475 Internship**1-4**

Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the program (off-campus). Approximately 45 hours per credit hour are spent in the completion of all aspects of the intern experience. Repeatable to total of four credits.

HHPT 476 Wellness Methods, Materials and Management**3**

A course in planning, implementing and evaluating worksite and community health promotion activities, including stress management, smoking cessation, cardiovascular fitness, body composition and cholesterol testing. Oral presentation required. *Fall semester, even years*

HHPT 485 Seminar in Health and Human Performance**1**

A study of health and human performance from a cultural perspective-past and present. *Spring semester, even years.*

HHPT 486 Senior Capstone (WR)**1**

All Health and Human Performance and Exercise Science majors are required to apply the principles of research design by selecting, designing and, depending upon the nature of the study, initiating research in a project directly applicable to health and human performance. Each student produces a report presenting their research process

and findings. Additionally a significant portion of the grade includes explanation of the completed portfolio. *Spring semester.*

Health and Human Performance Varsity

Varsity athletics do not apply toward the Human Health and Performance Activity general education requirements but count as elective credit toward the total hours for graduation.

HHPV 145 Varsity Sports I 0.5

Intercollegiate golf (men) and intercollegiate volleyball (women). Registration must be concurrent with participation on intercollegiate team. Credit available either semester but not both. Graded CR/NC. *Fall/Spring semesters.*

HHPV 170 Varsity Sports II 1

Intercollegiate basketball and college gymnastics team. Registration must be concurrent with participation on intercollegiate team. Credit available either semester but not both. Graded CR/NC. *Fall/Spring semesters.*

History

HIST 157 The West in the World 3

Deals topically with the interactions and unique contributions of Europe, Asia, the Americas, and Africa in the shaping of the modern world from the late middle ages to the present day. Students are also introduced to the problems facing the historian who studies the past of various peoples and cultures. *Fall/spring semesters.*

HIST 220 World Antiquity 3

Prerequisite: HIST 157

Introduction to the birth of civilizations in Mesopotamia, Egypt and India and the development of classical Greece and Rome with special emphasis on the development of biblical civilizations. *Spring semester, odd years.*

HIST 255 The U.S.: Discovery to Civil War 3

American history from the 1500s to 1850s including the discoveries, colonization and struggle for independence, growth of slavery, expansion and the years leading to the Civil War. *Fall semester, odd years.*

HIST 258/PLSC 25 Africa's Global Emergence 3

Focuses on the political relevance of the African continent in global affairs, particularly during the wars of colonization, World Wars I and II, the Cold War and the present global war on terror. *Fall semester, odd years.*

HIST 260/PLSC 260 Latin America and the Caribbean 3

The politics and history of Central and South America and the Caribbean from the era of the Monroe Doctrine (c. 1823) to the present-day. *Spring semester, odd years.*

HIST 346/PLSC 346 Russia: 1400-present 3

The politics and history of Russia from its emergence as a czarist state in the 1400s through the Soviet era and into the present-day politics. *Spring semester, odd years.*

HIST 349 Medieval Europe (WR) 3

Prerequisite: HIST 157

Studies major institutional, intellectual, political and economic developments in Europe between the fall of Rome and the Renaissance. *Fall semester, odd years.*

- HIST 378 Early Modern Europe (WR)** 3
Prerequisite: HIST 157
Examines the Early Modern Atlantic world including the political culture of Renaissance Italy and the Protestant Reformation as well as the age of exploration, piracy and Atlantic slavery. *Spring semester, even years.*
- HIST 380 The U.S.: Crisis, Consolidation, and Expansion** 3
Studies the causes of the Civil War, the institution of slavery and emancipation and the settler expansion and industrialization into the American frontier. *Spring semester.*
- HIST 383/PLSC 383 The North Atlantic: War and Peace 1900s** 3
Prerequisite: HIST 157
Focuses on the United States and Europe during the turbulent period of the World Wars, the Holocaust, the Civil Rights movement and the Cold War. *Spring semester.*
- HIST 386 Economic History of the United States** 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, odd years.*
- HIST 392/PLSC 392 The Modern Middle East** 3
The history and the politics of the modern Middle East, from the Tanzimat period of the Ottoman Empire to the present period. Analysis of the various past and present conflicts in the Middle East. *Spring semester.*
- HIST 396/PLSC 396 East and South Asian History** 3
The politics and history of East Asia from the Ming period in China and the Mughal era in the subcontinent. Meiji Restoration in Japan and the effect of the world wars on both South and East Asia are also covered. *Fall semester, odd years.*
- HIST 401 Europe: 1789-1914 (WR)** 3
Prerequisite: HIST 157
Studies the political, economic, social and cultural developments in Europe from the French Revolution to World War I. *Fall semester, even years.*
- HIST 405 Africa's Economic History** 3
Studies the historical relationships and trends between African economies and other critical economies in the international sphere. Focuses on the relevance of Africa's economic history within the world economy from Byzantine Egypt to the Empires of Mali and Songhai and Kongo to the African Union. *Spring semester, even years.*
- HIST 430/PLSC 430 Global Migrations** 3
Focuses on the history of internal and international migrations and their effects as mitigating critical resources—water, employment, arable land, etc. – and also as critical determining factors of political instability with various countries. *Fall semester.*
- HIST 450 20th-Century American History** 3
Focuses on the major and critical historical movements and events of the United States within the 20th Century. Reviews the historical developments that helped to define the United States from World Wars I and II to the onset of the George W. Bush presidency. *Spring semester, odd years.*
- HIST 465/PLSC 465 The U.S. War on Terror** 3
The recent U.S. and global politics surrounding the commencement of the U.S. war on terror in 2001 until the present-day. *Fall semester, even years.*

HIST 497 Historiography (WR)**3**

Prerequisite: HIST157, Permission of the instructor

Research course for history and social science majors and minors. Includes historical schools of thought with special attention to method, research and preparation of a paper. *Spring semester.*

Humanities**HMNT 305 Arts and Ideas****2**

Prerequisite: HIST 157 or permission of instructor

A survey of the fine arts with an emphasis on recognizing and understanding the great styles from antiquity to 1900 A.D. *Fall semester.*

HMNT 332 Historical Issues in Leadership**2**

An introduction to famous and infamous historical leaders. Students will be encouraged to develop their own leadership styles in dialogue with leaders and events of world history. *Spring semester.*

Honors—Union Scholars**HONS 112 Research and Composition****3**

Prerequisite: Acceptance into Union Scholars and completion of ENGL 111 or equivalent with a grade of B

Introduction to the study of literacies, that is, how reading, writing, listening and meaning-making arise out of specific cultural, political and historical contexts and, in turn, engender particular discourses. Students explore the rhetorical aspects of writing while honing research skills. Includes the application of MLA, APA, and Chicago documentation styles in the writing of a research paper. *Spring semester.*

HONS 125 Western Culture I**3**

Prerequisite: Acceptance into Union Scholars or permission of instructor

Significant issues in Western civilization approached through reading major works, considering artistic creations, and disciplined reflection in discussion and writing. Explores cultural and reflects artistic and literary themes against the historical background of the ancient, classical medieval and Renaissance eras. Small group projects and discussions, field trips and cultural events enrich the lectures. Disciplines: Primarily history and literature. *Fall semester, even years.*

HONS 126 Western Culture II**3**

Prerequisite: Acceptance into Union Scholars or permission of instructor

Continuation of HONS 125; however, HONS 126 may be taken prior to HONS 125. Covers the Enlightenment to the modern world. Disciplines: Primarily history and literature. A Western Culture course is required the first year in Scholars. *Fall semester, odd years.*

HONS 215 Self and Society (WR)**3**

Prerequisite: Acceptance into Union Scholars or permission of instructor

Explores answers to the question, "Who am I" from the viewpoints of the disciplines of psychology, sociology, and religion. It looks at the self and how the individual is shaped by and related to society at large in various cultures around the globe.. *Spring semester.*

- HONS 245 Freedom and Responsibility (WR)** **3**
Prerequisite: Acceptance into Union Scholars or permission of instructor
Explores the issues of personal freedom, responsibility, and authority in political life from the viewpoint of the disciplines of political science, history, psychology and communication. It examines the respective roles of the individual and the state in historical settings around the globe. The course contains a component of public speaking. *Fall semester.*
- HONS 265 Conflict and Peacemaking** **3**
Prerequisite: Acceptance into Union Scholars or permission of instructor
Explores conflict resolution from the viewpoint of the disciplines of communication, history, political science and religion. Its focus is on the practice of non-violence and peacemaking in personal and global situations. *Spring semester.*
- HONS 287 Topics** **3**
Prerequisite: Acceptance into Union Scholars or permission of instructor
Various interdisciplinary topics have been taught including the following: The U.S. Presidency, The Holocaust, and Critiquing Film. These courses or other selected topics taught as needed.
- HONS 294 Economics, Religion, and Poverty** **1**
Prerequisite: Acceptance into Union Scholars or permission of instructor
Explores the causes and consequences of wealth and poverty globally from the viewpoint of the disciplines of economics, sociology, and religion. It then explores possible responses to the disparities of wealth and poverty. *Spring semester.*
- HONS 325 Science and Religion (WR)** **3**
Prerequisite: Acceptance into Union Scholars or permission of instructor; completion of a 151 laboratory science course or higher, and junior standing
Explores the nature of scientific inquiry, the history of scientific thought around the globe, and the relationship between science and religion in various cultures. *Spring semester.*
- HONS 335 Wealth and Poverty** **3**
Prerequisite: HONS 294 and acceptance into Union Scholars or permission of instructor
A study tour that typically includes visits to Hong Kong, China, and Malaysia where the student interacts with wealth and poverty and the issues related to it from an experiential viewpoint. *Summer.*
- HONS 345 The Global Environment** **3**
Prerequisite: Acceptance into Union Scholars or permission of instructor
Explores issues related to the ecology of the globe from the viewpoint of the disciplines of biology, environmental science and religion. It explores the causes of, results of, and possible solutions to the environmental impact of human beings. *Fall semester.*
- HONS 360 Romans in Context** **3**
An intensive study of Paul's Epistle to the Romans within its socio-cultural context that includes interpretation by the initial readers, and theological interpretation of Romans in relation to the contemporary world. Students make presentations and write research papers on issues related to the Pauline Epistles and Romans. Satisfies the Scholars requirement for one RELB or one HONS topics course. *Spring semester.*

HONS 376 Critiquing Film in a Global Context 3

Prerequisite: Acceptance into Union Scholars or permission of instructor

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 films, all within a global context. *Spring semester, even years.*

HONS 398 Research Methods 2

Prerequisite: Acceptance into Union Scholars

Preparation of the Honors Thesis proposal. Expectations for the thesis project are addressed, including the choice of a topic, refining the proposal, the role of literature review, formal public speaking presentation software, and evaluation. The letter grade assigned reflects the presentation of the project to the Scholars Advisory Committee. *Fall semester.*

HONS 498 Honors Thesis 1-2

Prerequisite: Acceptance into Union Scholars

Students conduct independent research, produce a creative project or solve a problem typically within their major field under the primary supervision of a professor in that discipline and with the additional support of two advisors. The Thesis culminates in a public presentation with the research paper filed in the Scholars Office and in the Ella Johnson Crandall Memorial Library.

International Rescue and Relief**INRR 100 Emergency Medical Technician I 7**

Prerequisite: Completion of criminal background check, annual TB test, hepatitis B vaccine, and annual influenza vaccine; current American Heart Association BLS for the Health Care Provider CPR certification.

Prepares students to deliver basic emergency care to individuals at the scene of an accident or medical emergency and to transport individuals to a medical facility in a safe and expedient manner. Emphasizes accurate observation, evaluation of emergency situations, effective communications with the medical network and high skill proficiency. At the completion of the course, students are eligible to take the examinations for state and national registry certification as an Emergency Medical Technician. *Spring semester.*

INRR 110 Search and Rescue 2

Prerequisite: INRR 100, INRR 114 or permission of instructor

Provides knowledge concerning the general responsibilities, skills and equipment needed by persons who would be participating in wilderness search and rescue missions. The course provides opportunities for skill development in practical search missions. The course provides instruction in three main areas: survival and support, search, and rescue. *Summer.*

INRR 112 Swift Water Rescue and Flood Management 1

Prerequisite: INRR 100, INRR 114 or permission of instructor

The course meets NFPA 1670 and 1006 standards for swift water rescue. The initial emphasis is on self-rescue skills. Other objectives include an in-depth look at water dynamics, handling hazards and obstacles, using basic rescue equipment, setting technical rope systems, and controlling in-water contact rescues. Also covers pre-planning, rescue and recovery management, specific problems which arise with floods, rescue from class I-VI whitewater, raising/lowering systems, a Search and Rescue (SAR) night scenario, and other subjects. *Summer.*

INRR 114 Technical Rope Rescue**1**

Students are trained in pre-planning and size-up of rope rescue operations; knots, hitches and anchor systems; belay operations; ascending and descending; raising and lowering systems; and patient packaging and litter attending. Also covers advanced problem solving and highline systems. Safety of the rescuer, rescue team, patient and bystanders is stressed at all times. TRR meets NFPA 1670 standards. *Summer/Fall semester.*

INRR 116 Basic Survival**1**

Prerequisite: INRR 100, INRR 114 or permission of instructor

Instructs and trains students to: prioritize the basic needs for survival; build a foul weather fire using a spark and wet wood; construct a natural shelter without rope, cord or nails; identify, prepare and eat indigenous wild edible plants; navigate on land using natural aides. *Summer.*

INRR 202 Emergency Medical Technician II**4**

Prerequisite: INRR 100, successful completion of NREMT Exam

Instructs and trains students in non-visualized advanced airway management and IV administration. The course also includes the Pre-Hospital Trauma Life Support (PHTLS), a program designed to reduce death and disability for patients who suffer traumatic emergencies such as accidents, drowning, and other injury related illnesses. *Fall semester.*

INRR 210 Principles of Emergency Management**3**

An overview of the major principles vital to emergency responders that includes mitigation, preparedness, response, and recovery. Also includes the role of major stakeholders and the components of an effective emergency response organization. Covers both short- and long-term mass care services including sheltering, feeding, and distribution of relief supplies. *Fall semester.*

INRR/SOCI 220 Social Dimensions of Disaster**3**

Explores how broad concepts such as social conflict and social inequality are manifested in disasters throughout the world. Topics include demographics and disaster behavior distinctions, disaster culture, individual versus group response to disasters, and the link between social vulnerability and sustainable development. More broadly, students will examine the relationship between the social sciences and public policies in emergency management. *Spring semester.*

INRR 302 HIV and Emerging Diseases**1**

Focuses on the wide-spread effects of HIV and new emerging diseases. Treatment skills and knowledge of prevention for these and other rapid rising, life-threatening illnesses are essential to avoid both endemic and pandemic health catastrophes. *Fall semester.*

INRR 310 Emergency Care I**3**

Prerequisites: BIOL 106, 111, or 205 (except for Pre-professional), INRR 100, 110, 112, 114, 116, 202, or permission of the instructor

The first part of emergency care for those in rural areas, disaster situations and the wilderness environment. Students learn how to treat themselves and patients when there are virtually no medical supplies and resources available. Contains lecture, didactic, offsite and lab components. Students will obtain Wilderness EMT certification. *Fall semester.*

INRR 311 Emergency Care II**3**

Prerequisite: BIOL 205, INRR 310, or permission of the instructor

The second part of emergency care for those in rural areas, disaster situations and the wilderness environment. Students learn to treat themselves and patients when there are limited medical supplies and resources available. Contains lecture and didactic components with clinical experiences in dental emergencies, wound management and fracture management. Overseas—*Spring semester*.

INRR 316 Jungle, Coastal and Ocean Survival**1**

Prerequisite: INRR 310

Jungle survival covers shelter, fire, food and water needs in the jungle setting. Includes instruction in identification and avoidance of dangerous plants and venomous creatures.

Coastal survival covers the same topics as the Basic Survival course with a special emphasis on a coastal environment situation. Students learn how to find fresh water, as well as how to successfully obtain a wide variety of foods. Fire-craft, shelter building, signaling and all other topics from the Basic Survival class are reviewed. While emphasis is placed on the coastal environment, discussion includes how to adapt the skills for any environment.

Ocean survival covers survival of a downed aircraft or capsized boat. Includes: how to use a life raft; how to survive in an aquatic environment; helicopter rescue; practical use of signaling devices; meteorology; medical emergencies. Students spend 24 hours in a survival scenario on a life raft with survival gear. Overseas—*Spring semester*.

INRR 321 Global Health**3**

Prerequisite: INRR 310

Topics include: assessing local health needs and conditions; recognition and treatment of diseases; prevention of the spread of disease; developing and implementing strategies to improve health (nutrition, hygiene, water purification, waste control and safe living conditions); environmental toxicology; microbiology with field laboratory testing. A hands-on course in rural Central American villages. Overseas—*Spring semester*.

INRR 330 Travel and Tropical Medicine**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 351 Stress and Rescue Diving**1**

Prerequisite: HHPA 217 or recognized dive certification

Students learn the fundamentals of dive operations from scene evaluation through incident debriefing. Public safety divers and surface-support personnel will be prepared to respond effectively to the water-incident scene. The program is presented in a classroom and at an open-water training site. *Fall semester*.

INRR 420 IRR Preceptorship**1**

Prerequisite: 30 hours of IRR courses; senior standing

Designed as the individualized capstone class for international rescue and relief majors. Applies knowledge and skills in a clinical setting of the students' choice, bridging the gap between theory and practice at an entry level position. Joint planning between the student, instructor, preceptor and agency determines the students' activities and experiences. No previous experience is accepted for credit. *Fall semester*.

INRR 430 Expeditionary Leadership**3**

This course's focus lies in learning the intricacies of leadership. Students practice planning trips, orienting groups, and learning expedition dynamics. Leadership theory is studied in depth to show advantages of different styles, and the incorporation of those styles in a group setting. Overseas – *Spring semester*.

INRR 482 International Development and Cultural Integration (WR)**3**

Prerequisite: Junior or senior standing

A class that examines the skills and tools needed to adjust to life and work in a developing country. Cultural sensitivity and integration is emphasized in the context of sensible, sustainable development. Students are asked to examine critical shifts between their primary cultural perspective and the social dynamics of other cultures. *Fall semester*.

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

Prerequisite: Junior or senior standing

Explores and researches current concepts of disaster management. An emphasis is placed on recovery needs, covering natural and man-made disasters, and acts of terrorism. Students explore the roles of the local, state and federal agencies during disasters and mass casualty events. *Fall semester*.

Leadership

LEAD 225 Creative Leadership**3**

Through the study of personal assessments and major leadership models, students will understand their personal leadership strengths and incorporate them into a personal philosophy of leadership. They will develop a personal leadership portfolio, complete a citizen leadership project, and complete a servant leadership project as a group. *Fall/Spring semesters*.

LEAD 245 Leadership Cohort**1**

Prerequisite: LEAD 225

Cohort members will read leadership literature, discuss leadership issues and visit local leaders. Credit/No Credit.

LEAD 345 Leadership Cohort**1**

Prerequisite: LEAD 245

Cohort members will read leadership literature, discuss leadership issues and visit local leaders. Credit/No Credit.

LEAD 425 Experiences in Leadership**3**

Prerequisite: LEAD 225

Based on leadership theories and models, students will apply their knowledge in group and individual leadership projects. They will test one model in a leadership situation and participate in a leadership experience. Previous experiences have varied, including an extended canoe trip, visits with political leaders in Washington D.C., and service projects. *Summer*.

LEAD 475 Leadership Internship**1-3**

Prerequisite: LEAD 225 and junior or senior standing

Affords students the opportunity to observe practical work in a chosen field and to assist in the organization and administration of the off-campus program. Approximately 45 clock hours of contact time per credit hour are spent in the completion of the intern experience. May be repeated for additional credit.

Literature

LITR 231 Ancient Western Literature (WR) 3

Prerequisite: ENGL 112

A chronological approach to major works of literature influencing Western culture from major genres. The course covers the ancient Hebrew, Greek and Roman worlds through the Renaissance. A chief aim is the appreciation and enjoyment of various cultures. Either this class or LITR 232 will meet the LEAD/general education requirement for educational certification. *Fall/spring semesters.*

LITR 232 Modern Western Literature (WR) 3

Prerequisite: ENGL 112

A chronological approach to major works of literature influencing Western culture from major genres. The course covers the seventeenth century through today including non-U.S. Western Hemisphere. Either this class or LITR 231 will meet the LEAD/general education requirement for educational certification. *Spring semester.*

LITR 235 Approaches to Literature: British and American (WR) 3

Prerequisite: ENGL 112

The writing of analytical persuasive papers on the major literary genres: poetry, short story, novel and drama. Writers demonstrate a working knowledge of the tools of literary criticism in analyzing several works. *Fall semester.*

LITR 240 Travel Literature (WR) 3

Prerequisite: ENGL 112

Explores texts that reveal authors in relation to an environment that is foreign. Activities include close reading of texts, thinking about, discussing, and writing about those texts with attention to genre, historical period, and employment of various literary techniques. *Summer, odd years.*

LITR 299 Seminar in Non-Western Literature (WR) 3

Prerequisites: ENGL 112

An overview of major non-Western writers, including African, Indian, Chinese, Japanese, et al. Encouraged for students interested in international service. *Fall semester, even years.*

LITR 345 Studies in Early American Literature (WR) 3

Prerequisites: ENGL 112, LITR 231, 232, or 235, or permission of the instructor

A consideration and evaluation of significant literary works in the Colonial, Revolutionary and Romantic Periods (1607-1865). Recommended for students with some experience in literature. May be repeated for credit with permission of instructor. *Spring semester, even years.*

LITR 348 Studies in British Literature (WR) 3

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

Configuration varies each time the course is offered, with alternate concentration on the Enlightenment, Romantic and Victorian Eras. May be repeated for credit with permission of instructor. *Fall semester, odd years.*

LITR 352 Women and Minority Writers (WR) 3

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

A consideration and evaluation of major works by women and minority writers (in America or England from the eighteenth century to the present) in conjunction with an overview of feminist and minority critical stances. *Fall semester, odd years.*

LITR/RELB 366 Biblical Literature (WR) 3

Prerequisites: ENGL 112, LITR 232, 235, or permission of instructor

A survey of the Bible's literary masterpieces from an archetypal perspective. Literary patterns, techniques and terminology are applied to Bible writers and their writings. May be used to meet LITR or RELB general education requirements but not both. *Fall semester, even years.*

LITR 436 Studies in American Literature (WR) 3

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

A consideration and evaluation of 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, even years.*

LITR 440 Travel Literature (WR) 3

Prerequisite: ENGL 112

Explores texts that reveal authors in relation to an environment that is foreign. Activities include close reading of texts, thinking about, discussing, and writing about those texts with attention to genre, historical period, and employment of various literary techniques. Readings in critical theory are also assigned. *Summer, odd years.*

LITR 445 Early British Literature (WR) 3

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

Presents major authors and traditions from the Anglo-Saxon period through the seventeenth century. Configuration varies each time course is offered, with alternate concentration on separate periods. May be repeated for credit. *Fall semester, even years.*

LITR 475 Twentieth-Century Writers (WR) 3

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

Presents an overview of twentieth century American (or British) literature (novel, poetry or drama) and critical stances. May be repeated for credit. *Spring semester, odd years.*

Mathematics

Mathematics Placement Policy: ACT or SAT scores are used for placing students into appropriate mathematics courses. Those with scores lower than the published cutoff for the course must receive permission from the instructor before enrolling. Granting of permission is based on performance in secondary mathematics courses and in related college courses. An additional placement examination may also be required.

Prerequisites are listed for each course and students must present grades of C or higher in prerequisite courses.

Credit: When a MATH course that is higher in a sequence has been passed with a grade of a C or above, that course will meet the requirements of a lower MATH course in the same sequence. No credit will be given for taking a lower course in the sequence after a higher course has been passed with a grade of C or above. MATH 017, 100, 111, and 121 are a sequence; MATH 184, 285, and 286 are a sequence; and MATH 221 and 331 are a sequence.

Courses numbered below 100 are considered developmental and do not count toward the 128 semester hours required for graduation. Similarly, grades in these courses do not affect a student's grade point average (GPA).

MATH 017 Elementary Algebra**3**

A course in basic algebra covering the standard topics of first-year algebra in high school. Emphasis is on problem solving using algebra. Students with little or no previous background in algebra require both MATH 017 and 100 prior to taking MATH 111, 121 or 221. *Fall semester.*

MATH 100 Intermediate Algebra**3**

Prerequisites: One year of high school algebra and an ACT math score of 16 (SAT of 380) or completion of MATH 017

A second course in basic algebra covering polynomial and rational expressions, factoring, exponents, graphing linear and quadratic functions, and solving related equations. A continuation of MATH 017. Does not meet general education requirements. *Fall/spring semesters.*

MATH 111 College Algebra**3**

Prerequisites: Two years of high school algebra and an ACT math score of 20 (SAT of 480) or MATH 100

Study of the properties of the real and complex number systems, linear and quadratic equations, factoring, exponents, inequalities, and polynomials. Emphasizes functions (algebraic, exponential, and logarithmic). A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. Does not apply toward a mathematics major or minor. *Fall/spring semesters.*

MATH 121 Precalculus**5**

Prerequisites: Two years of high school algebra and a year of high school geometry and an ACT math score of 20 (SAT of 480) or MATH 100

Provides instruction and experience that enable the student to: apply algebra/trigonometry to model, analyze, and predict physical phenomena; and analyze scientific and business problems verbally, graphically, numerically, and symbolically. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Fall semester.*

MATH 165 Calculus for Managers**3**

Prerequisites: Two years of high school algebra and a year of high school geometry and an ACT math score of 21 (SAT of 500) or MATH 111

Provides instruction and experience that enables students to apply calculus to solve problems in business, economics, management, and the social sciences. A TI-84 (highly recommended) or other graphics calculator with comparable features is required for this course. Does not apply toward a mathematics, chemistry or physics major or minor. *Spring semester.*

MATH 184 Calculus I**4**

Prerequisite: MATH 121

Provides instruction and experience that enable the student to apply calculus, related mathematics, and a graphical calculator to structure an understanding of the world around us and to investigate related questions. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Spring semester.*

MATH 221 Elementary Statistics and Probability**3**

Prerequisites: Two years of high school algebra and an ACT math score of 20 (SAT of 480) or MATH 100

Explores basic frequency distributions, probability, sampling, estimations, testing hypotheses, correlation, regression, chi-square and analysis of variance. A TI-84 (highly recommended) or other graphing calculator with comparable features is required

for this course. Does not apply toward a mathematics major or minor. *Fall/spring semesters.*

MATH 285 Calculus II**4**

Prerequisite: MATH 184

Continuation of MATH 184 with emphasis on methods of integration in rectangular and polar coordinate systems, indeterminate forms, and infinite sequences and series. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Fall semester.*

MATH 286 Calculus III**4**

Prerequisite: MATH 285

Continuation of the Calculus sequence. Includes multivariable functions, partial derivatives, multiple integrals, vector differential operators, line integrals and Green's theorem. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Spring semester.*

MATH 320 Mathematical Concepts for Elementary School Teachers**3**

Prerequisite: MATH 111

Corequisite: EDUC 345

Builds upon previous mathematics courses as well as classroom observation. Standards for mathematics published by the National Council of Teachers of Mathematics (NCTM) form the basis for the selection of topics: number, operations, and elementary algebra. This course is directed toward thorough comprehension of elementary mathematics and interconnections among mathematical ideas and grade levels. Cooperative learning teams prepare, present, and critically reflect on lessons—to guarantee their students will gain in-depth understanding of mathematics. *Fall semester.*

MATH 331 Statistics and Probability**3**

Corequisite: MATH 286

A calculus based introduction to basic concepts in statistics (such as the Central Limit Theorem and hypothesis testing) and classical probability theory. Includes Bayes' rule, bivariate distributions, and moment generating functions. Application of several discrete distributions (such as Poisson, binomial and hypergeometric) and continuous distributions (such as exponential and normal). A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Spring semester, odd years.*

MATH 340 Discrete Mathematics**3**

Prerequisite: MATH 184

Concerned with finite processes, sequences of individual steps, and sets that can be listed (e.g. whole numbers). This contrasts with calculus, which covers infinite processes, continuous change, and intervals of real numbers. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Fall semester.*

MATH 351 Abstract Algebra**3**

Prerequisite: MATH 286

Introduction to the basic concepts of abstract algebra presenting the elements of the theory of number systems, groups, fields, etc. *Spring semester, even years.*

MATH 352 Linear Algebra**3**

Prerequisite: MATH 184

Provides instruction and experience that enable students to: solve systems of linear equations; apply the properties of vectors spaces, inner product spaces, and linear transformations to real-world problems; and answer various questions in engineering, computer science, and statistics. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Spring semester.*

MATH 385 Differential Equations**3**

Prerequisite: MATH 286

Ordinary differential equations with emphasis on the solutions and analysis of systems of first- and higher-order differential equations drawn from fields of physics, chemistry, geometry and engineering. *Fall semester, odd years.*

MATH 401 Math Connections I for K-12 Teachers**2**

Prerequisite: Currently teaching mathematics at the elementary or secondary level

Provides instruction and experience in number operations and elementary algebra. It is directed toward thorough comprehension of elementary mathematics and of interconnections among mathematical ideas and grade levels. Cooperative learning teams (a mix of elementary and secondary teachers) prepare, present and critically reflect on lessons—to guarantee their students gain in-depth understanding of mathematics. May be repeated for additional credit. *Summer.*

MATH 402 Math Connections II for K-12 Teachers**2**

Prerequisite: Currently teaching mathematics at the elementary or secondary level

Provides instruction and experience in elementary geometry, measurement, and data analysis. It is directed toward thorough comprehension of elementary mathematics and of interconnections among mathematical ideas and grade levels. Cooperative learning teams (a mix of elementary and secondary teachers) prepare, present and critically reflect on lessons to guarantee their students gain in-depth understanding of mathematics. May be repeated for additional credit. *Summer.*

MATH 409 Modern College Geometry**3**

Prerequisite: MATH 285 or experience teaching secondary geometry

Studies advanced Euclidean geometry and introduces modern geometrical concepts in non-Euclidean geometry. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Scheduled as needed.*

MATH 451 Mathematical Connections for Secondary Teachers**4**

Prerequisites: EDUC 475 or 29 of the 38 MATH hours required for the BS in Mathematics Education or permission of instructor

Provides a capstone experience for prospective mathematics teachers enabling them to build insightful connections between the advanced mathematics of their college courses and the high school mathematics they will be teaching. A TI-84 (highly recommended) or other graphing calculator with comparable features is required for this course. *Scheduled as needed.*

MATH 486 Numerical Analysis**3**

Prerequisites: MATH 285, CPTR 226

Numerical techniques to model physical phenomena. Topics cover error analysis, matrices, numerical solutions of linear and nonlinear equations, polynomial approximations, numerical differentiation and integration and interval algebra. *Scheduled as needed.*

MATH 491 Real Analysis**3**

Prerequisite: MATH 286

Studies properties of real numbers and sets of real numbers, limits of sequences and functions, series, modes of convergence and their consequences (such as continuity). Introduction to elementary topological notion of the real line. Theory of the Riemann Integral. *Fall semester, even years.*

MATH 492 Complex Variables**3**

Prerequisite: MATH 286

Introduces theory of functions of a complex variable as well as applications. Includes uses of the residue theory, contour integration, and conformal mapping. *Spring semester, odd years.*

Marketing

MRKT 327 Marketing (WR)**3**

A general survey of major marketing methods, institutions and practices, and their effects on producers and consumers. Students integrate marketing concepts through case study analysis and a business simulation. *Fall semester.*

MRKT 333 Professional Selling**3**

Examination and practice of the sales process from prospecting to successful closing of the sale and effective follow up. Also considers ethical issues. *Spring semester, even years.*

MRKT 443 Consumer Behavior**3**

Prerequisite: MRKT 327 with a minimum grade of C or PSYC 105 with a minimum grade of C

Studies people's actions as they relate to obtaining, consuming, and disposing of products and services. Includes consumer decision processes and their relevance for marketing decision-making. *Spring semester, odd years.*

MRKT 456 Marketing Research**3**

Prerequisites: COPR 241 or MRKT 327

Focuses on planning investigations, gathering and interpreting data, and presenting findings in a professional manner. *Fall semester, odd 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. 90 hours of work are required for each hour of credit.

Music Applications

MUAP 207 Brass Techniques and Materials**1**

Designed to give future teachers experience with the various techniques of, and the materials for, teaching brass instruments to beginning and intermediate students. Class members also gain a basic proficiency in playing a variety of brass instruments. *Fall semester, 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, as needed.*

MUAP 227 Percussion Techniques and Materials 1

Designed to give future teachers experience with the various techniques of, and the materials for, teaching percussion instruments to beginning and intermediate students. The members of this class also gain a basic proficiency in playing a variety of percussion instruments. *Spring semester, 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, 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, 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, as needed.*

Music Education**MUED 275 Music Practicum 1-4**

Prerequisite: Permission of supervising instructor

Teach private music lessons under the supervision of the instructor. Participate in other hands-on activities of a music teacher. Each hour of credit represents 50 clock hours of contact time. May be repeated for additional credit.

MUED 307 Keyboard Pedagogy 2

Prerequisite: Permission of instructor

A survey of methods and materials for effective piano teaching starting with the child beginner and proceeding through the high school student. Particular emphasis given to age appropriate techniques, literature, and musicianship development. Includes observations and practical experience with professional piano teachers from the community. *Scheduled 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. *Scheduled 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, as needed.*

MUED 347 Music in the Elementary School 2

Prerequisite: EDUC 218 or permission of instructor

Prepares future elementary teachers for teaching music at the K-8 level by teaching how to set goals and objectives for the music program and how to organize and institute a music program. Studies the various methods and techniques available to the elementary music teacher and considers the interrelationship between music and the entire curriculum. *Fall semester.*

Music History and Literature**MUHL 260 Music in the Western World** 3

Focuses on the development of music in Western civilization. Students become acquainted with important styles and genres of art music, as well as influential composers and specific pieces from Medieval to contemporary times. *Fall semester.*

MUHL 261 Traditional and World Music 3

Designed to increase cultural awareness through an overview of traditional music styles and performance practices from around the world. The cultural and historical context for each musical tradition is examined. *Spring semester.*

MUHL 315 Music and Christian Worship 2

A survey of congregational song and its use in Christian worship. Emphasis is placed on relationships between church history, theology, scripture, music and literature, criteria for planning and evaluation. *Scheduled 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, even years.*

MUHL 352 Music History II (WR) 2

Prerequisite: Permission of instructor

Western music from late Renaissance through the Baroque period. *Spring semester, odd years.*

MUHL 353 Music History III (WR) 2

Prerequisite: Permission of instructor

A study of the Classical and early Romantic periods. *Fall semester, odd years.*

MUHL 354 Music History IV (WR) 2

Prerequisite: Permission of instructor

Music from the late Romantic period to the present, including an overview of jazz. *Spring semester, even years.*

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 music majors.

MUPF 101, 201, 301, 401 Voice	1-3
MUPF 105, 205, 305, 405 Flute	1-3
MUPF 106, 206, 306, 406 Oboe	1-3
MUPF 107, 207, 307, 407 Clarinet	1-3
MUPF 108, 208, 308, 408 Bassoon	1-3
MUPF 109, 209, 309, 409 Saxophone	1-3
MUPF 111, 211, 311, 411 Piano	1-3
MUPF 112, 212, 312, 412 Organ	1-3
MUPF 113, 213, 313, 413 Harpsichord	1-3
MUPF 114, 214, 314, 414 Harp	1-3
MUPF 115, 215, 315, 415 Trumpet	1-3
MUPF 116, 216, 316, 416 Horn	1-3
MUPF 117, 217, 317, 417 Euphonium (Baritone Horn)	1-3
MUPF 118, 218, 318, 418 Trombone	1-3
MUPF 119, 219, 319, 419 Tuba	1-3
MUPF 121, 221, 321, 421 Percussion	1-3
MUPF 125, 225, 325, 425 Violin	1-3
MUPF 126, 226, 326, 426 Viola	1-3
MUPF 127, 227, 327, 427 Cello	1-3
MUPF 128, 228, 328, 428 String Bass	1-3
MUPF 129, 229, 329, 429 Guitar	1-3
MUPF 130, 230, 330, 430 Composition	1-3
MUPF 175/375 Symphonic Concert Band*	1

Prerequisite: Permission of instructor

MUPF 176/376 Chamber Orchestra* Prerequisite: Permission of instructor	1
MUPF 177/377 Chamber Choir* Prerequisite: Permission of instructor	1
MUPF 185/385 Advanced Choir (Unionaires) * Prerequisite: Permission of instructor	1
MUPF 191/391 Brass Ensemble (Brass Union) * Prerequisite: Permission of instructor	1
MUPF 192/392 Guitar Ensemble* Prerequisite: Permission of instructor	1
MUPF 193/393 Handbell Ensemble* Prerequisite: Permission of instructor	1
MUPF 194/394 Keyboard Ensemble* Prerequisite: Permission of instructor	1
MUPF 195/395 String Ensemble (Golden Cords) * Prerequisite: Permission of instructor	1
MUPF 196/396 Vocal Ensemble* Prerequisite: Permission of instructor	1
MUPF 197/397 Woodwind Ensemble* Prerequisite: Permission of instructor	1
MUPF 257 Introduction to Conducting Prerequisite: Permission of instructor <i>Spring semester.</i>	2
MUPF 266 English-Italian Diction Prerequisite: Permission of instructor <i>Fall semester, even years.</i>	1
MUPF 267 German-French Diction Prerequisite: Permission of instructor <i>Spring semester, odd years.</i>	1
MUPF 341 Choral Conducting Prerequisite: MUPF 257; permission of instructor <i>Spring semester, as needed.</i>	1
MUPF 342 Instrumental Conducting Prerequisite: MUPF 257; permission of instructor <i>Scheduled as needed.</i>	1
MUPF 346 Service Playing Prerequisite: Permission of instructor The role of the organist in the church service; practical procedures. <i>Scheduled as needed.</i>	1

MUPF 351 Junior Recital 1
Prerequisite: Permission of instructor

MUPF 451 Senior Recital 1
Prerequisite: MUTH 254 and permission of instructor
*May be repeated for additional credit. *Fall/spring semesters.*

Music Theory

MUTH 151 Theory I 3
Prerequisite: Permission of instructor
Emphasis of fundamentals, nonharmonic tones, figured bass and melody harmonization techniques in 4-part style, and melody writing. *Fall semester.*

MUTH 152 Theory II 3
Prerequisite: MUTH 151 with a minimum grade of C
Continuation of MUTH 151 with emphasis on part-writing, analysis, keyboard harmonization and music composition. Specific topics covered are seventh chords, secondary dominants and modulation techniques. *Spring semester.*

MUTH 161 Sight-Singing and Ear Training I 1
Corequisite: MUTH 151
Lab course to accompany Theory I. *Fall semester.*

MUTH 162 Sight-Singing and Ear Training II 1
Prerequisite: MUTH 161
Corequisite: MUTH 152
Lab course to accompany Theory II. *Spring semester.*

MUTH 253 Theory III 3
Prerequisites: MUTH 152, 162 with a minimum grade of C
Continuation of MUTH 152 with emphasis on 19th-century chromaticism. Score reading, analysis and original composition. *Fall semester.*

MUTH 254 Theory IV 3
Prerequisite: MUTH 253 with a minimum grade of C
Continuation of MUTH 253 with emphasis on 20th-century techniques and materials. Score reading, analysis and original composition. *Spring semester.*

MUTH 263 Form and Analysis 2
Corequisite: MUTH 253
Advanced tonal and structural analysis. *Scheduled as needed.*

MUTH 462 Introduction to Counterpoint 2
Prerequisite: MUTH 254 or permission; MUHL 352 recommended
Introduction to contrapuntal procedures from the 18th century. *Spring semester, as needed.*

MUTH 465 Orchestration 2
Prerequisite: MUTH 254
Fall semester, as needed.

Nursing

NURS 204 Introduction to Professional Nursing 3

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

Focuses on the role of the professional nurse in the current system of healthcare delivery. Sociological theories are included. Basic concepts of communication, safety, quality patient-centered care, and clinical judgment are introduced. *Fall/spring semesters.*

NURS 208 Fundamentals 6

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

Corequisite: NURS 305

Introduces basic psychomotor skills and other concepts of physiologic and psychosocial integrity. Nutritional concepts and basic medical terminology are included. Students provide safe care to one adult patient per clinical experience in a variety of healthcare settings. Withdrawal from NURS 305 requires withdrawal from NURS 208. *Fall/spring semesters.*

NURS 243 Evidence-Based Practice (WR) 3

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

Corequisites: NURS 204, NURS 208, NURS 305

Focuses on the process of evidence-based research and its relationship to the profession of nursing. Students learn the components of the research process and the basic concepts and terms associated with research. Emphasis is placed on evaluation of published research studies for use in evidence-based nursing practice. *Fall/spring semesters.*

NURS 305 Physical Assessment 3

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

Corequisite: NURS 208

Introduces skills, concepts, and medical terminology necessary to obtain a health history, perform a physical examination, and accurately document findings. Emphasis is placed on how to differentiate between normal and abnormal findings for patients of varying ages and cultural backgrounds. Withdrawal from NURS 305 requires withdrawal from NURS 208. *Fall/spring semesters.*

NURS 310 Pharmacology 3

Corequisite: NURS 311

Focuses on the nursing application of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics of medications related to health promotion and treatment of disease processes. *Fall/spring semesters.*

NURS 311 Pathophysiology I 2

Prerequisites: NURS 208, 305, or permission of instructor

Corequisite: NURS 310, 321

Examines normal physiology and pathophysiologic responses that accompany commonly occurring acute and chronic illnesses. Discussion includes physiologic responses that begin at the cellular level and progress to individual and related organ systems. Pathophysiologic alterations to disease management and prevention to

promote quality patient-centered care are included. Withdrawal from NURS 311 requires withdrawal from NURS 321. *Fall/spring semesters.*

NURS 312 Pathophysiology II

2

Prerequisites: NURS 311, or permission of instructor

Corequisite: NURS 311, 322

Builds upon concepts from NURS 311. Examines normal physiology and pathophysiologic responses that accompany more complex acute and chronic illnesses. Discussion includes physiologic responses that begin at the cellular level and progress to individual and related organ systems. Pathophysiologic alterations to disease management and prevention to promote quality patient-centered care are included. Withdrawal from NURS 312 requires withdrawal from NURS 322. *Fall/spring semesters.*

NURS 321 Medical-Surgical I

6

Prerequisites: NURS 208, 305

Corequisites: NURS 310, 311

Introduces the application of concepts necessary to provide safe, patient-centered care to adults with commonly-occurring acute and/or chronic illnesses. Students provide safe care for one or more patients per clinical experience in an acute care environment. *Fall/spring semesters.*

NURS 322 Medical-Surgical II

6

Prerequisites: NURS 208, 305, 321

Corequisite: NURS 312

Expands on the application of advanced concepts necessary to provide safe, patient-centered care to adults with acute and/or chronic illnesses of more complex body systems. Students manage safe care for two or more patients per clinical experience in an acute care environment. *Fall/spring semesters.*

NURS 334 Gerontology

2

Corequisites: NURS 310, 311, 321

Focuses on foundational concepts and issues important for the care of older adults. Nutritional concepts, psychological and sociological theories related to the elderly are included. Nursing care implications related to the physiologic and psychosocial changes of aging are explored. *Fall/spring semesters.*

NURS 347 Nursing Program Integration

2

Prerequisite: Admission to the nursing program as an LPN student

Focuses on the role of the professional nurse in the current system of healthcare delivery and facilitates Union College Nursing program integration while addressing gaps in content knowledge for the LPN-BSN student. Sociological theories are included. Basic concepts of communication, safety, quality patient-centered care, and clinical judgment are introduced. *Fall/spring semesters.*

NURS 383 Mental Health

3

Prerequisites: NURS 208, 305, 310, 311, 312, 321, 334, PSYC 215

Builds upon sociological and psychological concepts in the promotion of mental health. Exploration of the therapeutic nurse/patient relationship to promote optimal mental health in individuals experiencing disorders that affect thinking, cognition, behavior, and communication is included. *Fall/spring semesters.*

NURS 391 Global Health Nursing**2**

Prerequisite: NURS 322

Corequisite: NURS 415 or permission of instructor

Introduces the nursing student to principles and practices of healthcare on the frontiers of developing countries. Students may have the opportunity as part of a multidisciplinary healthcare team to provide patient-centered care with cultural humility in a global community. Limited enrollment and an additional fee for field experience.

Elective course. *Spring semester.*

NURS 415 Maternal Child Health**6**

Prerequisites: NURS 305, 310, 311, 312, 322, 383, PSYC 215

Focuses on family-centered care from the development of a family through adolescence. Nutritional, psychological, and sociological concepts related to this stage of life are included. Students care for one or more patients and their families per clinical experience in acute and ambulatory settings to promote wellness and restore health.

Fall/spring semesters.

NURS 423 Medical-Surgical III**5**

Prerequisites: NURS 305, 310, 311, 312, 322, 383

Focuses on the application of critical care concepts necessary to provide safe, patient-centered care to critically-ill adults with multisystem or complex healthcare needs.

Students provide safe care for one to two patients per clinical experience in an acute care environment. *Fall/spring semesters.*

NURS 433 Disaster Nursing**2**

Prerequisites: NURS 243, 305, 311, 312

Focuses on emergency preparedness and disaster response management concepts with an emphasis on essential safety, communication, collaboration, and leadership skills. Clinical judgment and decision-making skills are evaluated for appropriate, safe nursing care during a mock disaster and mass casualty event. Sociological theories related to disaster management are included. *Fall/spring semesters.*

NURS 453 Management and Leadership**3**

Prerequisites: NURS 415, 423

Focuses on the nurse as a leader and manager of care in professional practice. An awareness of complex healthcare systems and the impact of power, politics, policy, and regulatory guidelines in a changing environment will be developed. *Fall/spring semesters.*

NURS 474 Community Health (WR)**4**

Prerequisites: NURS 383, 415, 433

Focuses on family and community health promotion including disease and injury prevention. Indicators of global and population health are studied in vulnerable groups across the lifespan with application of clinical prevention strategies and inter-professional collaboration. Clinical experiences are in the community setting. Nutritional and sociological concepts related to the community are included. *Fall/spring semesters.*

NURS 495 Transition to Professional Practice**2**

Prerequisites: Completion or concurrent registration of all required NURS courses except NURS 499

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

NURS 499 Preceptorship**4**

Prerequisites: Completion or concurrent registration of all required NURS courses

The capstone experience for students to demonstrate competencies consistent with Union College Division of Nursing New Graduate Outcomes. The clinical immersion experience refines clinical reasoning, fosters self-confidence, and promotes a sense of belonging in the nursing profession. Students manage care for multiple patients under the guidance of a qualified preceptor. *Fall/spring semesters.*

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 clinical research. Students learn to 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**

Students will learn the basics of nutritional science, digestion, the importance of vitamins and minerals, nutrition during the lifecycle, prevention of and medical nutrition therapy for a variety of chronic disease states (including diabetes and cardiovascular disease), weight management, eating disorders, and sports nutrition. The student will become a good nutritional resource and be able to counsel patients to provide better care in medicine. *Fall semester.*

PHAS 511 Human Anatomy**5**

Recommended preparation: Undergraduate anatomy

A focused study of the structure and organization of the human body with particular emphasis on macroscopic anatomy. Lecture and laboratory with cadaver work is required. *Fall semester.*

PHAS 514 Medical History and Physical Examination Skills**4**

Students learn communication skills related to obtaining a comprehensive medical history followed by instruction on the techniques required in performing a thorough and technically correct physical examination. Forms and descriptive language used to compile patient medical reports are utilized. The course emphasizes normal and typical adult findings on examination, and selected normal and abnormal variants are reviewed. Additionally, specific aspects of neonatal/pediatric, obstetric, and geriatric examinations are included. *Fall semester.*

PHAS 515 Clinical Diagnostic Procedures**3**

The indications for the use and interpretation of fundamental diagnostic tests are presented, including blood cell counts, complete metabolic profile, serum chemistries, HIV tests, urinalysis, bone and organ radiography, culture and sensitivity tests, Pap smears, and other common pathologic reports. Indications for specialized procedures, such as MRI, CT, ultrasound, echocardiogram, stress EKG, mammography, colonoscopy, and endoscopy, are reviewed. This course also explores pathological conditions and how they affect radiographic images by comparing and contrasting various diagnostic radiologic procedures. Emphasis is placed on the indications, contraindications, and risks/side-effects of various therapies, as well as technical proficiency. *Fall semester.*

PHAS 518 Psychiatry and Behavioral Medicine 3

Provides understanding and development of interviewing, diagnostic, and treatment skills of the following psychiatric disorders: mood, (depressive and bipolar), anxiety, schizophrenic, cognitive, pediatric, geriatric, sleep, personality, somatization, eating, dissociative, impulse control, and gender identity disorders. It is heavily weighted on the psychopharmacotherapy of the disorders. The following topics will also be covered: human development and life-cycle changes (normal and abnormal); human sexuality; issues of death, dying, and loss; response to illness, injury, and stress; principles of violence identification and prevention; substance abuse; suicide; hospice; and ethical and legal issues. This course involves the acquisition of counseling skills necessary in communicating with and educating patients facing common psychological, psychiatric, and behavioral conditions. *Spring semester.*

PHAS 519 Differential Diagnosis and Case Development 2

Emphasizes problem-based learning with applied exam skills required to properly diagnose various diseases. Clinical cases are presented, and students integrate the given information with physical exam clues leading to appropriate and prioritized differential diagnoses. Application of diagnostic testing modalities is highlighted and treatment regimens discussed. The course is designed to demonstrate that the student has achieved proficiency in multiple didactic and clinical disciplines prior to beginning rotations. *Summer.*

PHAS 525 Physician Assistant Professional Issues 2

The history and practice issues of the physician assistant profession are explored, 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. *Spring semester.*

PHAS 531 Clinical Medicine I 6

With PHAS 532 and 534, provides a comprehensive review of the different organ systems of the body, their normal function, and the diseases that affect them. Emphasis is given to the diagnosis, differential diagnosis, and management of various disease states. *Fall semester.*

PHAS 532 Clinical Medicine II 6

Continuation of PHAS 531. *Spring semester.*

PHAS 533 Preventive Health 1

In this course students will study and practice the principles of motivational interviewing that support patients in making positive changes in their lives. Various strategies will be described including smoking prevention and cessation, avoidance of alcohol and drug abuse, principles for optimal health, management of cardiac risk factors, stress management, treatment of insomnia, diabetes management and reversal, and cancer screening/prevention. Students will also participate in system-based objective simulated clinical exams (OSCE's) five times during the semester; these are designed to help students maintain their clinical examination skills throughout the semester. *Spring semester.*

PHAS 534 Clinical Medicine III 3

Taught concurrently with PHAS 532, Clinical Medicine III focuses on clinical concerns specific to pediatrics, women's health, and men's health. *Spring semester.*

PHAS 539 Christian Health Care and Bioethics (WR) 3

This course examines bioethics in interaction with the healing ministry of Jesus Christ and a Christian world view. The ethical dynamics of health care are studied, including principles of autonomy, beneficence, nonmaleficence, justice, fairness, and dignity as used with the PA profession. Ethical principles are then applied to clinical and professional situations and dilemmas. Topics considered in applied ethics include patient rights, reproductive and regenerative medicine, health care allocation, chronic care, confidentiality, and death and dying. *Fall semester.*

PHAS 546 Clinical Skills I 4

Specific skill instruction is provided in universal/standard precautions, sterile technique, injections and infusions, wound assessment, suturing, specialized wound care, airway management, nasogastric tube placement, splinting, casting, joint procedures, catheterizations, special procedures, biopsies, foreign body removal and specialty practice procedures. Students receive special training in Basic Disaster Life Support. The class includes exposure to clinical case presentations and discussions of appropriate clinical skills in order to provide a high level of hands-on 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 real and simulated health care settings under the guidance of physicians and PAs. In the classroom students become experienced with common physical examination skills in the patient care setting, provide thorough pediatric, obstetric/gynecologic, geriatric, and genitourinary examinations (using models and facilitators), and gain skills in writing up history and physicals, SOAP notes, and hospital orders. Dictation of notes and diagnostic coding are also covered. *Spring semester.*

PHAS 553 Cultural Competencies in Medicine 1

This course is designed to help students develop an awareness of the differences in race, gender, class, sexual preference, and physical ability. Students will experience a variety of opportunities to develop skills, knowledge, and attitudes that will enable them to demonstrate an understanding of and a respect for the values, beliefs, and expectations of their patients. *Spring semester.*

PHAS 557 Electrocardiography 2

Specific instruction is provided in understanding electrophysiology of the heart, preparing the student to discriminate among normal, variations of normal, and abnormal electrocardiographic studies (six-second strips and 12-lead EKGs). There is a strong emphasis on identification of acute myocardial infarction. *Fall semester.*

PHAS 558 Medical Physiology 3

Provides an advanced understanding of human physiology with in-depth study of the physiology of the cardiovascular, respiratory, renal, endocrine, and reproductive systems. Emphasis will be placed on the normal functions of these systems. *Fall semester.*

PHAS 559 Clinical Pathophysiology 4

Studies the pathophysiology of cellular, immune, nervous, endocrine, cardiovascular, respiratory, renal, reproductive, genomic, musculoskeletal, hepatic and gastrointestinal systems with an emphasis on mechanisms which move the body away from homeostasis. Particular focus is given to correlation of theoretical material with clinical case studies. *Spring semester.*

PHAS 562 Medical Genetics**1**

Designed to give the student an advanced understanding of human genetics, this course will study inheritance patterns, polymorphisms, mutations, and genetic tests. Emphasis will be given to the clinical application of these concepts. *Spring semester.*

PHAS 564 Clinical Therapeutics**4**

Using problem-based learning principles, concepts in disease management are explored 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. Rational drug therapy is reviewed with actual patient drug treatment plans and outcomes. The course is designed to provide sufficient depth of material to prepare students to develop a foundation for a life of learning in medical care of patients. Students are required to pass the Advanced Cardiovascular Life Support (ACLS) course. *Spring semester.*

PHAS 584 Pharmacology**5**

Introduces the PA student to a wide variety of pharmacological agents used in the practice of medicine. Drugs are categorized 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 Medical Literature Review to involve the student in an independent research review project that is presented in both written and oral formats. The topic for review is chosen by the student, meeting provided guidelines that confirm clinical relevancy and patient-oriented evidence that matters (POEM). The student is assigned an individual faculty advisor for the project, and oral presentations are given during quarterly meetings scheduled during the year of clinical rotations. *Summer.*

PHAS 594 Master's Capstone Project I**3**

Prerequisite: PHAS 505, PHAS 585

A continuation of PHAS 585, students work independently, under faculty advisement, to complete research on their assigned topics and write a thesis paper describing their findings. *Summer.*

PHAS 595 Master's Capstone Project II**1**

Prerequisite: PHAS 505, PHAS 585, PHAS 594

The culmination of skills learned in Medical Literature Review, Master's Research Seminar, and Master's Capstone Project I. This project provides the environment for students to present the results of their individual research projects. Students will work with assigned faculty advisors. *Fall semester.*

PHAS 620 – 630 Clinical Rotations

Prerequisite: Completion of didactic program of studies in the PA Program

During clinical rotations with an assigned physician preceptor, the PA student will elicit a problem-oriented medical history, perform a pertinent physical examination, obtain and assess the results of indicated diagnostic studies, formulate a management plan and assist in providing the appropriate therapy for common problems encountered in a variety of disciplines. In addition to the required rotations listed below, four weeks of elective rotations (PHAS 630) are required for graduation. Examples of potential

disciplines available are: Dermatology, ENT, Trauma, Radiology, Sports Medicine, or any additional rotation from the required rotations. *Summer, Fall, and Spring semesters.*

PHAS 620 Family Practice I Rotation	4
PHAS 621 Family Practice II Rotation	4
PHAS 622 Internal Medicine Rotation	4
PHAS 623 Surgery Rotation	4
PHAS 624 Obstetrics and Gynecology Rotation	4
PHAS 625 Pediatrics Rotation	4
PHAS 626 Cardiology Rotation	4
PHAS 627 Emergency Medicine Rotation	4
PHAS 628 Orthopedics Rotation	4
PHAS 629 Psychiatry Rotation	4
PHAS 630 Elective Rotation	

Philosophy

PHIL 335 Introduction to Philosophy	3
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Prerequisite: Junior or senior standing

A systematic study of the history and methods of major philosophers and their systems of thought from the Pre-Socratics to the present. *Spring semester.*

Photography

PHOT 151 Introduction to Photography	3
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A study of the basic techniques and principles of photography, including camera usage, photographic technique, composition and aesthetic concerns. *Fall semester.*

PHOT 225 Intermediate Photography	3
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Prerequisite: GRPH 150, PHOT 151 or permission of instructor

A study of photography using digital tools, technology, and output. Students will review the core concepts of photography and how to manage a digital workflow, with emphasis on practical control of image making for application such as journalism, commercial photography, and fine art photography. Digital camera required, DSLR preferred. *Spring semester, odd years.*

PHOT 250 Travel Photography	3
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Emphasizes practical applications of photographic technique in areas such as landscape, portraiture, photojournalism, nature, and wildlife photography with emphasis on development of a personal vision. Participants are required to contribute to a book project and to a class exhibition. *Summer, odd years.*

PHOT 450 Travel Photography	3
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Prerequisite: Previous photography experience or coursework and permission of instructor

Emphasizes practical applications of photographic technique in areas such as landscape, portraiture, photojournalism, nature, and wildlife photography with emphasis on development of a personal vision. Participants are required to contribute to a book project and to a class exhibition. *Summer, odd years.*

Physics

Prerequisites are listed for each course (grades must be C or higher) but in some cases permission may be granted by the instructor.

PHYS 111 Principles of Physics

4

Prerequisites: A knowledge of high school algebra and fulfillment of MATH general education requirement

Course intended to give the non-science major an insight into the physical world. Emphasis is placed on the scientific method as Newtonian mechanics, thermodynamics, sound, optics, electricity, magnetism, and modern physics topics are explored. Three lectures and one three-hour 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 I

4

Prerequisite: MATH 111 or higher

Introduces linear and rotational mechanics including energy and momentum considerations, thermodynamics, and waves. Includes discussion of the historical development of our understanding along with references to environmental and social impacts of applied technology. Three lectures and one three-hour laboratory per week. Credit not given for both this course and PHYS 251. *Fall semester.*

PHYS 152 General Physics II

4

Prerequisite: PHYS 151 or 251

A continuation of PHYS 151 covering electricity, magnetism, simple circuits, optics, special relativity and modern physics. 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 252. *Spring semester.*

PHYS/ ENGR 228 Electric Circuit Analysis

4

Prerequisite: MATH 184

Introduces electric circuit variables and parameters, Ohm's and Kirchhoff's law, circuit equations, AC steady-state analysis, and frequency characteristics. Three lectures and one three-hour laboratory per week. *Fall semester.*

PHYS 251 College Physics I

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 II

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.*

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- PHYS 296 Research Methods I** 1
Prerequisite: ACT Math Score of 20 (SAT 480) or MATH 100
Introduces the fields of descriptive and inferential statistics. Data sampling techniques, hypothesis testing and some applications of probability theory to science situations are examined. *Fall semester.*
- PHYS 350 Modern Physics (WR)** 4
Prerequisites: PHYS 252, MATH 286
An introduction to the revolutionary changes in the understanding of physics 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. *Fall semester, as needed.*
- PHYS 351 Quantum Mechanics** 4
Prerequisites: CHEM 152, MATH 286, PHYS 252
Recommended: MATH 352, MATH 385, PHYS 350
Introductory course in quantum mechanics including wave-particle duality, time-independent Schrödinger equation, harmonic oscillators, matrix treatment, and the wave treatment of the hydrogen atom. Both the differential equations approach and the matrix approach are explored and utilized along with a historical perspective of the development of our understanding of quantum mechanics. Four lectures per week. *Spring semester, as needed.*
- PHYS 386 Research Methods II** 1
Prerequisites: PHYS 251, PHYS 296 or MATH 221
An introduction to the methods and mechanics of the research process. Topics include the nature, methods, literature, funding, limitations and strengths of scientific research. A proposal and literature search may be required. *Spring semester.*
- PHYS 396 Research Methods III** 1
Prerequisite: PHYS 386
Emphasizes research design. A research project is proposed, a research plan developed for the project, and depending upon the nature of the study, research initiated. *Scheduled as needed.*
- PHYS/CHEM 412 Physical Chemistry: Thermodynamics** 4
Prerequisite: PHYS 351
Chemical thermodynamics is developed to describe energy and entropy changes in ideal and real gases and extended to a range of chemical systems. Manipulation of multiple variables is achieved by use of partial differential equations, and skill in identifying the conditions of the problem to derive the appropriate equations for a particular application are developed. Attention is given to the results of applying Gibbs Energy and other thermodynamic constructs to a variety of uses including electrochemistry and phase equilibria. Three lectures and one four-hour laboratory per week. *Fall semester even 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. *Scheduled as needed.*

PHYS 3000 Mechanics*4**

Prerequisites: PHYS 252, MATH 285 and computer programming skills or permission of the instructor;

Co-requisite: MATH 286 or 385

An advanced study of the mechanics of particles, systems of particles, and rigid bodies, with an emphasis on Newton's laws, conservation of energy, and conservation of linear and angular momentum. The behavior of moving, rotating, and oscillating systems will be studied, using both analytical and numerical approaches. Lagrangian and Hamiltonian formalisms will be introduced as complementary to Newtonian mechanics. Vector calculus will be developed and used as needed. Three lectures per week. One recitation per week. *Fall semester, even years.*

PHYS 3100 Electromagnetism and Optics**4**

Prerequisites: PHYS 252, MATH 285 and computer programming skills or permission of the instructor;

Co-requisite: MATH 286 or 385

This course builds upon the foundation of electromagnetism and optics developed in introductory physics, and the quantum nature of photons introduced in modern physics. Topics include electrostatic forces, fields, and potentials; magnetic forces on charges and currents; magnetic fields produced by steady currents; light as an oscillating electromagnetic field; polarization of light; ray tracing of optical systems; optical interference; and electric, magnetic, and optical properties of matter. Vector calculus will be developed and heavily used. Three lectures per week. One recitation per week. *Fall semester, odd years.*

PHYS 4100 Thermal and Statistical Physics*4**

Prerequisites: PHYS 350, MATH 286 or MATH 385 and computer programming skills or permission of the instructor

An introduction to classical and statistical thermodynamics. Topics include the ideal gas equation of state, the First and Second Laws of Thermodynamics, the thermodynamic identity, engines and refrigerators, the thermodynamic potentials, and classical and quantum distribution functions. Vector calculus will be developed and heavily used. Three lectures per week. One recitation per week. *Spring semester, odd years.*

Political Science

PLSC 105 Introduction to International Relations**3**

An introduction to the study of international relations: the basic theories and conceptual foundations of the discipline. *Fall semester.*

PLSC 208 American Politics**3**

Analysis of the organic development and construction of American politics, including the making and functioning of the United States Constitution, the functioning of the Supreme Court, the U.S. Congress and the Presidency. *Spring semester.*

PLSC 258/HIST 258 Africa's Global Emergence**3**

Focuses on the political relevance of the African continent in global affairs, particularly during the wars of colonization, World Wars I and II, the Cold War and the present global war on terror. *Fall semester, odd years.*

PLSC 260/HIST 260 Latin America and the Caribbean**3**

The politics and history of Central and South America and the Caribbean from the era of the Monroe Doctrine (1820s) to the present-day. *Spring semester, odd years.*

PLSC 346/HIST 346 Russia: 1400-present 3

The politics and history of Russia from its emergence as a czarist state in the 1400s through the Soviet era and into the present-day politics under Putin. *Spring semester, odd years.*

PLSC 383/HIST 383 The North Atlantic: War and Peace 1900s 3

Focuses on the United States and Europe during the turbulent period of the World Wars, the Holocaust, the Civil Rights movement and the Cold War. *Spring semester.*

PLSC 392/HIST 392 The Modern Middle East 3

The history and the politics of the modern Middle East, from the Tanzimat period of the Ottoman Empire to the present period. Analysis of the various past and present conflicts in the Middle East. *Spring semester.*

PLSC 396/HIST 396 East and South Asian History 3

The politics and history of East Asia from the Ming period in China and the Mughal era in the subcontinent. Meiji Restoration in Japan and the effect of the world wars on both South and East Asia are also covered. *Fall semester, odd years.*

PLSC 430/HIST 430 Global Migrations 3

Focuses on the history of internal and international migrations and their effects as mitigating critical resources– water, employment, arable land, etc. – and also as critical determining factors of political instability with various countries. *Fall semester.*

PLSC 460 Global Political Economy and International Labor 3

Focuses on how wealthy countries depend on international labor for their economic growth and how poor countries are deprived of this resource. *Spring, even years.*

PLSC 465/HIST 465 The U.S. War on Terror 3

The recent U.S. and global politics surrounding the commencement of the U.S. war on terror in 2001 until the present-day. *Fall semester, even years.*

PLSC 475 Political Science Internship 3

Internship in a wide variety of settings and experiences within government and politics.

Psychology

PSYC 100 Careers in Psychology .5

Exposes students to the variety of careers available in the field of psychology and gives instruction about the academic choices to be made in order to be qualified for the various careers. Credit/no credit. Does not apply to LEAD requirements. *Fall semester.*

PSYC 105 Introduction to Psychology 3

Explores the science of psychology, its theories, basic concepts, and research methods. Students are introduced to the major subfields in psychology. *Fall/spring semesters.*

PSYC 215 Developmental Psychology 3

Studies the physical, emotional, cognitive and psycho-social development through each of the life stages, prenatal through old age. *Fall/spring semesters.*

PSYC 225 Psychology of Religion 3

An examination of the psychological processes involved in religious experiences from personal, developmental, social and emotional perspectives. *Fall semester.*

- PSYC 300 Career and Graduate School Preparation** .5
Prerequisite: Junior standing
Helps students examine their personal career goals and make choices best aligned with those goals. Students are also provided with information needed to prepare for choosing appropriate graduate programs, making graduate applications and preparing for graduate testing. Credit/no credit. *Fall semester.*
- PSYC 311 Introduction to Counseling Theory and Techniques** 3
Prerequisite: PSYC 105
Provides a comprehensive study of various theories of counseling examined from a Christian perspective. Students participate in skill development activities. *Fall semester.*
- PSYC 315 Social Psychology** 3
Prerequisite: PSYC 105
A general study of the individual in relationships to other people. Includes such topics as social thinking, social influence and social relations. *Spring semester.*
- PSYC 337 History and Systems of Psychology (WR)** 3
Prerequisite: PSYC 105
Examines the theories and historical aspects of the major psychological schools of thought. *Spring semester.*
- PSYC 338 Cognitive Psychology** 3
Prerequisite: PSYC 105
A study of the processes involved in human memory and cognition. Topics include attention and perception, information processing models, development of language and comprehension, and processes of thinking and reasoning. *Spring semester, even years.*
- PSYC 340 Research Methods I** 3
Prerequisite: PSYC 105
An integrated approach to the study of the basic statistical procedures used in behavioral science research along with basic research methods they support. Principles of research design and ethics related to behavioral research are also covered. *Fall semester.*
- PSYC 341 Research Methods II (WR)** 3
Prerequisite: PSYC 340
A continuation of PSYC 341, covering experimental and descriptive research methods. A research proposal is required for completion of this class. *Spring semester.*
- PSYC 375 Theories of Personality** 3
Prerequisite: PSYC 105
Involves examination of the factors that influence personality development and introduces students to major psychological theories of personality. *Fall semester, odd years.*
- PSYC 380 Biopsychology** 3
Prerequisite: PSYC 105 or 215
An introduction to the biological basis of behavior. Students will be presented with information on the basic functioning of the nervous system and the physiological basis of behaviors including such topics as sleep, sex, aggression, learning and memory, and psychopathology. *Spring semester, even years.*

PSYC 415 Abnormal Psychology**3**

Prerequisite: PSYC 105

Investigates the causes, symptoms and treatment of psychological disorders. *Spring semester.*

PSYC 425 Human Sexuality**3**

Prerequisites: PSYC 105, junior standing

Multiple aspects of sexual behavior are examined from the perspectives of varying methods of investigation and within a Christian framework. *Fall semester, even years.*

PSYC 427 Clinical Assessment**3**

Prerequisites: PSYC 105, 215

Trains the student to think clinically about persons they interact with in their professional role. Students are introduced to a wide range of objective instruments as means of assessment as well as the role of the professional's subjective experience in the process of assessment. *Spring semester, even years.*

PSYC 450 Psychological Testing**3**

Prerequisites: PSYC 105, 340, 341

Introduction to psychometric methods and the practice involved in individual and group testing of ability, personality, interest and achievement. *Spring semester, odd years.*

PSYC 455 Internship**1-3**

Provides students with opportunities to observe practice in real life settings and to participate in human service professional activities and research. Students complete 45 clock hours of internship for one hour of credit. *Fall/spring semesters.*

PSYC 475 Current Issues in Psychology**2**

Prerequisite: PSYC 105

Investigates the research and dialogue surrounding issues that are current in the field of psychology. Students are required to do in-depth investigations on issues and to develop a personal position on the issues investigated. *Fall semester.*

PSYC 476 Senior Research Project (WR)**3**

Prerequisite: PSYC 341

Students select, design, carry out, and statistically analyze an empirical study which deals with an aspect of behavior. *Fall semester.*

Religion—Biblical Studies**RELB 110 Heroic Characters of the Bible****3**

A study of the whole Bible as a story with a focus on the journeys and interactions of the major characters and the lessons that can be applied to life today. Attention will be given to historical and geographical content and processes for developing approaches for perpetuate this study as a lifelong endeavor. *Fall semester.*

RELB 226 Old Testament Survey**3**

A survey of the Old Testament providing an overview of the significant historical events and people whom God called into a covenant relationship with Himself. Special emphasis is placed on the Creation and fall, the calling of Israel, the Exodus and Conquest, the Monarchy and Exile and the Return of the exiles. Developing an appropriate understanding of the God revealed in this time period. *Spring semester.*

RELB 246 Sanctuary and Salvation 3

A study of the biblical teaching of salvation in the books of Leviticus, Daniel, Hebrews, and Revelation through the events and offices of the earthly sanctuary and their relationships to the sacrifice of Christ and the heavenly fulfillments in Christ's ministry. *Fall semester, even years.*

RELB 250 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 255 Jesus and the Gospels 3

A study of the life, ministry and teachings of Jesus, with applications for daily living, based upon an inductive study of the four gospels. *Fall/spring semesters.*

RELB 260 Interpretation of Romans 3

Examines the interpretation of Romans within its socio-cultural context. This includes interpretation by the initial readers, and theological interpretation of Romans in relation to our contemporary world. *Spring semester.*

RELB 325 Prophets 3

Exegetical study of selected Old Testament prophets. Emphasizes the eternal principles of their messages as applied to present-day conditions. *Fall semester, odd years.*

RELB 326 Old Testament Survey 3

Prerequisite: Theology major

A survey of the Old Testament providing an overview of the significant historical events and people whom God called into a covenant relationship with Himself. Special emphasis is placed on the Creation and fall, the calling of Israel, the Exodus and Conquest, the Monarchy and Exile and the Return of the exiles. Developing an appropriate understanding of the God revealed in this time period. *Spring semester.*

RELB 335 New Testament Epistles 3

An inductive study of the book of Acts and the letters of the New Testament using selected passages to illustrate themes of New Testament thought. *Spring semester.*

RELB 348 Daniel (WR) 3

An introduction to the narrative and prophetic portions of the book of Daniel rooted in its historical context, emphasizing the spiritual and prophetic applications relevant to Christian leadership and life. *Fall semester.*

RELB/LITR 366 Biblical Literature (WR) 3

Prerequisites: ENGL 112, LITR 232, 232, or 235, or permission of the instructor

A survey of the Bible's literary masterpieces from an archetypal perspective. Literary patterns, techniques, and terminology are applied to Bible writers and their writings. May be used to meet RELB or LITR general education requirements but not both. *Fall semester, even years.*

Religion—Religious Studies

RELH 310 History of the Seventh-day Adventist Church (WR) 3

A study of the Advent movement of the early 19th century and the subsequent growth of the Seventh-day Adventist Church. *Spring semester.*

- RELH 410 History of the Christian Church (WR)** 4
History of the development of the Christian church from the first century to modern times. *Spring semester.*

Religion—Biblical Languages

- RELL 171 New Testament Greek I** 4
The elements of Greek grammar and basic vocabulary. Translation from the New Testament combined with a systematic approach to vocabulary building and the rules of biblical Greek syntax. Four lectures and one tutorial session per week. *Fall semester.*
- RELL 172 New Testament Greek II** 4
Prerequisite: RELL 171
Continuation of RELL 171. Four lectures and one tutorial session per week. *Spring semester.*
- RELL 273 New Testament Greek III** 3
Prerequisite: RELL 172 or equivalent
Extensive translation of various portions of the New Testament and introduction to the science of exegesis, with emphasis on the acquisition of those skills and tools which will make Greek a useful aid in pastoral work and study. *Fall semester.*
- RELL 274 New Testament Greek IV** 3
Prerequisite: RELL 273
Continuation of RELL 273. *Spring semester.*
- RELL 385 Biblical Hebrew I** 3
A study of the fundamentals of the Hebrew language. The emphasis is on translating portions of the Old Testament by applying vocabulary, grammar and syntax learned in the class. *Fall semester.*
- RELL 386 Biblical Hebrew II** 3
Prerequisite: RELL 385
Continuation of RELL 385. *Spring semester.*

Religion—Professional Training

- RELP 125 Introduction to Pastoral Ministry** 2
A study of the principle elements in pastoral ministry and biblical discipleship through class discussion, observation and report writing. *Spring semester.*
- RELP 149 Dynamics of Christian Living** 3
A small group based class designed to introduce students to the inter-dynamics of personal relationships with others, the power of a relationship with God and the joys of a life of assurance in salvation. *Spring semester.*
- RELP 235 Introduction to Youth Leadership** 3
A survey of youth ministry, examining youth culture, the theology of youth ministry, and specific skills to equip and empower students to be effective in ministry to young people. *Spring semester, even years.*

- RELP 321 Biblical Preaching I** 3
Prerequisite: COMM 105
A study of sermon methodology designed to train students to be Biblical preachers. Preaching skills are developed through theory, class and field experience. Emphasizes narrative and expository preaching. *Spring semester.*
- RELP 322 Biblical Preaching II** 3
Prerequisite: RELP 321
Continuation of RELP 321. Taken in conjunction with the capstone Leadership in Ministry senior year. *Fall semester.*
- RELP 335 Youth Leadership in the SDA Church** 3
Developing an understanding of youth culture and a theology of youth ministry, this course focuses on the implementation and practice of youth ministry. Its design is to better prepare those interested in life-long youth ministry, both professional and volunteer. *Spring semester, odd 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, or conference office. Open only to Youth Ministry minors.
- RELP 361 Church Leadership I** 3
Combines a study of the theology and the practice of church leadership with on-the-job training by assisting pastors in nearby churches. Taken in conjunction with RELP 321. *Spring semester.*
- RELP 362 Church Leadership II** 3
Prerequisite: RELP 361
Continuation of RELP 361. Taken in conjunction with the capstone Leadership in Ministry senior year. *Fall semester.*
- RELP 465 Personal Witnessing** 3
Designed to help students gain the knowledge and skills 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. Theology majors take in conjunction with the capstone Leadership in Ministry senior year. *Fall semester.*
- RELP 466 Public Evangelism** 3
Prerequisite: RELP 321
Studies public evangelism practices and develops skills through the preaching, planning, conducting and follow-up of an evangelism series. Laboratory required. Taken in conjunction with the capstone Leadership in Ministry senior year. *Fall semester.*
- RELP 490 Senior Seminar** 1
As part of the capstone for all Theology majors, this course gives students the opportunity to review and report the competencies they have learned in their academic experience. Specific attention is given to résumé preparation, preparation for job interviewing, and development of a portfolio. Taken in conjunction with the capstone Leadership in Ministry senior year. *Fall semester.*

Religion—Theological Studies

RELT 110 Introduction to Christian Faith and Adventism 3

Prerequisite: Permission of the instructor or the religion chair

The teaching of the Seventh-day Adventist church in the context of other belief systems, designed specifically for those not familiar with or newly introduced to the Seventh-day Adventist church. *Fall/spring semesters.*

RELT 141 Christian Beliefs 3

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

RELT 205 Developing the Christian Mind 3

Prerequisite: Acceptance into Union Scholars or permission of instructor

Examines worldview perspectives and Biblical teachings. Incorporating information from Biblical, philosophical, world religions and sociological sources, this class seeks to help the student define, discern and develop more fully "the mind of Christ." 1Cor. 2: 16 *Fall semester.*

RELT 305 Christian Ethics 3

An introduction to the systems and methods used in making ethical decisions viewed from the perspective of the Christian faith. Discusses questions of current interest in the area of personal and social ethics. *Fall/spring semesters.*

RELT 337 Christian Theology I 3

Prerequisite: Theology majors or permission of instructor

A systematic study of the major theological tenets of Christianity within the Seventh-day Adventist perspective, informed by their Biblical foundations, their historical formulations, and their contemporary applications. *Fall semester.*

RELT 338 Christian Theology II 3

Prerequisite: RELT 337

Continuation of RELT 337. *Spring semester.*

RELT 347 World Religions 3

A study of the major religions of the world including primal religions, Hinduism, Buddhism, the religions of China, Judaism, Islam and Christianity. The relationship of Christianity to these religions is discussed, including the Christian mission to the world. *Fall semester.*

RELT 455 Prophetic Guidance in the Advent Movements 3

Study of the gift of prophecy as a method of divine communication. Special attention given to the life and writings of Ellen G. White. *Spring semester.*

Science

Prerequisites are listed for each course but in some cases permission may be granted by the instructor.

SCNC 301 Science and Society 1

Prerequisites: Completion of science and mathematics general education; junior standing

Explores selected societal and ethical issues raised by the investigation and application of science. Students are expected to seek possible solutions to the problems that are raised by these issues. *Scheduled as needed.*

SCNC/BIOL 377 Origins**3**

Prerequisites: Completion of one laboratory science course; junior standing

A consideration of issues in science and religion as they relate to origins. Consideration is given to interpretation of inspiration and scripture relating to evidence from nature and the scientific method. Data from the biological and physical sciences are evaluated as they relate to earth history and the origin of life. Evidence for change, mechanisms of change, speciation, the fossil record and issues of time are considered. Class may be taken to meet the general education requirements for either the Life Sciences or Physical Sciences. Does not apply toward a biology major or minor. *Spring semester.*

Sociology**SOCI 105 Introduction to Sociology****3**

Introduces the fundamental principles and concepts of sociology. Studies forms and processes of societal organization and social institutions. Teaches sociological theory from a functionalist, conflict and symbolic interactionist perspective. Traditional theorists are discussed. Sociological topics include culture, socialization, stratification, class structure, healthcare, education, minority groups, and family. *Fall/spring semesters.*

SOCI/INRR 220 Social Dimensions of Disasters**3**

Explores how broad concepts such as social conflict and social inequality are manifested in disasters in the United States and internationally. Topics include demographics and disaster behavior distinctions, disaster culture, individual versus group response to disasters and community social systems in relation to pre- and post-disaster situations. More broadly, students will examine the relationship between the social sciences and public policies in emergency management. *Spring semester.*

SOCI 315 Marriage and Family**3**

Assists students in their understanding of relationships by examining friendships, courtship, marriage, and family life. Discusses the issues of divorce, single parenting, sexuality, death and dying, finances and pre-marital counseling from a sociological perspective. *Fall semester.*

SOCI 321 Issues of Diversity (WR)**3**

Prerequisite: SOCI 105

Builds on sociological theory and concepts. Applies functionalist, conflict and symbolic interaction theory to majority-minority relations. Develops understanding of racism, prejudice, stereotypes, discrimination, institutional discrimination, assimilation and pluralism. Minority groups are the primary focus of the course. *Fall semester.*

SOCI 337 Interventions with Groups**3**

Prerequisite: PSYC 105

Assists students in developing generalist skills in work with couples, families and group levels of practice. Students practice relationship building, problem solving, interviewing, assessment, intervention, termination, and documentation. Special focus is given to the evaluation process with the introduction of qualitative research methods to evaluate and improve practice. *Spring semester.*

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

Developing generalist practice skills in crisis management. Fundamentals of crisis including violence, rape, suicide, natural disasters and terrorism with an emphasis on ability not only to survive, but thrive after a crisis. Prepares the student to develop creative coping skills, and promote crisis resolution within themselves as well as with individuals, groups and communities. *Spring semester, alternate years.*

Social Work

SOWK 115 Introduction to Social Work

4

Prerequisite: SOCI 105 or permission of instructor

Survey of the field of professional social work. Covers the history of social work and its professional roles and functions. Explores professional areas of practice such as mental health, disabilities, youth, elderly, families, healthcare, schools, and criminal justice.

Laboratory required. *Spring semester.*

SOWK 227 Human Behavior in the Social Environment I

3

Prerequisite: SOWK 115 or permission of instructor

Reviews and analyzes theory and knowledge from the behavioral and social environment sequence of courses to discover specific implications for social work practice. Areas of focus include social system, community, groups, family and the individual. Covers the age span from birth to young adulthood. *Fall semester.*

SOWK 228 Human Behavior in the Social Environment II

3

Prerequisite: SOWK 227

Reviews and analyzes theory and knowledge from the behavioral and social environment sequence of courses to discover specific implications for social work practice. Areas of focus include social system, community, groups, family and the individual. Covers the age span from middle-adulthood to old age. *Spring semester.*

SOWK 316 Social Welfare Policy and Practice

3

Studies the history of social welfare and the nature and purpose of social policy.

Additionally teaches methods to analyze policy and methods for policy change.

Examines and monitors current state and federal bills relevant to U.S. social welfare.

Spring semester, even years.

SOWK 336 Social Work Practice I

3

Prerequisite: SOWK 228

Assists students in developing generalist social work skills in work with individuals.

Students practice relationship-building, problem solving, interviewing, assessment, intervention, termination, and documentation. Special focus is given to the evaluation process with the introduction of qualitative research methods to evaluate and improve practice. *Fall semester.*

SOWK 331 Social Work Practice II

3

Prerequisite: PSYC 105

Assists students in developing generalist skills in work with couples, families and group levels of practice. Students practice relationship building, problem solving, interviewing, assessment, intervention, termination, and documentation. Special focus is given to the evaluation process with the introduction of qualitative research methods to evaluate and improve practice. *Spring semester.*

SOWK 345 Social Work in Healthcare

3

Prerequisite: SOWK 228 or permission of instructor

Provides basic orientation to the new generalist practitioner preparing to work as a medical social worker in a hospital, nursing home or outpatient setting. Surveys the field of medical social services, providing information regarding the administrators in both health care in general and social services in particular and a discussion of the various groupings of illnesses, their impact on individuals, family, employment, etc. *Fall semester, even years.*

SOWK 390 Research Seminar**2**

Prerequisite: PSYC 341

Students will apply the principles of research design learned in the Research Methods classes to design and carry out a research project, analyze resulting data and write a project report following the APA guidelines for scholarly manuscripts. Students will also create a poster presentation of their projects and present them at a relevant venue. *Fall semester.*

OWK 405 Social and Economic Justice (WR)**3**

Prerequisite: SOWK 228

Uses critical thinking to examine basic human rights such as freedom, safety, privacy, an adequate standard of living, health care, and education from a social work perspective. Explores the forms and mechanisms of oppression and discrimination. Uses a strength's perspective to advocate for human rights and social and economic needs of vulnerable populations. Includes engagement in practices that advance social and economic justice within local, national and international communities. *Spring semester, odd years.*

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

Prerequisite: SOWK 228

Developing generalist practice skills in crisis management. Fundamentals of crisis including violence, rape, suicide, natural disasters and terrorism with an emphasis on ability not only to survive, but thrive after a crisis. Prepares the student to develop creative coping skills, and promote crisis resolution within themselves as well as with individuals, groups and communities. *Spring semester.*

SOWK 437 Social Work Practice III**3**

Prerequisite: SOWK 228

An introductory course to the administration and planning of social service organizations with major emphasis upon community, organizational and legislative analysis; management skills; program planning and evaluation. Includes simulations, in-class projects, volunteer experience and personal introspection. *Fall semester.*

SOWK 475 Field Practicum**1-12**

Prerequisite: SOWK 228

Professional experience in a social service agency, under the mentorship of an MSW or BSW professional. A total of 480 hours are required. Placements are completed over a two-semester plan in the senior year. Attendance at weekly seminars is required. *Fall/spring semesters.*

Spanish**SPAN 101 Beginning Spanish****3**

Introduction to basic Spanish conversation, structure, vocabulary and culture. Includes dictations, simple readings, written exercises, with the emphasis on oral communication. Laboratory required. *Fall semester.*

SPAN 102 Beginning Spanish**3**

Prerequisite: SPAN 101

Continuation of SPAN 101. *Spring semester.*

Teaching Learning Center

TLCM 100 Bridge: Building Connections 1

Focusing on college life, students discuss topics regarding academic skills, self-advocacy, campus and community resources. *Fall semester*. Open to all first year students.

TLCM 101 Bridge: Learning and Communities 1

Concentrating on enhancing students' academic skills while they are gaining a perspective of college experiences and college culture. *Spring semester*. Open to all first year students.

Union College Student Mission Service

UCSM 205 Introduction to Overseas Service 2

An orientation course limited to those who have applied as student missionaries that prepares them for service by focusing on cross-cultural mission ministry. Does not apply toward religion general education requirement. *Spring semester*.

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

UCTF 490 Task Force Service I 6

Prerequisite: Permission of Student Mission Director

Credit for service as a task force worker serving in an official North American Division recognized call or as arranged with the Union College Student Mission Director. Credits do not count toward graduation. Graded CR/NC. May be repeated. *Fall semester*.

UCTF 491 Task Force Service II 3

Prerequisite: UCTF 490; Permission of Student Mission Director

Continuation of the task force service. Credits do not count toward graduation. Graded CR/NC. May be repeated. *Spring semester*.

UCTF 495 Task Force Service III 3

Prerequisite: UCTF 490; Corequisite: UCTF 491

Continuation of the task force service. Credits count toward graduation as elective credit only. Graded CR/NC. May be repeated. *Spring semester*.

College Organization

Board of Directors (as of 12/1/14)

Tom Lemon, Chair	NE	Elaine Hagele	NE
Gil Webb, Vice Chair	NE	Rob Koch	KS
Vinita Sauder, Secretary	NE	John Kriegelstein	NE
Harold Alomia	NE	Jack Krogstad	IA
Ken Bacon	CO	Rick Krueger	NE
Ed Barnett	CO	Jerome Lang	NE
Steve Bascom	IA	Justin Lyons	MN
Neil Biloff	ND	James McArthur	NE
Mardian Blair	FL	Larry Pitcher	NE
Ron Carlson	KS	Barbara Prowant	WA
Dean Coridan	IA	Rich Reiner	FL
Morre Dean	CO	Susan Reiswig-Haines	OH
Gary DeCamp	KS	Jessica Saxton*	MO
Tanya Dick	NE	Kent Seltman	MN
Mike Dunlap	NE	Kent Thompson	NE
Garth Fletcher	NE	Maurice Valentine	KS
Mildred Greer	MO		

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

Committees of the Union College Board of Trustees:

Academic Committee	Master Planning and Facilities Committee
Campus Life and Retention Committee	Marketing and Recruitment Committee
Executive Committee	Trusteeship Committee
Finance and Development Committee	

Current membership of these committees can be found in the Union College President's Office.

Midwest Foundation for Higher Education Board

Jerome Lang, Chair	Josh Huenergardt
Rick Krueger, Vice Chair	Tom Lemon, Ex Officio
Jeff Leeper, Secretary/Treasurer	Vinita Sauder, Ex Officio
LuAnn Davis, Ex Officio	

Union College Presidents

W. W. Prescott	1891-1893	E. E. Cossentine	1942-1946
J. W. Loughhead	1893-1896	R. W. Woods	1946-1950
E. B. Miller	1896-1897	H. C. Hartman	1950-1957
N. W. Kauble	1897-1898	D. J. Bieber	1957-1964
W. T. Bland	1898-1901	R. W. Fowler	1964-1970
L. A. Hoopes	1901-1904	R. H. Brown	1970-1973
C. C. Lewis	1904-1910	M. O. Manley	1973-1980
Frederick Griggs	1910-1914	Dean L. Hubbard	1980-1984
H. A. Morrison	1914-1922	Benjamin R. Wygal	1985-1985
O. M. John	1922-1924	John Wagner	1986-1991
W. W. Prescott	1924-1925	John Kerbs	1991-1998
Leo Thiel	1925-1928	David C. Smith	1998-2011
P. L. Thompson	1928-1931	John Wagner	2011-2014
M. L. Andreasen	1931-1938	Vinita Sauder	2014-
A. H. Rulkoetter	1938-1942		

College Administration 2014-2015

Dates in parentheses indicate the date of current appointment.

Officers of the College

Vinita Sauder (2014-) President

B.A. 1978, Southern Adventist University; M.B.A. 1989, University of Tennessee, Chattanooga; Ph.D. 2008, Andrews University

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

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

Jeff Leeper (2013-) Vice President for Financial Administration

B.S. 1984, Loma Linda University; M.A. 1989, Auburn University

Major Administrative Officers

Linda Becker (2001-) Vice-President for Student Services

B.A. 1972, Pacific Union College; M.A.T. 1974, Andrews University; Ph.D. 2000, University of Nebraska-Lincoln

Richard Carlson (1981-) Vice President for Spiritual Life; Associate Professor of Psychology

B.A. 1973, Union College; M.A. 1977, Andrews University; Ph.D. 1996, University of Nebraska-Lincoln

LuAnn Davis (1992-) Vice President for Advancement

B.S. 1982, Union College; M.B.A. 1996, University of Nebraska-Lincoln

Nadine Nelson (2009-) Vice-President for Enrollment Services

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

Staff Emeriti 2014-2015

Tom Becker, BS, Staff Emeritus, Director of Information Systems

Gary Bollinger, MBA, Administrator Emeritus, VP for Financial Administration

Cheryl Crawford, Staff Emerita, Manager of Union Manor

Dean Dittberner, BS, Staff Emeritus, Operations Manager of Information Systems
Jennifer Enos, BS, Staff Emerita, Enrollment and Student Financial Services
Anita Kidwiler, MS, Staff Emerita, Associate Director of Records
Sharon Russell, MA, Staff Emerita, Coordinator for Ortner Conference & Guest Services

Faculty Emeriti 2014-2015

Sylvester Case, MA, M.Div., Professor Emeritus of Religion
Arlie Fandrich, MAT, Professor Emeritus of Computer Science
Wayne Fleming, EdD, Professor Emeritus of Health and Human Performance
Lowell Hagele, EdD, Professor Emeritus of Mathematics
H. Ward Hill, PhD, Professor Emeritus of Religion and Sociology
Marilyn McArthur, PhD, Professor Emerita of Nursing
Robert Murray, PhD, Professor Emeritus of Music
Beatrice Neall, PhD, Professor Emerita of Religion
Ralph Neall, PhD, Professor Emeritus of Religion
Walter E. Page, PhD, Professor Emeritus of Biology
Sieg Roeske, PhD, Professor Emeritus of Religion
Karl-Heinz Schroeder, MA, Professor Emeritus of History
Virginia Simmons, PhD, Professor Emerita of Education and Psychology

Faculty 2014-2015

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

Edward M. Allen (2005-) Professor of Religion
BA 1975, Loma Linda University; MDiv 1979, Andrews University; DMin 1991, PhD 2008, Fuller Theological Seminary

Chris Blake (1993-) Associate Professor of English
BA 1977, California State Polytechnic University-San Luis Obispo; MA 1980, Pacific Union College

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

Kelly L. Boyd (2010-) Assistant Professor of Nursing
BSN 2002, Union College; MSN 2013, Nebraska Wesleyan University

Michelle Buller (2009-) Associate Professor of Physician Assistant Studies
BS 2000, University of Nebraska-Lincoln; MMS 2004, Midwestern University

Jodi Chewakin (2011-) Assistant Professor of Physician Assistant Studies
BSN 1991, University of Mary; PA-C 1996, University of North Dakota; MS 2008, Arizona School of Health Sciences, A.T. Still University

Richard Clark (2012-) Professor of Chemistry
BA 1979, Union College; PhD 1992, Kansas State University

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

Jody Detwiler (2012-) Assistant Professor of Social Work
BSW 2004, Union College; MSW 2005, Walla Walla University

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

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

Larinda Fandrich (2014-) Assistant Professor of Nursing
BSN 1986, Union College; MSN, MHA 2014, University of Phoenix

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

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

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

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

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

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

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

George Gibson (1981-2015) Professor of History and Economics
BA 1969, Union College; MA 1974, Western State College; PhD 1987, University of Nebraska-Lincoln

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

Jackie Halley (2012-) Instructor
BSN 2009, University of Nebraska Medical Center; MSN 2014, Nebraska Wesleyan University

Megan Heidtbrink (2013-) Assistant Professor of Physician Assistant Studies
BA 2006, Tulane University; MPAS 2010, Union College

Shawna Herwick (2012-) Assistant Professor of Social Work
BSW 2007, Union College; MSW 2011, University of Nebraska

Benjamin Holdsworth (2009-) Professor of Religion
BA 1980, Columbia Union College; MBA 1987, Florida Institute of Technology; MA 2003, Newbold College; PhD 2010, University of Durham

Trudy Ann Holmes-Caines (1994-) Professor of Psychology
BA 1986, West Indies College; MA 1991, PhD 1995, Andrews University

Shawntae Horst (2013-) Assistant Professor of Health and Human Performance
BS 2011, DPT 2011, Loma Linda University

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

Lesa Kean (2014-) Assistant Professor of Mathematics
BS 1994, Union College; MA 2006, Illinois Institute of Technology; PhD 2012, Illinois Institute of Technology

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

Cliff Korf (2000-2003, 2005-) Professor of Physician Assistant Studies
BHS 1980, Wichita State University; MPAS 2001, University of Nebraska Medical Center

Dwain Leonhardt (1996-) Professor of Physician Assistant Studies
BA 1972, Union College; MD 1975, Loma Linda University

Daniel Lynn (1986-2015) Professor of Music
BME 1972, University of Nebraska-Lincoln; MM 1975, University of Hartford; DMA 1987, University of Colorado

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

Corraine McNeill (2013-) Assistant Professor of Biology
BS 2005, Randolph-Macon Woman's College; MS 2008, PhD 2012, University of Florida

Seth McNeill (2014-) Assistant Professor of Engineering
BS 2001 Walla Walla University; MS 2004, PhD 2009, University of Florida

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

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

Michelle Velázquez Mesnard (2002-) Associate Professor of Communication
BS 1990, Pacific Union College; MS 2000, Golden Gate University

Kurt Miyashiro (2013-) Associate Professor of Music
BS 1987, Pacific Union College; PhD 2005, University of Minnesota

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

Y. J. Moses (1992-2015) Professor of Education
BA 1970, Spicer Memorial College; MA 1976, Andrews University; PhD 1981, Michigan State University

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

Kenneth Osborn (2011-) Professor of Chemistry
BS 1996, Missouri Western State College; PhD 2003, University of Kansas

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

Aaron Purkeypile (2014-) Lecturer of Accounting
BS 2006, Union College

Larry Ray (1983-2015) Professor of Mathematics and Computer Science
BA 1964, MA 1966, Pacific Union College; PhD 1977, University of Southern California

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

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

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

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

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

Krystal Todd (2014-) Instructor of Nursing
BSN 2010, Nebraska Wesleyan University; MSN 2013, Nebraska Wesleyan University

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

Jonathan Turk (2013-) Assistant Professor of Marketing
BA 1991, MBA 2005, Southern Adventist University

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

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

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

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

Gary Walter (2013-) Instructor of International Rescue and Relief
BA 1997, La Sierra University

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

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

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

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

Librarians Holding Faculty Rank

Gillian Connors (2011-) Technical Services Librarian; Assistant Professor
BA 2007, Canadian University College; MLIS 2011, University of Alberta

Sabrina Riley (2003-) Library Director; Associate Professor
BA 1996, Andrews University; MLIS 1998, University of Michigan

Jeannette Wetmore (2009-) Public Services Librarian; Instructor
BA 2003, Union College; MLIS 2007, University of North Carolina

Teachers at Laboratory School

Jenienne Kriegelstein (2013-) Assistant Professor of Education
BS 1973, Atlantic Union College; MEd 1977 Walla Walla University

Jacquelyn Simpson (1989-95, 2000-) Assistant Professor of Education
BS 1988, Union College; MA 1993, La Sierra University

Adjunct Faculty

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

Clinical Instructors in Nursing

Tracy Hagele (2014) Clinical Instructor for Simulation
BSN 1993, Union College

Rebecca Randa (2014-) Clinical Instructor
BSN 2007, Union College

Adjunct Lecturers

These individual carry continuing teaching responsibilities

Benjamin Barber, BA, Business and
Computer Science
Linda Becker, PhD, Leadership
Denise Bulling, PhD, IRR
Richard Carlson, PhD, Human
Development, Religion
Scott Cushman, MA, Humanities
LuAnn Davis, MA, Humanities
Lynn Davis, MA, Fine Arts
Marina Fabrikant, DMA, Fine Arts
Shane Flowers, BS, Business and
Computer Science
Amanda Funk-Hilton, MA, Humanities
Jodi Gabel, MS, Human Development
Sarah Gilbert, MM, Human Development
Judy Glass, MBA, Business and Computer
Science
Phyllis Gorton, BS, EMES
Brett Hadley, MFA, Humanities
Michael Halfhill, MA, Religion
Angie Hardt, MA, Science and
Mathematics
Stan Hardt, MA, Religion
Darrel Huenergardt, JD, Business and
Computer Science
Jack Kinworthy, PhD, Humanities
Jenienne Kriegelstein, MEd, Human
Development
Valeree Krueger, MSN, Nursing
Ed Mejia, BS, Fine Arts

Jill Morstad, PhD, Humanities
Jan Nash, MA, Human Development
Elysia Ockenga, MSN, Nursing
Matthew Orian, MBA, Business and
Computer Science
Kathleen Packard, PhD, Physician
Assistant Studies
Michael Paradise, MDiv, Religion
Melinda Pearson, PsyD, Human
Development
Marcelo Plioplis, MA, Fine Arts
Jonathan Rickard, MBA, Business and
Computer Science
Keith Riese, MS, Science and
Mathematics
Linda Robison, MA, Human Development
Robert Ruyle, PhD, Science and
Mathematics
Wayne Schaber, MA, Human
Development
David Shaw, PhD, Physician Assistant
Studies
Tim Simon, MA, Human Development
Jackie Simpson, MA, Human
Development
Ric Spaulding, MEd, Human Development
David Subiabre, MA, Humanities
Lena Toews, MA, Religion
Dan Wheeler, PhD, Leadership

Individual Music Instruction

A. Lisette Deemer, MM
Marina Fabrikant, DMA
Sarah Gilbert, MA
Elizabeth Grunin, MM
Debra Johnson, MA
Kevin Kroon, BS
Daniel Martinez, BS

Lisa Nielsen, MM
Julia Noyes, MA
Darcy Jo Pearcy, MM
Sarah Pizzichemi, MA
Char Reid, BS
Ryan Wells, DMA

Physician Assistant Preceptors

Anthony Akainda, MD	Kelly Hohlen, PA-C	Jason Potts, MD
Jean Allen, APRN	Mark Howerter, MD	Tracy Ray, PA-C
Beth Anderson, PA-C	Janet Huenink, APRN	Jerry Rector, MD
Ray Andreassen, DO	Benjamin Hung, MD	Jill Rine, PA-C
Rodney Basler, MD	Christine Hunter, PA-C	Kristin Runge, PA-C
Geoff Basler, MD	Patrick Hurlbut, MD	David Running, MD
Brittany Bauer, PA-C	Mark Hutchins, MD	Steven Saathoff, MD
David Bigler, MD	Deanne Isaacson, PA-C	David Samani, MD
Ellajean Bledsoe, PA-C	Ryan Isherwood, MD	Dallas Schlegel, PA-C
Casey Bock, PA-C	Randy Jacobs, MD	Kurt Schmeckpeper, PA-C
Robert Bowen, MD	David Jameson, MD	Charles Scholtes, PA-C
Dennis Bozarth, MD	Carissa Jessen, PA-C	Amy Schomer, MD
Adam Brank, MD	Richard Jirovec, MD	Jearlyn Schumacher, CNM
Kim Brown, PA-C	Lisa Johnson, PA-C	Ronadi Schwab, MD
Reginald Burton, MD	Andrea Johnson, PA-C	Sean, Denney
Mark Carlson, MD	Dennis Jones, MD	Thomas Smith, MD
Raymond Carlson, DO	Carrie Kelinschmidt, PA-C	Stanislaw Sojka, MD
Colleen Carpenter, APRN	Jacklynn Kment, PA-C	Scott Sorensen, PA-C
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Dianna Clyne, MD	Randy Kohl, MD	Leslie Spry, MD
Jeffrey Coffman, MD	Charles Kreshel, MD	Michael Stadler, MD
Angie Connors, PA-C	Melissa Kudlacek, PA-C	Jenn Stanton, PA-C
David Cornutt, MD	Cathy Laflan, PA-C	Stephen Swanson, MD
Patrick Costello, MD	Douglas Laflan, MD	Kellie Symonsbergen, PA-C
Chris Darst, PA-C	Robbie Lane, PA-C	Taymond Taddeucci, MD
John Davies, PA-C	Rex Largen, MD	Bruce Taylor, MD
Lennie Deaver, MD	Andrea Lonowski, APRN	Deb Taylor, PA-C
Pam Dickey, PA-C	Shaun Luebbe, PA-C	Douglas Tewes, MD
Chelsie Doane, PA-C	Brent Madsen, PA-C	Kendra Theim, PA-C
Bernard Douglas, MD	Jeff Marple, MD	Michelle Thompson, PA-C
David Duensing, DO	Sherri Martin, MD	Allan Tramp, MD
Walter Duffy, MD	Erin Masada, MD	Wendy VanSkiver, PA-C
Christine Emler, MD	Roy Maurer, PA-C	David Voigt, MD
Kelly Fields, APRN	Robert McKeeman, MD	David Vuchetich, PA-C
Greg Fitzke, MD	Amanda McKinney, MD	Rebecca Waegli, PA-C
Jennifer Flider, PA-C	Scott McPherson, MD	Shannon Wakeley, MD
James Fosnaugh, MD	Dale Miller, PA-C	Kristin Weber, APRN
Amy Garwood, MD	Gary Millius, MD	MaryAnne Whitaker, PA-C
Benjamin Gelber, MD	Melissa Mowder, PA-C	Thomas White, MD
Dale Gibson, APRN	Royce Mueller, MD	David Whitney, MD
Matthew Glenn, MD	Melissa Muhs, PA-C	Ryan Whitney, MD
Nieto Gonzales, MD	Stephen Nagengast, MD	Richard Whittier, MD
Sarah Grady, PA-C	Lyndsey Netz, PA-C	Brent Willman, MD
Daniel Growney, MD	Todd Orchard, MD	Rick Windle, MD
Brian Grubbs, MD	Michael Pace, MD	Charlotte Wirges, MD
Michael Havekost, MD	David Paulus, MD	Kelli Woltemath, DO
Paul Hayes, MD	Joseph Phillip, McNelly	John Wright, MD
Mark Heibel, MD	Corinne Phillips-Ward, MD	
Brian Herbin, PA-C	Robert Pitsch, MD	
Mathieu Hinz, MD	Lygia Plioplis, PA-C	

Administrative Staff—2014-2015

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

Academic Services

Deborah Forshee-Sweeney (2002-) Director of Teaching Learning Center; Instructor
BSW 1994, Union College; MEd 2008, University of Nebraska-Lincoln

Sabrina Riley (2003-) Library Director
BA 1996, Andrews University; MILS 1998, University of Michigan

Matthew Roque (2013-) Director of Institutional Research
BS 2005, Union College; MCRP 2010 University of Nebraska

Michelle Younkin (2010-) Director of Records
BS 2003, Southern Adventist University; MBA 2009, LaSierra University

Campus Services

Richard Henriques (1983-) Director of Information Systems

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

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

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

Paul Jenks (2012-) Director of Plant Services

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

Student Services

Tammy Adams (2015-) Student Health Nurse
BSN 1989, Union College

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

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

Theresa Edgerton (2010-) Career Center Coordinator
BS 2001, Union College

Lorie Escobar (2009-) Counselor
BA 2003, Union; MA 2010, Doane College

Stan Hardt (1995-) Counselor
BS 1968, Union College; MA 1973, Andrews University

Emily Patterson (2014-) Assistant Dean of Women
BS 2011, Union College

Doug I. Tallman (2005-) Dean of Men
BA 1977, Southern Missionary College; MEd 2000, Southern Adventist University

Enrollment and Student Financial Services

Rachael Boyd (2015-) Campus Visit Coordinator
BBA 2008, Southern Adventist University

Becky Dewey-Daniel (2009 -) Director of Enrollment Marketing
BS 2008, Union College

Kevin Erickson (2007-) Director of Admissions
BS 2006, Union College

Taryn Rouse (2005 -) Director of Student Financial Services
BA 2003, William Penn University

College Advancement

Scott Cushman (2006-) Director of Digital Communications
BA 2003, Union College

Kenna Lee Carlson (1994-) Director of Alumni Activities
BA 1973, Union College

Scot Coppock (2012-) Director of Leadership Giving
BA 1997, Western Michigan University

Steve Nazario (1997-) Director of Visual Communication
BA 1980, Loma Linda University

Marcia Nordemeyer (2015-) Conference and Guest Services Coordinator
BS 2007, Union College

Linda Skinner (1983-) Director of Donor Relations

Ryan Teller (2009-) Director of Public Relations
BA 1997, Union College

Financial Administration

Lonnie Kreiter (2010-) Senior Accountant
BS 1983, Loma Linda University

Harvey Meier (1977-) Controller
BA 1973, Union College

Jonathan Shields (2005-) Director for Human Resources
BS 1976, Southern Adventist College; MA, 2011, Doane College

Administrative Councils—2014-2015

President's Council

Vinita Sauder, President, Chair

Linda Becker, Vice President for Student Services

Richard Carlson, Vice President for Spiritual Life

LuAnn Davis, Vice President for Advancement

Jeff Leeper, Vice President for Financial Administration

Michelle Velazquez Mesnard, Faculty Senate Chair

Nadine Nelson, Vice President for Enrollment Services

Malcolm Russell, Vice President for Academic Administration

Academic Council

Malcolm Russell, Vice President for Academic Administration, Chair
Jodi Chewakin, Director, Physician Assistant Studies
Robert Fetrick, Chair, Division of Religion
Barry Forbes, Chair, Division of Business and Computer Science
Bruce Forbes, Chair, Division of Fine Arts
Deborah Forshee-Sweeney, Director, Teaching Learning Center
Michelle Velázquez Mesnard, Chair, Division of Humanities
Nicole Orian, Chair, Division of Nursing
Sabrina Riley, Director, Library
Denise White, Chair, Division of Human Development
Carrie Wolfe, Chair, Division of Science and Mathematics
Rick Young, Chair, Division of Emergency Management and Exercise Science
Michelle Younkin, Director of Records

Dean's Council

Linda Becker, Chair
Donene Caster-Braithwaite
Ron Dodds
Leann Merth
Doug Tallman
Ryan Teller
Head Resident Assistants

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